

**Virginia Board of Housing and Community Development  
STATEWIDE FIRE PREVENTION CODE  
DEVELOPMENT COMMITTEE  
2024 CODE CHANGE CYCLE – BOOK 1  
May 11, 2026**



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Opening Statement

Tab 1 – Statewide Fire Prevention Code (13VAC5-52) Base Document

Tab 2 – Statewide Fire Prevention Code (SFPC) Proposals Recommended by the General Stakeholder Workgroup as Consensus for Approval

| <b>Proposal No.</b> | <b>Proposal ID</b> | <b>Description</b>                                                                                                                                                                                                                             | <b>Page</b>     |
|---------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1                   | FP105.3.1-24       | Deletes the requirement for fire officials to notify DHCD when new technical assistants are hired. (USBC Part I companion proposal B105.2-24; USBC Part III companion proposal PM104.4-24)                                                     | Tab 2 – Page 1  |
| 2                   | FP112.1-24         | Clarifies that the written request for appeals is not considered to be complete and filed until the fee levied by the local governing body is paid. [USBC Part I companion proposal B119.5(1)-24; USBC Part III companion proposal PM107.5-24] | Tab 2 – Page 3  |
| 3                   | FP112.5-24         | Clarifies that the reaffirmation of a prior code decision does not constitute a new application of code subject to appeal. (USBC companion proposal B119.5-24)                                                                                 | Tab 2 – Page 5  |
| 4                   | FP112.5(1)-24      | Clarifies that any person aggrieved by the local enforcing agency's application of the SFPC or the refusal to grant a modification to the provisions of the SFPC may appeal to the LBFPCA.                                                     | Tab 2 – Page 7  |
| 5                   | FP202-24           | Adds “boats and watercraft” to the definition of Mobile Food Preparation Vehicles” with the intent of addressing boats and watercraft being converted to a food preparation type vehicle.                                                      | Tab 2 – Page 9  |
| 6                   | FP307.2-24         | Exempts prescribed fires conducted by Virginia Certified Prescribed Burn Managers from the permitting requirements.                                                                                                                            | Tab 2 – Page 11 |





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| 7  | FP405.5-24     | Adds new definition of “Personal Emergency Evacuation Plan (PEEP)” and requires building management to coordinate the development of a PEEP with occupants with special needs and other high-risk populations, upon request.                             | Tab 2 –<br>Page 13 |
| 8  | FP501.5-24     | Prohibits the occupancy and operation of any portion of a building or structure prior to the fire code official’s approval of the required fire service features.                                                                                        | Tab 2 –<br>Page 15 |
| 9  | FP807.2-24     | Clarifies that combustible decorative materials on doors are subject to the same regulations and limitations applied to walls and ceilings.                                                                                                              | Tab 2 –<br>Page 17 |
| 10 | FP901.6.3-24   | Requires records of all system inspections, tests and maintenance to be kept on the premises or other approved location for not less than 3 years and be made available for the fire code official upon request.                                         | Tab 2 –<br>Page 19 |
| 11 | FP904.2.2.1-24 | Requires a plan approved by the authority having jurisdiction prior to any changes to the cookline, hood or suppression system.                                                                                                                          | Tab 2 –<br>Page 21 |
| 12 | FP1208-24      | Adds new requirements for electric vehicle charging systems, including the installation of emergency shutoff controls, provisions for impact protection, and the posting of emergency procedures. (USBC companion proposal B406.2.7-24)                  | Tab 2 –<br>Page 23 |
| 13 | FP1208(1)-24   | Adds new requirements for electric vehicle charging systems, including the installation of emergency shutoff controls, provisions for impact protection, and the posting of emergency procedures on a sign located in an approved, conspicuous location. | Tab 2 –<br>Page 25 |
| 14 | FP3303.1-24    | Allows the fire official to determine when projects warrant the need for development, implementation and maintenance of an approved, written site safety plan.                                                                                           | Tab 2 –<br>Page 33 |
| 15 | FP4101.9-24    | Correlates existing Virginia amendments related to tents, membrane structures, and cooking operations with new requirements in the 2024 International Fire Code.                                                                                         | Tab 2 –<br>Page 35 |
| 16 | FP5001.7-24    | Deletes without substitution operational requirements for Group B teaching and research laboratories in Section 5107 to eliminate confusion with requirements in Chapter 38.                                                                             | Tab 2 –<br>Page 37 |



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| 17 | FP6112-24 | Adds new definition of “LP-Gas Marketer” and related requirements. | Tab 2 –<br>Page 41 |
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Tab 3 – SFPC Proposals Recommended by the General Stakeholder Workgroup as Non-Consensus

| Proposal No. | Proposal ID   | Description                                                                                                                                                                                                                                              | Page               |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 18           | FP107.11-24   | Increases State Fire Marshal's Office (SFMO) fees. Fees are adjusted for the cumulative CPI increase from 2009 to present.                                                                                                                               | Tab 3 –<br>Page 1  |
|              |               | Staff Summary                                                                                                                                                                                                                                            | Tab 3 –<br>Page 5  |
| 19           | FP107.12-24   | Adds new SFMO fees for: General Fire Code Inspections; Re-inspections; Retail Sale of 1.4G Va. Permissible Fireworks; and Mobile Food Preparation Vehicles                                                                                               | Tab 3 –<br>Page 9  |
|              |               | Staff Summary                                                                                                                                                                                                                                            | Tab 3 –<br>Page 13 |
| 20           | FP107.12.1-24 | Requires the Board to consider adjustment of the SFMO inspection fees each cycle, based on a report submitted by the SFMO. Requires the Board to provide a written explanation to SFMO and Virginia Fire Services Board (VFSB) if fees are not adjusted. | Tab 3 –<br>Page 17 |
|              |               | Staff Summary                                                                                                                                                                                                                                            | Tab 3 –<br>Page 18 |
| 21           | FP601.2-24    | Gives the fire official specific authority to require disconnection of a utility (electric, gas, etc.) when the utility is related to a condition that is deemed hazardous or unsafe.                                                                    | Tab 3 –<br>Page 21 |
|              |               | Staff Summary                                                                                                                                                                                                                                            | Tab 3 –<br>Page 23 |
| 22           | FP906.1-24    | Requires portable fire extinguishers in group R-2 occupancies and deletes an existing Virginia amendment which exempts groups A, B and E occupancies from the requirement to provide portable fire extinguishers, if the buildings are equipped          | Tab 3 –<br>Page 27 |



|    |               |                                                                                                                                                                                             |                    |
|----|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|    |               | throughout with quick response sprinklers<br>(Companion USBC Proposal B906.1-24)                                                                                                            |                    |
|    |               | Staff Summary                                                                                                                                                                               | Tab 3 –<br>Page 29 |
| 23 | FP4106.1.3-24 | Adds a new definition of “utilities” and new requirements for Mobile Food Preparation Vehicles with the intent of ensuring they remain mobile and are not utilized as permanent structures. | Tab 3 –<br>Page 31 |
|    |               | Staff Summary                                                                                                                                                                               | Tab 3 –<br>Page 32 |

#### Tab 4 – General Stakeholder Workgroup Meeting Summaries

- July 29, 2025
- October 3, 2025
- January 5 & 6, 2026

#### Tab 5 – SFPC Sub-Workgroup Meeting Summaries

- July 8, 2025
- September 26, 2025
- November 21, 2025

#### Tab 6 – Public Comments

- Public Hearing Transcript
- 2024 IFC Appendix B
- VBCOA Letter
- January 5, 2026, General Stakeholder Meeting Summary – Stakeholder Comment



## **Tab 1**

### **Statewide Fire Prevention Code**

#### **Base Document**

| <b>Description</b>                           | <b>Page</b>    |
|----------------------------------------------|----------------|
| Statewide Fire Prevention Code Base Document | Tab 1 – Page 1 |





**DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT**  
**2024 Virginia Statewide Fire Prevention Code Base Document**  
**5/28/2025**

**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 2021 SFPC to the 2024 SFPC by comparing the language in the 2021 SFPC to the 2024 edition of the International Fire Code (IFC) which has amendments in the SFPC. It is not intended to create substantive changes to the 2021 SFPC. The base document is simply to make those necessary changes to the 2021 SFPC to bring in the 2024 International Fire Code (IFC) and standards and keep the existing state amendments. If the 2024 IFC includes construction related provisions that conflict with the USBC, that language is removed or amended. If the 2024 IFC includes language that is consistent with an existing state amendment, then the existing state amendment is no longer needed and is deleted. The staff document is intended to serve as the basis for the publishing of proposed regulations for the 2024 SFPC. Once the base document is approved by the Board of Housing and Community Development, if any code change proposals are considered and approved by the Board of Housing and Community Development to also go into the proposed regulations for the 2024 SFPC, those proposals would be correlated with this base document and brought back to the Board of Housing and Community Development as a separate “proposed regulations” document for review.

**Updated: 10/28/2025**

This document was updated on 10/28/2025 with one revision:

- Industrial additive manufacturing was updated in Table 107.2 Operational Permit Requirements to remove the reference to Section 320.3 and replace with Section 319.3.

This document was updated on 10/06/2025 with several revisions:

- The defined term, “Explosive Manufacturing,” was revised to, “Explosives Manufacturing,” so that it remains in the SFPC and is used within Section 5605.3.
- Section 604.5.3 was revised to provide clarity and context for what constitutes, “Hoistway opening protection.”
- Lithium Battery Storage was updated in Table 107.2 Operational Permit Requirements to remove quantity limitations for ease of correlation during future code development cycles, should the limitations in Section 320.2 of the IFC change in the future.
- The definition of “Public Building” was added to the USBC for correlation.
- The defined terms located in Section 302.1 of the base document have been relocated to Chapter 56.

- Section 317.1.1 and 317.1.2 have been deleted in the IFC, therefore, the Virginia specific amendments to these sections have been relocated so that they are incorporated into the base document.
- Section 320.4.2.6 was revised to better capture the intent of the Section.
- The title of Section 604.2 has been updated and the reference to Section 604.5.2 has been removed.
- Section 604.5 was revised to remove the construction type language, and the title was revised to more accurately describe the content of the Section.
- Section 1032.2.2 has been renumbered given that Virginia replaces Chapter 10 in its entirety and correlation with the model code section numbers is not necessary or entirely feasible across Chapter 10.
- Sections 1032.14 and 1032.14.1 are new provisions to the 2024 IFC and the language in these sections have been revised to align with the intent of the SFPC.
- The charging statements have been removed from Sections 2404.3.3.3 and 2404.3.4.1 as they were inadvertently left in the original base document.
- The existing Virginia amendment in Section 3303.5 has been relocated to Section 3312.1.
- New language in Section 4106.1 has been revised to meet the intent of the SFPC.
- Section 5704.2.8 as referenced in Section 5003.2.4.2 has been revised to reference Section 5704 since section 5704.2.8 has been deleted by Virginia and there are other sections within Section 5704 that apply.

### **13VAC5-52-10. Chapter 1 Administration; Section 101 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.

101.2.1 Provisions of this code shall not require modifications or installation of construction elements or systems required or regulated by the applicable building code. This shall be understood to not require installation if no system, appliance, device, etc. was previously installed under the applicable building code.

101.2.2 Where this code requires maintenance or a system, structure, appliance, etc. to be maintained it shall not be construed to be a requirement for installation through this code.

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 from 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.

#### **13VAC5-52-20. Section 102 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. The SFPC shall supersede any fire prevention regulations previously adopted by a local government or other political subdivision.

B. 102.1.1 Change of occupancy. No change of occupancy shall be made in any building or structure unless such building or structure is made to comply with the requirements of the USBC as determined by the building official.

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 that 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, codified as 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 that 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 II, Existing Buildings, Section 1101, comply with the provisions located therein.

### **13VAC5-52-30. Section 103 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 -- ~~2021~~ 2024 Edition, hereinafter referred to as "IFC," published by the International Code Council, Inc., ~~500 New Jersey Avenue, NW, 6th Floor, 200 Massachusetts Avenue, NW, Suite 250, Washington, DC 20001-2070, 1-888-422-7233.~~ 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, nonoperational 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.

#### **13VAC5-52-40. Section 104 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 any local agency 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 any agency 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, the fire official's 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 to 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.

**13VAC5-52-50. Section 105 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 Department of Housing and Community Development (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).

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

K. 105.4 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.

**13VAC5-52-60. Section 106 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 Review Board 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 Seventeen available from The Library of Virginia.

**13VAC5-52-70. Section 107 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 that 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<br>OPERATIONAL PERMIT REQUIREMENTS (to be filled in by local jurisdiction)                                                                                                         |                                   |               |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------|-------------------|
| Description                                                                                                                                                                                    | Permit<br>Required<br>(yes or no) | Permit<br>Fee | Inspection<br>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 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 <sup>3</sup> ).<br><br>Exception: An operational permit is not required for agricultural storage.                                                  |                            |  |  |  |
| Commercial cooking. An operational permit is required for the operation of commercial cooking appliances in occupancies other than assembly occupancies or dwellings.                                                                                                                                        |                            |  |  |  |
| 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 in this table.<br><br>Exception: Vehicles equipped for and using compressed gas as a fuel for propelling the vehicle.       |                            |  |  |  |
| Permit Amounts for Compressed Gases                                                                                                                                                                                                                                                                          |                            |  |  |  |
| Type of Gas                                                                                                                                                                                                                                                                                                  | Amount (cubic feet at NTP) |  |  |  |
| Corrosive                                                                                                                                                                                                                                                                                                    | 200                        |  |  |  |

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| 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                |                            |  |  |
| For SI: 1 cubic foot = 0.02832 m <sup>3</sup> .                                                                                                                                                                                                                                                                                                                                                                                |                           |                            |  |  |
| Covered and open mall buildings. An operational permit is required for: <ol style="list-style-type: none"> <li>1. The placement of retail fixtures and displays, concession equipment, displays of highly combustible goods, and similar items in the mall.</li> <li>2. The display of liquid-fired or gas-fired equipment in the mall.</li> <li>3. The use of open-flame or flame-producing equipment in the mall.</li> </ol> |                           |                            |  |  |
| Cryogenic fluids. An operational permit is required to produce, store, transport onsite, use, handle, or dispense cryogenic fluids in excess of the amounts listed in this table.<br><br>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.                                                            |                           |                            |  |  |
| Permit Amounts for Cryogenic Fluids                                                                                                                                                                                                                                                                                                                                                                                            |                           |                            |  |  |
| 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                 |  |  |

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| 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.                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
| Energy storage systems. An operational permit is required for stationary and mobile energy storage systems regulated by Section 1207.                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |
| Exhibits and trade shows. An operational permit is required to operate exhibits and trade shows.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |  |
| <p>Explosives, fireworks, and pyrotechnics. An operational permit is required for the 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.</p> <p>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, Exceptions 4 and 12.</p> |  |  |  |
| Explosives, restricted manufacture. An operational permit is required for the restricted manufacture of explosives within the scope of Chapter 56.                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |
| Explosives, unrestricted manufacture. An operational permit is required for the unrestricted manufacture of explosives within the scope of Chapter 56.                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |
| <p>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.</p> <p>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.</p>                                                                               |  |  |  |

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| <p>Flammable and combustible liquids. An operational permit is required:</p> <ol style="list-style-type: none"> <li>1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall neither apply to the offsite transportation in pipelines regulated by the U.S. Department of Transportation (DOTn) nor to piping systems.</li> <li>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: <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> </ol> </li> <li>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.</li> <li>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 onsite pumps normally used for dispensing purposes.</li> <li>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.</li> <li>6. To install, alter, remove, abandon, place temporarily out of service (for more than 90 days), or otherwise dispose of an underground, protected aboveground, or aboveground flammable or combustible liquid tank.</li> <li>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.</li> </ol> |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |
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| 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 <sup>2</sup> ) 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 onsite, dispense, use, or handle hazardous materials in excess of the amounts listed in this table.                                                                   |                                       |  |  |  |
| Permit Amounts for Hazardous Materials                                                                                                                                                                                                           |                                       |  |  |  |
| Type of Material                                                                                                                                                                                                                                 | Amount                                |  |  |  |
| <b>Combustible liquids</b>                                                                                                                                                                                                                       | See flammable and combustible liquids |  |  |  |
| <b>Corrosive materials</b>                                                                                                                                                                                                                       |                                       |  |  |  |
| Gases                                                                                                                                                                                                                                            | See compressed gases                  |  |  |  |
| Liquids                                                                                                                                                                                                                                          | 55 gallons                            |  |  |  |
| Solids                                                                                                                                                                                                                                           | 1000 pounds                           |  |  |  |
| <b>Explosive materials</b>                                                                                                                                                                                                                       | See explosives                        |  |  |  |
| <b>Flammable materials</b>                                                                                                                                                                                                                       |                                       |  |  |  |

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| Gases                         | See compressed gases                  |  |  |  |
| Liquids                       | See flammable and combustible liquids |  |  |  |
| Solids                        | 100 pounds                            |  |  |  |
| <b>Highly toxic materials</b> |                                       |  |  |  |
| Gases                         | See compressed gases                  |  |  |  |
| Liquids                       | Any amount                            |  |  |  |
| Solids                        | Any amount                            |  |  |  |
| <b>Oxidizing materials</b>    |                                       |  |  |  |
| <b>Gases</b>                  | See compressed gases                  |  |  |  |
| <b>Liquids</b>                |                                       |  |  |  |
| Class 4                       | Any amount                            |  |  |  |
| Class 3                       | 1 gallon <sup>a</sup>                 |  |  |  |
| Class 2                       | 10 gallons                            |  |  |  |
| Class 1                       | 55 gallons                            |  |  |  |
| <b>Solids</b>                 |                                       |  |  |  |
| Class 4                       | Any amount                            |  |  |  |
| Class 3                       | 10 pounds <sup>b</sup>                |  |  |  |
| Class 2                       | 100 pounds                            |  |  |  |
| Class 1                       | 500 pounds                            |  |  |  |
| <b>Organic peroxides</b>      |                                       |  |  |  |
| <b>Liquids</b>                |                                       |  |  |  |
| Class I                       | Any amount                            |  |  |  |
| Class II                      | Any amount                            |  |  |  |
| Class III                     | 1 gallon                              |  |  |  |

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| Class IV                             | 2 gallons            |  |  |  |
| Class V                              | No permit required   |  |  |  |
| <b>Solids</b>                        |                      |  |  |  |
| Class I                              | Any amount           |  |  |  |
| Class II                             | Any amount           |  |  |  |
| Class III                            | 10 pounds            |  |  |  |
| Class IV                             | 20 pounds            |  |  |  |
| Class V                              | No permit required   |  |  |  |
| <b>Pyrophoric materials</b>          |                      |  |  |  |
| Gases                                | See compressed gases |  |  |  |
| Liquids                              | Any amount           |  |  |  |
| Solids                               | Any amount           |  |  |  |
| <b>Toxic materials</b>               |                      |  |  |  |
| Gases                                | See compressed gases |  |  |  |
| Liquids                              | 10 gallons           |  |  |  |
| Solids                               | 100 pounds           |  |  |  |
| <b>Unstable (reactive) materials</b> |                      |  |  |  |
| <b>Liquids</b>                       |                      |  |  |  |
| Class 4                              | Any amount           |  |  |  |
| Class 3                              | Any amount           |  |  |  |
| Class 2                              | 5 gallons            |  |  |  |
| Class 1                              | 10 gallons           |  |  |  |
| <b>Solids</b>                        |                      |  |  |  |
| Class 4                              | Any amount           |  |  |  |
| Class 3                              | Any amount           |  |  |  |



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| Class 2                                                                                                                                                                                                                                                                                                                                                                                                | 50 pounds  |  |  |  |
| Class 1                                                                                                                                                                                                                                                                                                                                                                                                | 100 pounds |  |  |  |
| Water reactive materials                                                                                                                                                                                                                                                                                                                                                                               |            |  |  |  |
| <b>Liquids</b>                                                                                                                                                                                                                                                                                                                                                                                         |            |  |  |  |
| Class 3                                                                                                                                                                                                                                                                                                                                                                                                | Any amount |  |  |  |
| Class 2                                                                                                                                                                                                                                                                                                                                                                                                | 5 gallons  |  |  |  |
| Class 1                                                                                                                                                                                                                                                                                                                                                                                                | 55 gallons |  |  |  |
| <b>Solids</b>                                                                                                                                                                                                                                                                                                                                                                                          |            |  |  |  |
| Class 3                                                                                                                                                                                                                                                                                                                                                                                                | Any amount |  |  |  |
| Class 2                                                                                                                                                                                                                                                                                                                                                                                                | 50 pounds  |  |  |  |
| Class 1                                                                                                                                                                                                                                                                                                                                                                                                | 500 pounds |  |  |  |
| <p>For SI: 1 gallon = 3.785 L, 1 pound = 0.454 kg.</p> <p>a. 20 gallons when Section 5003.1.1 applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities of 20 gallons or less.</p> <p>b. 200 pounds when Section 5003.1.1 applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities of 200 pounds or less.</p> |            |  |  |  |
| <p><del>HPM facilities. An operational permit is required to store, handle, or use hazardous production materials.</del></p>                                                                                                                                                                                                                                                                           |            |  |  |  |
| <p>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<sup>2</sup>).</p>                                                                                                                                                                                                                           |            |  |  |  |
| <p>Hot work operations. An operational permit is required for hot work, including:</p> <ol style="list-style-type: none"> <li>1. Public exhibitions and demonstrations where hot work is conducted.</li> <li>2. Use of portable hot work equipment inside a structure.</li> </ol> <p>Exception: Work that is conducted under a construction permit.</p>                                                |            |  |  |  |

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| <p>3. Fixed-site hot work equipment such as welding booths.</p> <p>4. Hot work conducted within a hazardous fire area.</p> <p>5. Application of roof coverings with the use of an open-flame device.</p> <p>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 to hot work operations under their supervision.</p> |  |  |  |
| <u>HPM facilities. An operational permit is required to store, handle, or use hazardous production materials.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |
| <u>Industrial additive manufacturing: An operational permit is required to conduct additive manufacturing operations regulated by Section 320.3-319.3.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |  |
| <u>Industrial ovens. An operational permit is required for operation of industrial ovens regulated by Chapter 30.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |  |
| <u>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<sup>3</sup>) (236 m<sup>3</sup>).</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |
| <u>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.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |
| <u>Lithium battery storage. An operational permit is required for the storage of lithium-ion and lithium metal batteries in accordance with Section 320.2.</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |
| <u>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<sup>3</sup>) (236 m<sup>3</sup>).</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |
| <p>LP-gas. An operational permit is required for:</p> <p>1. Storage and use of LP-gas.</p> <p>Exception: An operational permit is not required for individual containers with a 500-gallon (1893 L) water capacity or less or</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |  |

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| multiple container systems having an aggregate quantity not exceeding 500 gallons (1893 L), serving occupancies in Group R-3.<br><br>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 <sup>3</sup> ) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork, or similar combustible material. |  |  |  |
| Mobile food preparation vehicles. A permit is required for mobile food preparation vehicles equipped with appliances that produce smoke or grease laden vapors.<br><br>Exception: Recreational vehicles used for private recreation.                                                                                      |  |  |  |
| 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.<br><br>Exception: Recreational fires.                                    |  |  |  |
| Open flames and candles. An operational permit is required to use open flames or candles in connection with assembly areas or 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.                                                                                                                                                                                                                                     |  |  |  |
| Plant extraction systems. An operational permit is required to use plant extraction systems.                                                                                                                                                                                                                              |  |  |  |

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| Private fire hydrants. An operational permit is required for the removal from service, use, or operation of private fire hydrants.<br><br>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.                                                                                                                                                                                                                                              |  |  |  |
| <del>State-regulated care facilities. An operational permit is required for the operation of a state-regulated care facility where inspection by the fire official is required by state licensing regulations.</del>                                                                                                                       |  |  |  |
| 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.                                                                                                                            |  |  |  |
| <u>State-regulated care facilities. An operational permit is required for the operation of a state-regulated care facility where inspection by the fire official is required by state licensing regulations.</u>                                                                                                                           |  |  |  |
| 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 <sup>3</sup> ) of total volume of scrap tires and for indoor storage of tires and tire byproducts.                                         |  |  |  |

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| Temporary heating or cooking in tents or membrane structures. An operational permit is required to operate temporary heating or cooking equipment within tents or membrane structures.                                                                                                                                                                                                                                                                                                      |  |  |  |
| Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure or a tent.<br><br>Exceptions:<br><br>1. Tents used exclusively for recreational camping purposes.<br><br>2. Tents and air-supported structures that cover an area of 900 square feet (84 m <sup>2</sup> ) or less, including all connecting areas or spaces with a common means of egress or entrance and with an occupant load of 50 or fewer 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 <sup>3</sup> ).                                                                                                                                                                                                                                                                                                                                       |  |  |  |

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 ensure 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 § 27-98 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. Complete permit applications shall be submitted to and received by the State Fire Marshal's Office not less than 15 days prior to the planned use or event. A \$500 expedited handling fee will be assessed on all permit applications submitted less than 15 days prior to the planned use or event. Inspection fees will be assessed at a rate of \$60 per staff member per hour during normal business hours (Monday through Friday, 8:30 a.m. to 4:30 p.m.) and at a rate of \$90 per hour at all other times (nights, weekends, holidays). State Fire Marshal's Office permit fees shall be as follows:

1. Storage of explosives and blasting agents, 12-month permit \$250 first magazine, plus \$150 per each additional magazine on the same site.
2. Use of explosives and blasting agents, nonfixed site, six-month permit \$250 per site, plus inspection fees.
3. Use of explosives and blasting agents, fixed site, 12-month permit \$250 per site.
4. Sale of explosives and blasting agents, 12-month permit \$250 per site.
5. Manufacture explosives (unrestricted), blasting agents, and fireworks, 12-month permit \$250 per site.
6. Manufacture explosives (restricted), 12-month permit \$20 per site.
7. Fireworks display in or on state-owned property \$300 plus inspection fees.
8. Pyrotechnics or proximate audience displays in or on state-owned property \$300 plus inspection fees.

9. Flame effects in or on state-owned property \$300 plus inspection fees.

10. Flame effects incidental to a permitted pyrotechnics display \$150 (flame effects must be individual or group effects that are attended and manually controlled).

Exception: Permit fees shall not be required for the storage of explosives or blasting agents by state and local law-enforcement and fire agencies.

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~~ 3,500 square feet or less.

2.2. \$200 for greater than ~~3500~~ 3,500 square feet up to ~~7000~~ 7,000 square feet.

2.3. \$250 for greater than ~~7000~~ 7,000 square feet up to 10,000 square feet.

2.4. \$250 plus \$50 for each additional ~~3000~~ 3,000 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 building, 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. State-regulated care facilities:

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

5.1.1. \$50 for 1 to 8.

5.1.2. \$75 for 9 to 20.

5.1.3. \$100 for 21 to 50.

5.1.4. \$200 for 51 to 100.

5.1.5. \$300 for 101 to 150.

5.1.6. \$400 for 151 to 200.

5.1.7. \$500 for 201 or more.

Exception: Annual compliance inspection fees for any building or group of buildings on the same site may not exceed ~~\$2500~~ 2,500.

5.2 Family Day Homes licensed by the Department of Education based on licensed capacity as follows:

5.2.1. \$50 for 1 to 8.

5.2.2. \$75 for 9 to 20.

5.2.3. \$100 for 21 to 50.

5.2.4. \$200 for 51 to 100.

5.2.5. \$300 for 101 to 150.

5.2.6. \$400 for 151 to 200.

5.2.7. \$500 for 201 or more.

Exception: Annual compliance inspection fees for any building or group of buildings on the same site may not exceed ~~\$2500~~ 2,500.



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 three feet in diameter and more than two feet in height, but not more than nine feet in diameter and not more than six 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 nine feet in diameter and more than six 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 or 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.

**13VAC5-52-80. Section 108 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 that 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 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.

**13VAC5-52-90. Section 109 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, or endanger life or for 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 ~~310.2~~ 310.4.2 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 that 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 that 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.

**13VAC5-52-100. Section 110 Unsafe conditions.**

A. 110.1 General. The fire official shall order the following dangerous or hazardous conditions or materials found to be noncompliant with provisions found within the subsequent sections of this code to be removed or remedied in accordance with the SFPC:

1. Dangerous conditions that are liable to cause or contribute to the spread of fire in or on such premises, building, or structure, or to endanger the occupants thereof.
2. Conditions that would interfere with the efficiency and use of any fire protection equipment.
3. Obstructions to or on fire escapes, stairs, passageways, doors, or windows that 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 that 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 such hazardous conditions.

D. 110.4 Unsafe structures. All structures that are or shall hereafter become unsafe or deficient in adequate exit facilities, that constitute a fire hazard, are otherwise dangerous to human life or the public welfare, or by reason of illegal or improper use, occupancy, or maintenance or that 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 in violation of the applicable building code 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; 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.

### **13VAC5-52-110. Section 111 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 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; by delivering it to and leaving it in the possession of any person in charge of the premises; 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; or by transmitting to a valid electronic mailbox. Such procedure shall be deemed the equivalent of personal notice. When the owner is not the responsible party to whom the notice of violation or correction notice is issued, a copy of the notice shall also be delivered to the owner or owner's agent.

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.

#### **13VAC5-52-120. Section 112 Appeals.**

A. 112.1 Local Board of Fire Prevention Code Appeals (LBFPCA). Each local governing body that 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 Review Board.

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 as necessary to ensure 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 maintenance of the structure or activity 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 LBFPCA and then to the 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 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 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 explained in writing, signed by the chairman, and retained as part of the record by the LBFPCA. Copies of the written decision shall be furnished to all parties. The following wording shall be part of the written decision: "Any person who was a party to the appeal may appeal to the State Building Code Technical Review Board (State Review Board) by submitting an application to the State Review Board within 21 calendar days upon receipt by certified mail of the written decision. Application forms are available from the Office of the State Review Board, 600 East Main Street, Richmond, Virginia 23219, (804) 371-7150."

M. 112.9 Appeal to the State Review Board. After final determination by the LBFPCA, any person who was a party to the local appeal may appeal to the State Review Board. In accordance with § 36-114 of the Code of Virginia, the State Review Board shall have the power and duty to hear all appeals from decisions arising under the application of the SFPC and to render its decision on any such appeal, which decision shall be final if no appeal is made therefrom. Application shall be made to the State Review Board within 21 calendar days of receipt of the decision to be appealed. Application for appeal to the 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 State Review Board within 14 calendar days of receipt of the decision to be appealed and shall be accompanied by copies of the fire official's decision and the written decision of the LBFPCA shall be submitted with the application for appeal. Upon request by the office of the State Review Board, the LBFPCA shall submit a copy of all inspection reports and all pertinent information from the record of the LBFPCA. 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. Procedures of the State Review Board are in accordance with Article 2 (§ 36-108 et seq.) of Chapter 6 of Title 36 of the Code of Virginia.

N. 112.10 Hearing and decision. All hearings before the State Review Board shall be open meetings, and the chair shall have the power and duty to direct the hearing, rule upon the acceptance of evidence, and oversee the record of all proceedings. The State Review Board shall have the power to uphold, reverse,

or modify the decision of the LBFPCA by a concurring vote of a majority of those present. Proceedings of the State Review Board shall be governed by the provisions of the Administrative Process Act (§ 2.2-4000 et seq. of the Code of Virginia), except that an informal conference pursuant to § 2.2-4019 of the Code of Virginia shall not be required. Decisions of the State Review Board shall be final if no further appeal is made. The decision of the State Review Board shall be explained in writing, signed by the chair, and retained as part of the record of the appeal. Copies of the written decision shall be sent to all parties by certified mail. In addition, the written decision shall contain the following wording: "As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty (30) days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a Notice of Appeal with the Secretary of the Review Board. In the event that this decision is served on you by mail, three (3) days are added to that period."

**13VAC5-52-140. IFC ~~Section 202~~ Chapter 2 Definitions.**

A. Add the following definitions to read:

**Applicable building code.** The local or statewide building code and referenced standards in effect at the time the building or portion thereof was constructed, altered, renovated, or underwent a change of occupancy. See Section 103 for the application of the code.

**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.

**Cooking tent.** A structure, enclosure, or shelter, with or without sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air or the contents that it protects and that contains cooking equipment that utilize open flames or produce smoke or grease laden vapors for the purpose of preparing and serving food to the public.

**Design.** For the purposes of a fireworks display, either inside a building or structure or outdoors, design 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.

**Emergency supplemental hardware.** Any approved hardware used only for emergency events or drills to keep intruders from entering the room during an active shooter or hostile threat event or drill.

**Explosive Explosives manufacturing.** Mixing, blending, extruding, assembling articles, disassembling, chemical synthesis, and other functions involved in making a product or device that is intended to explode.

**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.

**Maintained.** To keep unimpaired in an appropriate condition, operation, and continuance as installed in accordance with the applicable building code or as previously approved and in accordance with the applicable operational and maintenance provisions of this code.

**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.

**Outdoor fireplace.** A portable or permanent, outdoor, solid-fuel-burning fireplace that may be constructed of steel, concrete, clay, or other noncombustible material. An outdoor fireplace may be open in design with a spark arrester or may be equipped with a small hearth opening and a short chimney or chimney opening in the top with a combustion chamber of not more than 36 inches in diameter by 24 inches in height size.

**Permissible fireworks.** Any fountains that do not emit sparks or other burning effects to a distance greater than five meters (16.4 feet); wheels that do not emit a flame radius greater than one meter (39 inches); crackling devices and flashers or strobes that do not emit sparks or other burning effects to a distance greater than two meters (78.74 inches); and sparkling devices or other fireworks devices that (i) do not explode or produce a report, (ii) do not travel horizontally or vertically under their own power, (iii) do not emit or function as a projectile, (iv) do not produce a continuous flame longer than 20 inches, (v) are not capable of being reloaded, and (vi) if designed to be ignited by a fuse, have a fuse that is

protected to resist side ignition and a burning time of not less than four seconds and not more than eight seconds.

**Public building.** A structure or building that is owned, leased, or otherwise occupied by a municipality or the state and used for any municipal or public purposes by the municipality or the state.

**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.

**Reactive target.** A target designator intended to be shot at with a firearm and is purchased or obtained through a commercial or retail outlet and is comprised of two or more components in presized quantities of one pound (0.453592 kg) or less that are advertised, and the two are sold together with instructions on how to combine the components or create a target that explodes upon impact. Also known as exploding targets.

**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.

**Restricted explosives manufacturing.** When an individual is engaged in the incidental manufacture or production of explosive materials composed of commercially available components that are packaged or marketed for the purpose of producing explosive materials, including reactive targets, at a location not within the definition of unrestricted explosives manufacture; is for immediate use at the site of incidental explosives manufacturing or production without residual storage; and does not involve or include the bulk mixing and delivery vehicles that are within the scope of NFPA 495.

**Sole proprietor.** A person or individual, not a corporation, who is trading under the person's or individual's 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 or SRCF.** A building 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, the Virginia Department of Health, 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.

~~**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.~~

**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.

**Unrestricted explosives manufacturing.** When any company, person, or group of persons is engaged in the business of manufacturing or producing explosive materials at a fixed site or facility for the purpose of commercial sale, use, or distribution of explosives.

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

B. Change the following definitions to read:

**Approved.** Acceptable to the authority having jurisdiction.

**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.

**Building.** A combination of materials, whether portable or fixed, having a roof to form a structure for the use or occupancy by persons, or property. The word "building" shall be construed as though followed by the words "or part or parts thereof" unless the context clearly requires a different meaning. "Building" shall not include roadway tunnels and bridges owned by the Virginia Department of Transportation, which shall be governed by construction and design standards approved by the Virginia Commonwealth Transportation Board.

**Change of occupancy.** Either of the following shall be considered a change of occupancy where the current Virginia Construction Code (VCC) requires a greater degree of accessibility, structural strength, fire protection, means of egress, ventilation, or sanitation than that which is existing in the current building or structure:

1. Any change in the occupancy classification of a building or structure.
2. Any change in the purpose of, or change in the level of activity within, a building or structure.

Note: The use and occupancy classification of a building or structure shall be determined in accordance with Chapter 3 of the VCC.

**Corrosive.** A chemical that causes visible destruction of or irreversible alterations in living tissue by chemical action at the point of contact. A chemical shall be considered corrosive if when tested on the intact skin of albino rabbits by the method described in DOTn 49 CFR 173.137, such chemical destroys or changes irreversibly the structure of the tissue at the point of contact following an exposure period of four hours. This term does not refer to action on inanimate surfaces. A substance shall be considered corrosive if it has a pH less than or equal to 2.0 or a pH greater than or equal to 12.5 on a pH scale of 0-14.

**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 (CPSC) 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 firecrackers containing more than 130 milligrams (two 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.

**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 428.3 of the USBC, Part I, Construction (13VAC5-63-220 L).

**Mobile food preparation vehicles.** Vehicles, covered trailers, carts, and enclosed trailers, or other moveable devices capable of being able to be occupied by persons during cooking operations and that contain cooking equipment that utilize open flames or are capable of producing smoke or grease laden vapors for the purpose of preparing and serving food to the public. Vehicles used for private recreation shall not be considered mobile food preparation vehicles.

~~**Occupancy classification.** For the purposes of this code, occupancies are defined in accordance with the applicable building code.~~

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.

C. Delete Sections 203.1.1 through 203.11.3 and change Section 203.1 of the IFC to read:

203.1 Occupancy classification. For the purposes of this code, occupancies are defined in accordance with the applicable building code.

### **13VAC5-52-150. IFC Chapter 3 General Requirements.**

A. The following changes shall be made to Section 301, General:

1. 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, 315, ~~and 319.~~ 319, and 320.

2. 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 applicable building code without the approval of the building official. Where a certificate of occupancy is not available for a building, the owner or owner's agent may request that one be issued by the building official and retained on site for reference.

~~B. The following changes shall be made to Section 302, Definitions:~~

~~Change Section 302.1 to read:~~

~~302.1 Definitions. The following terms are defined in Chapter 2:~~

~~3D Printer.~~

~~Additive Manufacturing.~~

~~Bonfire.~~  
~~Explosive manufacturing.~~  
~~Hi-boy.~~  
~~High-voltage transmission line.~~  
~~Mobile food preparation vehicles.~~  
~~Open burning.~~  
~~Portable outdoor fireplace.~~  
~~Powered industrial truck.~~  
~~Reactive targets.~~  
~~Recreational fire.~~  
~~Restricted explosives manufacturing.~~  
~~Sky lantern.~~  
~~Unrestricted explosives manufacturing.~~

C. The following changes shall be made to Section 304, Combustible Waste Material:

1. Change Section ~~304.1.2~~ 304.1.3 to read:

~~304.1.2~~ 304.1.3 Vegetation. Weeds, grass, vines, or other growth that is capable of being ignited and endangering property shall be cut down and removed by the owner or occupant of the premises.

2. Change Section ~~304.1.3~~ 304.1.4 to read:

~~304.1.3~~ 304.1.4 Space underneath seats. Spaces underneath grandstand and bleacher seats shall be kept free from combustible and flammable materials.

Exception: Where enclosed by fire-resistance-rated construction or otherwise approved in accordance with the applicable building code.

3. Change Section ~~304.3.2~~ 304.3.3 to read:

~~304.3.2~~ 304.3.3 Capacity exceeding 5.88 cubic feet. Containers with a capacity exceeding 5.88 cubic feet (44 gallons) (0.17 m<sup>3</sup>) shall be provided with lids. Containers and lids shall be constructed of noncombustible materials or ~~of combustible materials with a peak rate of low~~ heat release ~~not exceeding 300 kW/m<sup>2</sup>w where tested in accordance with ASTM E1354 at an incident heat flux of 50 kW/m<sup>2</sup>w in the horizontal orientation.~~ materials in accordance with Section 304.3.2.

Exception: Wastebaskets complying with Section 808.

4. Change Exception 1 (Exceptions 2 and 3 remain) of Section ~~304.3.3~~ to read:



~~1. Dumpsters or containers in areas protected by an approved automatic sprinkler system installed throughout in accordance with the applicable NFPA 13 standard.~~

5. Change Exception 1 (Exception 2 remains) of Section 304.3.4 to read:

1. Dumpsters in areas protected by an approved automatic sprinkler system installed throughout in accordance with the applicable NFPA 13 standard.

5. Change Exception 1 (Exceptions 2 and 3 remain) of Section 304.3.5 to read:

1. Dumpsters or containers in areas protected by an approved automatic sprinkler system installed throughout in accordance with the applicable NFPA 13 standard.

6. Change the last sentence of Section 304.3.6 (Remainder of Section, including the exception remains) to read:

Portable waste and linen containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste and linen collection room and constructed in accordance with

7. Change the last sentence of Section 304.3.7 (Remainder of Section remains) to read:

Portable containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste and linen collection room constructed in accordance with the applicable building code.

~~D. C.~~ The following change shall be made to Section 306, Motion Picture Projection Rooms and Film:

Change Section 306.1 to read:

306.1 Motion picture projection rooms. Electric arc, xenon, or other light source projection equipment that develops hazardous gases, dust, or radiation and the projection of ribbon-type cellulose nitrate film, regardless of the light source used in projection shall be operated within a motion picture projection room complying with the applicable building code.

~~E. D.~~ The following changes shall be made to Section 307, Open Burning, Recreational Fires and Portable Outdoor Fireplaces:

1. 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.

2. 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.

~~F.~~ E. The following changes shall be made to Section 308, Open Flames:

1. Change Section ~~308.1.6~~ 308.1.5 to read:

~~308.1.6~~ 308.1.5 Open-flame ~~devices.~~ devices in wildfire risk areas. Torches and other devices, machines, or processes liable to start or cause fire shall not be operated or used in or upon wildfire risk areas, except by a permit in accordance with Section 107.2 secured from the fire code official.

2. Change Section 308.2 (Items 1 through 3 remain) 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:

3. Change Exception 2 (Exceptions 1 and 3 remain) ~~of~~ to Section 308.3 to read:

2. Heat-producing equipment complying with Chapter 6 and the applicable building code.

~~G.~~ F. The following changes shall be made to Section 311, Vacant Premises:

1. Change Section 311.1.1 to read:

311.1.1 Abandoned premises. Buildings, structures, and premises for which an owner cannot be identified or located by dispatch of a certificate of mailing to the last known or registered address, which persistently or repeatedly become unprotected or unsecured, which have been occupied by unauthorized persons or for illegal purposes, or which present a danger of structural collapse or fire spread to adjacent properties shall be considered abandoned and unsafe until declared abated in accordance with the Virginia Maintenance Code or the applicable building code.

2. Change the last sentence of Section 311.2.3 to read:

~~311.2.3 Fire separation. Fire resistance rated partitions, fire barriers, and fire walls separating vacant tenant spaces from the remainder of the building shall be maintained.~~ Protection of openings, joints, and penetrations in fire-resistance-rated assemblies shall be maintained in accordance with Chapter 7.

3. Change Exception 1 (Exception 2 remains) of Section 311.3 to read:

1. Buildings or portions of buildings undergoing additions, alterations, repairs, or change of occupancy in accordance with the applicable building code where waste is controlled and removed as required by Section 304.

4. 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.

5. Change Item 2 (Items 1, 3, and 4 remain) of Section 311.6 to read:

2. Where provided, fire rated separations from the adjoining tenant spaces shall be maintained in accordance with Chapter 7.

~~H.~~ G. The following ~~changes change~~ shall be made to Section 313, Fueled Equipment:

Change Section 313.1 (Including Exceptions 1 and 3. Exception 2 remains) to read:

313.1 General. Fueled equipment, including motorcycles, mopeds, lawn-care equipment, portable generators, and portable cooking equipment shall not be stored, operated, or repaired within a building.

~~Exceptions:~~

1. Buildings or rooms constructed for such use in accordance with the applicable building code.
- ~~2. Where allowed by Section 314.~~
3. Storage of equipment utilized for maintenance purposes is allowed in approved locations where the aggregate fuel capacity of the stored equipment does not exceed 10 gallons (38 L) and the building is protected throughout by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

~~H.~~ H. The following changes shall be made to Section 314, Indoor Displays:

1. 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.

2. 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.

~~I.~~ I. The following changes shall be made to Section 315, General Storage:

1. 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.

2. Change Exception 2 of Section 315.3.1 and Section 315.3.4 to read:

2. The 18-inch (457 mm) ceiling clearance is not required for storage along walls in areas of buildings equipped with an automatic sprinkler system in accordance with the applicable NFPA 13 standard.

315.3.4 Attic, under-floor, and concealed spaces. Attic, under-floor, and concealed spaces shall not be used for storage of combustible materials unless approved or not prohibited by the applicable building code.

3. 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.

4. Change Section 315.6 to read:

315.6 Storage in plenums. Storage shall not be permitted in plenums unless approved for such use by the applicable building code. Abandoned material in plenums shall be deemed to be storage and shall be removed. Where located in plenums, the accessible portion of abandoned cables that are not identified for future use with a tag shall be deemed storage and shall be removed.

~~K. J.~~ The following changes shall be made to Section 316, Hazards to Fire Fighters:

Change Sections 316.6 through 316.6.2 to read:

316.6 Structures and outdoor storage underneath high-voltage transmission lines, bridges, and elevated roadways. Structures and outdoor storage underneath high-voltage transmission lines, bridges, and elevated roadways shall comply with Sections 316.6.1 and 316.6.2, respectively.

316.6.1 Structures. Structures shall not be constructed within the utility easement beneath high-voltage transmission lines or underneath bridges or elevated roadways unless approved.

316.6.2 Outdoor storage. Outdoor storage within the utility easement underneath high-voltage transmission lines or underneath bridges or elevated roadways shall be limited to noncombustible materials. Storage of hazardous materials, including flammable and combustible liquids, is prohibited.

Exception: Combustible storage, including vehicles and fuel storage for backup power equipment serving public utility equipment or for the construction, repair, or maintenance operations of bridges or elevated roadways, is allowed provided that a plan indicating the storage configuration is submitted and approved.

~~L.~~ K. The following ~~changes~~ change shall be made to Section 317, Vegetative and Landscaped Roofs:

1. Change Section 317.1 to read:

317.1 General. ~~Landscaped~~ Vegetative roofs and landscaped roofs shall be maintained in accordance with Sections 317.2 through ~~317.5.~~ 317.4.

2. ~~Change~~ Add Section ~~317.2~~ 317.1.1 to read:

~~317.2~~ 317.1.1 Landscaped roof size. Landscaped roof areas shall not exceed the size approved in accordance with the applicable building code.

3. ~~Change~~ Add Section ~~317.3~~ 317.1.2 to read:

~~317.3~~ 317.1.2 Rooftop structure and equipment clearance. Required structure and equipment clearances shall be maintained as provided by the applicable building code.

~~M.~~ L. The following change shall be made to Section 318, Laundry Carts:

Change Exception 1 (Exception 2 remains) of Section 318.1 to read:

1. Laundry carts in areas protected by an approved automatic sprinkler system throughout in accordance with the applicable NFPA 13 standard.

~~N.~~ Change Section 319, Mobile Food Preparation Vehicles, to read:

~~319.1 General. Mobile food preparation vehicles that are equipped with appliances that utilize open flames or produce smoke or grease laden vapors shall comply with this section.~~

~~319.1.1 Wheel chocks. Wheel chocks shall be used to prevent mobile food preparation vehicles from moving.~~

~~319.1.2 Separation. Mobile food preparation vehicles shall be separated from buildings or structures, combustible materials, vehicles, and other cooking operations by a minimum of 10 ft. (3m).~~

~~319.2 Permit required. Permits shall be required as set forth in Section 107.2.~~

~~319.2.1 Permit authority having jurisdiction (AHJ). The enforcing agent of a permit requirement on a mobile food preparation vehicle (MFPV) shall be the appointed fire official for the Virginia local government to which the food truck is identified for personal property tax payment of the vehicle. If no such entity exists, if the local government has elected to not enforce this section of the SFPC, or if the MFPV is housed out of state, then it shall be the State Fire Marshal's Office (SFMO) or designee.~~

~~319.3 Seating. Seating for the public within any mobile food preparation vehicles is prohibited.~~

~~319.4 Exhaust hood. Cooking equipment that produces grease laden vapors shall be provided with a kitchen exhaust hood in accordance with NFPA 96, Annex B.~~

~~319.5 Fire protection. Fire protection shall be provided in accordance with Sections 319.5.1 through 319.5.2.~~

~~319.5.1 Fire protection for cooking equipment. Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with Section 904.3.1.~~

~~319.5.2 Fire extinguisher. Portable fire extinguishers shall be provided in accordance with Section 906.4.~~

~~319.6 Appliance connection to fuel supply. Gas cooking appliances shall be secured in place and connected to fuel supply piping with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector and appliance manufacturer's instructions.~~

~~319.6.1 Construction and modifications. Following initial construction and any modifications of the fuel system, the system, including hoses, shall be proven free of leaks by performing a pressure test in accordance with NFPA 58 at not less than the normal operating pressure.~~

~~319.6.2 Leak detection. Gas systems shall be inspected prior to each use and following fuel tank replacement or refill in one of the following methods:~~

- ~~1. A water and soap solution shall be applied to every accessible connection or connection manipulated during the replacement or fueling and observed for evidence of gas leakage.~~
- ~~2. Pressure testing in accordance with Annex L of NFPA 58.~~

~~319.6.3 Leaks. When leaks are discovered during inspections and testing, the fuel supply shall be secured in the "off" position or disconnected from the appliance, and the appliance shall not be operated until serviced by a qualified person.~~

~~319.7 Cooking oil storage containers. Cooking oil storage containers within mobile food preparation vehicles shall have a minimum aggregate area volume not to exceed 120 gallons (454 L) and shall be stored in such a way as to not be toppled or damaged during transport.~~

~~319.8 Cooking oil storage tanks. Cooking oil storage tanks within mobile food preparation vehicles shall comply with Sections 319.8.1 through 319.8.5.~~

~~319.8.1 Metallic storage tanks. Metallic cooking oil storage tanks shall be listed in accordance with UL 142 or UL 80, and shall be installed in accordance with the tank manufacturer's instructions.~~

~~319.8.2 Nonmetallic tanks. Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall also comply with all of the following:~~

- ~~1. Tanks shall be listed for use with cooking oil, including maximum temperature to which the tanks will be exposed to during use.~~
- ~~2. Tank capacity shall not exceed 200 gallons (757 L) per tank.~~

~~319.8.3 Cooking oil storage system components. Metallic and nonmetallic cooking oil storage system components shall include piping, connections, fittings, valves, tubing, hose, pumps, vents, and other related components used for the transfer of cooking oil.~~

~~319.8.4 Design criteria. The design, fabrication, and assembly of system components shall be suitable for the working pressures, temperatures, and structural stresses to be encountered by the components.~~

~~319.8.5 Tank venting. Normal and emergency venting shall be provided for cooking oil storage tanks.~~

~~319.8.5.1 Normal vents. Normal vents shall be located above the maximum normal liquid line and shall have a minimum effective area not smaller than the largest filling or withdrawal connection. Normal vents are not required to vent to the exterior.~~

~~319.8.5.2 Emergency vents. Emergency relief vents shall be located above the maximum normal liquid line and shall be in the form of a device that will relieve excessive internal pressure caused by an exposure fire. For nonmetallic tanks, the emergency relief vent shall be allowed to be in the form of construction. Emergency vents are not required to discharge to the exterior.~~

~~319.9 Liquefied petroleum gas (LP-gas) systems. Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with NFPA 58, Chapter 61, and Sections 319.9.1 through 319.9.5.~~

~~319.9.1 Maximum aggregate volume. The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds propane capacity.~~

~~319.9.2 Protection of container. LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement.~~

~~319.9.3 LP-gas container construction. LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.~~

~~319.9.4 Protection of system piping. LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.~~

~~319.9.5 LP-gas alarms. A listed LP-gas alarm shall be installed with the vehicle in the vicinity of LP-gas system components, in accordance with manufacturer's instructions.~~

~~319.10 Compressed natural gas (CNG) systems. Where CNG systems provide fuel for cooking appliances, such systems shall comply with Sections 319.10.1 through 319.10.4.~~

~~319.10.1 CNG containers supplying only cooking fuel. CNG containers installed solely to provide fuel for cooking purposes shall be in accordance with Sections 319.10.1.1 through 319.10.1.3.~~

~~319.10.1.1 Maximum aggregate volume. The maximum aggregate capacity of CNG containers transported on the vehicle shall not exceed 1,300 pounds water capacity.~~

~~319.10.1.2 Protection of container. CNG containers shall be securely mounted and restrained to prevent movement. Containers shall not be installed in locations subject to direct vehicle impact.~~

~~319.10.1.3 CNG container construction. The construction of CNG containers shall be approved.~~

~~319.10.2 CNG containers supplying transportation and cooking fuel. Where CNG containers and systems are used to supply fuel for cooking purposes in addition to being used for transportation fuel, the installation shall be in accordance with NFPA 52.~~

~~319.10.3 Protection of system piping. CNG system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.~~

~~319.10.4 Methane alarms. A listed methane gas alarm shall be installed within the vehicle in accordance with manufacturer's instructions.~~

~~319.11 Maintenance. Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 319.11.1 through 319.11.3.~~

~~319.11.1 Exhaust system. The exhaust system, including hood, grease removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with Chapter 6.~~

~~319.11.2 Fire protection systems and devices. Fire protection systems and devices shall be maintained in accordance with Chapter 9.~~

~~319.11.3 Fuel gas systems. LP gas containers installed on the vehicle and fuel gas piping systems shall be inspected annually by an approved inspection agency or a company that is registered with the U.S. Department of Transportation to requalify LP gas cylinders to ensure that system components are free of damage, suitable for the intended service, and not subject to leaking. CNG containers shall be inspected every three years in a qualified service facility. CNG containers shall not be used past their expiration dates listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection.~~

M. The following change shall be made to Section 319, Additive Manufacturing (3D Printing):

1. Change Section 319.3.1 to read:

319.3.1 Permits required. Permits shall be obtained from the fire code official in accordance with Section 107.2 prior to engaging in industrial additive manufacturing operations.

2. Change Section 319.3.10 to read:

319.3.10 Technical assistance. Where required by the fire code official, a report prepared by a registered design professional evaluating the acceptability of technologies, processes, products, facilities, materials and uses associated with the operation shall be provided for review and approval by the fire code official.

3. Change Section 319.3.12 by replacing the reference to "Table 5003.1.1(1), Note q." with a reference



to "Section 5003.1.1."

N. The following change shall be made to Section 320, Lithium-Ion and Lithium Metal Battery Storage:

1. Change Section 320.2 to read:

320.2 Permits. Permits shall be required for an accumulation of more than 15 cubic feet (0.42 m3) of lithium-ion and lithium metal batteries, other than batteries listed in the exceptions to Section 320.1, as set forth in Section 107.2.

2. Change Section 320.4.1 (items 1 through 4 remain) to read:

Unless otherwise approved in accordance with the applicable building code, not more than 15 cubic feet (0.42 m3) of lithium-ion or lithium metal batteries shall be permitted to be stored in containers in accordance with all of the following:

3. Change Section 320.4.2.1 to read:

320.4.2.1 Technical opinion and report. A technical opinion and report, approved in accordance with the applicable building code, evaluating the fire and explosion risks associated with the indoor storage area, including recommendations for fire explosion protection shall be submitted to the fire code official as part of the application for an operational permit, where required by the fire code official.

4. Change Section 320.4.2.2 to read:

320.4.2.2 Construction requirements. Fire-resistance-rated separations required by the applicable building code for indoor storage areas where lithium-ion and lithium metal batteries are located in a building with other uses, shall be maintained in accordance with the applicable building code.

5. Change Section 320.4.2.3 to read:

320.4.2.3 Fire protection systems. Where required or provided in accordance with the applicable building code, automatic sprinkler systems and approved alternative fire suppression systems for indoor storage areas for lithium-ion and lithium metal batteries, shall be maintained in accordance with Chapter 9 and the applicable building code.

6. Change Section 320.4.2.4 to read:

320.4.2.4 Fire alarm systems. Where required or provided in accordance with the applicable building code, automatic fire detection and alarm systems for indoor storage areas for lithium-ion and lithium metal batteries, shall be maintained in accordance with Chapter 9 and the applicable building code.

7. Change Section 320.4.2.5 to read:

320.4.2.5 Explosion control. Where required or provided in accordance with the applicable building code, explosion control measures shall be maintained in accordance with Chapter 9 and the applicable building code.

8. Change Section 320.4.2.6 to read:

320.4.2.6 Reduced requirements for storage of partially charged batteries. The storage of lithium-ion and lithium metal batteries with a demonstrated state of charge not exceeding 30 percent shall be allowed in indoor storage areas without fire-resistance-rated separation from the remainder of the building, explosion control, or a technical opinion and report, provided that procedures for limiting and verifying that the state of charge will not exceed 30 percent have been approved.

9. Change Section 320.4.3.1 to read:

320.4.3.1 Distance from storage to exposures. Where the applicable building code requires a separation between outdoor storage of lithium-ion or lithium metal batteries, including storage beneath weather protection, and the following exposures, such separation shall be maintained.

1. Not less than 20 feet (6096 mm) from any building, lot line, public street, public alley, public way or means of egress.
2. Not less than 3 feet (914 mm) from any building, lot line, public street, public alley, public way or means of egress, where the battery storage is separated by a 2-hour fire-resistance-rated assembly without openings or penetrations and extending 5 feet (1524 mm) above and to the sides of the battery storage area.
3. Not less than 3 feet (914 mm) from any building, lot line, public street, public alley, public way or means of egress, where batteries are contained in approved, prefabricated portable structures providing a complete 2-hour fire-resistance-rated enclosure.

10. Change Section 320.4.3.2 to read:

320.4.3.2 Storage area size limits and separation. Outdoor storage areas for lithium-ion or lithium metal batteries, including storage beneath weather protection, shall not exceed the size and height approved in accordance with the applicable building code. Where multiple battery storage areas are required by the applicable building code to be separated from each other by not less than 10 feet (3048 mm) of open space, such separation shall be maintained.

11. Change Section 320.4.3.3 to read:

320.4.3.3 Fire detection. Where required or provided in accordance with the applicable building code, automatic fire detection and alarm systems for outdoor storage areas for lithium-ion or lithium metal batteries, regardless of whether such areas are open, under weather protection or in a prefabricated portable structure, shall be maintained in accordance with Chapter 9 and the applicable building code.

**13VAC5-52-160. IFC Chapter 4 Emergency Planning and Preparedness.**

A. The following change shall be made to Section 401, General:

Add Section 401.1.1 to read:

401.1.1 State regulated care facilities (SRCF). 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.

B. The following changes shall be made to Section 403, Emergency Preparedness Requirements:

1. Add Section 403.1.1 to read:

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

2. 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, 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.

3. Change the exception to Section 403.7.3.4 to read:

Exception: An ~~employee~~ staff person shall not be required to be within three floors or 300 feet (91,440 mm) horizontal distance of the access door of each resident housing area in areas in which all locks are unlocked remotely and automatically in accordance with the applicable building code.

4. Change Section 403.9 to read:

403.9 Group R occupancies. Group R occupancies shall comply with Sections 403.9.1.1 through 403.9.4.

5. Add Section 403.9.4 to read:

403.9.4 Groups 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 Groups R-3 and R-5 bed and breakfasts and other transient boarding facilities that are either proprietor or nonproprietor occupied.

6. Change Section 403.10 to read:

403.10 Special uses. Special uses shall be in accordance with Sections 403.10.1 through ~~403.10.6~~ 403.10.7.

7. Change Section 403.10.1.4 to read:

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.

8. Add Section ~~403.10.6~~ 403.10.7 to read:

~~403.10.6~~ 403.10.7 SRCF. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for SRCFs.

C. The following changes shall be made to Section 404, Fire Safety, Evacuation and Lockdown Plans:

1. Change Item 4.4 of Section 404.2.3.1 to read:

4.4. A description of how locking means and methods are in compliance with the requirements of the VCC and the applicable provisions of this code for egress and accessibility.

2. Change Section 404.4.1 to read:

404.4.1 Distribution. The fire safety, evacuation and lockdown 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 and lockdown 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 Groups R-3 and R-5 bed and breakfasts and other transient boarding facilities to transient guests upon their arrival or are present in each transient guest room.

D. The following changes shall be made to Section 405, Emergency Evacuation Drills

1. Add an exception to Section 405.1 to read:

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

2. Add the following row to Table 405.3 and change Footnote b to read:

| Group or Occupancy          | Frequency | Participation |
|-----------------------------|-----------|---------------|
| Group R SRCF except hospice | Monthly   | All occupants |

b. Emergency evacuation drills in Group R-2 college and university buildings shall be in accordance with Section 403.9.2.1. Emergency evacuation drills are required in Group R-2 occupancies that are designed or developed and marketed to senior citizens 55 years of age or older in accordance with 42 USC § 3607(b)(2). Other Group R-2 occupancies do not require routine emergency evacuation drills but shall be in accordance with Section 403.9.2.2.

3. Add Section 405.3.1 to read:

405.3.1 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.

E. The following change shall be made to Section 406, Employee Training and Response Procedures:

Add Section 406.3.4.1 to read:

406.3.4.1 Emergency supplemental hardware training. Where a facility has installed approved emergency supplemental hardware, employees shall be trained on their assigned duties and procedures for the use of such device. Records of in-service training shall be made available to the fire code official upon request.

F. The following changes shall be made: made to Section 407, Hazard Communication:

Change Section 407.2 to read:

407.2 Safety data sheets. Safety data sheets (SDS) for all hazardous materials shall be either readily available on the premises as a paper copy or readily retrievable by electronic access.

### **13VAC5-52-170. IFC Chapter 5 Fire Service Features.**

A. The following changes shall be made to Section 501, General:

1. Change Section 501.2 to read:

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

2. Delete Section 501.4.

B. The following changes shall be made to Section 503, Fire Apparatus Access Roads:

1. Add two 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 the owner's 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~~, 3307.1.

2. Change Exception 1 (Exception 2 remains) ~~of~~ to Section 503.1.1 to read:

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45,720 mm) where any of the following conditions occur:

1.1. The building is equipped throughout with an approved automatic sprinkler system in accordance with the applicable NFPA13, NFPA 13R, or NFPA 13D standard.

1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades, or other similar conditions, and an approved alternative means of fire protection is provided.

1.3. There are not more than two Group R-3, Group R-5, or Group U occupancies.

3. Add an 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 Section ~~R313.1~~ R309.1 or ~~R313.2~~ R309.2 of the ~~International~~ Virginia Residential Code shall have an unobstructed width of not less than 18 feet (5486 mm), exclusive of shoulders.

4. 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 503.7.

C. The following changes shall be made to Section 504, Access to Building Openings and Roofs:

1. Change Section 504.1 to read:

504.1 Required access. Exterior doors and openings required by the applicable building code shall be maintained readily accessible for emergency access by the fire department. An approved access walkway leading from fire apparatus access roads to exterior openings shall be provided when required by the fire code official.

2. Change Section 504.3 to read:

504.3 Stairway access to roof. Stairway access to the roof shall be maintained and marked at street and floor levels with a sign indicating that the stairway continues to the roof.

D. The following changes shall be made to Section 507, Fire Protection Water Supplies:

1. Add Section 507.3.1 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(1) of Appendix B of the IFC 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 Section ~~R313.1~~ R309.1 or ~~R313.2~~ R309.2 of the ~~International~~ Virginia Residential Code.

2. 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.

Exceptions:

1. For in-fill development of fewer than five detached single-family dwellings constructed in existing residential developments.
2. For the reconstruction or rehabilitation of detached single-family dwellings.

3. 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 C102.1 of Appendix C of the IFC shall be permitted to be used in single-family dwelling and townhouse developments that are fully sprinklered as provided for in Section ~~R313.1~~ R309.1 or ~~R313.2~~ R309.2 of the ~~International~~ Virginia Residential Code, with the spacing and distances of fire hydrants indicated in Table C102.1 increased by 100%.

E. The following changes shall be made to Section 508, Fire Command Center:

1. Change Section 508.1 to read:

508.1 General. Where required by the applicable building code or where otherwise provided, a fire command center for fire department operations shall comply with Sections 508.1.1 through ~~508.1.6~~ 508.1.7.

2. Delete Section 508.1.1.

3. Change Section 508.1.2 to read:

508.1.2 Separation. Fire-rated construction shall be maintained in accordance with Section 701.6 of this code.

4. Delete Section 508.1.3.

5. Change Section 508.1.4 to read:

508.1.4 Layout approval. A layout of the fire command center and all features shall be submitted for approval prior to modification.

6. Change Section 508.1.6 to read:

508.1.6 Required features. In addition to the features required by the applicable building code, the fire command center shall contain the following:

1. A telephone for fire department use with controlled access to the public telephone system.

2. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, firefighter air-replenishment systems, firefighting equipment, and fire department access and the location of fire walls, fire barriers, fire partitions, smoke barriers, and smoke partitions.

3. An approved building information card that includes all of the following information:

3.1. General building information that includes property name, address, the number of floors in the building above and below grade, use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor), and the estimated building population during the day, night, and weekend;

3.2. Building emergency contact information that includes a list of the building's emergency contacts, including building manager, building engineer, and their respective work phone numbers, cell phone numbers, and email addresses;

3.3. Building construction information that includes the type of building construction, including floors, walls, columns, and roof assembly;

3.4. Exit access stairway and exit stairway information that includes number of exit access stairways and exit stairways in building; each exit access stairway and exit stairway designation and floors served; location where each exit access stairway and exit stairway discharges; interior exit stairways that are pressurized; exit stairways provided with emergency lighting; each exit stairway that allows reentry; exit stairways providing roof access; elevator information that includes number of elevator banks, elevator bank designation, elevator car numbers, and respective floors that they serve; location of elevator machine rooms; control rooms and control spaces; location of sky lobby; and location of freight elevator banks;

3.5. Building services and system information that includes location of mechanical rooms, location of building management system, location and capacity of all fuel oil tanks, location of emergency generator, and location of natural gas service;

3.6. Fire protection system information that includes location of standpipes, location of fire pump room, location of fire department connections, floors protected by automatic sprinklers, and location of different types of automatic sprinkler systems installed, including dry, wet, and preaction; and

3.7. Hazardous material information that includes location and quantity of hazardous material.

4. Work table.

F. The following changes shall be made to Section ~~510, Maintenance of In-Building Emergency Communication Equipment~~: 510:

1. Change title of Section 510 to read:



## Maintenance of In-Building Emergency Communication Equipment

2. ~~Change Sections 510.1 through 510.3 and delete~~ ~~Delete Sections 510.4 510.3.1 through 510.6,~~  
including ~~subsections.~~ subsections, and change Sections 510.1 through 510.3 to read:

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, 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 the owner's representative, the fire official, police chief, or their agents shall have the right during normal business hours or another 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.

### **13VAC5-52-180. IFC Chapter 6 Building Services and Systems.**

- A. The following ~~changes~~ change shall be made to Section 601, General:

1. ~~Change~~ Section 601.1 to read:

601.1 Scope. The provisions of this chapter shall apply to the operation and maintenance of fuel-fired appliances and heating systems, electrical systems and equipment, mechanical refrigeration systems, elevator recall, and commercial kitchen equipment.

2. ~~Add Section 601.3 to read:~~

~~601.3 Permits. Permits shall be obtained for refrigeration systems as set forth in Section 107.2.~~

- B. The following changes shall be made to Section 603, Electric Equipment, Wiring, and Hazards:

1. Change Sections 603.1, 603.1.1, and 603.2.1 to read:

603.1 General. Electrical equipment, wiring, and systems shall be maintained in accordance with this section and the applicable building code.

603.1.1 Equipment and wiring. Electrical equipment, wiring, devices, and appliances shall be maintained in accordance with this section and the applicable NFPA 70 standard.

603.2.1 Modified or damaged. Electrical wiring, devices, equipment, and appliances that are modified or damaged and constitute an electrical shock or fire hazard shall not be used until repaired or replaced in accordance with the applicable building code.

2. Change Sections 603.3 and 603.5 to read:

603.3 Illumination. Illumination shall be maintained for service equipment areas, motor control centers, and electrical panelboards.

603.5 Relocatable power taps and current taps. The construction and use of current taps and relocatable power taps shall be in accordance with NFPA 70.

3. Change Section 603.8 to read:

603.8 Temporary wiring. Temporary wiring for electrical power and lighting installations not regulated by the applicable building code is allowed for a period not to exceed 90 days. Temporary wiring methods shall meet the applicable provisions of NFPA 70.

Exception: Temporary wiring for electrical power and lighting installations is allowed during periods of construction, remodeling, repair, or demolition of buildings, structures, equipment, or similar activities.

C. The following changes shall be made to Section 604, Elevator Operation, Maintenance, and Fire Service Keys:

1. Change ~~Section~~ Sections 604.1 and 604.2 to read:

604.1 General. Where elevators and conveying systems are installed, they shall comply with Chapter 30 of the USBC, Part I, Construction (13VAC5-63-330).

604.1 Operation. 604.2 Maintenance, Inspection and Testing. Existing elevators with a travel distance of 25 feet (7620 mm) or more shall comply with the requirements of ~~Section 604.5.2~~ and the USBC, Part III, Maintenance.

2. Change Section 604.3 to read:

604.3 Standby power. In buildings and structures where standby power is required or furnished to operate an elevator, standby power shall be maintained in accordance with Section 1203. Operation of the system shall be in accordance with Sections 604.3.1 through 604.3.4.

3. Change Section 604.3.4 to read:

604.3.4 Machine room ventilation. Where standby power is connected to elevators, the machine room ventilation or air conditioning shall remain connected to the standby power source in accordance with the applicable building code.

4. Change Section 604.5 to read:

604.5 Elevator features and lobbies. Elevator features and lobbies required or provided in accordance with the applicable building code shall be maintained in accordance with the applicable building code.

5. Change Section 604.5.1 to read:

604.5.1 Fire service access elevator lobbies. Where fire service access elevators are required by the applicable building code, fire service access elevator lobbies shall be maintained free of storage and furniture.

~~5.~~ 6. Change Section 604.5.2 to read:

604.5.2 Occupant evacuation elevator lobbies. Where occupant evacuation elevators are provided in accordance with the applicable building code, occupant evacuation elevator lobbies shall be maintained free of storage and furniture.

7. Change Section 604.5.3 to read:

604.5.3 Storage within elevator lobbies. "Where hoistway opening protection, including fire resistance-rated lobbies, vestibules or corridors, is required or provided in accordance with the applicable building code, elevator lobbies shall be maintained free of storage."

~~6.~~ 8. Change Section 604.5.4 to read:

604.5.4 Water protection of hoistway enclosures. Methods to prevent water from infiltrating into a hoistway enclosure required by the applicable building code shall be maintained.

D. The following changes shall be made to Section 605, Fuel-Fired Appliances:

1. Change Section 605.1 to read:

605.1 Installation. The installation of nonportable fuel gas appliances and systems shall comply with the applicable building code. The use of all other fuel-fired appliances, other than internal combustion engines, oil lamps, and portable devices, such as blow torches, melting pots, and weed burners, shall comply with this section.

2. Change Section 605.1.1 to read:

605.1.1 Manufacturer's instructions. Appliances shall be installed, operated, and maintained in accordance with the manufacturer's instructions and applicable federal, state, and local rules and regulations. Where it becomes necessary to change, modify, or alter a manufacturer's instructions in any way, written approval shall first be obtained from the manufacturer.

3. Change Section 605.1.2 to read:

605.1.2 Electrical wiring and equipment. Electrical wiring and equipment used in connection with oil-burning equipment shall be maintained in accordance with Section ~~604~~ 603 and the applicable NFPA 70 standard.

4. Change Section 605.1.4 to read:

605.1.4 Access. Appliances shall be readily accessible for cleaning hot surfaces; removing burners; and replacing motors, controls, air filters, chimney connectors, draft regulators, and other working parts and for adjusting, cleaning, and lubricating parts.

5. Change Section 605.1.5 to read:

605.1.5 Testing, diagrams and instructions. Following servicing or maintenance of oil-burning equipment, operation and combustion performance tests shall be conducted to determine that the burner is in proper operating condition and that all accessory equipment, controls, and safety devices function properly.

6. Change Section 605.1.5.1 to read:

605.1.5.1 Diagrams. Two copies of diagrams showing the main oil lines and controlling valves shall be provided, one copy of which shall be posted at the oil-burning equipment and another at an approved location that will be accessible in case of emergency.

7. Add a note to Section 605.2 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 with the Virginia Boiler and Pressure Vessel Regulations (16VAC25-50).

8. Change Section 605.2.1 to read:

605.2.1 Chimneys and appliances. Chimneys, incinerators, smokestacks, or similar devices for conveying smoke or hot gases to the outer air and the stoves, furnaces, fireboxes, or boilers to which such devices are connected shall be maintained according to manufacturer's instructions, comply with the applicable building code, and be maintained so as to not create a fire hazard.

9. Change Section 605.2.1.1 to read:

605.2.1.1 Masonry chimneys. Masonry chimneys that upon inspection are found to be without a flue liner and that have open mortar joints that will permit smoke or gases to be discharged into the building or that are cracked as to be dangerous shall be repaired in accordance with the applicable building code.

10. Change Section 605.2.1.2 to read:

605.2.1.2 Metal chimneys. Metal chimneys or supports that are damaged or corroded shall be repaired or replaced.

11. Change Section 605.2.1.4 to read:

605.2.1.4 Factory-built chimneys. Existing factory-built chimneys or their supports that are damaged or corroded shall be repaired or replaced.

12. Change Section 605.2.1.5 to read:

605.2.1.5 Connectors. Existing chimney and vent connectors or their supports that are damaged or corroded shall be repaired or replaced.

13. Change Section 605.3 to read:

605.3 Chimneys. Masonry, metal, and factory-built chimneys shall be maintained in accordance with the applicable building code and NFPA 211.

14. Change Section 605.4 to read:

605.4 Fuel oil storage systems. Fuel oil storage systems shall be maintained in accordance with this section and the applicable building code.

15. Change Section 605.4.1 to read:

605.4.1 Fuel oil storage in outside, aboveground tanks. Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L) unless otherwise installed in accordance with the applicable building code. The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall be maintained in accordance with NFPA 31.

16. Change Section 605.4.2 to read:

605.4.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall be maintained in accordance with this section and the applicable building code.

17. Change Section 605.4.2.2 to read:

605.4.2.2 Quantity limits. One or more fuel oil storage tanks containing Class II or Class III combustible liquid shall be permitted to be stored in a building. Unless otherwise approved by the applicable building code, the aggregate capacity of all tanks shall not exceed the following:

1. 660 gallons (2498 L) in unsprinklered buildings, where stored in a tank complying with UL 80, UL 142, UL 142A or UL 2085.
2. 1,320 gallons (4996 L) in buildings equipped with an automatic sprinkler system in accordance with the applicable NFPA 13 standard, where stored in a tank complying with UL 142 or UL 142A.
3. 3,000 gallons (11,356 L) where stored in protected aboveground tanks complying with UL 2085 and the room is protected by an automatic sprinkler system in accordance with the applicable NFPA 13 standard.

18. Change Section 605.4.2.3 to read:

605.4.2.3 Restricted use and connection. Tanks subject to Section 605.4.2 shall be used only to supply fuel oil to fuel-burning equipment, generators or fire pumps installed in accordance with the applicable building code. Connections between tanks and equipment supplied by such tanks shall be maintained as closed piping systems.

19. Change Section 605.4.2.4 to read:

605.4.2.4 Applicability of maximum allowable quantity and control area requirements. The quantity of combustible liquid stored in tanks subject to Section 605.4.2 shall not be counted toward the maximum allowable quantity set forth in Section 5003.1.1, and such tanks shall not be required to be located in a control area when there are such allowances under the applicable building code.

20. Change Sections 605.4.2.5 and 605.4.2.7 and delete Section 605.4.2.6:

605.4.2.5 Installation. New or modified tanks and piping systems shall be approved by the building official in accordance with the applicable building code.

605.4.2.7 Spill control. Where provided or required in accordance with the applicable building code, spill control shall be maintained in accordance with Section 5703.4 and the applicable building code.

21. Change Section 605.4.2.8 to read:

605.4.2.8 Tanks in basements. Tanks in basements shall be maintained in accordance with the applicable building code.

22. Change Section 605.4.3 to read:

605.4.3 Underground storage of fuel oil. Underground storage tanks used for the storage of fuel oil shall be maintained and operated in accordance with the applicable building code and the applicable NFPA 31 standard.

23. Change Section 605.6 to read:

~~605.6 Heating appliances. Heating appliances shall be listed and shall comply with Sections 605.6.1 and 605.6.2.~~

24. Change Section ~~605.6.1~~ 605.5.1 to read:

~~605.6.1~~ 605.5.1 Guard against contact. The heating element or combustion chamber guard shall be maintained so as to prevent accidental contact by persons or material to the extent required by the applicable building code.

~~25. 24.~~ Change Section ~~605.6.2~~ 605.5.2 to read:

~~605.6.2~~ 605.5.2 Heating appliance maintenance. Heating appliances shall be maintained in accordance with the manufacturer's instructions, the applicable building code, and the applicable NFPA 31 standard.

~~26. 25.~~ Change Section ~~605.8~~ 605.7 to read:

~~605.8~~ 605.7 Incinerators. Commercial, industrial, and residential-type incinerators and chimneys shall be installed in accordance with the applicable building code and maintained.

~~27. 26.~~ Change Section ~~605.8.1~~ 605.7.1 to read:

~~605.8.1~~ 605.7.1 Residential incinerators. Residential incinerators not regulated by the applicable building code shall be of an approved type.

~~28.~~ 27. Change Section ~~605.8.2~~ 605.7.2 to read:

~~605.8.2~~ 605.7.2 Spark arrestor. Incinerators not regulated by the applicable building code shall be equipped with an effective means for arresting sparks.

~~29.~~ 28. Delete Section ~~605.8.6~~ 605.7.6.

E. The following changes shall be made to Section 606, Commercial Cooking Equipment and Systems:

1. Change Section 606.1 to read:

606.1 General. Commercial kitchen exhaust hoods shall comply with the requirements of this section.

2. Change Section 606.2 to read:

606.2 Commercial cooking operations. Where ventilation is provided or required by the applicable building code at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors, ventilation shall be operated and maintained. The fire code official is not authorized to require alteration or installation of a ventilation hood in accordance with Section 102.6 of the SFPC.

3. Change the last sentence of Section 606.3.3.3 (remainder of section remains) to read:

~~606.3.3.3 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.

4. Change Section 606.3.3.3.1 to read:

606.3.3.3.1 Tags. Where a commercial kitchen hood or duct system is inspected or 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.

Exception: Where records required by Section 606.3.3.3 are maintained on the premises.

F. The following change shall be made to Section 607, Commercial Cooking Oil Storage:

Change Section 607.7 to read:

607.7 Electrical equipment. Electrical equipment used for the operation of cooking oil storage systems shall be maintained in accordance with NFPA 70.

G. The following changes shall be made to Section 608, Mechanical Refrigeration:

1. Change Sections 608.1 and 608.1.2 and delete Section 608.1.1.

608.1 Scope. Refrigeration systems shall be maintained in accordance with the applicable building code.

608.1.2 Ammonia refrigeration. Refrigeration systems using ammonia refrigerant and the buildings in which such systems are installed shall comply with the applicable operating procedures of IIAR 7. Decommissioning of ammonia refrigeration systems shall comply with IIAR-8 and the applicable building code.

2. Change ~~Section~~ Sections 608.2 and 608.3 to read:

608.2 Permits. An operational permit shall be obtained for refrigeration systems as set forth in Section 107.2.

608.3 Refrigerants. The use and purity of new, recovered, and reclaimed refrigerants shall be in accordance with the applicable building code.

3. Change Section 608.4 to read:

608.4 Refrigerant classification. Refrigerants shall be classified in accordance with the applicable building code.

4. Change Section 608.5 to read:

608.5 Change in refrigerant type. A change in the type of refrigerant in a refrigeration system shall be approved by the building official in accordance with the applicable building code.

5. Change the last sentence of Section 608.7 (remainder of section remains) to read:

~~608.7 Testing of equipment. Refrigeration equipment and systems having a refrigerant circuit containing more than 220 pounds (100 kg) of Group A1 or 30 pounds (14 kg) of any other group refrigerant shall be subject to periodic testing in accordance with Section 608.7.1. Records of tests shall be maintained. Tests of emergency devices or systems required by the applicable building code shall be conducted by persons trained and qualified in refrigeration systems.~~

6. Change the last sentence of Section 608.8 (remainder of section remains) to read:

~~608.8 Emergency signs. Refrigeration units or systems having a refrigerant circuit containing more than 220 pounds (100 kg) of Group A1 or 30 pounds (14 kg) of any other group refrigerant shall be provided with approved emergency signs, charts, and labels in accordance with NFPA 704. Hazard signs shall be in accordance with the applicable building code for the classification of refrigerants listed therein.~~

7. Change Sections 608.9 and 608.9.1 to read:

608.9 Refrigerant detection. Refrigerant detection systems shall be maintained. Where ammonia is used as the refrigerant, detection shall comply with IIAR 2. Detectors and alarms shall be maintained in approved locations. The detector shall transmit a signal to an approved location. For refrigerants other than ammonia, refrigerant detection shall comply with Section 608.9.1.

608.9.1 Refrigerants other than ammonia. Refrigerant detection systems required by the applicable building code shall be maintained. Detectors and alarms required by the applicable building code



shall be maintained in approved locations. Unless otherwise permitted by the applicable building code, detection of a refrigerant concentration exceeding the upper detection limit or 25% of the lower flammable limit (LFL), whichever is lower, shall stop refrigerant equipment in the machinery room.

8. Change Section 608.10 to read:

608.10 Remote controls. Remote controls of the mechanical equipment and appliances located in the machinery room shall be maintained and remain accessible in accordance with the applicable building code at all times.

9. Change Section 608.10.1 to read:

608.10.1 Refrigeration system emergency shutoff. Where a clearly identified switch of an approved type is required by the applicable building code to provide off-only control of refrigerant compressors, refrigerant pumps, and normally closed automatic refrigerant valves located in the machinery room, the switch shall be maintained as approved. Unless otherwise permitted by the applicable building code, this equipment shall be maintained to automatically shut off when the refrigerant vapor concentration in the machinery room exceeds the vapor detector's upper detection limit or 25% of the LEL, whichever is lower.

10. Change Section 608.10.2 to read:

608.10.2 Ventilation system. Ventilation system switches shall be clearly identified and maintained in an approved manner.

11. Change Section 608.11 to read:

608.11 Emergency pressure control system. Emergency pressure control system provided for permanently installed refrigeration systems containing more than 6.6 pounds (3 kg) of flammable, toxic or highly toxic refrigerant or ammonia shall be maintained as installed in accordance with the applicable building code and this code.

12. Change Section 608.11.1 to read:

608.11.1 Automatic crossover valves. Automatic crossover valves shall be maintained as installed in accordance with the applicable building code.

13. Change Section 608.11.1.1 to read:

608.11.1.1 Overpressure limit set point. Automatic crossover valves shall be arranged and maintained in accordance with the applicable building code.

14. Change Section 608.11.1.2 to read:

608.11.1.2 Manual operation. Where provided or required in accordance with the applicable building code, manual operation of the automatic crossover valve shall be maintained.

15. Delete 608.11.1.3.

16. Change Section 608.11.2 to read:

608.11.2 Automatic emergency stop. An automatic emergency stop feature shall be maintained in accordance with the applicable building code.

17. Delete Section 608.11.2.1.

18. Delete Section 608.11.2.2.

19. Change Section 608.13 to read:

608.13 Discharge and termination of pressure relief and purge systems. Pressure relief devices, fusible plugs, and purge systems discharging to the atmosphere from refrigeration systems containing flammable, toxic, or highly toxic refrigerants or ammonia shall be maintained in accordance with Sections 608.13.2 through 608.13.4.

20. Change Section 608.13.1 to read:

608.13.1 Fusible plugs and rupture members. Unless otherwise required by the applicable building code, discharge piping and devices connected to the discharge side of a fusible plug or rupture member shall have provisions to prevent plugging the pipe in the event the fusible plug or rupture member functions.

21. Change the first sentence of Section 608.13.2 (remainder of section remains) to read:

~~608.13.2 Flammable refrigerants. Unless otherwise regulated by the applicable building code, systems containing more than 6.6 pounds (3 kg) of flammable refrigerants having a density equal to or greater than the density of air shall discharge vapor to the atmosphere only through an approved treatment system in accordance with Section 608.13.5 608.13.4 or a flaring system in accordance with Section 608.13.6. 608.13.5. Systems containing more than 6.6 pounds (3 kg) of flammable refrigerants having a density less than the density of air shall be permitted to discharge vapor to the atmosphere provided that the point of discharge is located outside of the structure at not less than 15 feet (4572 mm) above the adjoining grade level and not less than 20 feet (6096 mm) from any window, ventilation opening, or exit.~~

22. Change Section 608.13.3 to read:

608.13.3 Toxic and highly toxic refrigerants. Systems containing more than 6.6 pounds (3 kg) of toxic or highly toxic refrigerants that discharge vapor to the atmosphere shall discharge through a treatment system, flaring system, or other approved system in accordance with the applicable building code.

23. Change ~~Section 608.13.4~~ to read:

~~608.13.4 Ammonia refrigerant. Systems containing more than 6.6 pounds (3 kg) of ammonia refrigerant that discharge vapor to the atmosphere shall discharge through a treatment system, flaring systems, ammonia diffusion systems, or other approved system in accordance with the applicable building code.~~

~~Exception: Ammonia/water absorption systems containing less than 22 pounds (10kg) of ammonia and for which the ammonia circuit is located entirely outdoors.~~

24. Change Sections ~~608.13.5~~ 608.13.4 through ~~608.13.7~~ and 608.13.5 to read:

~~608.13.5~~ 608.13.4 Treatment systems. Unless otherwise approved by the applicable building code, treatment systems shall be maintained and operated to reduce the allowable discharge concentration of the refrigerant gas to not more than 50% of the immediately dangerous to life and health (IDLH) level at the point of exhaust. Treatment systems shall be operated and maintained in accordance with Chapter 60 and the applicable building code.

~~608.13.6~~ 608.13.5 Flaring systems. Flaring systems for incineration of flammable refrigerants shall be operated and maintained to incinerate the entire discharge. The products of refrigerant incineration shall not pose health or environmental hazards. Where required by the applicable building code, standby fuel, such as LP-gas, and standby power shall be maintained to have the capacity to operate for the required time for complete incineration of refrigerant in the system and any additional capacity required by the applicable building code. Standby electrical power, where required to complete the incineration process, shall be maintained in accordance with Section 1203.

~~608.13.7 Ammonia diffusion systems. Ammonia diffusion systems shall be maintained in accordance with the applicable building code.~~

~~25.~~ 24. Change Section 608.14 (exception remains) to read:

608.14 Mechanical ventilation exhaust. Treatment systems required by the applicable building code for exhaust from mechanical ventilation systems serving refrigeration machinery rooms containing flammable, toxic or highly toxic refrigerants, ~~other than ammonia~~, capable of exceeding 25% of the LFL or 50% of the IDLH shall be operated and maintained.

~~Exception: Refrigeration systems containing Group A2L complying with Section 608.18.~~

~~26.~~ 25. Change Section 608.17 to read:

608.17 Electrical equipment. The hazardous location classification as determined in accordance with the applicable building code and the applicable NFPA 70 standard of refrigeration machinery rooms where refrigerants of Groups A2, A3, B2, and B3 are used, shall be maintained.

~~27.~~ 26. Change Sections 608.18 through 608.18.2 to read:

~~608.18 Special requirements for Group A2L refrigerant machinery rooms. Group A2L and B2L refrigerant. Machinery rooms with systems containing for Group A2L and B2L refrigerants shall comply with Sections 608.18.1 through 608.18.3.~~ be maintained in accordance with the applicable building code.

~~Exception: Machinery rooms conforming to the Class 1, Division 2 hazardous location classification requirements of NFPA 70.~~

~~608.18.1 Refrigerant detection system. Refrigerant detection systems in machinery rooms shall be maintained~~ Elevated temperatures. Unless otherwise approved in accordance with the applicable building code, open flame-producing devices or continuously operating hot surfaces over 1,290°F (700°C) shall not be permanently installed in the room.

~~608.18.2 Emergency ventilation system operation. An emergency ventilation system shall be maintained to operate at the minimum exhaust rate specified~~ Refrigerant detector. Refrigerant detectors required or provided in accordance with the applicable building code. Means to manually shut down the system shall be maintained. code, shall be maintained to signal an alarm and activate the ventilation system in accordance with the response time specified by the applicable building code.

~~28. 27.~~ Delete Table 608.18.2 and change Section 608.18.3 to read:

~~608.18.3 Emergency ventilation system discharge. Where required by the applicable building code, the point of discharge to the atmosphere shall remain located outside of the structure and away from any window, ventilation opening, or exit.~~ Mechanical ventilation. Mechanical ventilation required or provided in accordance with the applicable building code for machinery rooms, shall be maintained in accordance with the applicable building code.

H. Delete Section 610.1.1.

### **13VAC5-52-190. IFC Chapter 7 Fire and Smoke Protection Features.**

A. The following changes shall be made to Section 701, General:

1. Change Section 701.1 to read:

701.1 Scope. The provisions of this chapter shall govern maintenance of the materials, systems, and assemblies used for structural fire resistance and fire-resistance-rated construction separation of adjacent spaces to safeguard against the spread of fire and smoke within a building and the spread of fire to or from buildings.

2. Change Sections 701.6 and ~~701.7~~ 701.6.1 to read:

701.6 Maintenance. The required fire-resistance rating of fire-resistance-rated construction, including walls, firestops, shaft enclosures, partitions, smoke barriers, floors, protected mass timber elements, fire-resistive coatings, and sprayed fire-resistant materials applied to structural members and fire-resistant joint systems shall be maintained. Such elements shall be visually inspected by the owner annually and properly repaired, restored, or replaced where damaged, altered, breached, or penetrated. ~~Records of inspections and repairs shall be maintained.~~ Where concealed, such elements shall not be required to be visually inspected by the owner unless the concealed space is accessible by the removal or movement of a panel, access door, ceiling tile, or similar movable entry to the space. Openings made therein for the passage of pipes, electrical conduit, wires, ducts, air transfer openings, and holes made for any reason shall be protected with approved methods capable of resisting the passage of smoke and fire. Openings through fire-resistance-rated assemblies shall be

protected by self-closing or automatic-closing doors of approved construction meeting the fire protection requirements for the assembly.

Exception: When requested by the building owner and approved by the fire official, the visual inspection required by 701.6 may be modified to a time period greater than annually based on the history of the previous inspections.

701.6.1 Recordkeeping. Records of inspections and repairs shall be maintained.

3. Change Section 701.7 by replacing the reference to "Section 115.1.1" with "Section 110.1", and reference to "Section 115.2" with "Section 110.5" (remainder of section remains).

~~701.7 Unsafe conditions. Where any components in this chapter are not maintained and do not function as intended or do not have the fire resistance required by the code under which the building was constructed, remodeled, or altered, such components or portion thereof shall be deemed an unsafe condition in accordance with Section 110.1. Components or portions thereof determined to be unsafe shall be repaired or replaced to conform to that code under which the building was constructed, remodeled, or altered or this chapter, as deemed appropriate by the fire code official.~~

~~Where the extent of the conditions of components is such that any building, structure, or portion thereof presents an imminent danger to the occupants of the building, structure, or portion thereof, the fire code official shall act in accordance with Section 110.5.~~

B. The following change shall be made to Section 704, Joints and Voids:

Change Section 704.3 to read:

704.3 Opening protectives. Where openings are required to be protected, opening protectives and associated closing devices shall be maintained as self-closing or automatic-closing in accordance with Section 705.2.

C. The following changes shall be made to Section 705, Door and Window Openings:

1. Change Section 705.2.5 to read:

705.2.5 Smoke-activated and heat-activated doors. Smoke-activated doors shall be maintained to self-close or automatically close upon detection of smoke in accordance with the applicable building code.

2. Change Section 705.2.6 to read:

705.2.6 Testing. Opening protectives shall be inspected and tested annually in accordance with NFPA 80 to confirm proper operation and full closure. A written record shall be maintained and be available to the fire code official.

**13VAC5-52-200. IFC Chapter 8 Interior Finish, Decorative Materials and Furnishings.**

A. Change Section 801.1 to read:

801.1 Scope. The provisions of this chapter shall govern interior finish, interior trim, furniture, furnishings, decorative materials, and decorative vegetation in buildings.

B. Change the title of Section 803 and Section 803.1 to read:

Section 803 Interior Wall and Ceiling Finish and Trim in Buildings.

803.1 General. The provisions of this section shall apply to the maintenance of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings in accordance with the applicable building code.

C. Change Section 803.1.1 to read:

803.1.1 Classification. Interior wall or ceiling finishes shall be classified and tested in accordance with the applicable building code.

D. Change Section 803.1.1.1 to read:

803.1.1.1 Manufacturer's product information and testing reports. Manufacturer's product information and testing reports shall be furnished to the fire official upon request.

E. Delete Sections 803.1.2 and 803.1.3.

F. Change Sections 803.2 and 803.3 to read:

803.2 Stability. Interior finish materials regulated by this chapter shall remain applied or otherwise fastened in accordance with the applicable building code.

803.3 Interior finish requirements. Interior wall and ceiling finish shall have a flame spread index not greater than that approved under the applicable building code. New interior finish shall not be installed unless approved by the building official in accordance with the applicable building code.

G. Delete Table 803.3.

H. Change Section 803.5 to read:

803.5 Textile wall coverings. Where used as interior wall or ceiling finish materials, textiles, including materials having woven or nonwoven, napped, tufted, looped, or similar surface shall comply with the requirements of the applicable building code. Newly introduced materials shall not be installed unless approved by the building official.

I. Delete Sections 803.5.1, 803.5.1.1, and 803.5.2.

J. Change Sections 803.6, 803.7, 803.8, 803.9, 803.10, and 803.11 to read:

803.6 Textile ceiling coverings. Where used as interior wall or ceiling finish materials, textiles, including materials having woven or nonwoven, napped, tufted, looped, or similar surface, shall comply with the requirements of the applicable building code. Newly introduced materials shall not be installed unless approved by the building official.

803.7 Expanded vinyl wall coverings. Expanded vinyl wall coverings shall be maintained in accordance with the applicable building code. Newly introduced materials shall not be installed unless approved by the building official.

803.8 Expanded vinyl ceiling coverings. Expanded vinyl ceiling coverings shall be maintained in accordance with the applicable building code. Newly introduced materials shall not be installed unless approved by the building official.

803.9 High-density polyethylene (HDPE) and polypropylene (PP). Where high-density polyethylene or polypropylene is used as an interior finish, it shall comply with the applicable building code. Newly introduced materials shall not be installed unless approved by the building official.

803.10 Site-fabricated stretch systems. Where used as newly installed interior wall or interior ceiling finish materials, site-fabricated stretch systems containing all three components described in the definition in Chapter 2 shall not be installed unless approved by the building official in accordance with the applicable building code.

803.11 Foam plastic materials. Foam plastic materials shall not be used as interior wall and ceiling finish or interior trim unless specifically allowed by the building official in accordance with the applicable building code.

K. Delete Sections 803.11.1 and 803.11.2 and change Sections 803.12 through 803.15 to read:

803.12 Facings or wood veneers intended to be applied on site over a wood substrate. Facings or veneers intended to be applied on site over a wood substrate shall be maintained in accordance with the applicable building code.

803.13 Laminated products factory produced with an attached wood substrate. Laminated products factory produced with an attached wood substrate shall be maintained in accordance with the applicable building code.

803.14 Thickness exemption. Materials having a thickness less than 0.036 inch (0.9mm) applied to the surface of walls or ceilings shall not be subject to interior finish requirements.

803.15 Heavy timber exemption. Exposed portions of buildings elements complying with the requirements of Type IV construction in accordance with the applicable building code shall not be subject to interior finish requirements.

L. Change the title of Section 804 and Section 804.1 to read:

#### Section 804 Interior Wall and Ceiling Trim and Interior Floor Finish in Buildings

804.1 Interior trim. Combustible trim, as defined by the applicable building code, excluding handrails and guardrails, shall be maintained. Newly introduced materials shall not be installed unless approved by the building official.

M. Delete Sections 804.1.1 and 804.1.2.

N. Change Section 804.2 to read:

804.2 Foam plastic. Foam plastic used as interior trim shall be maintained in accordance with the applicable building code. Newly introduced materials shall not be installed unless approved by the building official.

O. Delete Sections 804.2.1 through 804.2.4.

P. Delete Sections 804.3.2 through 804.4. Change Sections 804.3 through 804.3.1; and add Section 804.3.1.1 to read:

804.3 Interior floor finish. Interior floor finish and floor covering materials shall be maintained in accordance with the applicable building code.

804.3.1 Classification. Interior floor finish and floor covering materials shall be classified in accordance with the applicable building code.

804.3.1.1. Manufacturer's product information and testing reports. Manufacturer's product information and testing reports shall be furnished to the fire official upon request.

Q. ~~Change the title of~~ The following changes shall be made to Section 805 and Sections 805.1.1.2, 805.1.2.2, 805.2.1.2, 805.2.2.2, 805.4.1.2, and 805.4.2.2 to read: 805:

1. Change the title of Section 805 to read: Upholstered Furniture and Mattresses in Buildings

2. Change the exception to items 1 and 2 of Sections 805.1.1.2 Heat release rate. Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537 or California Technical Bulletin 133, as follows: 805.1.1.2, 805.1.2.2, 805.2.1.2, 805.2.2.2, 805.4.1.2, and 805.4.2.2 (remainder of each section remains) to read:

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80 kW.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 megajoules (MJ).

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

805.1.2.2 Heat release rate. Newly introduced mattresses shall have limited rates of heat release when tested in accordance with ASTM E 1590 or California Technical Bulletin 129, as follows:

1. The peak rate of heat release for the single mattress shall not exceed 100 kW.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.



2. The total energy released by the single mattress during the first 10 minutes of the test shall not exceed 25 MJ.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

805.2.1.2 Heat release rate. Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537 or California Technical Bulletin 133, as follows:

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80 kW.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 MJ.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

805.2.2.2 Heat release rate. Newly introduced mattresses shall have limited rates of heat release when tested in accordance with ASTM E 1590 or California Technical Bulletin 129, as follows:

1. The peak rate of heat release for the single mattress shall not exceed 100 kW.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

2. The total energy released by the single mattress during the first 10 minutes of the test shall not exceed 25 MJ.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

805.4.1.2 Heat release rate. Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537 or California Technical Bulletin 133, as follows:

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80 kW.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 MJ.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

805.4.2.2 Heat release rate. Newly introduced mattresses shall have limited rates of heat release when tested in accordance with ASTM E 1590 or California Technical Bulletin 129, as follows:

~~1. The peak rate of heat release for the single mattress shall not exceed 100 kW.~~

~~Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.~~

~~2. The total energy released by the single mattress during the first 10 minutes of the test shall not exceed 25 MJ.~~

~~Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.~~

R. Change the title of Section 806 and Exception 1 ~~in~~ to Section 806.1.1 and add Exception 3 ~~in~~ to Section 806.1.1 to read:

Section 806 Natural Decorative Vegetation in Buildings

1. Trees located in areas protected by an automatic sprinkler system in accordance with the applicable NFPA 13 standard shall not be prohibited in Groups A, E, M, R-1, and R-2.

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

S. Change the title of Section 807 and Exceptions 1 and 2 ~~in~~ to Section 807.2 (exceptions 3 and 4 remain) to read:

Section 807 Decorative Materials and Artificial Decorative Vegetation in Buildings

1. In auditoriums in Group A, the permissible amount of curtains, draperies, fabric hangings, and similar combustible decorative materials suspended from walls or ceilings shall not exceed 75% of the aggregate wall area where the building is equipped throughout with an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard and where the material is installed in accordance with the applicable building code.

2. In Group R-2 dormitories, within sleeping units and dwelling units, the permissible amount of curtains, draperies, fabric hangings, and similar decorative materials suspended from walls or ceilings shall not exceed 50% of the aggregate wall areas where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

T. Change the Exception to Section 807.4 (items 1, 2, and 3 remain) to read:

Exception: Testing of artificial vegetation is not required in Group I-1; Group I-2, Condition 1; Group R-2; Group R-3; or Group R-4 occupancies equipped throughout with an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard, where such artificial vegetation complies with the following:

~~1. Wreaths or other decorative items on doors shall not obstruct the door operation and shall not exceed 50% of the surface area of the door.~~

~~2. Decorative artificial vegetation shall be limited to not more than 30% of the wall area to which it is attached.~~

~~3. Decorative artificial vegetation not on doors or walls shall not exceed three feet (914 mm) in any dimension.~~

U. Change Section 807.5.1.2 and Exceptions 1 and 2 (Exception 3 remains) ~~of~~ to Section 807.5.2.1 to read:

807.5.1.2 Motion picture screens. The screens upon which motion pictures are projected in buildings of Group A shall either meet the flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701 or shall comply with the requirements for a Class B interior finish in accordance with the applicable building code.

1. Corridors protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

2. Corridors protected by an approved fire alarm system installed in accordance with the applicable NFPA 72 standard.

V. Change Sections 807.5.3.1 through ~~807.5.3.4~~ 807.5.3.3 and 807.5.4 to read:

807.5.3.1 Group I-1 and Group I-2 Condition 1 within units. In Group I-1 and Group I-2 Condition 1 occupancies, equipped with an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard, within sleeping units and dwelling units, combustible decorative materials placed on walls shall be limited to not more than 50% of the wall area to which they are attached.

807.5.3.2 In Group I-1 and Group I-2 Condition 1 for areas other than within units. In Group I-1 and Group I-2 Condition 1 occupancies, equipped with an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard, combustible decorative materials placed on walls in areas other than within dwelling and sleeping units shall be limited to not more than 30% of the wall area to which they are attached.

807.5.3.3 In Groups I-2 Condition 2. In Group I-2 Condition 2 occupancies, equipped with an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard, combustible decorative materials placed on walls shall be limited to not more than 30% of the wall area to which they are attached.

~~807.5.3.4 Other areas in Groups I-1 and I-2. In Group I-1 and I-2 occupancies, in areas not equipped with an approved automatic sprinkler system, combustible decorative materials shall be of such limited quantities that a hazard of fire development or spread is not present.~~

807.5.4 Group I-3. In Group I-3, combustible decorative materials are prohibited.

Exception: Cell areas in buildings equipped throughout with an automatic sprinkler system in accordance with the applicable NFPA 13 standard where a maximum four-square-foot area has been demarcated on the wall for personal items 0.025 inch (0.64 mm) or less in thickness applied directly to and adhering to the wall.

W. Change Exception 1 (Exceptions 2 and 3 remain) of to Section 807.5.5.1 to read:

1. Corridors protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

X. Change the title of Section 808 and Sections ~~808.1, 808.2, 808.4, and 808.5~~ 808.3, and 808.4 to read:

Section 808 Furnishings Other Than Upholstered Furniture and Mattresses or Decorative Materials in Buildings

~~808.1 Wastebaskets and linen containers in Groups I-1, I-2, and I-3 occupancies and Group B ambulatory care facilities. Wastebaskets, linen containers, and other waste containers, including their lids, located in Groups I-1, I-2, and I-3 occupancies shall be constructed of noncombustible materials or of materials that meet a peak rate of heat release not exceeding 300 kW/m<sup>2</sup> when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m<sup>2</sup> in the horizontal orientation. Metal wastebaskets and other metal waste containers with a capacity of 20 gallons (75.7 L) or more shall be listed in accordance with UL 1315 and shall be provided with a noncombustible lid. Portable containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste and linen collection room and constructed in accordance with the applicable building code.~~

Exception: Recycling containers complying with Section 808.1.2 are not required to be stored in waste and linen collection rooms.

~~808.2 Waste containers with a capacity of 20 gallons or more in Group R-2 college and university dormitories. Waste containers, including their lids, located in Group R-2 college and university dormitories with a capacity of 20 gallons (75.7 L) or more shall be constructed of noncombustible materials or of materials that meet a peak rate of heat release not exceeding 300 kW/m<sup>2</sup> when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m<sup>2</sup> in the horizontal orientation. Metal wastebaskets and other metal waste containers with a capacity of 20 gallons (75.7 L) or more shall be listed in accordance with UL 1315 and shall be provided with a noncombustible lid. Portable containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste and linen collection room constructed in accordance with the applicable building code.~~

~~808.4~~ 808.3 Combustible lockers. Where lockers constructed of combustible materials are used, the lockers shall be considered to be interior finish and shall be approved by the building official in accordance with the applicable building code.

Exception: Lockers constructed entirely of wood and noncombustible materials shall be permitted to be used wherever interior finish materials are required to meet Class C classification in accordance with the applicable building code.

~~808.5~~ 808.4 Play structures. Play structures shall be maintained in accordance with the applicable building code.

### **13VAC5-52-210. IFC Chapter 9 Fire Protection Systems.**

A. The following changes shall be made to Section 901, General:

1. Change Section 901.1 to read:

901.1 Scope. The provisions of this chapter shall apply to the inspection, operation, testing, and maintenance of all fire protection systems.

2. Delete Sections 901.2 and 901.2.1.

3. Change Section 901.3 to read:

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

4. Change Sections 901.4 and 901.4.1 to read:

901.4 Maintenance and alterations. Fire protection and life safety systems shall be maintained in accordance with the original installation standards for that system. Alterations and repairs to fire protection systems shall be done in accordance with the applicable building code and the applicable standards.

901.4.1 Required fire protection systems. Fire protection systems shall be repaired, operated, tested, and maintained in accordance with this code. A fire protection system for which a design option, exception, or reduction to the provisions of this code or the applicable building code has been granted shall be considered to be a required system.

5. 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 103.3.1 of Part I of the USBC (13VAC5-63-30 E).

6. Change Section 901.4.3 to read:

901.4.3 Alterations in buildings and structures. For any alteration within a building or structure, the existing fire protection and life safety systems shall be maintained to continue protection while the building or structure is occupied. Persons shall not remove or modify any fire protection or life safety system without approval from the building official in accordance with the applicable building code.

7. Change Section 901.4.4 to read:

901.4.4 Fire areas. Where buildings or portions thereof are divided into fire areas so as not to exceed the limits established for requiring a fire protection system in accordance with the applicable building code, such fire areas shall be maintained in accordance with Chapter 7 and the applicable building code.

8. Delete Section 901.4.5.

9. Change Sections 901.4.7, 901.4.7.3, and 901.4.7.4 and add Section 901.4.8 to read:

901.4.7 Pump and riser room size. Where provided, fire pump rooms and automatic sprinkler system riser rooms shall maintain clearances around equipment to elements of permanent construction, including other installed equipment and appliances, and shall be sufficient to allow inspection, service, repair, or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly. Passageways provided for the removal of equipment shall remain unobstructed.

901.4.7.3 Environment. Suitable means shall be provided for maintaining the temperature in automatic sprinkler system riser rooms and fire pump rooms above 40°F (5°C).

901.4.7.4 Lighting. Permanently installed artificial illumination in automatic sprinkler system riser rooms and fire pump rooms shall be maintained in accordance with the applicable building code.

901.4.8 Maintenance of walls and ceilings. Where building components such as walls, ceilings, and ceiling tiles are required by the installation standard for an existing fire protection system, such building components shall be maintained in accordance with the applicable building code.

10. Change Section 901.5.1 to read:

901.5.1 Occupancy. In buildings where a fire protection system is required by this code or the applicable building code, it shall be unlawful to occupy any portion of a building or structure until the fire protection system installation has been tested and approved by the building official.

11. Add Section 901.5.2 to read:

901.5.2 Hydrant and fire service main acceptance testing. Fire hydrant systems and private fire service mains shall be subject to acceptance tests as contained in the installation standards and as approved by the fire code official. The fire code official shall be notified before any required acceptance testing.

12. Change Section 901.6 to read:

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

13. ~~Add~~ Change Section 901.6.3 and add Section 901.6.3.2 to read:

901.6.3 Records. Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained.

901.6.3.2 Annual inspection tag or sticker. When an annual inspection or test required by Section 901.6.1 is completed, an inspection tag or sticker shall be attached to each fire protection system near the main control valve, main panel, or other such appropriate and visible location as determined by the fire code official. Tag requirements for all other inspections shall be in accordance

with the applicable reference standard. The annual inspection tag or sticker required by this section shall contain the following information:

1. The name of the agency and individual performing the work.
2. Date of inspection or test.
3. Type of inspection or test.
4. Result of the inspection or test.

14. Add Section 901.7.7 to read:

901.7.7 Modifications during impairment. The fire code official is authorized to require safeguards in a building or fire area when the required fire protection is out of service. Those safeguards may be based upon the provisions of the applicable building code or other recognized safety standards.

15. Change Section 901.8 to read:

901.8 Removal of or tampering with equipment. It shall be unlawful for any person to remove, tamper with, or otherwise disturb any fire hydrant, fire detection and alarm system, fire suppression system, or other fire appliance required by this code or the applicable building code except for the purpose of extinguishing fire, for training purposes, for recharging or making necessary repairs, or where approved by the fire code official.

16. Change Section 901.8.2 to read:

901.8.2 Removal of existing occupant-use hose lines. The fire code official is authorized to permit the removal of existing occupant-use hose lines where all of the following conditions exist:

1. Installation is not required by this code or the applicable building code.
2. The hose line would not be utilized by trained personnel or the fire department.
3. The remaining outlets are compatible with local fire department fittings.

17. Add Section 901.11 to read:

901.11 Defective equipment. When the fire official determines through investigation, 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.

B. The following changes shall be made to Section 903, Automatic Sprinkler Systems:

1. Delete Sections 903.1.1 through 903.2.11.1.3, including tables.
2. Change Section 903.2.11.2 to read:

903.2.11.2 Rubbish and linen chutes. Access to automatic sprinkler systems shall be maintained for servicing of the automatic sprinkler system components.

3. Delete Sections 903.2.11.3 through 903.2.11.6, including tables.

4. Change Sections 903.2.12 and 903.3 to read:

903.2.12 During construction and demolition. Automatic sprinkler systems required by the applicable building code during construction, alteration, and demolition operations shall be maintained in accordance with Chapter 33.

903.3 Installation and maintenance requirements. Automatic sprinkler systems shall be approved by the building official and installed in accordance with the applicable building code. Automatic sprinkler systems shall be maintained in accordance with Section 901.6.

5. Delete Sections 903.3.1 through 903.3.5.2.

6. Change Section 903.3.6 to read:

903.3.6 Hose threads. Fire hose threads and fittings used in connection with automatic sprinkler systems shall be maintained as approved by the fire code official.

7. Change Sections 903.3.7 and 903.3.8.1 and delete Sections 903.3.8 and 903.3.8.2 through 903.3.8.4.

903.3.7 Fire department connections. Fire department connections shall be maintained in accordance with Section 912.

903.3.8.1 Limited area sprinkler systems. Limited area sprinkler systems shall be maintained in accordance with NFPA 25.

8. Change Section 903.3.8.5 to read:

903.3.8.5 Calculations. When required by inspections, testing, and maintenance provisions of NFPA 25, hydraulic calculations shall be provided to demonstrate that the available water flow and pressure are adequate to supply all sprinklers installed in any single fire area with discharge densities corresponding to the hazard classification.

9. Delete Sections ~~903.4.1~~ 903.3.9 through 903.4.3. Change Section 903.4 to read:

903.4 Sprinkler system supervision and alarms. All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures, water-flow switches, and alarms on all sprinkler systems shall remain in service in the normal position and properly sealed, locked, or electrically supervised in accordance with the applicable building code.

10. 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.



C. The following changes shall be made to Section 904, Alternative Automatic Fire-Extinguishing Systems:

1. Change Sections 904.1 and 904.1.1 to read:

904.1 General. Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall be inspected, tested, and maintained in accordance with the provisions of this section and the applicable referenced standards.

904.1.1 Certification of service personnel for fire-extinguishing equipment. Service personnel providing or conducting maintenance on automatic fire-extinguishing systems, other than automatic sprinkler systems, shall possess a valid certificate issued by an approved agency or other approved organization for the type of system and work performed.

2. Delete Section 904.2.1.

3. Change Sections 904.2, 904.3, and 904.3.1 to read:

904.2 Electrical wiring. Electrical wiring shall be maintained in accordance with NFPA 70.

904.3 Commercial hood and duct systems in mobile food preparation vehicles. Each required commercial kitchen exhaust hood and duct system required by Section ~~319.4~~ 4106.4 for mobile food preparation vehicles to have a Type I hood shall be protected with an approved automatic fire-extinguishing system installed in accordance with this code.

904.3.1 Installation. Automatic fire-extinguishing systems shall be installed in accordance with ~~Annex B~~ of NFPA 96 when required in mobile food preparation vehicles.

4. Delete Sections 904.3.2, 904.3.3, 904.3.4, 904.3.5, and 904.4.1 through 904.4.3 and change Section 904.4 to read:

904.4 Warning signs. Where alarms are required to indicate the operation of automatic fire-extinguishing systems, warning signs shall be maintained to warn of pending agent discharge. Where exposure to automatic-extinguishing agents poses a hazard to persons and a delay is required to ensure the evacuation of occupants before agent discharge, a separate warning sign shall be maintained in accordance with the applicable building code.

5. Change Section 904.5 to read:

904.5 Wet-chemical systems. Wet-chemical extinguishing systems shall be maintained, periodically inspected, and tested in accordance with NFPA 17A and their listing. Records of inspections and testing shall be maintained.

6. Change Section 904.6 to read:

904.6 Dry-chemical systems. Dry-chemical extinguishing systems shall be maintained, periodically inspected and tested in accordance with NFPA 17 and their listing. Records of inspections and testing shall be maintained.

7. Change Section 904.7 to read:

904.7 Foam systems. Foam-extinguishing systems shall be maintained, periodically inspected, and tested in accordance with NFPA 11 and NFPA 16 and their listing. Records of inspections and testing shall be maintained.

8. Change Section 904.8 to read:

904.8 Carbon dioxide systems. Carbon dioxide extinguishing systems shall be maintained, periodically inspected and tested in accordance with NFPA 12 and their listing. Records of inspections and testing shall be maintained.

9. Change Section 904.9 to read:

904.9 Halon systems. Halogenated extinguishing systems shall be maintained, periodically inspected, and tested in accordance with NFPA 12A and their listing. Records of inspections and testing shall be maintained.

10. Change Section 904.10 to read:

904.10 Clean-agent systems. Clean-agent fire-extinguishing systems shall be maintained, periodically inspected, and tested in accordance with NFPA 2001 and their listing. Records of inspections and testing shall be maintained.

11. Change Section 904.11 to read:

904.11 Automatic water mist systems. Automatic water mist systems shall be maintained in accordance with NFPA 25 and the manufacturer's instructions.

12. Delete Sections 904.11.1.1 through 904.11.2.3.

13. Change ~~Section~~ Sections 904.12 and 904.13 to read:

904.12 Hybrid fire-extinguishing systems shall be maintained, periodically inspected and tested in accordance with NFPA 770. Records of inspection and testing shall be maintained.

904.13 Aerosol fire-extinguishing systems. Aerosol fire-extinguishing systems shall be periodically inspected, tested, and maintained in accordance with this section, NFPA 2010, and with their listing. Such devices and appurtenances shall be maintained in compliance with manufacturer's instructions.

14. Change Sections ~~904.13~~ 904.14 through ~~904.13.2~~ 904.14.2 to read:

~~904.13~~ 904.14 Commercial cooking systems. Automatic fire-extinguishing systems for commercial cooking shall comply with this section.

~~904.13.1~~ 904.14.1 Manual system operation. Where provided, manual actuation devices shall be maintained as installed in accordance with the applicable building code and shall not be obstructed.

~~904.13.2~~ 904.14.2 System interconnection. Where required by the applicable building code, the actuation of the fire extinguishing system shall automatically shut down the fuel or electrical power supply to the cooking equipment. The fuel and electrical supply reset shall be manual.

15. Delete Sections ~~904.13.3~~ 904.14.3 through ~~904.13.4~~ 904.14.4.

16. Change Section ~~904.13.4.1~~ 904.14.1 to read:

~~904.13.4.1~~ 904.14.1 Listed sprinklers. Sprinklers replaced in accordance with NFPA 25, which are used for the protection of fryers, shall be tested in accordance with UL 199E, listed for that application, and installed in accordance with their listing.

17. Change Section ~~904.13.5.1~~ 904.14.5.1 to read:

~~904.13.5.1~~ 904.14.5.1 Existing automatic fire-extinguishing systems. Where a change in the cooking media, positioning of cooking equipment, or replacement of cooking equipment occurs in existing commercial cooking systems, the automatic fire-extinguishing system shall be required to comply with the applicable building code.

18. Delete Sections ~~904.14~~ 904.15 through ~~904.14.1.2~~ 904.15.1.2.

D. The following changes shall be made to Section 905, Standpipe Systems:

1. Change Sections 905.1 and 905.2 to read:

905.1 General. Standpipe systems shall be inspected, tested, and maintained in accordance with the provisions of this section and the applicable referenced standards.

905.2 Maintenance standard. Standpipe systems shall be maintained in accordance with this section and NFPA 25 and as approved in accordance with the applicable building code, including the applicable NFPA 14 standard. Hose connections shall be maintained so that there is at least three inches (76.2 mm) clearance between any adjacent object and the handle of the valve when the valve is in any position ranging from fully open to fully closed. Fire department connections for standpipe systems shall be in accordance with Section 912.

2. Delete Sections 905.3 through ~~905.3.4~~ 905.3.3.

3. ~~Change Section 905.3.4.1~~ Delete Sections 905.3.4 through 905.3.7 and add Section 905.3.8 to read:

~~905.3.4.1~~ 905.3.8 Stage hose and cabinet. Where required by the applicable building code, stages greater than 1,000 square feet in area (93 m<sup>2</sup>) with hose connections shall be maintained with sufficient lengths of 1-1/2-inch (38 mm) hose to provide fire protection for the required area.

Hoses shall be maintained with an adjustable fog nozzle mounted in a cabinet or on a rack approved by the fire code official. Each rack for 1-1/2-inch (38 mm) or smaller hose shall be provided with a label that includes the wording "FIRE HOSE FOR USE BY TRAINED PERSONNEL" and operating instructions.

4. Delete Sections ~~905.3.5~~ and ~~905.3.6~~.

~~5. Delete Section 905.3.7.~~

~~6. Delete Sections ~~905.3.8~~ 905.4 through 905.5.2.~~

~~7. 5. Change Section 905.5.3 to read:~~

905.5.3 Class II system. Each rack for 1-1/2 inch (38 mm) or smaller hose shall be provided with a label that includes the wording "FIRE HOSE FOR USE BY TRAINED PERSONNEL" and operating instructions. A minimum one-inch (25 mm) hose shall be allowed to be used for hose stations in light-hazard occupancies where investigated and listed for this service and where approved by the fire code official.

~~8. 6. Delete Sections 905.6 through 905.6.2.~~

~~9. 7. Delete Section 905.8 and change Section 905.9 to read:~~

905.9 Valve supervision. Valves controlling water supplies shall be maintained as supervised in accordance with the applicable building code. Where a fire alarm system is provided, a supervisory signal shall also be transmitted to the control unit.

Exceptions:

1. Valves to underground key or hub valves in roadway boxes provided by the municipality or public utility do not require supervision.
2. Valves locked in the normal position and inspected as permitted in the applicable building code in buildings not equipped with a fire alarm system.

~~10. 8. Change Section 905.10 to read:~~

905.10 During construction. Standpipe systems required during construction and demolition operations shall comply with Chapter 33.

~~11. 10. Delete Section 905.12.~~

E. The following changes shall be made to Section 906, Portable Fire Extinguishers:

1. Change Item 1 in Section 906.1 to read:

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.

2. 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.

3. Change Section 906.2.1 to read:

906.2.1 Certification of service personnel for portable fire extinguishers. Service personnel providing or conducting maintenance on portable fire extinguishers shall possess a valid certificate issued by an approved agency or other approved organization for the type of work performed.

F. The following changes shall be made to Section 907, Fire Alarm and Detection Systems:

1. Change Section 907.1 to read:

907.1 General. This section covers the performance and maintenance of fire alarm systems and their components in buildings and structures.

2. Delete Sections 907.1.1 and 907.1.2.

3. Change Section 907.1.3 to read:

907.1.3 Equipment. Systems and components not regulated by the applicable building code shall be listed and approved for the purpose for which they are installed.

4. Delete Sections 907.2 through 907.2.6.3.2.

5. Delete Sections 907.2.6.3.3 through ~~907.2.10.~~ 907.2.10.2.

6. Change Section 907.2.11 to read:

907.2.11 Single-station and multiple-station smoke alarms. Alarms not required by the applicable building code shall be listed single-station and multiple-station smoke alarms complying with UL 217 and installed in accordance with the manufacturer's instructions and NFPA 72.

7. Delete Sections 907.2.11.1 through 907.3.1.

8. Change Sections 907.3.2 and 907.3.3 to read:

907.3.2 Special locking systems. Where special locking systems are installed on means of egress doors, the associated fire detection system shall also be maintained in accordance with NFPA 72 and the applicable building code.

907.3.3 Elevator emergency operation. Automatic fire detectors installed for elevator emergency operation shall be maintained in accordance with the provisions of the applicable ASME A17.1/CSA B44 standard, NFPA 72, and the applicable building code.

9. Delete Sections 907.3.4 through 907.4.1.

10. Change Section 907.4.2 to read:

907.4.2 Manual fire alarm boxes. Where a manual fire alarm system is provided or required by the applicable building code, fire alarm boxes shall be maintained in accordance with this Section.

11. Delete Sections 907.4.2.1 and 907.4.2.2.

12. Change Sections 907.4.2.3 and the last sentence of Section (remainder of section remains) 907.4.2.5 to read:

907.4.2.3 Color. Unless otherwise approved by the applicable building code, manual fire alarm boxes shall be maintained red in color.

~~907.4.2.5 Protective covers. The fire code official is authorized to require the installation of listed manual fire alarm box protective covers to prevent malicious false alarms or to provide the manual fire alarm box with protection from physical damage. The protective cover shall be transparent or red in color with a transparent face to permit visibility of the manual fire alarm box. Each cover shall include proper operating instructions. A protective cover that emits a local alarm signal shall not be installed unless approved. Protective covers shall not reduce the required means of egress width.~~

13. Delete Sections 907.4.3 and 907.4.3.1 and change Section 907.5 to read:

907.5 Occupant notification systems. Fire alarm system annunciation and occupant notification required by the applicable building code shall be maintained.

14. Change Sections 907.5.1 and 907.5.1.1 to read:

907.5.1 Audible alarms. The distinct sound emitted by audible alarm notification appliances and approved in accordance with the applicable building code is not to be used for any purposes other than that of a fire alarm. The required audibility and intelligibility of alarms shall be maintained in accordance with the applicable building code.

907.5.1.1 Pre-signal feature. A pre-signal feature shall not be utilized unless approved by the fire code official and the fire department. Where a pre-signal feature is provided, a signal shall be annunciated at a constantly attended location approved by the fire department so that occupant notification can be activated in the event of fire or other emergency.

15. Delete Sections 907.5.2.1 through 907.5.2.2.2 and change the title of Section 907.5.2.2.3 to read:

907.5.2.2.3 Alternative uses for emergency voice or alarm communication systems.

16. Change Section 907.5.2.2.4 to read:

907.5.2.2.4 Emergency voice or alarm communication captions. Where stadiums, arenas, and grandstands are required to caption audible public announcements in accordance with the applicable building code, the emergency or voice alarm communication system shall be captioned. Prerecorded or live emergency captions shall be from an approved location constantly attended by personnel trained to respond to an emergency.

17. Delete Sections 907.5.2.2.5 through 907.6.2.

18. Change Section 907.6.3 to read:

907.6.3 Initiating device identification. Fire alarm systems that identify the specific initiating device address, location, device type, floor level where applicable, and status, including indication of normal, alarm, trouble, and supervisory status, shall maintain accurate programming in accordance with NFPA 72 and the applicable building code.

19. Delete Sections 907.6.3.1 through 907.6.4.2.

20. Change Sections 907.6.5 ~~through~~ and 907.6.6 to read:

907.6.5 Access. Access shall be maintained to each fire alarm device and notification appliance for periodic inspection, maintenance, and testing.

907.6.6 Monitoring. The monitoring of fire alarm systems required by the applicable building code shall be maintained in accordance with NFPA 72.

21. Delete Sections 907.7 through 907.7.2.

22. Change Section 907.8.2 (exception remains) to read:

907.8.2 Testing. Testing shall be performed in accordance with the schedules in 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.~~

23. Change Section 907.8.4 to read:

907.8.4 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 7.8.2 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 standard or procedures used for the inspection or test (for example, "Test performed in accordance with NFPA 72 Section \_\_\_\_\_.").

6. List of each device tested and the result. The list should include the physical location and device description of each initiating and notification device tested. (for example, "Heat detector in main kitchen; horn-strobe in Room 115.")

7. Other tests as required by either the equipment manufacturer's published instructions or the authority having jurisdiction.

8. Signature of tester and approved authority representative.

9. Disposition of problems identified during test or devices not tested (examples, "Owner notified," "Problem corrected or successfully retested, or both," "Device abandoned in place.").

24. Delete Section 907.9.

G. The following changes shall be made to Section 908, Emergency Alarm Systems:

1. Change Sections 908.1 and 908.2 to read:

908.1 Group H occupancies. Emergency alarms for the detection and notification of an emergency condition in Group H occupancies shall be maintained as provided in accordance with the applicable building code and manufacturer's specifications.

908.2 Group H-5 occupancy. Emergency alarms for notification of an emergency condition in a hazardous production material (HPM) facility shall be maintained as provided in accordance with the applicable building code. Continuous gas detection systems shall be maintained for HPM gases as provided in accordance with the applicable building code and manufacturer's specifications.

2. Change Section 908.3 to read:

908.3 Fire alarm system interface. Where an emergency alarm system is interfaced with a building's fire alarm system, the signal produced at the fire alarm control unit is permitted to be a supervisory signal.

H. The following changes shall be made to Section 909, Smoke Control Systems:

1. Change Section 909.1 to read:

909.1 Scope and purpose. This section applies to the inspection, testing, and maintenance of mechanical or passive smoke control systems. The purpose of these systems to provide a tenable environment for the evacuation or relocation of occupants. These provisions are not intended for the preservation of contents or the timely restoration of operations or for assistance in fire suppression or overhaul activities. Smoke control systems regulated by this section serve a different purpose than the smoke-venting and heat-venting provisions found in Section 910.

2. Delete Sections 909.2 through 909.4.5.



3. Change Section 909.4.6 to read:

909.4.6 Duration of operation. All portions of active or engineered smoke control systems shall be capable of continued operation after detection of the fire event for a period of not less than that required by the applicable building code.

4. Delete Section 909.4.7.

5. Change Section 909.5 to read:

909.5 Smoke barriers. Smoke barriers required for passive smoke control and smoke control systems using the pressurization method shall be maintained in accordance with Chapter 7 of this code.

6. Delete Sections 909.5.1 and 909.5.2.

7. Change Section 909.5.3 to read:

909.5.3 Opening protection. Protection of openings in smoke barriers shall be maintained in accordance with Chapter 7.

8. Delete Section 909.5.3.1.

9. Change Section 909.5.3.2 to read:

909.5.3.2 Ducts and air transfer openings. Protection of ducts and air transfer openings by smoke dampers shall be maintained in accordance with Chapter 7.

10. Delete Sections 909.6 through 909.10.5.

11. Change Sections 909.11 through 909.11.2 to read:

909.11 Standby power. Standby power provided for smoke control systems shall be maintained in accordance with Section 1203.

909.11.1 Equipment room. Fire barriers associated with equipment rooms servicing smoke control systems shall be maintained in accordance with Chapter 7.

909.11.2 Power sources and power surges. Conditioners, suppressors, or other approved uninterruptable power sources provided for elements of smoke control systems shall be maintained in accordance with the applicable building code.

12. Delete Sections 909.12 through 909.13.3.

13. Change Section 909.15 to read:

909.15 Control diagrams. Identical control diagrams showing all devices in the system and identifying their location and function shall be maintained current and kept on file with the fire code official, with the fire department, and in the fire command center in a format and manner approved by the fire chief.

14. Change Section ~~909.16~~ to ~~delete~~ 909.16 and ~~delete~~ Section 909.16.1.

909.16 Firefighter's smoke control panel. A firefighter's smoke control panel for fire department emergency response purposes only, including manual control or override of automatic control for mechanical smoke control systems, shall be maintained in accordance with the applicable building code.

15. Change Section 909.16.2 to read:

909.16.2 Smoke control panel. The firefighter's control panel shall maintain control capability over the complete smoke control system equipment within the building in accordance with the applicable building code.

16. Change Section 909.16.3 to read:

909.16.3 Control action and priorities. All firefighter's control panel actions and priorities required by the applicable building code shall be maintained as approved.

17. Change Section 909.17 to read:

909.17 System response time. Smoke-control system activation, including all associated components, shall be initiated in accordance with its design. The total response time shall not be less than the requirements specified in the design.

18. Delete Sections 909.18 through 909.18.8.3.

19. Change Sections 909.18.8.3.1 and 909.18.9 to read:

909.18.8.3.1 Report filing. A copy of the final report required by the applicable building code shall be filed with the fire code official and an identical copy shall be maintained in an approved location at the building.

909.18.9 Identification and documentation. Copies of charts, drawings, and other documents identifying and locating each component of the smoke control system and describing their proper function and maintenance requirements shall be maintained on file at the building. Devices shall have an approved identifying tag or mark on them consistent with such copies and shall be dated indicating the last time they were successfully tested and by whom.

20. Delete Sections 909.19 through ~~909.20.6.3~~, 909.20.5.3.

21. Delete Sections 909.21.1 through 909.21.2.

22. Change Sections 909.21 and 909.21.3 to read:

909.21 Elevator hoistway pressurization alternative. Where elevator hoistway pressurization is provided in lieu of required enclosed elevator lobbies, the pressurization system shall be maintained in accordance with Sections 909.21.1 through 909.21.11.

909.21.3 Ducts for system. Any duct system protected with a fire-resistance rating shall be maintained in accordance with Chapter 7.

23. Delete Sections 909.21.4.2 through 909.21.4.4.

24. Change Section 909.21.5 to read:

909.21.5 Standby power. Standby power systems for pressurization systems shall be maintained in accordance with Section 1203.

25. Delete Section 909.21.7 and change Section 909.21.6 to read:

909.21.6 Activation of pressurization system. Where required or provided in accordance with the applicable building code, activation of the elevator pressurization system by the building fire alarm system or the elevator lobby smoke detectors shall be maintained.

26. Delete ~~Section 909.21.10.~~ Sections 909.21.10 and 909.21.11.

27. ~~Delete Section 909.21.11~~

~~28. Change Sections~~ the second sentence of Section 909.22.1 (first sentence remains) and 909.22.6 to read:

~~909.22.1 Schedule. A routine maintenance and operational testing program shall be initiated immediately after the smoke control system has passed the acceptance tests. A written schedule for routine maintenance and operational testing shall be established and approved by the fire code official.~~

28. Change the first sentence of Section 909.22.6 (second sentence remains) to read:

~~909.22.6 Components bypassing weekly test. Where components of the smoke control system are bypassed by the preprogrammed weekly test in accordance with the applicable building code, such components shall be tested semiannually. The system shall be tested under standby power conditions.~~

I. The following changes shall be made to Section 910, Smoke and Heat Removal:

1. Delete Sections 910.2 through 910.3.5.

2. Change Section 910.4 to read:

910.4 Mechanical smoke removal systems. Mechanical smoke removal systems provided shall be maintained in accordance with this section and the applicable building code.

3. Delete Sections 910.4.1 through 910.4.3, 910.4.5, and 910.4.6 and change Sections 910.4.4 and 910.4.7 to read:

910.4.4 Activation. Where the applicable building code requires that a mechanical smoke removal system shall be activated by manual controls only, only manual controls shall be permitted.

910.4.7 Controls. Where the applicable building code requires that manual controls be provided for the smoke removal system that have the capability to override the automatic shutdown of fans that are part of the smoke removal system, the override capability shall be maintained.

J. The following changes shall be made to Section 911, Explosion Control:

1. Change Section 911.1 to read:

911.1 General. Explosion control systems and components shall be maintained and operated in accordance with the applicable provisions of NFPA 69 or NFPA 495. Deflagration venting shall not be used as a means to protect buildings from detonation hazards.

2. Delete Table 911.1 and Sections 911.2 through 911.5.

K. The following changes shall be made to Section 912, Fire Department Connections:

1. Delete Section 912.1.

2. Change Sections 912.2 and 912.2.1 to read:

912.2 Location. With respect to hydrants, driveways, buildings, and landscaping, fire department connections shall remain located in accordance with the applicable building code so that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus.

912.2.1 Visible location. Fire department connections shall remain located on the street side of buildings or facing approved fire apparatus access roads, fully visible and recognizable from the street, fire apparatus access road or nearest point of fire department vehicle access or as otherwise approved by the fire code official and in accordance with the applicable building code.

3. Change Section 912.6 to read:

912.6 Backflow protection. The potable water supply to automatic sprinkler and standpipe systems protected against backflow as required by the applicable building code shall be maintained in accordance with NFPA 25.

L. The following changes shall be made to Section 913, Fire Pumps:

1. Change Sections 913.1 through 913.2.1 to read:

913.1 General. Fire pumps shall be maintained in accordance with this section, the applicable NFPA 20 standard, NFPA 25, and the applicable building code.

913.2 Protection against interruption of service. The fire pump, driver, and controller shall be maintained in accordance with the applicable building code against possible interruption of service through damage caused by explosion, fire, flood, earthquake, rodents, insects, windstorm, freezing, vandalism, and other adverse conditions.

913.2.1 Protection of fire pump rooms. Rooms where fire pumps are separated from all other areas of the building by a fire-rated assembly in accordance with the applicable building code shall be maintained in accordance with Chapter 7.

2. Delete Section 913.2.2.

3. Change Sections 913.3 and 913.4 to read:

913.3 Temperature of pump room. Suitable means shall be provided for maintaining the temperature of a pump room or pump house above 40°F (5°C).

913.4 Valve supervision. Where provided, the fire pump suction, discharge and bypass valves, and isolation valves on the backflow prevention device or assembly shall be maintained as supervised in accordance with the applicable building code. Where a fire alarm system is provided, a supervisory signal shall also be transmitted to the control unit.

Exception: Valves locked in the normal position and inspected as permitted in the applicable building code in buildings not equipped with a fire alarm system.

4. Delete Section 913.5.1.

M. Delete Section 914.

N. The following changes shall be made to Section 915, Carbon Monoxide Detection:

1. Change Section 915.1 to read:

915.1 General. Where provided, carbon monoxide detection shall be installed in accordance with the applicable building code.

2. Delete Sections 915.1.1 through ~~915.5.3~~, 915.5.5.

O. The following changes shall be made to Section 916, Gas Detection Systems:

1. Change Section 916.1 to read:

916.1 Gas detection systems. Gas detection systems shall be maintained in accordance with the applicable building code and this section.

2. Delete Sections 916.2 and 916.2.1.

3. Change Sections 916.3 through 916.6 to read:

916.3 Equipment. Gas detection system equipment shall be operated and maintained in accordance with the applicable building code and manufacturer's instructions.

916.4 Power connections. Gas detection systems shall remain permanently connected to the building electrical power supply or, where approved by the applicable building code, cord connected to an unswitched receptacle using an approved restraining means that secures the plug to the receptacle.

916.5 Emergency and standby power. Standby or emergency power shall be maintained in accordance with Section 1203. Where required by the applicable building code, the gas detection system shall initiate a trouble signal at an approved location if the power supply is interrupted.

916.6 Sensor locations. Sensors shall remain in locations approved in accordance with the applicable building code where leaking gases are expected to accumulate.

4. Delete Section 916.7 and change Sections 916.9 ~~through~~ and 916.10 to read:

916.9 Signage. Signs shall be provided and maintained adjacent to gas detection system alarm signaling devices that advise occupants of the nature of the signals and actions to take in response to the signal.

916.10 Fire alarm system connections. Gas sensors and gas detection systems shall not be connected to fire alarm systems unless approved in accordance with the applicable building code and connected in accordance with the fire alarm equipment manufacturer's instructions.

P. The following change shall be made to Section 917, Mass notification systems:

1. Change Section 917.1 to read:

917.1 Mass notification. Where provided, mass notification systems shall be maintained in accordance with NFPA 72.

2. Delete Section 917.2.

**13VAC5-52-220. IFC Chapter 10 Means of Egress.**

Replace Chapter 10 with the following:

Section 1001 ADMINISTRATION

1001.1 General. Means of egress systems for buildings or portions thereof shall be maintained in accordance with the applicable building code and this chapter.

1001.2 Minimum requirements. It shall be unlawful to alter a building or structure in a manner that will reduce the number of exits or the capacity of the means of egress to less than required by this code.

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.

1001.3.1 Temporary occupant load determination. Where the fire code official determines that overcrowding may exist, the fire code official shall be permitted to utilize the egress component sizing requirements and occupant load allowances of the VCC to determine a temporary occupant load. Where such determination is made, the fire code official shall be permitted to require an approved temporary sign posting of the maximum allowable occupant load and such sign shall be maintained until the building official approves the allowable occupant load, at which time a permanent sign shall be posted, where applicable, or the temporary sign may be removed.

1001.4 Unauthorized use of emergency supplemental hardware. No person shall utilize any approved emergency supplemental hardware to prevent the ingress or egress from any occupied space.

Exceptions:

1. Utilized by authorized persons or other persons occupying such space in the event of any actual or perceived hostile threat or active shooter event.
2. Utilized in conjunction with any approved lockdown drill requiring the utilization of the approved emergency supplemental hardware.
3. Utilization for the testing, use, and training by emergency response personnel.

Where such device is utilized in accordance with Exceptions 1, 2, and 3, the hardware device shall be removed immediately following the conditions of such exceptions.

SECTION 1002 DEFINITIONS

1002.1 Definitions.

The following terms are defined in Chapter 2:

ACCESSIBLE MEANS OF EGRESS.

AISLE.

AISLE ACCESSWAY.

ALTERNATING TREAD DEVICE.

AREA OF REFUGE.

AUTOMATIC FLUSH BOLT.

BLEACHERS.

BREAKOUT.

CIRCULATION PATH.

COMMON PATH OF EGRESS TRAVEL.

CONSTANT LATCHING BOLT.

CORRIDOR.

DEAD BOLT.

DEFEND-IN-PLACE.

DOOR, BALANCED.

EGRESS COURT.

EMERGENCY ESCAPE AND RESCUE OPENING.

EXIT.

EXIT ACCESS.

EXIT ACCESS DOORWAY.

EXIT ACCESS RAMP.

EXIT ACCESS STAIRWAY.

EXIT DISCHARGE.

EXIT DISCHARGE, LEVEL OF.

EXIT PASSAGEWAY.

EXTERIOR EXIT RAMP.

EXTERIOR EXIT STAIRWAY.

FIRE EXIT HARDWARE.

FIXED SEATING.

FLIGHT.

FLOOR AREA, GROSS.

FLOOR AREA, NET.

FOLDING AND TELESCOPIC SEATING.

GRADE FLOOR EMERGENCY ESCAPE AND RESCUE OPENINGS.

GRANDSTAND.

GUARD.

HANDRAIL.

HORIZONTAL EXIT.

INTERIOR EXIT RAMP.

INTERIOR EXIT STAIRWAY.

LOW ENERGY POWER-OPERATED DOOR.

MANUAL BOLT.

MEANS OF EGRESS.

MERCHANDISE PAD.

NOSING.



OCCUPANT LOAD.

OPEN-AIR ASSEMBLY SEATING.

OPEN-ENDED CORRIDOR.

OVERHEAD DOORSTOP.

PANIC HARDWARE.

PHOTOLUMINESCENT.

POWER-ASSISTED DOOR.

POWER-OPERATED DOOR.

PUBLIC WAY.

RAMP.

SCISSOR STAIRWAY.

SELF-LUMINOUS.

SMOKE-PROTECTED ASSEMBLY SEATING.

STAIR.

STAIRWAY.

STAIRWAY, INTERIOR EXIT.

STAIRWAY, SPIRAL.

WINDER.

## SECTION 1003 GENERAL MEANS OF EGRESS

1003.1 Applicability. The general requirements specified in Sections 1003 through 1015 shall apply to the maintenance of the building.

1003.2 Ceiling height. The means of egress ceiling height shall be maintained in accordance with the applicable building code.

1003.3 Protruding objects. Protruding objects on circulation paths shall comply with the requirements of Sections 1003.3.1 through 1003.3.4.

1003.3.1 Headroom. Minimum headroom shall be maintained in accordance with the applicable building code.

1003.3.2 Post-mounted objects. Clearances for a freestanding object mounted on a post or pylon shall be maintained in accordance with the applicable building code.

1003.3.3 Horizontal projections. Limitations of projection of objects into a means of egress in accordance with the applicable building code shall be maintained and not reduce the means of egress.

1003.3.4 Clear width. Protruding objects shall not reduce the minimum clear width of accessible routes.

1003.4 Floor surface. Walking surfaces shall be maintained in accordance with the applicable building code. Slip and trip hazards in the means of egress shall be abated.

1003.5 Elevation change. Where changes in elevation in the means of egress exist, they shall be maintained in accordance with the applicable code.

1003.6 Means of egress continuity. Means of egress continuity shall be maintained in accordance with the applicable building code. Obstructions, except those permitted by the applicable building code, shall not reduce the minimum width or required capacity of means of egress components.

1003.7 Elevators, escalators and moving walks. Elevators, escalators, and moving walks that are an approved component of a required means of egress shall be maintained in accordance with the applicable building code.

#### SECTION 1004 OCCUPANT LOAD

1004.1 Design occupant load. The design occupant load shall be maintained in accordance with the applicable building code.

1004.4 Multiple occupancies. Where a building contains two or more occupancies, the means of egress requirements shall be maintained in accordance with the applicable building code.

1004.7 Outdoor areas. The means of egress for yards, patios, occupied roofs, courts, and similar accessible and usable outdoor areas shall be maintained in accordance with the applicable building code.

1004.9 Posting of occupant load. Every room or space that is an assembly occupancy and where the occupant load of that room or space is 50 or more shall have the occupant load of the room or space posted in a conspicuous place near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or the owner's authorized agent.

#### SECTION 1005 MEANS OF EGRESS SIZING

1005.1 General. All portions of the means of egress system shall be sized in accordance with the applicable building code.

1005.2 Minimum width based on component. The minimum width of any means of egress components shall be maintained in accordance with the applicable building code.

1005.3 Required capacity based on occupant load. The required capacity of the means of egress for any room, area, space, or story shall be maintained in accordance with the applicable building code.

1005.3.1 Stairways. The capacity in inches of means of egress stairways shall be maintained in accordance with the applicable building code.

1005.4 Continuity. The minimum width or required capacity of the means of egress required from any story of a building shall be maintained in accordance with the applicable building code.

1005.6 Egress convergence. Where the means of egress from stories above and below converge at an intermediate level, the capacity of the means of egress from the point of convergence shall be maintained in accordance with the applicable code.

1005.7 Encroachment. Encroachments into the required means of egress width shall be in accordance with the provisions of the applicable building code.

1005.7.1 Doors. Doors shall be maintained such that when fully opened, the open door shall not reduce the required width by more than what is permitted by the applicable building code. Door swing in any position shall not reduce the required width by more than one-half unless allowed by the applicable building code.

1005.7.2 Other projections. Other projections shall be maintained and shall be in accordance with the applicable building code.

## SECTION 1006 NUMBERS OF EXITS AND EXIT ACCESS DOORWAYS

1006.1 General. The number of exits or exit access doorways required within the means of egress system shall be maintained in accordance with the applicable building code.

1006.2 Egress from spaces. Egress from spaces shall be maintained in accordance with the applicable building code.

1006.2.1 Egress based on occupant load and common path of egress travel distance. The minimum number of exits or exit access doorways required by the applicable building code from any space shall be maintained.

1006.2.1.1 Three or more exits or exit access doorways. Where three or more exits or exit access doorways are required by the applicable building code, the number required shall be maintained.

1006.2.2 Egress based on use. The minimum number of exits or access to exits required by the applicable building code shall be maintained. Approved egress for boiler, incinerator, and furnace rooms, refrigeration machinery rooms, refrigerated rooms or spaces, Group I-4 day care, vehicular ramps, and Group R-3 or R-4 occupancies or spaces shall be maintained in accordance with the applicable building code.

1006.3 Egress from stories or ~~occupied~~ occupiable roofs. The means of egress system serving any story or ~~occupied~~ occupiable roof shall be maintained in accordance with the applicable building code.

1006.3.1 Adjacent Story. A path of travel, approved in accordance with the applicable building code, that passes through an adjacent story shall be maintained.

1006.3.2 Egress based on occupant load. Each story and roof of a building shall maintain the minimum number of separate and distinct exits required by the applicable building code.

1006.3.3 Single exits. A single exit or access to a single exit from any story or ~~occupied~~ occupiable roof approved in accordance with the applicable building code shall be maintained.

## SECTION 1007 EXIT AND EXIT ACCESS DOORWAY CONFIGURATION

1007.1 General. Exits, exit access doorways, and exit access stairways and ramps serving spaces, including individual building stories, shall be maintained in accordance with the applicable code.

## SECTION 1008 MEANS OF EGRESS ILLUMINATION

1008.1 Means of egress illumination. Illumination provided in the means of egress shall be maintained in accordance with the applicable code.

1008.2 Illumination required. Illumination provided for the means of egress serving a room or space shall be maintained in accordance with the applicable building code.

1008.2.1 Illumination level under normal power. The means of egress illumination level required by the applicable building code shall be maintained.

1008.2.3 Exit discharge. Illumination required by the applicable building code along the path of travel for the exit discharge from each exit to the public way shall be maintained.

~~1008.3 Emergency power~~ 1008.2.4 Power for illumination. The power supply for means of egress illumination shall be maintained in accordance with the applicable building code.

1008.3 Illumination required by an emergency electrical system. Emergency electrical systems required by the applicable building code to automatically illuminate the following areas in the event of a power supply failure, shall be maintained in accordance with the applicable building code:

1. In rooms or spaces that require two or more exits or access to exits:

1.1. Aisles.

1.2. Corridors.

1.3. Exit access stairways and ramps.

2. In buildings that require two or more exits or access to exits:

2.1. Interior exit access stairways and ramps.

2.2. Interior and exterior exit stairways and ramps.

2.3. Exit passageways.

2.4. Vestibules and areas on the level of discharge used for exit discharge in accordance with Section 1028.2.

2.5. Exterior landings as required by Section 1010.1.5 for exit doorways that lead directly to the exit discharge.

3. In other rooms and spaces:

3.1. Electrical equipment rooms.

3.2. Fire command centers.

3.3. Fire pump rooms.

3.4. Generator rooms.

3.5. Public restrooms with an area greater than 300 square feet (27.87 m2).

1008.3.5 Illumination level under emergency power. Emergency lighting facilities required and approved by the applicable building code shall be maintained.

SECTION 1009 ACCESSIBLE MEANS OF EGRESS

1009.1 Accessible means of egress required. Accessible means of egress shall be maintained in accordance with the applicable building code.

1009.2 Continuity and components. Continuity and components provided for accessible means of egress shall be maintained in accordance with the applicable building code.

1009.3 Stairways. Stairways part of an accessible means of egress shall be maintained in accordance with the applicable building code.

1009.4 Elevators. Elevators considered part of the means of egress shall be maintained in accordance with the applicable building code.

1009.5 Platform lifts. Platform lifts serving as a part of an accessible means of egress shall be maintained in accordance with the applicable building code.

1009.6 Areas of refuge. Areas of refuge shall be maintained in accordance with the applicable building code.

1009.7 Exterior areas for assisted rescue. Exterior areas for assisted rescue shall be maintained in accordance with the applicable building code.

1009.8 Two-way communication. Where provided, two-way communication systems shall be maintained in accordance with the applicable building code.

1009.8.2 Directions. Directions for the use of the two-way communication system, instructions for summoning assistance via the two-way communication system, and written identification of the location shall be posted adjacent to the two-way communication system. Signage shall comply with the ICC A117.1 requirements for visual characters.

1009.9 Signage. Signage indicating special accessibility provisions shall be provided as shown:

1. Each door providing access to an area of refuge from an adjacent floor area shall be identified by a sign stating: AREA OF REFUGE.
2. Each door providing access to an exterior area for assisted rescue shall be identified by a sign stating: EXTERIOR AREA FOR ASSISTED RESCUE.

Signage shall comply with the ICC A117.1 requirements for visual characters and include the International Symbol of Accessibility. Where exit sign illumination is required by Section 1013.3, the signs shall be illuminated. Additionally, visual characters, raised character, and Braille signage complying with ICC A117.1 shall be located at each door to an area of refuge and exterior area for assisted rescue in accordance with Section 1013.4.

1009.10 Directional signage. Directional signage indicating the location of all other means of egress and which of those are accessible means of egress shall be provided at the following:

1. At exits serving a required accessible space but not providing an approved accessible means of egress.
2. At elevator landings.
3. Within areas of refuge.

1009.11 Instructions. In areas of refuge and exterior areas for assisted rescue, instructions on the use of the area under emergency conditions shall be posted. Signage shall comply with the ICC A117.1 requirements for visual characters. The instructions shall include all of the following:

1. Persons able to use the exit stairway do so as soon as possible, unless they are assisting others.
2. Information on planned availability of assistance in the use of stairs or supervised operation of elevators and how to summon such assistance.
3. Directions for use of the two-way communication system where provided.

## SECTION 1010 DOORS, GATES AND TURNSTILES

1010.1 Doors. Doors serving a means of egress system shall be maintained in accordance with the applicable building code. Means of egress doors shall be readily distinguishable from the adjacent construction and finishes such that the doors are easily recognizable as doors. Mirrors or similar reflecting materials shall not be used on means of egress doors. Means of egress doors shall not be concealed by curtains, drapes, decorations, or similar materials.

~~1010.1.4.5 Security grilles. In Groups B, F, M, and S, horizontal sliding or vertical security grilles are permitted at the main exit and shall be openable from the inside without the use of a key or special knowledge or effort during periods that the space is occupied. The grilles shall remain secured in the full open position during the period of occupancy by the general public. Where two or more means~~

~~of egress are required, not more than one half of the exits or exit access doorways shall be equipped with horizontal sliding or vertical security grilles.~~

~~1010.1.5~~ 1010.1.4 Floor elevation. Floors or landings at doorways shall be maintained in accordance with the applicable building code.

~~1010.1.8~~ 1010.1.7 Door arrangement. Minimum space between doors in a series of doors shall be maintained as approved in accordance with the applicable code.

~~1010.1.9~~ 1010.2 Door operations. Locks and latches approved in accordance with the applicable building code shall be maintained. Except as specifically permitted by the applicable building code, egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

1010.2.1 Unlatching. Where the applicable building code requires that the unlatching of any door or leaf require no more than one operation, one operation shall be maintained.

~~1010.1.9.1~~ 1010.2.2 Hardware. Door handles, pulls, latches, locks, and other operating devices on doors required by the applicable building code to be accessible shall be maintained. Additions or alterations of hardware shall be approved by the building official in accordance with Section 102.6.

~~1010.1.9.3 Monitored or recorded egress. Electrical systems that monitor or record egress activity and impact the door operations shall be approved in accordance with the applicable building code and shall be maintained in accordance with this section.~~

1010.2.3 Bolt locks. Manually operated flush bolts or surface bolts approved in accordance with the applicable building code shall be maintained.

~~1010.1.9.4~~ 1010.2.4 Locks and latches. Where required, a readily visible durable sign is posted on the egress side on or adjacent to the door stating: "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED." The sign shall be in letters one inch (25 mm) high on a contrasting background. Emergency supplemental hardware provided in accordance with the applicable building code shall be provided with a readily visible durable sign posted on the egress side on or adjacent to the door stating: "THIS HARDWARE SHALL BE USED BY AUTHORIZED PERSONNEL ONLY." The sign shall be in letters one inch (25 mm) high on a contrasting background.

~~1010.1.9.5 Bolt locks. Manually operated flush bolts or surface bolts approved in accordance with the applicable building code shall be maintained.~~

~~1010.1.9.6 Unlatching. Where the applicable building code requires that the unlatching of any door or leaf require no more than one operation, one operation shall be maintained.~~

~~1010.1.9.6.1~~ 1010.2.5 Closet doors. Where closet doors that latch in the closed position are required by the applicable building code to be openable from the inside, they shall be maintained.

1010.2.6 Stairway doors. Interior stairway means of egress doors required by the applicable building code to be openable from both sides shall be maintained.

1010.2.8 Panic and fire exit hardware. Where the applicable building code requires panic or fire exit hardware on doors, it shall be maintained.

1010.2.9 Monitored or recorded egress, and access control systems. Electrical systems that monitor or record egress activity and impact the door operations, and doors that have an access control system shall be approved in accordance with the applicable building code and shall be maintained in accordance with this section.

1010.2.10 Door hardware release of electrically locked egress doors. Door hardware release of electric locking systems installed on doors in the means of egress shall be operated and maintained in accordance with the applicable code.

1010.2.11 Sensor release of electrically locked egress doors. The electric locks on sensor-released doors located in a means of egress shall be operated and maintained in accordance with the applicable building code.

1010.2.12 Delayed egress. Delayed egress locking systems shall be operated and maintained in accordance with the applicable building code.

~~1010.1.9.7~~ 1010.2.13 Controlled egress doors in Groups I-1 and I-2. Electric locking systems, including electromechanical locking systems and electromagnetic locking systems, shall be operated and maintained in accordance with the applicable building code.

~~1010.1.9.8 Delayed egress. Delayed egress locking systems shall be operated and maintained in accordance with the applicable building code.~~

~~1010.1.9.9 Sensor release of electrically locked egress doors. The electric locks on sensor-released doors located in a means of egress shall be operated and maintained in accordance with the applicable building code.~~

~~1010.1.9.10 Door hardware release of electrically locked egress doors. Door hardware release of electric locking systems installed on doors in the means of egress shall be operated and maintained in accordance with the applicable code.~~

~~1010.1.9.11~~ 1010.2.15 Locking arrangements in buildings within correctional facilities. In buildings within correctional and detention facilities, doors in means of egress serving rooms or spaces occupied by persons whose movements are controlled for security reasons shall be operated and maintained in accordance with the applicable building code.

~~1010.1.9.12 Stairway doors. Interior stairway means of egress doors required by the applicable building code to be openable from both sides shall be maintained.~~

~~1010.1.10 Panic and fire exit hardware. Where the applicable building code requires panic or fire exit hardware on doors, it shall be maintained.~~

1010.3.4 Security grilles. In Groups B, F, M, and S, horizontal sliding or vertical security grilles are permitted at the main exit and shall be openable from the inside without the use of a key or special



knowledge or effort during periods that the space is occupied. The grilles shall remain secured in the full-open position during the period of occupancy by the general public. Where two or more means of egress are required, not more than one-half of the exits or exit access doorways shall be equipped with horizontal sliding or vertical security grilles.

~~1010.2~~ 1010.4 Gates. Gates serving the means of egress system shall be operated and maintained in accordance with the applicable building code.

~~1010.3~~ 1010.5 Turnstiles. Turnstiles or similar devices shall be operated and maintained in accordance with the applicable building code.

~~1010.3.2~~ 1010.5.2 Security access turnstiles. Security access turnstiles that inhibit travel in the direction of egress shall only be maintained and only operated in accordance with the applicable building code.

## SECTION 1011 STAIRWAYS

1011.1 General. Stairways serving any portion of a building shall be maintained in accordance with the applicable building code.

1011.2 Width and capacity. The capacity of stairways shall be maintained in accordance with the applicable building code.

1011.3 Headroom. Headroom requirements for stairways shall be maintained in accordance with the applicable building code.

1011.4 Walkline. The walkline across winder treads shall be maintained in accordance with the applicable building code.

1011.5 Stair treads and risers. Stair treads and risers shall be maintained in accordance with the applicable building code.

~~1011.5.1~~ 1011.5.4 Dimensional uniformity. Stair tread and riser dimensions shall comply with the applicable building code and shall be maintained.

1011.6 Stairway landings. The floor or landing at the top and bottom of each stairway shall be maintained in accordance with the applicable building code.

1011.7 Stairway arrangement. Stairways shall be maintained in accordance with the applicable building code. Construction or alterations shall be approved by the building official in accordance with Section 102.6.

1011.7.3 Storage and enclosures under interior stairways. The usable spaces under enclosed and unenclosed stairways shall only be used for combustible storage where approved in accordance with the applicable building code.

1011.7.4 Storage and enclosures and storage under exterior stairways. The usable spaces under exterior stairways shall only be used for combustible storage where approved in accordance with the applicable building code.

1011.8 Vertical rise. Vertical rise of a flight of stairs shall be maintained in accordance with the applicable building code.

1011.9 Curved stairways. Curved stairways with winder treads shall be maintained in accordance with the applicable building code.

1011.10 Spiral stairways. Spiral stairways used as a component in the means of egress shall be maintained in accordance with the applicable building code.

1011.11 Handrails. Handrails for stairways shall be maintained in accordance with the applicable building code.

1011.12 Stairway to roof. Stairways to a roof shall be maintained in accordance with the applicable building code.

1011.12.1 Stairway to elevator equipment. Access to roofs and penthouses for maintenance of elevator equipment shall be maintained as approved in accordance with the applicable building code.

1011.12.2 Roof access. Where a stairway provides access to a roof through a penthouse, such access shall be maintained as approved and in accordance with the applicable building code.

1011.13 Guards. Guards shall be maintained in accordance with the applicable building code.

1011.14 Alternating tread devices. Alternating tread devices shall be maintained in accordance with the applicable building code.

1011.15 Ship's ladders. Ship's ladders shall be maintained in accordance with the applicable building code.

1011.16 Ladders. Permanent ladders shall be maintained as approved and in accordance with the applicable building code.

## SECTION 1012 RAMPS

1012.1 Scope. The provisions of this section shall apply to the maintenance of ramps used as a component of a means of egress.

1012.2 Slope. Ramp slopes shall be maintained in accordance with the applicable building code.

1012.3 Cross slope. The cross slope for ramps shall be maintained in accordance with the applicable building code.

1012.4 Vertical rise. The rise for any ramp run shall be maintained in accordance with the applicable building code.

1012.5 Minimum dimensions. The minimum dimensions of means of egress ramps shall be maintained as approved and in accordance with the applicable building code.

1012.6 Landings. Landings serving ramps shall be maintained in accordance with the applicable building code.

1012.7 Ramp construction. Ramps shall be maintained as approved in accordance with the applicable building code. Construction or alterations shall be approved by the building official in accordance with Section 102.6.

1012.8 Handrails. Handrails serving ramps shall be maintained in accordance with the applicable building code.

1012.9 Guards. Guards shall be maintained in accordance with the applicable building code.

1012.10 Edge protection. Edge protection shall be maintained in accordance with the applicable building code.

#### SECTION 1013 EXIT SIGNS

1013.1 Where required. Exits and exit access doors shall be maintained in accordance with the applicable building code.

1013.2 Floor-level exit signs in Group R-1. Floor-level exit signs in Group R-1 buildings shall be maintained in accordance with the applicable building code.

1013.3 Illumination. Exit sign illumination shall be maintained in accordance with the applicable building code.

1013.4 Raised character and Braille exit signs. Raised character and Braille exit signs shall be maintained in accordance with the applicable building code.

1013.5 Internally illuminated exit signs. Electrically powered, self-luminous, and photoluminescent exit signs shall be maintained in accordance with the applicable building code.

1013.6 Externally illuminated exit signs. Externally illuminated exit signs shall be maintained in accordance with the applicable building code.

#### SECTION 1014 HANDRAILS

1014.1 Where required. Handrails serving stairways, ramps, stepped aisles, and ramped aisles shall be maintained in accordance with the applicable building code.

1014.2 Height. Handrail height shall be maintained in accordance with the applicable building code.

1014.3 Lateral location. Handrails required by the applicable building code to be located outward from the edge of the walking surface of flights of stairways, ramps, stepped aisles and ramped aisles 6 inches (152.4 mm) or less measured horizontally from the edge of the walking surface, shall be

maintained in accordance with the applicable building code. Handrails projecting into the width of the walking surface shall comply with Section 1014.9.

1014.4 Handrail graspability. Handrail graspability shall be maintained in accordance with the applicable building code.

~~1014.4~~ 1014.5 Continuity. Handrail continuity shall be maintained in accordance with the applicable building code.

~~1014.7~~ 1014.8 Clearance. Clear space between a handrail and a wall or other surface shall be maintained in accordance with the applicable building code.

~~1014.8~~ 1014.9 Projections. Projections into the required width of aisles, stairways, and ramps at each side shall be maintained as approved and in accordance with the applicable building code.

~~1014.9~~ 1014.10 Intermediate handrails. Where provided, intermediate handrails shall be maintained in accordance with the applicable building code.

## SECTION 1015 GUARDS

1015.1 General. Guards shall be maintained in accordance with the applicable building code.

1015.3 Height. Guard height shall be maintained in accordance with the applicable building code.

1015.4 Opening limitations. Openings in guards shall be maintained in accordance with the applicable building code.

1015.5 Screen porches. Guards provided for screen porches shall be maintained in accordance with the applicable building code.

1015.6 Mechanical equipment, systems, and devices. Guards provided for mechanical equipment shall be maintained in accordance with the applicable building code.

1015.7 Roof access. Guards provided for roof access shall be maintained in accordance with the applicable building code.

1015.8 Window openings. Windows shall be maintained in accordance with the applicable building code.

1015.8.1 Window opening control devices. Window opening control devices shall be maintained as approved in accordance with the applicable building code.

## SECTION 1016 EXIT ACCESS

1016.1 General. The exit access shall be maintained in accordance with the applicable building code.

1016.2 Egress through intervening spaces. Egress through intervening spaces shall be maintained in accordance with the applicable building code.

1016.2.1 Multiple tenants. Where more than one tenant occupies any one floor of a building or structure, each tenant space, dwelling unit, and sleeping unit means of egress shall maintain access to the required exits without passing through adjacent tenant spaces, dwelling units, and sleeping units unless otherwise permitted by the applicable building code.

#### SECTION 1017 EXIT ACCESS TRAVEL DISTANCE

1017.1 General. Travel distance within the exit access portion of the means of egress system shall be maintained in accordance with the applicable building code.

#### SECTION 1018 AISLES

1018.1 General. Aisles and aisle accessways serving as a portion of the exit access in the means of egress system shall be maintained in accordance with the applicable building code.

1018.2 Aisles in assembly spaces. Aisles and aisle accessways serving a room or space used for assembly purposes shall be maintained in accordance with the applicable building code.

1018.3 Aisles in Groups B and M. In Groups B and M occupancies, the aisle width shall be maintained in accordance with the applicable building code.

1018.4 Aisle accessways in Group M. Aisle accessways in Group M shall be maintained in accordance with the applicable building code.

1018.5 Aisles in other than assembly spaces and Groups B and M. Aisles in other than assembly spaces and Groups B and M shall be maintained in accordance with the applicable building code.

#### SECTION 1019 EXIT ACCESS STAIRWAYS AND RAMPS

1019.1 General. Exit access stairways and ramps serving as an exit access component in a means of egress system shall be maintained in accordance with the applicable building code.

#### SECTION 1020 CORRIDORS

1020.1 Maintenance. Corridors shall be maintained as approved in accordance with the applicable building code. Fire-resistance rated construction shall be maintained in accordance with Chapter 7.

~~1020.1.1~~ 1020.2.1 Hoistway openings. Elevator hoistway openings shall be maintained as approved in accordance with the applicable building code.

1020.2 1020.3 Width and capacity. The width and capacity of corridors shall be maintained in accordance with the applicable building code.

~~1020.3~~ 1020.4 Obstruction. The minimum width or required capacity of corridors shall be unobstructed.

Exception: Encroachments complying with Section 1005.7.

~~1020.4~~ 1020.5 Dead ends. Where more than one exit or exit access doorway is required by the applicable building code, the exit access, including any dead end conditions, shall be maintained as approved in accordance with the applicable building code.

~~1020.5.1~~ 1020.6.1 Corridor ceiling. When the space between the corridor ceiling and the floor or roof structure above is used as a return air plenum, the space and any contents shall be maintained as approved in accordance with the applicable building code.

~~1020.6~~ 1020.7 Corridor continuity. The continuity of fire-resistance-rated corridors shall be maintained in accordance with the applicable building code.

## SECTION 1021 EGRESS BALCONIES

1021.1 General. Balconies used for egress purposes shall be maintained in accordance with the applicable building code.

1021.2 Wall separation. Wall separation for egress balconies shall be maintained in accordance with the applicable building code.

1021.3 Openness. The required openness of egress balconies shall be maintained as approved in accordance with the applicable building code.

1021.4 Location. The fire separation distance for exterior egress balconies shall be maintained in accordance with the applicable building code.

## SECTION 1022 EXITS

1022.1 General. An exit shall not be used for any purpose that interferes with its function as a means of egress. Once a given level of exit protection is achieved, such level of protection shall not be reduced until arrival at the exit discharge. Exits shall be continuous from the point of entry into the exit to the exit discharge. Exits shall be maintained in accordance with the applicable building code.

1022.2 Exterior exit doors. Exterior exit doors shall be maintained in accordance with the applicable building code.

## SECTION 1023 INTERIOR EXIT STAIRWAYS AND RAMPS

1023.1 General. Interior exit stairways and ramps serving as an exit component in a means of egress system shall be maintained in accordance with the applicable building code.

1023.2 Maintenance. Enclosures for interior exit stairways and ramps shall be maintained as approved in accordance with the applicable building code. Fire-resistance-rated construction shall be maintained in accordance with Chapter 7.

1023.3 Termination. Interior exit stairways and ramps shall terminate as approved in accordance with the applicable building code.

1023.3.1 Connections. Where interior exit stairways and ramps connect to an exit discharge or a public way by an exit passageway, the interior exit stairway and ramp shall be maintained as

approved in accordance with the applicable building code. Fire-resistance-rated construction shall be maintained in accordance with Chapter 7.

1023.4 Openings. Interior exit stairway and ramp opening protectives shall be maintained in accordance with the applicable building code.

1023.5 Penetrations. Penetrations into or through interior exit stairways shall be maintained as approved in accordance with the applicable building code. Fire-resistance-rated construction shall be maintained in accordance with Chapter 7.

1023.6 Ventilation. Equipment and ductwork for interior exit stairway and ramp ventilation shall be maintained as approved and remain operational in accordance with the applicable building code.

1023.7 Interior exit stairway and ramp exterior walls. Exterior walls of the interior exit stairway or ramp shall be maintained in accordance with the applicable building code.

1023.8 ~~Discharge identification.~~ Barriers at level of exit discharge. Where the applicable building code requires a barrier to prevent persons from unintentionally continuing into levels below the level of exit discharge for an interior exit stairway or ramp, the barrier shall be maintained as approved in accordance with the applicable building code. Directional exit signs shall be maintained in accordance with the applicable building code.

1023.9 Stairway identification signs. A sign shall be provided at each floor landing in an interior exit stairway and ramp connecting more than three stories designating the floor level, the terminus of the top and bottom of the interior exit stairway and ramp, and the identification of the stairway or ramp. The signage shall state the story of and the direction to the exit discharge and the availability of roof access from the interior exit stairway and ramp for the fire department. The sign shall be located five feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. In addition to the stairway identification sign, a floor-level sign in visual characters, raised characters and Braille complying with ICC A117.1 shall be located at each floor-level landing adjacent to the door leading from the interior exit stairway and ramp into the corridor to identify the floor level.

1023.9.1 Signage requirements. Stairway identification signs shall comply with all of the following requirements:

1. The signs shall be a minimum size of 18 inches (457 mm) by 12 inches (305 mm).
2. The letters designating the identification of the interior exit stairway and ramp shall be not less than 1-1/2 inches (38 mm) in height.
3. The number designating the floor level shall be not less than of five inches (127 mm) in height and located in the center of the sign.
4. Other lettering and numbers shall be not less than one inch (25 mm) in height.

5. Characters and their background shall have a nonglare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

1023.10 Elevator lobby identification signs. At landings in interior exit stairways where two or more doors lead to the floor level, any door with direct access to an enclosed elevator lobby shall be identified by signage located on the door or directly adjacent to the door stating "Elevator Lobby." Signage shall be in accordance with Section 1023.9.1, Items 4 and 5.

~~1023.11~~ 1023.12 Smokeproof enclosures. Smokeproof enclosures shall be maintained in accordance with the applicable building code.

~~1023.11.2~~ 1023.12.2 Enclosure access. Access to the stairway or ramp within a smokeproof enclosure shall be maintained as approved in accordance with the applicable building code.

~~1023.12~~ 1023.13 Standpipes. Standpipe and standpipe hose connections in smokeproof enclosures shall be maintained in accordance with Chapter 9.

## SECTION 1024 EXIT PASSAGEWAYS

1024.1 Exit passageways. Exit passageways serving as an exit component in a means of egress system shall be maintained in accordance with the applicable building code.

1024.2 Width. The minimum width or required capacity of exit passageways shall be maintained in accordance with the applicable building code.

1024.3 Maintenance. Exit passageway enclosures shall be maintained as approved in accordance with the applicable building code. Fire-resistance-rated construction shall be maintained in accordance with Chapter 7.

1024.4 Termination. The termination of exit passageways shall be maintained as approved in accordance with the applicable building code.

1024.5 Openings. Exit passageway opening protectives shall be maintained in accordance with the applicable building code.

1024.6 Penetrations. Penetration protection shall be maintained in accordance with the applicable building code.

1024.7 Ventilation. Equipment and ductwork for exit passageway ventilation shall be maintained in accordance with the applicable building code.

## SECTION 1025 LUMINOUS EGRESS PATH MARKINGS

1025.1 General. Luminous egress path markings shall be maintained in accordance with the applicable building code.



1025.2 Markings within exit components. Egress path markings provided in interior exit stairways, interior exit ramps, and exit passageways shall be maintained in accordance with the applicable building code.

1025.2.5 Obstacles. Where the applicable building code requires luminous egress path markings of obstacles projecting into the egress path, the markings shall be maintained as approved in accordance with the applicable building code.

1025.2.6 Doors within the exit path. Luminous egress path markings of doors through which occupants must pass in order to complete the exit path shall be maintained as approved in accordance with the applicable building code.

1025.4 Self-luminous and photoluminescent. Self-luminous and photoluminescent egress path markings shall be maintained in accordance with the applicable building code.

1025.5 Illumination. Photoluminescent exit path markings shall be maintained in accordance with the applicable building code.

## SECTION 1026 HORIZONTAL EXITS

1026.1 Horizontal exits. Horizontal exits serving as an exit in a means of egress system shall be maintained in accordance with the applicable building code.

1026.2 Separation. The separation between buildings or refuge areas connected by a horizontal exit shall be maintained in accordance with the applicable building code.

1026.3 Opening protectives. Fire doors in horizontal exits shall be maintained in accordance with the applicable building code.

1026.4 Refuge area. Where provided, the refuge area of a horizontal exit shall be maintained in accordance with the applicable building code.

## SECTION 1027 EXTERIOR EXIT STAIRWAYS AND RAMPS

1027.1 Exterior exit stairways and ramps. Exterior exit stairways and ramps serving as an element of a required means of egress shall be maintained in accordance with the applicable building code.

1027.2 Use in a means of egress. Exterior exit stairways and ramps approved as an element of a required means of egress in accordance with the applicable building code shall be maintained.

1027.3 Open side. Required open side area for exterior exit stairways and ramps serving as an element of a required means of egress shall be maintained as approved in accordance with the applicable building code.

1027.4 Side yards. The open areas adjoining exterior exit stairways or ramps required by the applicable building code to be yards, courts, or public ways shall be maintained as approved in accordance with the applicable building code.

1027.5 Location. The minimum fire separation distance from the exterior edge of the stairway or ramps, including landings for exterior exit stairways and ramps, shall be maintained as approved in accordance with the applicable building code.

1027.6 Exterior exit stairway and ramp protection. Separation or fire-resistance-rated protection of exterior exit stairways and ramps from the interior of the building shall be maintained as approved in accordance with the applicable building code.

## SECTION 1028 EXIT DISCHARGE

1028.1 General. The exit discharge shall be maintained in accordance with the applicable building code.

~~1028.2~~ 1028.3 Exit discharge width or capacity. The minimum width or required capacity of the exit discharge shall be maintained in accordance with the applicable building code.

~~1028.3~~ 1028.4 Exit discharge components. Exit discharge components shall be maintained in accordance with the applicable building code.

~~1028.4~~ Egress courts. Egress courts serving as a portion of the exit discharge in the means of egress system shall be maintained in accordance with the applicable building code.

~~1028.4.1~~ Width or capacity. The required capacity of egress courts shall be maintained in accordance with the applicable building code.

~~1028.4.2~~ Egress court protection. Separation or fire-resistance-rated construction required by the applicable building code for an egress court serving a building or portion thereof shall be maintained as approved in accordance with the applicable building code.

1028.5 Access to a public way. Where provided, access to a public way shall be maintained in accordance with the applicable building code.

Exception: Where access to a public way cannot be provided, a safe dispersal area shall be provided where all of the following are met:

1. The area shall be of a size to accommodate not less than five square feet (0.46 m<sup>2</sup>) for each person.
2. The area shall be located on the same lot not less than 50 feet (15,240 mm) away from the building requiring egress.
3. The area shall be permanently maintained and identified as a safe dispersal area.
4. The area shall be provided with a safe and unobstructed path of travel from the building.

## SECTION 1029 EGRESS COURTS

1029.1 General. Egress courts serving as an exit discharge component in the means of egress system shall be maintained in accordance with the applicable building code.

1029.2 Width or capacity. The required capacity of egress courts shall be maintained in accordance with the applicable building code.

1029.3 Egress court protection. Separation or fire-resistance-rated construction required by the applicable building code for an egress court serving a building or portion thereof shall be maintained as approved in accordance with the applicable building code.

## SECTION 1030 ASSEMBLY

1030.1 General. The means of egress serving a room or space used for assembly purposes that contains seats, tables, displays, equipment, or other material shall be maintained in accordance with the applicable building code.

1030.1.1 Bleachers. Bleachers, grandstands, and folding and telescopic seating shall be maintained in accordance with the applicable building code.

1030.1.1.1 Spaces under grandstands and bleachers. Fire-resistance-rated construction for spaces under grandstands and bleachers shall be maintained in accordance with Chapter 7.

1030.2 Assembly main exit. The assembly main exit shall be maintained in accordance with the applicable building code.

1030.3 Assembly other exits. Other assembly exits shall be maintained in accordance with the applicable building code.

1030.4 Foyers and lobbies. In Group A-1 occupancies, where persons are admitted to the building at times when seats are not available, such persons shall be allowed to wait in a lobby or similar space, provided such lobby or similar space shall not encroach upon the minimum width or required capacity of the means of egress. Such foyer, if not directly connected to a public street by all the main entrances or exits, shall be maintained with a straight and unobstructed path of travel to every such main entrance or exit in accordance with the applicable building code.

1030.5 Interior balcony and gallery means of egress. Interior balcony and gallery means of egress shall be maintained in accordance with the applicable building code.

1030.6 Capacity of aisle for assembly. The required capacity of aisles shall be maintained in accordance with the applicable building code.

1030.7 Travel distance. The exit access travel distance shall be maintained as approved in accordance with the applicable building code.

1030.8 Common path of egress travel. The common path of egress travel shall be maintained as approved in accordance with the applicable building code.

1030.8.1 Path through adjacent row. Paths through adjacent rows shall be maintained as approved in accordance with the applicable building code.

1030.9 Assembly aisles are required. Aisles leading to exits for every occupied portion of any building, room, or space used for assembly purposes that contains seats, tables, displays, similar fixtures, or equipment shall be maintained as approved in accordance with the applicable building code.

1030.9.1 Minimum aisle width. The minimum clear width for aisles shall be maintained in accordance with the applicable building code.

1030.9.2 Aisle catchment area. Aisle capacity and catchment areas shall be maintained as approved in accordance with the applicable building code.

1030.9.3 Converging aisles. Where aisles converge to form a single path of egress travel, the required capacity of that path shall be maintained to not less than that approved in accordance with the applicable building code.

1030.9.4 Uniform width and capacity. Where required by the applicable building code for aisles where egress is possible in either of two directions, uniform width and required capacity shall be maintained.

1030.9.5 Dead-end aisles. Dead-end aisles shall be maintained as approved by the applicable building code. Each end of an aisle shall remain unobstructed to a cross aisle, foyer, doorway, vomitory, concourse, or stairway having access to an exit where required by the applicable building code.

1030.9.6 Aisle measurement. The clear width for aisles shall be measured in accordance with the applicable building code.

1030.10 Transitions. Transitions between stairways and stepped aisles shall be maintained in accordance with the applicable building code.

1030.10.3 Transition marking. Distinctive marking stripes at each nosing or leading edge adjacent to the transition shall be maintained as approved in accordance with the applicable building code.

1030.12.1 Walking surface. The surface of aisles, stepped aisles, and ramped aisles required by the applicable building code to be of slip-resistant materials that are securely attached shall be maintained.

1030.12.2 Outdoor conditions. Outdoor aisles, stepped aisles, and ramped aisles and outdoor approaches to aisles, stepped aisles, and ramped aisles required by the applicable building code to be designed to prevent the accumulation of water shall be maintained as approved so that water will not accumulate on the walking surface. Outdoor aisles, stepped aisles, and ramped aisles and outdoor approaches to aisles, stepped aisles, and ramped aisles not regulated by the USBC shall be maintained so that water will not accumulate on the walking surface.

1030.13 Aisle accessways. Aisle accessways for seating at tables and seating in rows shall be maintained as approved in accordance with the applicable building code.

1030.14 Assembly aisle walking surfaces. Ramped and stepped aisles shall be maintained in accordance with the applicable building code.

1030.15 Seat stability. Where the applicable building code requires seats to be securely fastened to the floor or in groups, in a building, room, or space used for assembly purposes, seats shall be arranged and maintained as approved in accordance with the applicable building code.

1030.16 Handrails. Handrails serving ramped aisles shall be maintained in accordance with the applicable building code.

1030.17 Assembly guards. Guards required by the applicable building code adjacent to seating in a building, room, or space used for assembly purposes shall be maintained as approved in accordance with the applicable building code.

1030.17.1 Perimeter guards. Perimeter guards shall be maintained in accordance with the applicable building code.

## SECTION 1031 EMERGENCY ESCAPE AND RESCUE

1031.1 General. Emergency escape and rescue openings of a building, including those in Groups R-2, R-3, R-4, and R-5 occupancies, shall be maintained in accordance with the applicable building code.

1031.2 Minimum size. Emergency escape and rescue openings shall be maintained to provide the minimum net clear opening area, height, and width in accordance with the applicable building code when normally operated.

1031.3 Maximum height from floor. Emergency escape and rescue opening height from the floor as measured in accordance with the applicable building code shall be maintained.

1031.4 Window wells. An emergency escape and rescue opening and associated window well shall be maintained in accordance with the applicable building code. Emergency escape and rescue openings shall remain able to be fully opened. Ladders or steps shall not be obstructed by the emergency escape and rescue opening or other objects.

1031.5 Bars, grilles, covers, and screens. Bars, grilles, covers, screens, or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures, or window wells that serve such openings, provided that the minimum net clear opening size complies with the applicable building code and 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 emergency escape and rescue opening.

## SECTION 1032 MAINTENANCE OF THE MEANS OF EGRESS

1032.1 General. The means of egress for buildings or portions thereof shall be maintained in accordance with this section.

1032.2 Reliability. Unless otherwise permitted by the applicable building code, required exit accesses, exits, and exit discharges shall be continuously maintained free from obstructions or impediments to

full instant use in the case of fire or other emergency where the building area served by the means of egress is occupied. An exit or exit passageway shall not be used for any purpose that interferes with a means of egress.

1032.2.1 Security devices and egress locks. Security devices and locking arrangements in the means of egress that restrict, control, or delay egress shall be maintained as required by this chapter.

1032.2.2 Locking arrangements in educational ~~occupancies~~ and public buildings. In Group E occupancies, except Group E day care facilities and Group B educational occupancies, and public buildings, exit access doors from classrooms, offices, and other occupied rooms, except for exit doors and doors across corridors, shall be permitted to be provided with emergency supplemental hardware where all of the following conditions are met:

1. The door shall be capable of being opened from outside the room with a key, proprietary device provided by the manufacturer, or other approved means.
2. The door shall be openable from within the room in accordance with Section 1010.1.9, except emergency supplemental hardware is not required to comply with Chapter 11 of the VCC.

Note: School officials and building owners should consult with their legal counsel regarding provisions of the Americans with Disabilities Act of 1990 (42 USC § 12101 et seq.) and any other applicable requirements.

3. Installation of emergency supplemental hardware on fire door assemblies must comply with Section 716.2 of the VCC. Modifications shall not be made to listed panic hardware, fire door hardware, or door closures.
4. The emergency supplemental hardware shall not be capable of being used on other doors not intended to be used and shall have at least one component that requires modification to or is permanently affixed to the surrounding wall, floor, door, or frame assembly construction for it to properly function.
5. Employees shall engage in lockdown training procedures on how to deploy and remove the emergency supplemental hardware, and its use shall be incorporated in the approved lockdown plan complying with the SFPC.
6. The emergency supplemental hardware and its components shall be maintained in accordance with the SFPC.
7. Approved emergency supplemental hardware shall be of consistent type throughout a building.

Exception: The building official may approve alternate types of emergency supplemental hardware in accordance with Section 106.3 of the VCC when a consistent device cannot be installed.

1032.3 Obstructions. A means of egress shall be free from obstructions that would prevent its use, including the accumulation of snow and ice.

1032.3.1 Group I-2. In Group I-2, the required clear width for aisles, corridors, and ramps that are part of the required means of egress shall comply with Section 1020.2. The facility shall have a plan to maintain the required clear width during emergency situations.

Exception: In areas required for bed movement, equipment shall be permitted in the required width where all of the following provisions are met:

1. The equipment is low hazard and wheeled.
2. The equipment does not reduce the effective clear width for the means of egress to less than five feet (1525 mm).
3. The equipment is limited to:
  - 3.1. Equipment and carts in use.
  - 3.2. Medical emergency equipment.
  - 3.3. Infection control carts.
  - 3.4. Patient lift and transportation equipment.
4. Medical emergency equipment and patient lift and transportation equipment, when not in use, are required to be located on one side of the corridor.
5. The equipment is limited in number to not more than one per patient sleeping room or patient care room within each smoke compartment.

1032.4 Exit signs. Exit signs shall be maintained in accordance with Sections 1013 and 1203 and the applicable building code. Decorations, furnishings, equipment, or adjacent signage that impairs the visibility of exit signs, creates confusion, or prevents identification of the exit shall not be allowed.

1032.5 Nonexit identification. Where a door is adjacent to, constructed similar to, and can be confused with a means of egress door, that door shall be identified with an approved sign that identifies the room name or use of the room.

1032.6 Finishes, furnishings, and decorations. Means of egress doors shall be maintained in such a manner as to be distinguishable from the adjacent construction and finishes such that the doors are easily recognizable as doors. Furnishings, decorations, or other objects shall not be placed so as to obstruct exits, access thereto, egress therefrom, or visibility thereof. Hangings and draperies shall not be placed over exit doors or otherwise be located to conceal or obstruct an exit. Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of exit.

1032.7 Emergency escape and rescue openings. Required emergency escape and rescue openings shall be maintained in accordance with the code that was in effect at the time of construction and both of the following:

1. Required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.
2. Bars, grilles, grates, or similar devices are allowed to be placed over emergency escape and rescue openings provided that the minimum net clear opening size complies with the code that was in effect at the time of construction, and 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 emergency escape and rescue opening.

1032.8 Inspection, testing and maintenance. Two-way communication systems for areas of refuge shall be inspected and tested on a yearly basis to verify that all components are operational. Where required, the tests shall be conducted in the presence of the fire code official. Records of inspection, testing and maintenance shall be maintained.

1032.9 Floor identification signs. The floor identification signs shall be maintained in accordance with Section 1023.9 and the applicable building code.

Ø 1032.10 Emergency lighting equipment inspection and testing. Emergency lighting shall be maintained in accordance with ~~Section 108~~ the applicable building code, and shall be inspected and tested in accordance with Sections 1031.10.1 and 1031.10.2.

1032.10.1 Activation test. Emergency lighting equipment shall be tested monthly for a duration of not less than 30 seconds. The test shall be performed manually or by an automated self-testing and self-diagnostic routine. Where testing is performed by self-testing and self-diagnostics, a visual inspection of the emergency lighting equipment shall be conducted monthly to identify any equipment displaying a trouble indicator or that has become damaged or otherwise impaired.

1032.10.2 Power test. Battery-powered emergency lighting equipment shall be tested annually by operating the equipment on battery power for not less than 90 minutes.

1032.11 Emergency supplemental hardware. Emergency supplemental hardware shall be installed in accordance with the applicable building code and shall be maintained in accordance with this code, the conditions of its approval, and the manufacturer's instructions. The fire code official shall be authorized to revoke the use and storage of emergency supplemental hardware within a building for due cause based on failure to comply with requirements in this code or the applicable building code. Revocations shall be rescinded upon achieving compliance with this code and the applicable building code.

1032.12 Area of refuge. Areas of refuge shall be maintained in accordance with Sections 1009.6 and 1031.8 and the applicable building code. Designated areas shall be free of obstructions at all times and any required signs, instructions, or equipment shall be maintained.



1032.13 Door opening force. The force for pushing or pulling open interior swinging egress doors, other than fire doors, shall not exceed the maximum force permitted by the applicable building code. These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position.

1032.14 Fire escapes. Fire escapes, including any associated security enclosures, fences or screening for fire escape stairways shall be approved by the building official in accordance with the applicable building code.

1032.14.1 Maintenance. Fire escape stairways and balconies shall be kept clear and unobstructed at all times and shall be maintained in good working order.

### **13VAC5-52-230. IFC Chapter 11 Construction Requirements for Existing Buildings.**

Delete Chapter 11 in its entirety.

### **13VAC5-52-240. IFC Chapter 12 Energy Systems.**

A. Make the following changes to Section 1201, General.

Change Sections 1201.1, 1201.2, and 1201.3 to read:

1201.1 Scope. The provisions of this chapter shall apply to the operation and maintenance of energy systems used for generating or storing energy. It shall not apply to equipment associated with the generation, control, transformation, transmission, or distribution of energy installations that is under the exclusive control of an electric utility or lawfully designated agency.

1201.2 Electrical wiring and equipment. Electrical wiring and equipment used in connection with energy systems shall be maintained in accordance with this chapter, Section 603, and the applicable building code.

1201.3 Mixed Systems. The aggregate nameplate kWh energy of all energy storage systems in a fire area shall not exceed the maximum quantity specified for any of the energy systems in the applicable building code and approved by the building official. Where required by the fire code official, a hazard mitigation analysis shall be provided and approved in accordance with Section 106.3 to evaluate any potential adverse interaction between the various energy systems and technologies.

B. Make the following changes to Section 1203, Emergency and Standby Power Systems.

1. Change Sections 1203.1 and 1203.1.1 to read:

1203.1 General. Emergency power systems and standby power systems shall comply with Sections 1203.1.1 through 1203.1.9.

1203.1.1 Generators. Emergency and standby power generators shall be listed.

2. Change Sections 1203.1.2 and 1203.1.3 to read:

1203.1.2 Fuel line piping protection. Fuel lines supplying a generator set inside a high-rise building shall be maintained in accordance with the applicable building code. Fire resistance ratings shall be maintained in accordance with Chapter 7.

1203.1.3 Installation. Emergency power systems and standby power systems shall be approved in accordance with the applicable building code.

3. Change Section 1203.1.4 to read:

1203.1.4 Load transfer. Emergency power systems shall automatically provide secondary power within 10 seconds after primary power is lost unless specified otherwise by the applicable building code. Standby power systems shall automatically provide secondary power within 60 seconds after primary power is lost unless specified otherwise by the applicable building code.

4. Change Section 1203.1.5 to read:

1203.1.5 Load duration. Emergency power systems and standby power systems shall be maintained to provide the required power for the minimum duration specified in the applicable building code without being refueled or recharged.

5. Change Section 1203.1.6 to read:

1203.1.6 Uninterruptable power source. An uninterrupted source of power shall be provided for equipment where required by the manufacturer's instructions, the listing, the applicable building code, or the applicable referenced standards.

6. Change Section 1203.1.7 to read:

1203.1.7 Interchangeability. Emergency power systems shall be an acceptable alternative for installations that require standby power systems when permitted by the applicable building code.

7. Delete Section 1203.1.8.

8. Change Section 1203.1.9 to read:

1203.1.9 Maintenance. Existing installations shall be maintained in accordance with the original approval and Section 1203.4.

9. Change Section 1203.2 to read:

1203.2 Specific equipment requirements. Emergency and standby power systems shall be maintained in accordance with Sections 1203.2.1 through 1203.2.18.

10. Change Section 1203.2.2 to read:

1203.2.2 Elevators and platform lifts. Standby power shall be maintained for elevators and platform lifts as required in Sections 604.3 and 1009.5.

11. Change Section 1203.2.3 to read:

1203.2.3 Emergency responder radio coverage systems. Standby power shall be maintained for emergency responder radio coverage systems in accordance with Section 510 and the applicable building code. Where specified in the applicable building code, the standby power supply shall be capable of operating the emergency responder radio coverage system at 100% system operation capacity for the duration specified in the applicable building code.

12. Change Section 1203.2.4 to read:

1203.2.4 Emergency voice or alarm communication systems. Emergency power shall be maintained for emergency voice or alarm communication systems as required by the applicable building code. The system shall be capable of powering the required load for a duration of not less than 24 hours, as required in NFPA 72.

13. Change Sections 1203.2.5 and 1203.2.6 to read:

1203.2.5 Exhaust ventilation. Where standby power for mechanical exhaust ventilation systems is provided or required by the applicable building code, the standby power shall be maintained.

1203.2.6 Exit signs. Emergency power for exit signs shall be capable of powering the required load for a duration of not less than 90 minutes unless otherwise specified by the applicable building code.

14. Change Section 1203.2.7 to read:

1203.2.7 Gas detection systems. Emergency power and standby power shall be maintained for gas detection systems in accordance with the applicable building code.

15. Change Section 1203.2.8 to read:

1203.2.8 Group I-2 occupancies. Essential electrical systems required by the applicable building code for Group I-2 occupancies shall be maintained in accordance with NFPA 70.

16. Change Section 1203.2.9 to read:

1203.2.9 Group I-3 occupancies. Where power-operated sliding doors or power-operated locks for swinging doors in Group I-3 occupancies are operable by a manual release mechanism at the door, and emergency power provided or required by the applicable building code, they shall be maintained.

17. Change Section 1203.2.10 to read:

1203.2.10 Hazardous materials. Emergency and standby power shall be maintained in accordance with NFPA 70 in occupancies with hazardous materials when required by the applicable building code.

18. Change Section 1203.2.11 to read:

1203.2.11 High-rise buildings. Standby power and emergency power shall be maintained for high-rise buildings in accordance with Section 1203 and the applicable building code.

19. Change Section 1203.2.12 to read:

1203.2.12 Horizontal sliding doors. Standby power shall be maintained in accordance with NFPA 70 for horizontal sliding doors as required by the applicable building code. The standby power supply shall have a capacity to operate not fewer than 50 closing cycles of the door unless otherwise specified by the applicable building code.

20. Change Section 1203.2.13 to read:

1203.2.13 Hydrogen fuel gas rooms. Standby power shall be maintained in accordance with NFPA 70 for hydrogen fuel gas rooms as required by the applicable building code.

21. Change Section 1203.2.14 to read:

1203.2.14 Laboratory suites. Standby or emergency power shall be maintained for laboratory suites in accordance with Section 1203 and the applicable building code.

22. Change Section 1203.2.15 to read:

1203.2.15 Means of egress illumination. Emergency power shall be maintained for means of egress illumination in accordance with the applicable building code.

23. Change Section 1203.2.16 to read:

1203.2.16 Membrane structures. Standby power shall be maintained for auxiliary inflation systems in permanent membrane structures in accordance with the applicable building code. Auxiliary inflation systems shall be provided in temporary air-supported and air-inflated membrane structures in accordance with Section 3103.10.4.

24. Change Section 1203.2.17 to read:

1203.2.17 Semiconductor fabrication facilities. Emergency power shall be maintained in accordance with NFPA 70 for semiconductor fabrication facilities as required by the applicable building code.

25. Change Section 1203.2.18 to read:

1203.2.18 Smoke control systems. Standby power shall be maintained in accordance with NFPA 70 for smoke control as required by the applicable building code.

26. Change Section 1203.2.19 to read:

1203.2.19 Underground buildings. Emergency and standby power shall be maintained in accordance with NFPA 70 in underground buildings as required by the applicable building code.

27. Change Section 1203.3 to read:

1203.3 Critical circuits. Cables used for survivability of required critical circuits shall be listed. Electrical circuit protective systems shall be maintained in accordance with their listing requirements.

28. Change Section 1203.4 to read:

1203.4 Maintenance. Emergency and standby power systems shall be maintained in accordance with NFPA 70, NFPA 110, and NFPA 111 so that the system is capable of supplying service within the time specified for the type and duration required in accordance with the applicable building code.

29. Change Section 1203.5 to read:

1203.5 Operational inspection and testing. Emergency power systems, including all appurtenant components, shall be inspected and tested under load in accordance with NFPA 70, NFPA 110, and NFPA 111.

Exception: Where the emergency power system is used for standby power or peak load shaving, such use shall be recorded and shall be allowed to be substituted for scheduled testing of the generator set, provided that appropriate records are maintained.

30. Add Section 1203.7 to read:

1203.7 Testing of battery powered emergency lights and exit signs. Required emergency lighting utilizing battery powered emergency lights, 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.

C. Make the following changes to Section 1205, Solar Photovoltaic Power Systems.

1. Change Section 1205.1 to read:

1205.1 General. Solar photovoltaic power systems shall be maintained in accordance with Sections ~~1204.2~~ 1205.2 through ~~1204.5~~ 1205.5 and the applicable building code.

2. Change Section 1205.2 to read:

1205.2 Access and pathways. Roof access, pathways, and spacing requirements shall be maintained in accordance with the applicable building code. Pathways shall remain capable of supporting the loads required by the applicable building code. Pathways shall be maintained unobstructed and free from vent pipes, conduit, or mechanical equipment unless otherwise approved in accordance with the applicable building code.

3. Delete Section 1205.3.3 and change Section 1205.2.1 to read:

1205.2.1 Roof access points. Roof access points shall be maintained in areas that do not require placement of ground ladders over openings, such as windows or doors and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.

4. ~~Change~~ Delete Section 1205.5.1 and change Section 1205.5 to read:

1205.5 Ground-mounted photovoltaic arrays. A clear, brush-free area of 10 feet (3048 mm) shall be maintained for ground-mounted photovoltaic arrays.

D. Make the following changes to Section 1206, Stationary Fuel Cell Power Systems.

1. Change Section 1206.1 to read:

1206.1 General. Stationary fuel cell power systems shall be maintained in accordance with this section and the applicable building code.

2. Delete Sections 1206.2 and 1206.3.

3. Change Section 1206.4 to read:

1206.4 Maintenance. Installation of stationary fuel cell power systems shall be approved by the building official and shall be maintained in accordance with the applicable building code, NFPA 70, and NFPA 853, the manufacturer's instructions, and the listing. Stationary fuel cell power systems fueled by hydrogen shall be maintained in accordance with the applicable building code, NFPA 2, and NFPA 70, the manufacturer's installation instructions, and the listing.

4. Delete Sections 1206.6.1, 1206.6.2, and ~~1206.13.1~~ 1206.6.3.1 and change Sections 1206.5, 1206.6, 1206.6.3 and 1206.8 through ~~1206.13~~ 1206.12 to read:

1206.5 Residential use. Stationary fuel cell power systems shall not be operated in Group R-3, R-4, and R-5 buildings or dwelling units associated with Group R-2 buildings unless they are specifically listed for residential use and approved in accordance with the applicable building code.

1206.6 Indoor installations. Stationary fuel cell power systems operated in indoor locations shall be specifically listed and labeled for indoor use and comply with the applicable building code. For purposes of this section, an indoor location includes a roof and 50% or greater enclosing walls.

1206.6.3 Gas detection systems. Gas detection systems for stationary fuel cell power systems shall be maintained in accordance with Chapter 9 and the applicable building code.

1206.8 Outdoor installation. Separation required by the applicable building code for outdoor stationary fuel cell power systems shall be maintained from the following:

1. Lot lines.
2. Public ways.
3. Buildings.
4. Stored combustible materials.
5. Hazardous materials.
6. High-piled stock.
7. Any portion of a designated means of egress system.

8. Other exposure hazards.

1206.9 Fuel supply. The fuel supply for stationary fuel cell power systems shall be maintained in accordance with Chapter 53, Chapter 58, and the applicable building code and based on the particular fuel being supplied to the system.

1206.10 Manual shutoff. Access to manual shutoff valves shall not be obstructed. Manual shutoff valves shall be maintained in accordance with the applicable building code.

1206.11 Ventilation and exhaust. Ventilation and exhaust for stationary fuel cell power systems shall be operated and maintained in accordance with NFPA 853 and the applicable building code.

1206.12 Fire suppression. Fire suppression for stationary fuel cell power systems shall be maintained in accordance with Chapter 9 and NFPA 853.

~~1206.13 Gas detection systems. Gas detection systems for stationary fuel cell power systems shall be maintained in accordance with Chapter 9 and the applicable building code.~~

E. Make the following changes to Section 1207, Electrical Energy Storage Systems.

1. ~~Change~~ Delete Section 1207.1.2 and 1207.1.5.1, and change Sections 1207.1.2, 1207.1.3, and 1207.1.4 1207.1.4, 1207.1.5, and 1207.1.6 to read:

~~1207.1.2~~ 1207.1.4 Permits. Permits shall be required as set forth in Section 107.2.

~~1207.1.3~~ 1207.1.5 Documents. At the minimum, the following information shall be provided with the operational permit application:

1. Location and layout diagram of the room or area in which the energy storage system (ESS) is located.
2. Details on the hourly fire-resistance ratings of assemblies enclosing the ESS.
3. The quantities and types of ESS.
4. Manufacturer's specifications, ratings, and listings of each ESS.
5. Description of energy (battery) management systems and their operation.
6. Location and content of required signage.
7. Details on fire suppression, smoke or fire detection, thermal management, ventilation, exhaust, and deflagration venting systems, if provided.
8. Support arrangement, including any required seismic restraint.
9. A decommissioning plan in accordance with Section 1207.2.3.

~~1207.1.4~~ 1207.1.6 Hazard mitigation analysis. As part of the operational permit application, a failure modes and effects analysis (FMEA) or other hazard mitigation analysis approved in accordance with

the applicable building code shall be provided to the fire official under any of the following conditions:

1. Where ESS technologies not specifically in Table ~~1207.1.1~~ 1207.1.3 are provided.
2. More than one ESS technology is provided in a room or enclosed area where there is a potential for adverse interaction between technologies.
3. Where allowed as a basis for increasing maximum allowable quantities in accordance with the applicable building code.

The FMEA shall be prepared by a qualified engineer, specialist, laboratory, or fire safety specialty organization acceptable to the fire code official and shall analyze the fire safety properties of the design, operation, or use of the building or premises and the facilities and appurtenances situated thereon to recommend necessary changes. The fire code official is authorized to require that the FMEA be prepared by and bear the stamp of a registered design professional.

2. Delete Sections ~~1207.1.4.1~~ 1207.1.6.1 and ~~1207.1.4.2~~ 1207.1.6.2.
3. Change Sections ~~1207.1.4.3~~, ~~1207.1.5~~, 1207.1.6.3, 1207.1.7, and 1207.2.1 (exceptions remain) to read:

~~1207.1.4.3~~ 1207.1.6.3 Additional protection measures. Equipment and systems that are required for the ESS to comply with the hazardous mitigation analysis shall be maintained in accordance with the applicable building code.

~~1207.1.5~~ 1207.1.7 Large-scale fire test. ESS approved by the building official based on large-scale fire testing conducted or witnessed and reported by an approved testing laboratory in accordance with the applicable building code shall be maintained such that a fire involving one ESS will not propagate to an adjacent ESS, and where installed within buildings, enclosed areas, and walk-in units will be contained within the room, enclosed area, or walk-in unit for a duration equal to the fire-resistance rating of the room separation specified in the applicable building code.

1207.2.1 Commissioning. Prior to operational permit issuance, newly installed ESS and existing ESS that have been retrofitted, replaced, or previously decommissioned and are returning to service shall be commissioned in accordance with the applicable building code. The fire official shall be provided, upon request, with documentation of personnel who are qualified to service, maintain, and decommission the ESS and respond to incidents involving the ESS, including documentation that such service has been contracted for.

~~Exception: Commissioning shall not be required for lead-acid and nickel-cadmium battery systems at facilities under the exclusive control of communications utilities that comply with NFPA 76 and operate at less than 50 volts alternating current (VAC) and 60 volts direct current (VDC). A decommissioning plan shall be provided and maintained where required by the fire code official.~~

4. Delete Section 1207.2.1.1.



5. Change Sections 1207.2.1.2, 1207.2.3, 1207.3.3, 1207.3.4, 1207.3.5, and 1207.3.6 to read:

1207.2.1.2 Commissioning report. A report describing the results of the system commissioning, including the results of the initial acceptance testing required by the applicable building code, shall be provided to the fire code official, upon request. A copy of the report shall be maintained at an approved on-site location.

1207.2.3 Decommissioning. Decommissioning shall be performed in accordance with the decommissioning plan approved in accordance with the applicable building code. The fire code official shall also be notified by the ESS owner prior to the decommissioning of an ESS.

1207.3.3 Utility interactive systems. When required by the applicable building code, inverters shall be listed and labeled in accordance with UL 1741. Only inverters listed and labeled for utility interactive system use and identified as interactive shall be allowed to operate in parallel with the electric utility power system to supply power to common loads.

1207.3.4 Energy storage management system. Approved energy storage management systems required by the ESS listing that monitor and balance cell voltages, currents, and temperatures within the manufacturer's specifications shall be maintained. The system shall disconnect electrical connections to the ESS or otherwise place it in a safe condition if potentially hazardous temperatures or other conditions, such as short circuits, over voltage, or under voltage are detected.

1207.3.5 Enclosures. Enclosures of ESS shall be maintained in accordance with the applicable building code.

1207.3.6 Repairs or Alterations. Repairs or alterations of ESS shall only be done by qualified personnel. Repairs and alterations shall be in accordance with the applicable building code. Repairs shall be documented in the service records log.

6. Delete Sections 1207.3.7, 1207.3.7.1, 1207.3.8, and 1207.3.9.

7. Change Sections 1207.4, 1207.4.2, and 1207.4.3 to read:

1207.4 General maintenance requirements. Stationary and mobile ESS shall comply with the requirements of Sections 1207.4.1 through 1207.4.12.

1207.4.2 Working clearances. Access and working space shall be maintained about all electrical equipment to permit ready and safe operation and maintenance of such equipment in accordance with the applicable NFPA 70 and the manufacturer's instructions.

1207.4.3 Fire-resistance-rated separations. Fire-resistance-rated separations for rooms and other indoor areas containing ESS shall be maintained in accordance with the applicable building code and Chapter 7.

8. Delete Section 1207.4.4.

9. Change Sections 1207.4.7, 1207.4.10, and 1207.4.11 to read:

1207.4.7 Toxic and highly toxic gases. Hazardous exhaust systems for ESS that have the potential to release toxic and highly toxic gas during charging, discharging, and normal use conditions shall be operated and maintained.

1207.4.10 Occupied work centers. Cabinets containing electrochemical ESS located in rooms or areas occupied by personnel not directly involved with maintenance, service, and testing of the systems shall be secured and provided with signage complying with Section 1207.4.8.

1207.4.11 Open rack installations. Where electrochemical ESS are located in a separate equipment room and only authorized personnel have access to the room, electrochemical ESS shall be permitted to be located on an open rack for ease of maintenance.

10. Delete Table 1207.5 Maximum Allowable Quantities of Electrochemical ESS.

11. Change Sections 1207.5, 1207.5.1, 1207.5.2, 1207.5.2.1, 1207.5.3 (Items 1 and 2 remain), 1207.5.4, 1207.5.4.1, 1207.5.5, 1207.5.5.1, 1207.5.6, and 1207.5.8 to read:

1207.5 Electrochemical ESS protection. The protection of electrochemical ESS shall be maintained in accordance with Sections 1207.5.1 through 1207.5.8.

1207.5.1 Size and separation. The configuration and size of electrochemical ESS groups approved in accordance with the applicable building code shall be maintained in accordance with the applicable building code. The separation between different electrochemical ESS groups and between electrochemical ESS and walls in the storage room or area shall be maintained in accordance with the applicable building code.

1207.5.2 Maximum allowable quantities. Fire areas within rooms, areas, and walk-in units containing electrochemical ESS shall not exceed the maximum allowable quantities in the applicable building code.

1207.5.2.1 Mixed electrochemical energy systems. Where rooms, areas, and walk-in units contain different types of electrochemical energy technologies, the total aggregate quantities of the systems shall not exceed those allowed by the applicable building code.

1207.5.3 Elevation. Unless otherwise approved in accordance with the applicable building code, electrochemical ESS shall not be located in the following areas:

1207.5.4 Fire detection. Where required or provided in accordance with the applicable building code, approved automatic smoke detection systems or radiant energy-sensing fire detection systems installed in rooms, indoor areas, and walk-in units containing electrochemical ESS, shall be maintained in accordance with Chapter 9 and the applicable building code. Where required or provided in accordance with the applicable building code, approved radiant energy-sensing fire detection systems installed to protect open parking garage and rooftop, installations shall be maintained in accordance with Chapter 9 and the applicable building code. Where required or provided in accordance with the applicable building code, signals from detection systems shall

continue to be transmitted to a central station, proprietary, or remote station service in accordance with NFPA 72 or, where approved, to a constantly attended location.

1207.5.4.1 System status. Where required or provided in accordance with the applicable building code, visible annunciation provided on cabinet exteriors or in other approved locations to indicate that potentially hazardous conditions associated with the ESS exist shall be maintained in accordance with the applicable building code.

1207.5.5 Fire suppression systems. Automatic fire suppression systems required by the applicable building code for rooms and areas within buildings and walk-in units containing electrochemical ESS shall be maintained in accordance with Chapter 9 and the applicable building code.

1207.5.5.1 Water-reactive systems. Alternative automatic fire-extinguishing systems approved in accordance with the applicable building code, based on large-scale fire testing for the protection of electrochemical ESS that utilize water-reactive materials shall be maintained in accordance with the applicable building code.

1207.5.6 Maximum enclosure size. Unless otherwise approved in accordance with the applicable building code, outdoor walk-in units housing ESS shall not exceed 53 feet by 8.0 feet by 9.5 feet high (16,154 mm × 2438 mm × 2896 mm), not including bolt-on HVAC and related equipment. Outdoor walk-in units exceeding these limitations shall be considered indoor installations and comply with the requirements in Section 1207.7.

1207.5.8 Means of egress separation. ESS located outdoors and in open parking garages shall continue to be separated from any means of egress in accordance with the applicable building code to ensure safe egress under fire conditions.

12. Delete Table 1207.6 Electrochemical ESS Technology-Specific Requirements.

13. Change Sections 1207.6, 1207.6.1, 1207.6.1.1, 1207.6.1.2, and 1207.6.1.2.1 to read:

1207.6 Electrochemical ESS technology-specific protection. Electrochemical ESS installations shall be maintained in accordance with this section and the applicable building code.

1207.6.1 Exhaust ventilation. Where required or provided in accordance with the applicable building code, exhaust ventilation of rooms, areas, and walk-in units containing electrochemical ESS shall be maintained in accordance with the applicable building code.

1207.6.1.1 Ventilation based on LFL. Where required or provided in accordance with the applicable building code, exhaust ventilation systems designed to limit the maximum concentration of flammable gas to 25% of the lower flammable limit (LFL) of the total volume of the room, area, or walk-in unit during the worst-case event of simultaneous charging of batteries at the maximum charge rate shall be maintained in accordance with the applicable building code.

1207.6.1.2 Ventilation based on exhaust rate. Continuous mechanical exhaust ventilation, or activated by a gas detection system required by the applicable building code to be provided at a rate

of not less than one ft<sup>3</sup>/min/ft<sup>2</sup> (5.1 L/sec/m<sup>2</sup>) of floor area of the room, area, or walk-in unit shall be maintained in accordance with the applicable building code.

1207.6.1.2.1 Standby power. Where standby power is required by the applicable building code for exhaust ventilation, the standby power shall be maintained in accordance with the applicable building code.

14. Delete Section 1207.6.1.2.2.

15. Change Sections 1207.6.1.2.3, 1207.6.1.2.4, and 1207.6.2 to read:

1207.6.1.2.3 Supervision. Where mechanical exhaust ventilation systems are required by the applicable building code to be supervised by an approved central station, proprietary, or remote station service in accordance with the applicable NFPA 72, the system shall continue to be supervised. Or, the system shall initiate an audible and visible signal at an approved constantly attended onsite location in accordance with the applicable building code.

1207.6.1.2.4 Gas detection system. Continuous gas detection systems required by the applicable building code for rooms, areas, and walk-in units containing ESS shall be maintained in accordance with the applicable building code.

1207.6.2 Spill control and neutralization. Spill control and neutralization required by the applicable building code for areas containing free-flowing liquid electrolyte or hazardous materials shall be maintained in accordance with the applicable building code.

16. Delete Sections 1207.6.2.1 and 1207.6.2.2.

17. Change Sections 1207.6.3, 1207.6.4, and 1207.6.5 to read:

1207.6.3 Explosion control. Explosion control shall be maintained in accordance with Chapter 9 and the applicable building code.

1207.6.4 Safety caps. Flame-arresting safety caps for vented batteries provided or required in accordance with the applicable building code, shall be maintained.

1207.6.5 Thermal runaway. Where the applicable building code requires batteries and other ESS to be provided with a listed device or other approved method to prevent, detect, and minimize the impact of thermal runaway, such listed devices or approved methods shall be maintained in accordance with the applicable building code.

18. Delete Table 1207.7 Indoor ESS Installations.

19. Change Sections 1207.7, 1207.7.1, 1207.7.2, 1207.7.3, and 1207.7.4 to read:

1207.7 Indoor installations. Indoor ESS installations shall be maintained in accordance with the applicable building code.

1207.7.1 Dedicated-use buildings. Buildings classified as Group F-1 occupancies and approved as dedicated-use ESS buildings in accordance with the applicable building code shall only be used and occupied as approved.

1207.7.2 Nondedicated-use buildings. Buildings that contain ESS and were approved as nondedicated-use buildings in accordance with the applicable building code shall be used or occupied as approved.

1207.7.3 Dwelling units and sleeping units. Unless otherwise approved in accordance with the applicable building code, ESS shall not be allowed in sleeping units or in habitable spaces of dwelling units.

1207.7.4 Fire-resistance-rated separations. Fire-resistance-rated separations for rooms and areas containing ESS, required by the applicable building code, shall be maintained in accordance with the applicable building code.

20. Delete Table 1207.8 Outdoor ESS Installations.

21. Change Sections 1207.8, 1207.8.1, 1207.8.2, 1207.8.3 (Items 1 through 7 remain), and 1207.8.4 to read:

1207.8 Outdoor installations. Outdoor installations shall be maintained in accordance with the applicable building code.

1207.8.1 Remote outdoor installations. For the purpose of Section 1207.8, ESS located more than 100 feet (30,480 mm) from buildings, lot lines, public ways, stored combustible materials, hazardous materials, high-piled stock, and other exposure shall be considered remote outdoor installations.

1207.8.2 Installations near exposures. For the purpose of Section 1207.8, all outdoor ESS installations that do not meet the criteria set forth by Section 1207.8.1, shall be considered installations near exposures.

1207.8.3 Clearance to exposures. Where the applicable building code requires a minimum of 10 feet (3,048 mm) separation between ESS located outdoors and the following exposures, the separation shall be maintained in accordance with the applicable building code.

1207.8.4 Exterior wall installations. Where the applicable building code allows ESS to be installed outdoors on exterior walls of buildings, the exterior walls shall be maintained in accordance with the applicable building code.

22. Delete Table 1207.9 Special ESS Installations.

23. Change Sections 1207.9, 1207.9.1, 1207.9.2, 1207.9.3 (Items 1 through 8 remain), 1207.9.4, 1207.9.5, and 1207.9.6 to read:

1207.9 Special installations. Rooftop and open parking garage ESS installations shall be maintained in accordance with the applicable building code.

1207.9.1 Rooftop installations. For the purpose of Section 1207.9, rooftop ESS installations are those located on the roofs of buildings.

1207.9.2 Open parking garage installations. For the purpose of Section 1207.9, open parking garage ESS installations are those located in a structure or portion of a structure that complies with the Open Parking Garage provisions set forth by the applicable building code.

1207.9.3 Clearance to exposures. Where the applicable building code requires a minimum of 10 feet (3048 mm) separation between ESS located on rooftops or in open parking garages and the following exposures, the separation shall be maintained in accordance with the applicable building code.

1207.9.4 Fire suppression systems. Automatic fire suppression systems required by the applicable building code for the following, shall be maintained in accordance with Chapter 9 and the applicable building code:

1. Automatic fire suppression systems, installed within the ESS enclosure, for ESS located in walk-in units on rooftops.
2. Automatic fire suppression systems, installed within the ESS enclosure, for ESS located in walk-in units in open parking garages.
3. Automatic fire suppression systems in areas containing ESS other than walk-in units in open parking structures on levels not open above to the sky.

1207.9.5 Rooftop installations. The following features required by the applicable building code for ESS and associated equipment that are located on rooftops and not enclosed by building construction shall be maintained in accordance with the applicable building code.

1. Stairway access to the roof for emergency response and fire department personnel provided either through a bulkhead from the interior of the building or a stairway on the exterior of the building.
2. Service walkways provided for service and emergency personnel from the point of access to the roof to the system.
3. Distance required by the applicable building code between ESS and associated equipment and the edge of the roof.
4. The roofing materials under and within the horizontal distance specified by the applicable building code from an ESS or associated equipment.
5. Class I standpipe outlets installed at an approved location on the roof level of the building or in the stairway bulkhead at the top level.
6. The ESS separation from the fire service access point on the rooftop.

1207.9.6 Open parking garages. ESS and associated equipment that are located in open parking garages shall be maintained in accordance with the applicable building code.

24. Delete footnotes "b", "c", "d", and "e" from Table 1207.10 Mobile Energy Storage Systems (ESS).

25. Change Sections 1207.10.3, 1207.10.4, 1207.10.4.1 (Items 1 through 10 remain), and 1207.10.5 to read:

1207.10.3 Permits. Permits shall be required as set forth in Section 107.2.

1207.10.4 Documents. Documents complying with Section ~~1207.1.3~~ 1207.1.5 shall be provided with the operational permit application for mobile ESS charging and storage locations.

1207.10.4.1 Deployment documents. At the minimum, the following information shall be provided with the operational permit applications for mobile ESS deployments:

1207.10.5 Approved locations. Locations where mobile ESS are charged, stored, and deployed shall be restricted to the locations approved in accordance with the applicable building code and identified on the operational permits.

26. Change Exceptions 1 and 2 of Section 1207.10.6 to read:

Exceptions:

1. Electrical connections permitted by the applicable building code to be made using temporary wiring complying with the manufacturer's instructions, the UL 9540 listing, and NFPA 70 shall be maintained in accordance with the applicable building code.
2. Fire suppression system connections to the water supply permitted by the applicable building code to use approved temporary connections, shall be maintained in accordance with the applicable building code.

27. Change Sections 1207.10.7.2, 1207.10.7.3, 1207.10.7.4, 1207.10.7.5, and 1207.10.7.6 to read:

1207.10.7.2 Restricted locations. Unless otherwise approved in accordance with the applicable building code, mobile ESS operations shall not be located indoors, in covered parking garages, on rooftops, below grade, or under building overhangs.

1207.10.7.3 Clearance to exposures. Where the applicable building code requires a minimum of 10 feet (3048 mm) separation between deployed mobile ESS and the following exposures, the separation shall be maintained in accordance with the applicable building code.

1. Public ways.
2. Buildings.
3. Stored combustible materials.
4. Hazardous materials.
5. High-piled storage.
6. Other exposure hazards.

Where the applicable building code requires deployed mobile ESS to be separated by a minimum of 50 feet (15,240 mm) from public seating areas and from tents, canopies, and membrane structures with an occupant load of 30 or more, the separation shall be maintained.

1207.10.7.4 Electrical connections. Electrical connections shall be maintained in accordance with the manufacturer's instructions, the UL 9540 listing, and the applicable building code. Temporary wiring for electrical power connections shall comply with NFPA 70. Unless otherwise allowed by the applicable building code, fixed electrical wiring shall not be provided.

1207.10.7.5 Local staging. Mobile ESS in transit from the charging and storage location to the deployment location and back shall not be parked within 100 feet (30,480 mm) of an occupied building for more than one hour during transit, unless specifically approved by the fire code official when the operational permit is issued.

1207.10.7.6 Fencing. Fences with locked gates or other approved barriers required or provided in accordance with the applicable building code to keep the general public at least five feet (1524 mm) from the outer enclosure of a deployed mobile ESS shall be maintained in accordance with the applicable building code.

28. Change Sections 1207.11, 1207.11.1, 1207.11.2, 1207.11.2.1, 1207.11.3, 1207.11.4 (Items 1 through 4 remain), 1207.11.5, 1207.11.6, 1207.11.7, 1207.11.8, ~~1207.11.9~~, and ~~1207.11.10~~ 1207.11.9 to read:

1207.11 ESS in Group R-3 and R-4 occupancies. ESS in Group R-3 and R-4 occupancies shall be maintained in accordance with Sections 1207.11.1 through 1207.11.9. The temporary use of an owner's or occupant's electric-powered vehicle as an ESS shall be in accordance with Section ~~1207.11.10~~. 1207.11.9.

1207.11.1 Equipment listings. ESS shall be listed and labeled in accordance with UL 9540. Unless otherwise approved in accordance with the applicable building code, ESS listed and labeled solely for utility or commercial use shall not be used for residential applications.

1207.11.2 Maintenance. ESS shall be maintained in accordance with the manufacturer's instructions, their listing, and the applicable building code.

1207.11.2.1 Spacing. Where individual units are required by the applicable building code to be separated from each other by at least three feet (914 mm) of spacing unless smaller separation distances are documented to be adequate based on large-scale fire testing, the separation shall be maintained in accordance with the applicable building code.

1207.11.3 Location. Unless otherwise approved in accordance with the applicable building code, ESS shall be located only in the following locations:

1. Detached garages and detached accessory structures.
2. Attached garages separated from the dwelling unit living space and sleeping units in accordance with Section 406.3.2 of the Virginia Construction Code.



3. Outdoors on exterior walls located a minimum of three feet (914 mm) from doors and windows.

4. Utility closets and storage or utility spaces within dwelling units and sleeping units.

1207.11.4 Energy ratings. Unless otherwise approved in accordance with the applicable building code, individual ESS units shall have a maximum rating of 20 kWh. The aggregate rating structure shall not exceed:

1207.11.5 Inverters. Where required by the applicable building code, inverters shall be listed and labeled in accordance with UL 1741 or provided as part of the UL 9540 listing. Systems connected to the utility grid shall use inverters listed for utility interaction in accordance with the applicable building code.

1207.11.6 Fire detection. Smoke alarms required by the applicable building code for rooms and areas within dwellings units, sleeping units, and attached garages in which ESS are installed shall be maintained in accordance with Chapter 9 and the applicable building code. Where smoke alarms cannot be installed based on their listing, heat detectors listed and interconnected to the smoke alarms installed in accordance with the applicable building code within dwelling units, sleeping units, and attached garages shall be maintained in accordance with Chapter 9 and the applicable building code.

1207.11.7 Protection from impact. ~~Stationary storage battery systems installed in a location subject to vehicle damage shall be protected by approved barriers. Appliances in garages installed in accordance with the applicable building code~~ Impact protection provided or required in accordance with the applicable building code for ESS installed in a location subject to vehicle damage, shall be maintained in accordance with the applicable building code.

1207.11.8 Ventilation. Exhaust ventilation installed in accordance with the applicable building code for indoor installations of ESS that include batteries that produce hydrogen or other flammable gases during charging shall be operated and maintained in accordance with the applicable building code.

~~1207.11.9 Toxic and highly toxic gas. Unless otherwise approved in accordance with the applicable building code, ESS that have the potential to release toxic or highly toxic gas during charging, discharging, and normal use conditions shall not be installed within Group R-3 or R-4 occupancies.~~

~~1207.11.10 Electric vehicle use. The temporary use of an owner's or occupant's electric-powered vehicle to power a dwelling unit or sleeping unit while parked in an attached or detached garage or outside shall comply with the vehicle manufacturer's instructions and the applicable NFPA 70.~~

29. Delete Sections 1207.11.7.1, 1207.11.7.2, and 1207.11.7.3.

#### **13VAC5-52-250. IFC Chapter 20 Aviation Facilities.**

A. The following change shall be made to Section 2001, General:

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.

B. The following changes shall be made to Section 2007, Helistops and Heliports:

1. Change Section 2007.1 to read:

2007.1 General. Helistops and heliports shall be maintained in accordance with Sections 2007.2 through 2007.8.

2. Change Section 2007.4 to read:

2007.4 Exits. Exits and stairways shall be maintained in accordance with Chapter 10 and the applicable building code.

3. Change Section 2007.5 to read:

2007.5 Standpipe systems. A building with a rooftop helistop or heliport provided with a Class I or Class III standpipe system shall be maintained in accordance with Chapter 9 and the applicable code.

4. Change Section 2007.6 to read:

2007.6 Foam protection. Where provided or required by the applicable building code, foam fire-protection capabilities shall be maintained for rooftop heliports. Such systems shall be maintained in accordance with the applicable provisions of Chapter 9 and the applicable building code.

**13VAC5-52-260. IFC Chapter 21 Dry Cleaning.**

A. The following change shall be made to Section 2101, General:

Change Section 2101.2 to read:

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

B. The following change shall be made to Section 2103, Classifications:

Change Section 2103.3 to read:

2103.3 Design. The occupancy classification, design, and construction of dry cleaning plants shall be maintained in accordance with the applicable building code.

C. The following changes shall be made to Section 2104, General Requirements:

1. Change Section 2104.2.1 to read:

2104.2.1 Ventilation. Ventilation shall be operated and maintained. Ventilation systems provided shall remain in accordance with the applicable building code.

2. Change Section 2104.2.3 to read as follows:

2104.2.3 Electrical wiring and equipment. Electrical wiring and equipment in dry cleaning rooms or other locations subject to flammable vapors shall be maintained in accordance with the applicable provisions of NFPA 70 and Chapter 6. Where provided, such systems and equipment shall comply with the applicable building code.

D. The following changes shall be made to Section 2105, Operating Requirements:

1. Change Section 2105.2.3 to read:

2105.2.3 Ventilation. Ventilation shall be operated and maintained. Ventilation systems provided shall remain in accordance with the applicable building code.

2. Change Section 2105.3 to read:

2105.3 Type IV and Type V systems. Type IV and Type V dry cleaning systems shall be maintained in accordance with the applicable building code.

E. The following change shall be made to Section 2106, Spotting and Pretreating:

Change Section 2106.3 to read as follows:

2106.3 Class II or Class III solvents. Scouring, brushing, and spotting and pretreating shall be permitted to be conducted with Class II or Class III solvents. The maximum quantity of Class II or Class III solvents permitted at any work station shall be one gallon (4 L). In other than Group H-2 occupancy, the aggregate quantities of solvents shall not exceed the maximum allowable quantity per control area for use-open system in accordance with the applicable building code.

F. The following changes shall be made to Section 2107, Dry Cleaning Systems:

1. Change Section 2107.1 to read as follows:

2107.1 General equipment requirements. Dry cleaning systems, including dry cleaning units, washing machines, stills, drying cabinets, tumblers, and their appurtenances, including pumps, piping, valves, filters, and solvent coolers, shall be maintained in accordance with NFPA 32.

2. Change Section 2107.2 to read:

2107.2 Type II systems. Unless otherwise approved by the applicable building code, Type II dry cleaning and solvent tank storage rooms shall not be operated below grade or above the lowest floor level of the building and shall be maintained in accordance with Sections 2107.2.1 through 2107.2.3.

Exception: Solvent storage tanks installed underground, in vaults, or in special enclosures in accordance with Chapter 57.

3. Change Sections 2107.2.1 and 2107.2.2 to read:

2107.2.1 Firefighting access. Where required by the applicable building code, access shall be maintained from one side of Type II dry cleaning rooms for firefighting and fire control purposes in accordance with Section 503.

2107.2.2 Number of means of egress. The number and means of egress for Type II dry cleaning rooms shall be maintained in accordance with the applicable building code.

4. Change Section 2107.2.3 to read as follows:

2107.2.3 Spill control and secondary containment. Curbs, drains, or other provisions for spill control and secondary containment shall be maintained in accordance with Section 5004.2 to collect solvent leakage and fire protection water as approved in accordance with the applicable building code.

5. Change Section 2107.3 to read as follows:

2107.3 Solvent storage tanks. Solvent storage tanks for Class II, Class IIIA, and Class IIIB liquids shall be maintained in accordance with Chapter 57 and as approved in accordance with the applicable building code.

Exception: As provided in applicable provisions of NFPA 32 for inside storage or treatment tanks.

G. The following changes shall be made to Section 2108, Fire Protection:

1. Change Section 2108.1 to read:

2108.1 General. Fire protection systems, devices, and equipment shall be inspected, tested, and maintained in accordance with Chapter 9.

2. Change Section 2108.2 to read:

2108.2 Automatic sprinkler system. Automatic sprinkler systems required or provided for dry cleaning plants containing Type II, Type III-A, or Type III-B dry cleaning systems shall be maintained in accordance with Chapter 9. Where special conditions were required by the applicable building code, in order to not install an automatic sprinkler system, those conditions shall be maintained.

3. Delete Section 2108.3.

**13VAC5-52-270. IFC Chapter 22 Combustible Dust-Producing Operations.**

A. 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.

B. Change Sections 2203.2 through 2203.2.1.3 to read:

2203.2 Dust-producing and dust-handling equipment. Dust-producing equipment and ~~dust-handling~~ dust-handling equipment, including vacuums, dust collection systems, dryers, mixers, blenders, separators, conveyors, storage containers, silos, or other similar devices listed in accordance with the applicable building code shall be maintained in accordance with the applicable building code.

2203.2.1 Signages and markings. Signages and markings shall be maintained in accordance with the applicable building code.

2203.2.1.1 Deflagration vent discharge area markings. Where dust collection systems and other equipment, systems, or system components are provided with deflagration vents, the area within the deflagration vent's discharge area shall continue to be marked in an approved manner in accordance with the applicable building code.

2203.2.1.2 Caution signs. Signs required by the applicable building code to read as follows and be posted near the dust-containing equipment with deflagration vents, shall be maintained:

CAUTION: THIS EQUIPMENT CAN CONTAIN EXPLOSIVE DUST.

KEEP OUTSIDE THE MARKED AREA WHILE EQUIPMENT IS OPERATING.

2203.2.1.3 Warning signs. Vent closure markings that read "WARNING: EXPLOSION RELIEF DEVICE. STAY CLEAR" required by the applicable building code where dust collection systems and other equipment, systems, or system components are provided with deflagration vents, shall be maintained.

C. Change Section 2203.3 to read:

2203.3 Dust-collection and dust-conveying systems. Dust-collection and dust-conveying systems shall be maintained in accordance with the applicable building code.

D. Delete Sections 2203.3.1 through 2203.3.2, including Table 2203.3.1.2, and change Section 2203.3.3 to read:

2203.3.3 Cleanouts. Openings in enclosed equipment and conveyors shall be maintained to allow access to all parts of the equipment and conveyors to permit inspection, cleaning, maintenance, and the effective use of portable fire extinguishers or hose streams.

E. Change Sections 2203.4, 2203.4.1, 2203.4.2 (Items 1 through 4 remain), and 2203.4.3.1 to read:

2203.4 Sources of ignition. Sources of ignition shall be controlled in accordance with this section and the applicable building code.

2203.4.1 Classified electrical. Classified electrical equipment shall be maintained in accordance with the applicable NFPA 70. Electrical motors and electrical components of the equipment shall not be operated in the dust-laden airstream unless listed for locations in accordance with the applicable building code.

2203.4.2 Static electricity. Bonding and grounding required by the applicable building code in the following locations to minimize accumulation of static electric charge shall be maintained.

2203.4.3.1 Signs. Conspicuous signs with the following warning, required by the applicable building code to be posted in the vicinity of combustible dust-producing areas or in the vicinity of combustible dust use, shall be maintained:

NO WELDING. THE USE OF WELDING OR CUTTING EQUIPMENT IN OR NEAR THIS AREA IS DANGEROUS BECAUSE OF FIRE AND EXPLOSION HAZARDS. WELDING AND CUTTING SHALL BE DONE ONLY UNDER THE SUPERVISION OF THE PERSON IN CHARGE.

F. Change Sections 2203.4.4 and 2203.4.7 to read:

2203.4.4 Hot surfaces and hot equipment. Unless otherwise required or allowed by the applicable building code, in areas where a dust explosion hazard or dust flash fire hazard exists, the temperature (in degrees Celsius) of external surfaces shall be maintained below 80% of the lower of the dust-surface ignition temperature or the dust-cloud ignition temperature for worst case dusts. External surfaces shall include:

1. Compressors.
2. Steam, water, or process piping.
3. Ducts.
4. Conveyors.
5. Process equipment.

Where steam pipes or hot surfaces occur in dust-producing or dust-handling areas, accumulation of dust on the surfaces shall be minimized by an approved method.

Exception: Drying apparatus listed for the intended use and installed in accordance with the manufacturer's instructions.

2203.4.7 Spark-producing devices. Portable spark-producing devices shall not be operated within 20 feet (6096 mm) of areas requiring classified electrical unless separated by a permanent partition or approved in accordance with the applicable building code. The clear distance required by the applicable building code between spark-producing devices and areas requiring classified electrical shall be maintained.

G. Change Sections 2203.4.9, 2203.4.9.1, 2203.4.9.3, and 2203.4.9.5 to read:

2203.4.9 Open flames and fuel-fired equipment. Open flames and fuel-fired equipment shall be in accordance with this section and the applicable building code.

2203.4.9.1 Release of airborne combustible dust. Unless otherwise required by the applicable building code, production, maintenance, or repair activities that have the potential to release or force combustible dust to become airborne shall not be conducted within 35 feet (11 m) of an open flame or pilot flame.

2203.4.9.3 Equipment listing. Fuel-fired process equipment listed for its intended use in accordance with the applicable building code shall be operated and maintained in accordance with the manufacturer's instructions and the applicable building code.

2203.4.9.5 Sources of combustion air. Sources of combustion air ducted directly from the building exterior or from an unclassified location for heating units located in Class II electrically classified locations shall be maintained in accordance with the applicable building code.

H. Delete Section 2204 in its entirety.

**13VAC5-52-280. IFC Chapter 23 Motor Fuel-Dispensing Facilities and Repair Garages.**

A. The following changes shall be made to Section 2301, General:

1. Change Section 2301.1 to read:

2301.1 Scope. The operation and maintenance of automotive motor fuel-dispensing facilities, marine motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities, aircraft motor-vehicle fuel-dispensing facilities, and repair garages shall be in accordance with this chapter. Such operations shall include both those that are accessible to the public and private operations.

2. Change Section 2301.2 to read:

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

3. Delete Section 2301.3.

4. Change Section 2301.4 to read:

2301.4 Indoor motor fuel-dispensing facilities. Motor fuel-dispensing facilities located inside buildings shall be maintained in accordance with NFPA 30A and the applicable building code.

5. Change Section 2301.5 to read:

2301.5 Electrical. Electrical wiring and equipment shall be suitable for the locations in which it is installed in accordance with the applicable building code and shall be maintained in accordance with Section 605, the applicable provisions of NFPA 30A, and NFPA 70.

6. Change Section 2301.6 to read:

2301.6 Heat-producing appliances. Heat-producing appliances shall be suitable for the locations in which they are located and shall comply with the applicable provisions of NFPA 30A and the applicable building code.

B. The following changes shall be made to Section 2303, Location of Dispensing Devices:

1. Change Section 2303.1 including exception to item 2 (items 1, 2, 3,4, and 5 remain) to read:

2303.1 Dispensing operations. Dispensing operations shall be maintained in accordance with the following unless otherwise approved in accordance with the applicable building code. In no case should any of these provisions require demolition or relocation of existing equipment when approved in accordance with the applicable building code:

~~1. 10 feet (3048 mm) or more from lot lines.~~

~~2. 10 feet (3048 mm) or more from buildings having combustible exterior wall surfaces or buildings having noncombustible exterior wall surfaces that are not part of a one-hour fire-resistance-rated assembly or buildings having combustible overhangs.~~

Exception: Canopies constructed in accordance with the applicable building code providing weather protection for the fuel islands.

~~3. Such that all portions of the vehicle being fueled will be on the premises of the motor fuel-dispensing facility.~~

~~4. Such that the nozzle, when the hose is fully extended, will not reach within five feet (1524 mm) of building openings.~~

~~5. 20 feet (6096 mm) or more from fixed sources of ignition.~~

2. Change Section 2303.2 and delete Section 2303.2.1.

Section 2303.2 to read:

2303.2 Emergency disconnect switches. An approved, clearly identified, and readily accessible emergency disconnect switch shall be maintained at an approved location in accordance with the applicable building code to stop the transfer of fuel to the fuel dispensers in the event of a fuel spill or other emergency. Such devices shall be distinctly labeled: EMERGENCY FUEL SHUTOFF. Signs shall be provided in approved locations.

C. The following changes shall be made to Section 2304, Dispensing Operations:

1. Change Section 2304.2.2 to read:

2304.2.2 Emergency controls. Emergency disconnect switches shall be maintained in accordance with Section 2303.2.

2. Change Section 2304.3.2 to read:

2304.3.2 Dispensers. Dispensing devices shall be maintained in accordance with Section 2306.7. Dispensing devices operated by the insertion of coins or currency shall not be used unless approved in accordance with the applicable building code.

3. Change Section 2304.3.3 to read:

2304.3.3 Emergency controls. Emergency disconnect switches shall be maintained in accordance with Section 2303.2. Emergency controls shall be of a type that is only manually resettable.

4. Change Section 2304.3.5 to read:

2304.3.5 Emergency procedures. An approved emergency procedures sign, in addition to the signs required by Section 2305.6, shall be posted and maintained in a conspicuous location and shall read:

IN CASE OF FIRE SPILL OR RELEASE



1. USE EMERGENCY PUMP SHUTOFF

2. REPORT THE ACCIDENT!

FIRE DEPARTMENT TELEPHONE NO. \_\_\_\_\_

FACILITY ADDRESS: \_\_\_\_\_

D. The following changes shall be made to Section 2305, Operational Requirements:

1. Change Section 2305.2.4 to read:

2305.2.4 Emergency shutoff valves. Automatic emergency shutoff valves shall be checked not less often than once each year by manually tripping the hold-open linkage.

2. Change Section 2305.2.5 to read:

2305.2.5 Leak detectors. Leak detection devices shall be checked and tested not less often than annually in accordance with the manufacturer's specifications to ensure proper installation and operation.

3. 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.

E. The following changes shall be made to Section 2306, Flammable and Combustible Liquid Motor Fuel-Dispensing Facilities:

1. Change Section 2306.1 to read:

2306.1 General. Operation and maintenance of flammable and combustible liquid motor fuel-dispensing facilities shall be in accordance with Chapter 57, Sections 2306.2 through 2306.6.3, and other applicable provisions of this code.

2. Change Sections 2306.2.1, 2306.2.1.1, and add Section 2306.2.1.2 to read:

2306.2.1 Underground tanks. Underground tanks for the storage of Class I, Class II, and Class IIIA liquid fuels shall comply with Chapter 57. For tanks subject to Underground Storage Tanks: Technical Standards and Corrective Action Requirements (9VAC25-580), see Section 5701.1.1.

2306.2.1.1 Inventory records 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.

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

2306.2.1.2 Release detection for State Water Control Board regulated underground tanks. Underground storage tank systems subject to the Underground Storage Tanks: Technical Standards and Corrective Action Requirements (9VAC25-580) shall comply with the release detection requirements of 9VAC25-580-130.

3. Change Section 2306.2.2 to read:

2306.2.2 Aboveground tanks located inside buildings. Aboveground tanks for the storage of Class I, Class II, and Class IIIA liquid fuels are allowed to be located in buildings where permitted by the applicable building code. For tanks subject to Facility and Aboveground Storage Tank (AST) Regulation (9VAC25-91), see Section 5701.1.1.

4. Change Section 2306.2.3 to read:

2306.2.3 Aboveground tanks located outdoors, above grade. Aboveground tanks shall not be used for the storage of Class I, Class II, or Class III liquid motor fuels unless approved in accordance with the applicable building code. Tanks located at farms, construction projects, or rural areas shall comply with Section 5706.2. For tanks subject to Facility and Aboveground Storage Tank (AST) Regulation (9VAC25-91), see Section 5701.1.1.

5. Delete Table 2306.2.3.

6. Change Section 2306.2.4 to read:

2306.2.4 Aboveground tanks located in above-grade vaults or below-grade vaults. Aboveground tanks used for storage of Class I, Class II, or Class IIIA liquid motor fuels are allowed to be installed in vaults located above grade or below grade where permitted by the applicable building code. For tanks subject to Facility and Aboveground Storage Tank (AST) Regulation (9VAC25-91), see Section 5701.1.1.

7. Change Section 2306.2.4.1 to read:

2306.2.4.1 Tank capacity limits. The individual and aggregate capacity of tanks storing Class I and Class II liquids at an individual site shall be limited to the quantities allowed in the applicable building code.

8. Change Section 2306.2.4.2 to read:

2306.2.4.2 Fleet vehicle motor fuel-dispensing facilities. The individual capacity and aggregate capacity of tanks storing Class II and Class IIIA liquids at a fleet vehicle motor fuel-dispensing facility shall be limited to the quantities allowed in the applicable building code.

9. Change Section 2306.2.6 to read:

2306.2.6 Special enclosures. Special enclosures, including concrete vaults, shall be maintained and remain in accordance with the applicable building code. Tanks for liquid motor fuels are allowed to be operated in approved special enclosures where maintained in accordance with the following:

1. The special enclosure shall be maintained liquid tight and vapor tight.
2. The special enclosure shall not contain backfill.
3. Sides, top, and bottom of the special enclosure shall be maintained as reinforced concrete, with openings for inspection through the top only.
4. Tank connections shall be maintained as piped or closed such that neither vapors nor liquid can escape into the enclosed space between the special enclosure and any tanks inside the special enclosure.
5. Means shall be maintained whereby portable equipment can be employed to discharge to the outside any vapors that might accumulate inside the special enclosure should leakage occur.
6. The individual and aggregate capacity of tanks containing Class I, Class II, or Class IIIA liquids operated inside a special enclosure shall be maintained as approved in accordance with the applicable building code.
7. Unless otherwise approved, each tank within special enclosures shall maintain a clear space of not less than three feet (910 mm) to allow for maintenance and inspection.

10. Change Section 2306.5 to read:

2306.5 Secondary containment. Drainage control or diking for aboveground tanks shall be maintained in accordance with Chapter 57. Secondary containment systems shall be monitored either visually or automatically. Emergency venting for enclosed secondary containment systems shall be maintained and remain in accordance with the applicable building code.

Note: Drainage control and diking is not required for listed secondary containment tanks.

11. Change Section 2306.6 to read:

2306.6 Piping, valves, fittings, and ancillary equipment for use with flammable or combustible liquids. The design, fabrication, and assembly of piping, valves, fittings, and ancillary equipment shall be in accordance with the applicable building code. The testing and inspection of piping, valves, fittings, and ancillary equipment for use with flammable or combustible liquids shall be in accordance with Chapter 57 and Sections 2306.6.1 through 2306.6.3.

12. Change Section 2306.6.2 to read:

2306.6.2 Piping, valves, fittings, and ancillary equipment for aboveground tanks for Class I, Class II, and Class III liquids. Piping, valves, fittings, and ancillary equipment for aboveground tanks for storing Class I, Class II, and Class III liquids shall be maintained in accordance with this section and in accordance with the applicable building code.

13. Change Section 2306.6.2.1 to read:

2306.6.2.1 Tank openings. Tank openings for aboveground tanks shall be through the top only unless specifically approved in accordance with the applicable building code.

14. Change Section 2306.6.2.2 to read:

2306.6.2.2 Fill-pipe connections. Unless otherwise approved in accordance with the applicable building code, the fill pipe operation for aboveground tanks shall be provided with a means for making a direct connection to the tank vehicle's fuel-delivery hose so that the delivery of fuel is not exposed to the open air during the filling operation.

15. Change Section 2306.6.2.3 to read:

2306.6.2.3 Overfill protection. Overfill protection for aboveground flammable and combustible liquid storage tanks shall be maintained in accordance with Chapter 57 and the applicable building code.

16. Change Section 2306.6.2.4 to read:

2306.6.2.4 Siphon prevention. Antisiphon methods provided in the piping system to prevent flow of liquid by siphon action shall be maintained in accordance with the applicable building code.

17. Change Section 2306.6.2.5 to read:

2306.6.2.5 Emergency relief venting. Emergency relief venting for aboveground storage tanks, tank compartments, and enclosed secondary containment spaces shall be maintained in accordance with Chapter 57 and the applicable building code.

18. Change Section 2306.6.2.6 to read:

2306.6.2.6 Spill containers. A spill container having a capacity of not less than five gallons (19 L) shall be provided for each fill connection. For tanks with a top fill connection, spill containers shall be noncombustible and shall be fixed to the tank and equipped with a manual drain valve that drains into the primary tank unless specifically approved otherwise in accordance with the applicable building code. For tanks with a remote fill connection, a portable spill container is allowed.

19. Change Section 2306.6.3 to read:

2306.6.3 Piping, valves, fittings, and ancillary equipment for underground tanks. Piping, valves, fittings, and ancillary equipment for underground tanks shall be maintained in accordance with Chapter 57, the applicable provisions of NFPA 30A, and the applicable building code.

20. Change Section 2306.7 to read:

2306.7 Fuel-dispensing systems for flammable or combustible liquids. Fuel-dispensing systems for flammable or combustible liquid fuels shall be maintained in accordance with Sections 2306.7.1 through 2306.7.9.2.4 and the applicable building code. Alcohol-blended fuel-dispensing systems shall also be maintained in accordance with Section 2306.8.

21. Change Section 2306.7.1 to read:

2306.7.1 Listed equipment. Electrical equipment, dispensers, hose, nozzles, and submersible or subsurface pumps used in fuel dispensing systems shall be listed unless otherwise approved in accordance with the applicable building code.

22. Change Section 2306.7.2 to read:

2306.7.2 Fixed pumps required. Unless otherwise approved in accordance with the applicable building code, Class I and Class II liquids shall be transferred from tanks by means of fixed pumps that allow control of the flow and prevent leakage or accidental discharge.

23. Change Section 2306.7.3 to read:

2306.7.3 Mounting of dispensers. Unless otherwise approved in accordance with the applicable building code, dispensing devices, except those installed on top of a protected aboveground tank that qualifies as vehicle-impact resistant, shall be maintained as protected against physical damage by a concrete island six inches (152 mm) or more in height or shall maintain protection in accordance with Section 312. Dispensing devices shall be maintained securely fastened to their mounting surface in accordance with the dispenser manufacturer's instructions. Unless otherwise approved, dispensing devices installed indoors shall be located in a position where they cannot be struck by an out-of-control vehicle descending a ramp or other slope in accordance with the applicable building code.

24. Change Section 2306.7.4 to read:

2306.7.4 Dispenser emergency shutoff valve. Unless otherwise approved in accordance with the applicable building code, an approved automatic emergency shutoff valve designed to close in the event of a fire or impact shall be maintained in the liquid supply line at the base of each dispenser supplied by a remote pump. Such valve shall be maintained in accordance with the applicable building code. Emergency shutoff valves shall be maintained in accordance with the manufacturer's instructions and tested at least yearly in accordance with Section 2305.2.4.

25. Change Section 2306.7.5 to read:

2306.7.5 Dispenser hose. Dispenser hoses shall be a maximum of 18 feet (5486 mm) in length unless otherwise approved in accordance with the applicable building code. Dispenser hoses shall be maintained as listed and approved. When not in use, hoses shall be reeled, racked, or otherwise protected from damage.

26. Change Section 2306.7.5.1 to read:

2306.7.5.1 Emergency breakaway devices. Unless otherwise approved in accordance with the applicable building code, dispenser hoses for Class I and Class II liquids shall be maintained with a listed emergency breakaway device designed to retain liquid on both sides of a breakaway point. Such devices shall be maintained in accordance with the manufacturer's instruction. Where hoses are attached to hose-retrieving mechanisms, the emergency breakaway device shall remain between the hose nozzle and point of attachment of the hose-retrieval mechanism to the hose.

27. Change Section 2306.7.6 (exception remains) to read:

2306.7.6 Fuel delivery nozzles. Unless specifically approved otherwise in accordance with the applicable building code, island-type dispensers used for dispensing Class I, Class II or Class III liquids shall be maintained with a listed automatic-closing-type nozzle valve with or without a latch-open

device, and overhead-type dispensing units shall be maintained with a listed automatic-closing-type nozzle valve without a latch-open device.

~~Exception: A listed automatic-closing-type hose nozzle valve with latch-open device is allowed to be used on overhead-type dispensing units where the design of the system is such that the hose nozzle valve will close automatically in the event the valve is released from a fill opening or upon impact with a driveway.~~

28. Delete Section 2306.7.6.1.

29. Change Section 2306.7.7 to read:

2306.7.7 Remote pumping systems. Remote pumping systems for liquid fuels shall be maintained in accordance with Sections 2306.7.7.1 and 2306.7.7.2 and the applicable building code.

30. Change Section 2306.7.7.1 to read:

2306.7.7.1 Leak detection. Leak detection devices shall be maintained. Unless otherwise approved by the applicable building code, where remote pumps are used to supply fuel dispensers, each pump shall maintain a listed leak detection device on the discharge side that will detect a leak in the piping or dispensers and provide an indication of the leak. A leak detection device is not required if the piping from the pump discharge to under the dispenser is above ground and visible.

31. Change Section 2306.7.7.2 to read:

2306.7.7.2 Location. Remote pumps installed above grade, outside of buildings, shall remain in approved locations in accordance with the applicable building code. Dispensing operations shall not be less than 10 feet (3048 mm) from lines of adjoining property that can be built upon and not less than five feet (1524 mm) from any building opening. Pumps shall be maintained substantially anchored and protected against physical damage. In no case should any of these provisions require demolition or relocation of existing equipment approved in accordance with the applicable building code.

32. Change Section 2306.7.9 to read:

2306.7.9 Vapor-recovery and vapor-processing systems. Vapor-recovery and vapor-processing systems shall be maintained in accordance with Sections 2306.7.9.1.1 through 2306.7.9.2.4 and the applicable building code.

33. Change Section 2306.7.9.1 to read:

2306.7.9.1 Vapor-balance systems. Vapor-balance systems shall be maintained in accordance with Sections 2306.7.9.1.1 through 2306.7.9.1.5 and the applicable building code.

34. Change Section 2306.7.9.1.1 to read:

2306.7.9.1.1 Dispensing devices. Dispensing devices incorporating provisions for vapor recovery shall be listed and labeled, unless otherwise approved in accordance with the applicable building code.

Where dispensing devices are modified for vapor recovery, such modifications shall be approved in accordance with the applicable building code and a listing report by a nationally recognized testing laboratory made available to the fire official upon request. Means shall be maintained to shut down fuel dispensing in the event the vapor return line becomes blocked.

35. Change Section 2306.7.9.1.2 to read:

2306.7.9.1.2 Vapor-return line closeoff. An acceptable method, in accordance with the applicable building code, shall be maintained to close off the vapor return line from dispensers when the product is not being dispensed.

36. Change Section 2306.7.9.1.3 to read:

2306.7.9.1.3 Piping. Piping in vapor-balance systems shall be maintained in accordance with Sections 5703.6, 5704.2.9, and 5704.2.11. Unless otherwise approved in accordance with the applicable building code, vapor return piping shall be maintained in a manner that drains back to the tank, without sags or traps in which the liquid can become trapped. Where provided, condensate tanks shall be maintained so that they can be drained without opening.

37. Change Section 2306.7.9.1.4 to read:

2306.7.9.1.4 Flexible joints and shear joints. Flexible joints and shear joints shall be maintained in accordance with Section 5703.6.9. Unless otherwise approved in accordance with the applicable building code, shear joints shall remain rigidly mounted and connected by a union in the vapor return piping at the base of each dispensing device and shall remain mounted flush with the top of the surface on which the dispenser is mounted.

38. Change Section 2306.7.9.1.5 to read:

2306.7.9.1.5 Testing. Existing vapor return lines and vent piping shall be tested in accordance with Section 5703.6.3 when the fire official has reasonable cause to believe that a leak exists.

39. Change Section 2306.7.9.2 to read:

2306.7.9.2 Vapor-processing systems. Vapor-processing systems shall be maintained in accordance with Sections 2306.7.9.2.1 through 2306.7.9.2.4 and the applicable building code.

40. Change Section 2306.7.9.2.1 to read:

2306.7.9.2.1 Equipment. Unless otherwise approved in accordance with the applicable building code, equipment in vapor-processing systems, including hose nozzle valves, vapor pumps, flame arresters, fire checks or systems for prevention of flame propagation, controls, and vapor-processing equipment shall be individually maintained as listed for the intended use in a specified manner. Equipment for prevention of flame ~~or~~ propagation that has been tested and listed as suitable for the intended use in vapor processing systems that introduce air into the underground piping or storage tanks shall be maintained.

41. Change Section 2306.7.9.2.2 to read:

2306.7.9.2.2 Location. Unless otherwise approved in accordance with the applicable building code, vapor-processing equipment shall remain located at grade or above grade and vapor processing units shall be operated not less than 10 feet (3048 mm) from the nearest building or lot line of a property that can be built upon. Sources of ignition shall be located not less than 50 feet (15,240 mm) from fuel-transfer areas and not less than 18 inches (457 mm) above tank fill openings and tops of dispenser islands.

42. Change Section 2306.7.9.2.2.1 to read:

2306.7.9.2.2.1 Distance from dispensing devices. Unless otherwise approved in accordance with the applicable building code, vapor-processing equipment functioning during dispensing operations shall maintain a minimum of 20 feet (6096 mm) from dispensing devices.

43. Change Section 2306.7.9.2.2.2 to read:

2306.7.9.2.2.2 Physical protection. Physical protection for vapor-processing equipment shall be maintained in accordance with Section 312 or the applicable building code. Where approved protective enclosures are used, approved means shall be maintained to ventilate the volume within the enclosure to prevent pocketing of flammable vapors.

44. Delete Section 2306.7.9.2.2.3.

45. Change Section 2306.7.9.2.3 to read:

2306.7.9.2.3 Mounting. Unless otherwise approved in accordance with the applicable building code, vapor-processing units shall be maintained securely mounted on concrete, masonry, or structural steel supports on concrete or other noncombustible foundations. Vapor-recover and vapor-processing equipment is allowed to be operated on roofs where approved in accordance with the applicable building code.

46. Change Section 2306.7.9.2.4 to read:

2306.7.9.2.4 Piping. Piping in a mechanical-assist system shall be maintained in accordance with Section 5703.6 and the applicable building code.

47. Change Section 2306.8 to read:

2306.8 Alcohol-blended fuel-dispensing operations. Alcohol-blended fuel-dispensing systems shall be maintained in accordance with Section 2306.7, Sections 2306.8.1 through 2306.8.5, and the applicable building code.

48. Change Section 2306.8.2 to read:

2306.8.2 Compatibility. Dispensers shall only be used with the fuels for which they have been listed, which are marked on the product in accordance with § 59.1-167.1 of the Code of Virginia. Field installed components, including hose assemblies, breakaway couplings, swivel connectors, and hose nozzle valves, shall be maintained in accordance with the listing and marking on the unit.



49. Change Section 2306.8.4 to read:

2306.8.4 Facility identification. Facilities dispensing alcohol-blended fuels shall be identified in accordance with § 59.1-167.1 of the Code of Virginia.

F. The following changes shall be made to Section 2307, Liquefied Petroleum Gas Motor Fuel-Dispensing Facilities:

1. Change Section 2307.1 to read:

2307.1 General. Operation and maintenance of motor fuel-dispensing facilities for liquefied petroleum gas (LP-gas) fuel shall be in accordance with this section and other applicable provisions of this code.

2. Change Section 2307.2 to read:

2307.2 Approvals. Unless otherwise approved in accordance with the applicable building code, storage vessels and equipment for the storage or dispensing of LP-gas shall be maintained as approved or listed in accordance with Sections 2307.2.1 and 2307.2.2 and the applicable building code.

3. Change Section 2307.2.1 to read:

2307.2.1 Approved equipment. Unless otherwise approved in accordance with the applicable building code, containers; pressure relief devices, including pressure relief valves; pressure regulators; and piping for LP-gas shall be approved in accordance with the applicable building code.

4. Change Section 2307.2.2 to read:

2307.2.2 Listed equipment. Unless specifically approved otherwise in accordance with the applicable building code, hoses, hose connections, vehicle fuel connections, dispensers, LP-gas pumps, and electrical equipment for LP-gas shall be listed in accordance with the applicable building code.

5. Change Section 2307.3 to read:

2307.3 Attendants. Motor fuel-dispensing operations for LP-gas shall be conducted by qualified attendants or in accordance with Section 2307.6 by persons trained in the proper handling of LP-gas.

6. Change Section 2307.4 to read:

2307.4 Location of dispensing operations and equipment. Unless specifically approved otherwise in accordance with the applicable building code, the point of transfer for LP-gas dispensing operations shall be 25 feet (7620 mm) or more from buildings having combustible exterior wall surfaces, buildings having noncombustible exterior wall surfaces that are not part of a one-hour fire-resistance-rated assembly, or buildings having combustible overhangs, lot lines of property that could be built on, public streets, or sidewalks and railroads and at least 10 feet (3048 mm) from driveways and buildings having noncombustible exterior wall surfaces that are part of a fire-resistance-rated assembly having a rating of one hour or more. In no case should any of these

provisions require demolition or relocation of existing equipment approved in accordance with the applicable building code.

Exception: The point of transfer for LP-gas dispensing operations need not be separated from canopies that are constructed in accordance with the applicable building code and that provide weather protection for the dispensing equipment. LP-gas containers shall remain located in accordance with Chapter 61 and the applicable building code. LP-gas storage and dispensing equipment shall be operated outdoors and in accordance with Section 2306.7 unless otherwise approved in accordance with the applicable building code.

7. Change Section 2307.5 to read:

2307.5 Additional requirements for LP-gas dispensers and equipment. Unless specifically approved otherwise in accordance with the applicable building code, LP-gas dispensers and related equipment shall be maintained in accordance with the following provisions:

1. Pumps shall remain fixed in place and shall be maintained to allow control of the flow and to prevent leakage and accidental discharge.
2. Dispensing devices operated within 10 feet (3048 mm) of where vehicular traffic occurs shall be protected against physical damage by mounting on a concrete island six inches (152 mm) or more in height or shall be protected in accordance with Section 312.
3. Dispensing devices shall remain securely fastened to their mounting surface in accordance with the dispenser manufacturer's instructions.

8. Change Section 2307.6 to read:

2307.6 Maintenance of LP-gas dispensing devices and equipment. LP-gas dispensing systems shall be maintained and remain in accordance with the applicable building code. The operation of LP-gas dispensing systems shall be in accordance with Sections 2307.6.1 through 2307.6.3 and Chapter 61. LP-gas dispensers and dispensing stations shall be maintained in accordance with the manufacturer's specifications and their listing.

9. Change Section 2307.6.1 to read:

2307.6.1 Valves. Unless otherwise approved in accordance with the applicable building code, a manual shutoff valve and an excess flow-control check valve shall be maintained in the liquid line between the pump and the dispenser inlet where the dispensing device is installed at a remote location and is not part of a complete storage and dispensing unit mounted on a common base; an excess flow-control check valve or an emergency shutoff valve shall be maintained in or on the dispenser at the point at which the dispenser hose is connected to the liquid piping; a differential backpressure valve shall be considered equivalent protection; and a listed shutoff valve shall be maintained at the discharge end of the transfer hose.

10. Change Section 2307.6.2 to read:

2307.6.2 Hoses. Unless otherwise approved in accordance with the applicable building code, hoses and piping for the dispensing of LP-gas shall maintain hydrostatic relief valves. Hose length for dispensing operations shall not exceed 18 feet (5486 mm). An approved method shall be maintained to protect the hose against mechanical damage.

11. Change Sections 2307.6.3 and 2307.6.4 to read:

2307.6.3 Emergency breakaway devices. Unless otherwise approved in accordance with the applicable building code, a listed emergency breakaway device to retain liquid on both sides of the breakaway point shall be maintained on dispensing hoses. Where hoses are attached to hose-retrieving mechanisms, the emergency breakaway device shall be maintained such that the breakaway device activates to protect the dispenser from being displaced.

2307.6.4 Vehicle impact protection. Where operated within 10 feet of vehicle traffic, LP-gas storage containers, pumps, and dispensers shall maintain protection in accordance with Section 2307.5, Item 2, unless otherwise approved in accordance with the applicable building code.

12. Change Section 2307.7 including items 2 and 4 (items, 1, 3, 5, 6, and 7 remain) to read:

2307.7 Public fueling of motor vehicles. Self-service LP-gas dispensing systems, including key, code, and card lock dispensing systems, shall be limited to the filling of permanently mounted containers providing fuel to the LP-gas powered vehicle. The requirements for self-service LP-gas dispensing systems shall be in accordance with the following:

- ~~1. The arrangement and operation of the transfer of product into a vehicle shall be in accordance with this section and Chapter 61.~~
2. The system shall maintain an emergency shut-off switch located in accordance with the applicable building code.
- ~~3. The owner of the LP-gas motor fuel dispensing facility or the owner's designee shall provide for the safe operation of the system and the training of users.~~
4. Unless otherwise approved in accordance with the applicable building code, the dispenser and hose-end valve shall release not more than 1/8 fluid ounce (4 cc) of liquid to the atmosphere upon breaking the connection with the fill valve on the vehicle.
- ~~5. Portable fire extinguishers shall be provided in accordance with Section 2305.5.~~
- ~~6. Warning signs shall be provided in accordance with Section 2305.6.~~
- ~~7. The area around the dispenser shall be maintained in accordance with Section 2305.7.~~

G. The following changes shall be made to Section 2308, Compressed Natural Gas Motor Fuel-Dispensing Facilities:

1. Change Sections 2308.1 through ~~2308.3.1~~ 2308.3 to read:

2308.1 General. Motor fuel-dispensing facilities for compressed natural gas (CNG) fuel shall be maintained and remain in accordance with the applicable building code. Such facilities shall be operated and maintained in accordance with this section and Chapter 53.

2308.2 Approvals. Unless otherwise approved in accordance with the applicable building code, storage vessels and equipment used for the storage, compression, or dispensing of CNG shall be approved or listed in accordance with Sections 2308.2.1 and 2308.2.2 and the applicable building code.

2308.2.1 Approved equipment. Containers, compressors, pressure relief devices (including pressure relief valves), and pressure regulators and piping used for CNG shall be approved.

2308.2.2 Listed equipment. Hoses, hose connections, dispensers, gas detection systems, and electrical equipment used for CNG shall be maintained in accordance with their listing. Vehicle-fueling connections shall be listed and labeled in accordance with the applicable building code.

2308.2.3 Residential fueling appliance (RFA). Residential fueling appliances shall be maintained in accordance with their listing, the manufacturer installation instructions, and the applicable building code. The natural gas capacity of RFAs shall not exceed that allowed by the applicable building code.

2308.2.4 Vehicle fueling appliance (VFA). Nonresidential fueling appliances shall be maintained in accordance with their listing, the manufacturer installation instructions, and the applicable building code. The natural gas capacity of VFAs shall not exceed that allowed by the applicable building code.

2308.3 Location of dispensing operations and equipment. Unless approved otherwise in accordance with the applicable building code and Chapter 53, compression, storage, and dispensing equipment shall be located above ground and outside.

2. Change Section 2308.3.1 including exception to item 2 (items 1, 2, 3, and 4 remain) to read:

2308.3.1 Location of operations on property. Unless otherwise approved in accordance with the applicable building code, compression, storage, and dispensing equipment not located in vaults complying with Chapter 53 shall be maintained and operated in accordance with Section 2303.1 and the following. In no case should any of these provisions require demolition or relocation of existing equipment when approved in accordance with the applicable building code.

~~1. Not beneath power lines.~~

~~2. Ten feet (3048 mm) or more from the nearest building or lot line that could be built on, public street, sidewalk, or source of ignition.~~

Exception: Dispensing equipment need not be separated from canopies that are constructed in accordance with the applicable building code and that provide weather protection for the dispensing equipment.

~~3. 25 feet (7620 mm) or more from the nearest rail of any railroad track and 50 feet (15,240 mm) or more from the nearest rail of any railroad main track or any railroad or transit line~~

~~where power for train propulsion is provided by an outside electrical source, such as third rail or overhead catenary.~~

~~4. 50 feet (15,240 mm) or more from the vertical plane below the nearest overhead wire of a trolley bus line.~~

~~2.~~ 3. Change Section 2308.5 to read:

2308.5 Pressure regulators. Unless otherwise approved in accordance with the applicable building code, pressure regulators shall be maintained so that their operation will not be affected by the elements (freezing rain, sleet, snow, or ice), mud, or debris. The protection is allowed to be an integral part of the regulator.

~~3.~~ 4. Change Section 2308.6 to read:

2308.6 Valves. Unless otherwise approved in accordance with the applicable building code, the remote, readily accessible manual shutoff valve shall be maintained.

~~4.~~ 5. Change Section 2308.7 to read:

2308.7 Emergency shutdown control. Emergency shutdown controls shall be maintained and remain within 75 feet (22,860 mm) of, but not less than 25 feet (7620 mm) from, dispensers as well as in the compressor area unless otherwise approved in accordance with the applicable building code. Where provided, and upon activation, the emergency shutdown system shall be maintained to automatically shut off the power supply to the compressor and close valves between the main gas supply and the compressor and between the storage containers and dispensers.

H. The following changes shall be made to Section 2309, Hydrogen Motor Fuel-Dispensing and Generation Facilities:

1. Change Section 2309.1 to read:

2309.1 General. Hydrogen motor fuel-dispensing facilities shall be maintained and remain in accordance with the applicable building code. Such facilities shall be operated and maintained in accordance with this section and Chapter 58. Where a fuel-dispensing facility includes a repair garage, the repair operation shall comply with Section 2311.

2. Change Section 2309.2 to read:

2309.2 Equipment. Unless otherwise approved in accordance with the applicable building code, equipment used for the generation, compression, storage, or dispensing of hydrogen shall be maintained for the specific application in accordance with Sections 2309.2.1 through 2309.2.3.

3. Change Section 2309.2.1 to read:

2309.2.1 Approved equipment. Unless otherwise approved in accordance with the applicable building code, cylinders, containers, and tanks; pressure relief devices, including pressure valves;

hydrogen vaporizers; pressure regulators; and piping used for gaseous hydrogen systems shall be maintained in accordance with Chapters 53, 55, and 58.

4. Change Section 2309.2.2 to read:

2309.2.2 Listed or approved equipment. Unless otherwise approved in accordance with the applicable building code, hoses, hose connections, compressors, hydrogen generators, dispensers, detection systems, and electrical equipment used for hydrogen shall be maintained as listed and labeled or approved for use with hydrogen.

5. Change Section 2309.2.3 to read:

2309.2.3 Electrical equipment. Electrical installations shall be maintained and remain in accordance with the applicable building code. Portable or temporary electrical equipment shall be in accordance with NFPA 70.

6. Change Section 2309.3 to read:

2309.3 Location on property. Unless otherwise approved in accordance with the applicable building code, dispensing equipment operations shall remain located in accordance with the applicable building code and maintained in accordance with Section 2303.1 and Sections 2309.3.1 through 2309.3.2.

7. Change Section 2309.3.1.1 to read:

2309.3.1.1 Outdoors. Generation, compression, or storage equipment shall be allowed outdoors where maintained in accordance with Chapter 58 and NFPA 2 or the applicable building code.

8. Change Section 2309.3.1.2 to read:

2309.3.1.2 Indoors. Generation, compression, storage and dispensing equipment operations located in indoor rooms or other approved areas shall remain in accordance with the requirements of the applicable building code and the maintenance provisions of NFPA 2, including ventilation.

9. Change Section 2309.3.1.3 to read:

2309.3.1.3 Gaseous hydrogen storage. Unless otherwise approved in accordance with the applicable building code, storage of gaseous hydrogen shall be maintained in accordance with Chapters 53 and 58.

10. Change Section 2309.3.1.4 to read:

2309.3.1.4 Liquefied hydrogen storage. Unless otherwise approved in accordance with the applicable building code, storage of liquefied hydrogen shall be maintained in accordance with Chapters 55 and 58.

11. Change Section 2309.3.1.5 to read:

2309.3.1.5 Canopy tops. Unless otherwise approved in accordance with the applicable building code, gaseous hydrogen compression and storage equipment operations located on top of motor fuel-dispensing canopies shall be maintained in accordance with Sections 2309.3.1.5.1 through 2309.3.1.5.5, Chapters 53 and 58, and the applicable building code.

Note: Canopy methods and materials require special conditions that must be maintained in accordance with the applicable building code.

12. Delete Section 2309.3.1.5.1.

13. Change Section 2309.3.1.5.2 to read:

2309.3.1.5.2 Fire-extinguishing systems. Fire-extinguishing systems provided for fuel-dispensing areas under canopies shall be maintained in accordance with Chapter 9 and remain in accordance with the applicable building code.

14. Change Section 2309.3.1.5.3 to read:

2309.3.1.5.3 Emergency discharge. Where provided, operation of the fire-extinguishing system shall be maintained to activate an automatic emergency discharge system that will discharge the hydrogen gas from the equipment on the canopy top through the vent pipe system.

15. Change Section 2309.3.1.5.4 to read:

2309.3.1.5.4 Emergency shutdown control. Where provided, operation of the fire extinguishing system shall be maintained to activate the emergency shutdown control required to be maintained by Section 2309.5.3.

16. Delete Section 2309.3.2.

17. Change Section 2309.4.1 to read:

2309.4.1 Dispensing systems. Unless otherwise approved in accordance with the applicable building code, dispensing systems with an overpressure protection device shall be maintained set at 140% of the service pressure of the fueling nozzle it supplies.

18. Change Section 2309.5 to read:

2309.5 Safety precautions. Safety precautions at hydrogen motor fuel-dispensing and generation facilities shall be in accordance with Sections 2309.5.1 through 2309.5.3.1.

19. Change Section 2309.5.2 to read:

2309.5.2 Emergency shutoff valves. Unless otherwise approved in accordance with the applicable building code, a manual emergency shutoff valve to shut down the flow of gas from the hydrogen supply to the piping system shall be maintained.

20. Change Section 2309.5.3 to read:

2309.5.3 Emergency shutdown controls. Unless otherwise approved in accordance with the applicable building code, a remotely located, manually activated shutdown control shall be maintained in addition to the manual emergency shutoff valve referenced by Section 2309.5.2. This emergency shutdown control shall be maintained within 75 feet (22,860 mm) of, but not less than 25 feet (7620 mm) from, dispensers and hydrogen generators unless otherwise approved by the applicable building code.

21. Change Section 2309.5.3.1 to read:

2309.5.3.1 System requirements. Unless otherwise approved in accordance with the applicable building code, activation of the emergency shutdown control shall be maintained to automatically shut off the power supply to all hydrogen storage, compression, and dispensing equipment; shut off natural gas or other fuel supply to the hydrogen generator; and close valves between the main supply and the compressor and between the storage containers and dispensing equipment.

22. Change Section 2309.6 to read:

2309.6 Repairs, purging, defueling, and discharge. The purging, defueling, or discharge activities associated with hydrogen motor fuel supply systems and tanks shall be in accordance with Chapters 53 and 58 and NFPA 2.

Exception: The fuel supply piping from the fuel storage tank to the engine compartment on a motor vehicle or forklift.

I. The following changes shall be made to Section 2310, Marine Motor Fuel-Dispensing Facilities:

1. Change Section 2310.1 to read:

2310.1 General. Marine motor fuel-dispensing facilities shall be maintained and remain in accordance with the applicable building code and the maintenance provisions of NFPA 30A. The storage of Class I, Class II, or Class IIIA liquids at marine motor fuel-dispensing facilities shall be maintained in accordance with this chapter and Chapter 57.

2. Change Section 2310.2 to read:

2310.2 Storage and handling. The storage and handling of Class I, Class II, or Class IIIA liquids at marine motor fuel-dispensing facilities shall be maintained in accordance with Sections 2310.2.1 through 2310.2.3.

3. Change Section 2310.2.1 to read:

2310.2.1 Class I, Class II, or Class IIIA liquid storage. Unless otherwise approved in accordance with the applicable building code, Class I, Class II, or Class IIIA liquids stored inside of buildings used for marine motor fuel-dispensing facilities shall be stored in approved containers or portable tanks. Storage of Class I liquids shall not exceed 10 gallons (38 L).

Exception: Storage in liquid storage rooms in accordance with the applicable building code.



4. Change Section 2310.2.2 to read:

2310.2.2 Class II or Class IIIA liquid storage and dispensing. Unless specifically approved otherwise in accordance with the applicable building code, Class II or Class IIIA liquids stored or dispensed inside of buildings used for marine motor fuel-dispensing facilities shall be stored in and dispensed from approved containers or portable tanks. Storage of Class II and Class IIIA liquids shall be maintained to not exceed 120 gallons (454 L).

5. Change Section 2310.2.3 to read:

2310.2.3 Heating equipment. Heating equipment installed in Class I, Class II, or Class IIIA liquid storage or dispensing areas shall comply with Section 2301.6.

6. Change Section 2310.3.3 to read:

2310.3.3 Hoses and nozzles. Unless otherwise approved in accordance with the applicable building code, dispensing of Class I, Class II, or Class IIIA liquids into the fuel tanks of marine craft shall be by means of an approved-type hose equipped with a listed automatic-closing nozzle without a latch-open device. Hoses used for dispensing or transferring Class I, Class II, or Class IIIA liquids, when not in use, shall be reeled, racked, or otherwise protected from mechanical damage.

7. Change Section 2310.3.5 to read:

2310.3.5 Liquefied petroleum gas. Liquefied petroleum gas cylinders shall not be filled at marine motor fuel-dispensing facilities unless approved. Approved storage facilities for LP-gas cylinders shall be provided. See also Section 2307.

8. Change Section 2310.6 to read:

2310.6 Fire protection. Fire protection features for marine motor fuel-dispensing facilities shall be maintained in accordance with Sections 2310.6.1 through 2310.6.4 and remain in accordance with the applicable building code.

J. The following changes shall be made to Section 2311, Repair Garages:

1. Change Section 2311.1 to read:

2311.1 General. Operation and maintenance of repair garages shall be in accordance with this section and other applicable provisions of this code. 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. Where a repair garage includes a motor fuel-dispensing facility, the fuel-dispensing operation shall comply with the requirements of this chapter for motor fuel-dispensing facilities.

2. Change Section 2311.2 to read:

2311.2 Storage and use of flammable and combustible liquids. The storage and use of flammable and combustible liquids in repair garages shall be maintained in accordance with Chapter 57 and Sections 2311.2.1 through 2311.2.4 and remain in accordance with the applicable building code.

3. Change Section 2311.2.3 to read:

2311.2.3 Drainage and disposal of liquids and ~~oil-soaked~~ oil-soaked waste. Contents of oil separators, traps, and floor drainage systems shall be collected at sufficiently frequent intervals and removed from the premises to prevent oil from being carried into the sewers.

4. Change Section 2311.3.1 to read:

2311.3.1 Equipment. Appliances and equipment installed in a repair garage shall be maintained in accordance with Chapter 6, the applicable building code, and the maintenance provisions of NFPA 70.

5. Change Section 2311.4 to read:

2311.4 Below-grade areas. Pits and below-grade work areas in repair garages shall comply with Sections 2311.4.1 through 2311.4.3.

6. Delete Section 2311.4.1.

7. Change Section 2311.4.2 to read:

2311.4.2 Means of egress. Means of egress for pits and below-grade work areas shall be maintained in accordance with Chapter 10 and in accordance with the applicable building code.

8. Change Section 2311.4.3 to read:

2311.4.3 Ventilation. Where Class I liquids or LP-gas are stored or used within a building having a basement or pit wherein flammable vapors could accumulate, the basement or pit mechanical ventilation shall be maintained in accordance with the applicable building code to prevent the accumulation of flammable vapors.

9. ~~Change~~ Delete Section 2311.8.6 and change Section 2311.8 (exceptions to Section 2311.8 remain) and Sections 2311.8.2 through 2311.8.8 ~~and delete Section 2311.8.6. Section 2311.8 and Sections 2311.8.2 through 2311.8.8~~ to read:

2311.8 Repair garages for vehicles fueled by lighter-than-air fuels. The room, motor vehicle repair booth, or motor vehicle repair space containing repair garage activities for the conversion or repair of vehicles that use CNG, LNG, hydrogen, or other lighter-than-air motor fuels shall be in accordance with the applicable building code and Sections 2311.8 through 2311.8.11 in addition to the other requirements of Section 2311. Repair garages for the repair of vehicles that use hydrogen fuel shall be in accordance with this code, the applicable building code, and NFPA 2.

**Exceptions:**

~~1. Repair garages where work is conducted only on vehicles that have been defueled and the vehicle's systems purged with nitrogen gas and where standard operating procedures to document and maintain the fueling status throughout repair operations are approved.~~

~~2. 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-fueled, LNG-fueled, hydrogen-fueled, or other lighter than air-fueled motor vehicle.~~

~~3. 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 less than 200 cubic feet (5.6 m<sup>3</sup>) of hydrogen.~~

~~4. Repair garages for natural-gas-fueled vehicles where work is not being performed on the fuel storage tank and is limited to the exchange of parts and maintenance not requiring open flame or welding on the natural-gas-fueled vehicle. During the work, the natural gas in the vehicle fuel tank shall contain a pressure of not more than 250 psi at 70°F (1724 kPa at 21°C).~~

2311.8.2 Repair garages used for the repair of hydrogen-fueled vehicles. Repair garages used for the repair of hydrogen-fueled vehicles are required to be provided with an approved exhaust ventilation system in accordance with the applicable building code and maintained in accordance with Chapter 6 of NFPA 2.

2311.8.3 Motor vehicle repair rooms. Motor vehicle repair rooms shall maintain fire-resistance-rated separation from adjacent areas in accordance with Chapter 7 and the applicable building code.

2311.8.4 Motor vehicle repair booths. The maintenance and operation of motor vehicle repair booths shall be in accordance with Sections 2311.8.4.1 through 2311.8.4.4.

2311.8.4.1 Construction. Motor vehicle repair booths shall be maintained with approved materials in accordance with the applicable building code. Structural sections of motor vehicle repair booths shall remain sealed in an approved manner.

2311.8.4.2 Surfaces. The interior surfaces of motor vehicle repair booths shall be maintained to permit the free passage of exhaust air from all parts of the interior.

2311.8.4.3 Means of egress. Means of egress shall be maintained in accordance with Chapter 10 and the applicable building code.

NOTE: Means of egress doors from premanufactured motor vehicle repair booths shall be in accordance with manufacturer's specifications.

2311.8.4.4 Clear space. Unless otherwise approved by the applicable building code, motor vehicle repair booths shall be maintained so that all parts of the booth provide ready access for cleaning. A clear area not less than three feet (914 mm) wide shall be maintained on all sides of the motor vehicle repair booth. This clear area shall be kept free of any storage or combustible construction.

Exceptions:

1. This requirement shall not prohibit locating a motor vehicle repair booth closer than three feet (914 mm) to or directly against an interior partition, wall, or floor and ceiling assembly that has a fire-resistance rating of not less than one hour in accordance with the applicable building code, provided that the motor vehicle repair booth can be adequately maintained and cleaned.

2. This requirement shall not prohibit locating a motor vehicle repair booth closer than three feet (914 mm) to an exterior wall or a roof assembly, provided that the wall or roof is maintained of noncombustible material in accordance with the applicable building code and the motor vehicle repair booth can be adequately maintained and cleaned.

2311.8.5 Motor vehicle repair spaces. Where such spaces are not separately enclosed, noncombustible spray curtains shall be maintained and used to restrict the spread of flammable gases in accordance with the applicable building code.

2311.8.7 Fire extinguishers. Portable fire extinguishers complying with Section 906 shall be provided and maintained for motor vehicle repair rooms, motor vehicle repair booths, or motor vehicle repair spaces.

2311.8.8 Ventilation. Exhaust ventilation system. Where required by the applicable building code, repair garages used for the repair of CNG, LNG, or other lighter-than-air motor fuels other than hydrogen shall be maintained and operated with an approved mechanical ventilation system. The mechanical exhaust ventilation system shall be in accordance with the applicable building code and Sections 2311.8.8.1 and 2311.8.8.2.

Where approved by the applicable building code, natural ventilation shall be permitted in lieu of mechanical exhaust ventilation.

10. Delete Section 2311.8.8.1.

11. Change Section 2311.8.8.2 (exceptions remain) to read:

2311.8.8.2 Operation. Where required by the applicable building code, the mechanical exhaust ventilation system shall operate continuously.

**Exceptions:**

~~1. Mechanical exhaust ventilation systems that are interlocked with a gas detection system designed in accordance with Sections 2311.8.9 through 2311.8.9.2.~~

~~2. Mechanical exhaust ventilation systems in repair garages that are used only for repair of vehicles fueled by liquid fuels or odorized gases, such as CNG, where the ventilation system is electrically interlocked with the lighting circuit.~~

12. Change Sections 2311.8.9, ~~2311.8.9.1~~, 2311.8.9.1 (items 1 through 3 remain), and 2311.8.9.2 to read:

2311.8.9 Gas detection system. Where required by the applicable building code, repair garages used for repair of vehicles fueled by nonodorized gases, including hydrogen and nonodorized liquefied natural gas (LNG) the gas detection system shall be maintained. Where lubrication or chassis service pits are provided in garages used for repairing nonodorized LNG-fueled vehicles, gas sensors shall be maintained and operated in such pits.

2311.8.9.1 System activation. Required systems shall be maintained and operated as approved to result in all of the following if required by the applicable building code:

- ~~1. Initiation of local audible and visual alarms in approved locations.~~
- ~~2. Deactivation of heating systems located in the repair garage.~~
- ~~3. Activation of the mechanical exhaust ventilation system where the ventilation system is interlocked with gas detection.~~

2311.8.9.2 Failure of the gas detection system. Unless otherwise permitted by the applicable building code, failure of the gas detection system shall automatically deactivate the heating system, activate the mechanical exhaust ventilation system where the system is interlocked with the gas detection system, and cause a trouble signal to sound in an approved location.

13. Change Sections 2311.8.10 and 2311.8.11 to read:

2311.8.10 Classified electrical area. Classified electrical areas within 18 inches (450 mm) of a ceiling shall be maintained in accordance with the applicable building code and free of electrical hazards.

2311.8.11 Defueling equipment required at vehicle maintenance and repair facilities. Facilities for repairing or replacing hydrogen fuel tanks on hydrogen-fueled vehicles shall have equipment to defuel vehicle storage tanks. Where work must be performed on a vehicle's fuel storage tank for the purpose of maintenance, repair, or cylinder certification, defueling and purging shall be conducted in accordance with Section 2309.6 and NFPA 2.

### **13VAC5-52-290. IFC Chapter 24 Flammable Finishes.**

A. The following change shall be made to Section 2401, General:

Change Section 2401.3 to read:

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

B. The following changes shall be made to Section 2403, Protection of Operations:

1. Change Section 2403.2.1 to read:

2403.2.1 Electrical wiring and equipment. Electrical wiring and equipment shall be maintained in accordance with this chapter, the applicable building code, the applicable provisions of NFPA 70, and Chapter 6.

2. Change Section 2403.2.1.1 to read:

2403.2.1.1 Flammable vapor areas. Electrical wiring and equipment in flammable vapor areas shall be of an explosion proof type approved for use in such hazardous locations as classified by the applicable building code and shall be maintained in accordance with the applicable provisions of NFPA 70 and Chapter 6.

3. Change Section 2403.2.1.2 to read:

~~2403.2.1.2 Areas subject to deposits of residues. Electrical equipment, flammable vapor areas, or drying operations that are subject to splashing or dripping of liquids shall be specifically approved for locations containing deposits of readily ignitable residue and explosive vapors.~~

**Exceptions:**

1. ~~The provision shall not apply to wiring in rigid conduit, threaded boxes, or fittings not containing taps, splices, or terminal connections.~~

2. ~~This provision shall not apply to electrostatic equipment allowed by Section 2407.~~

~~In resin application areas, electrical wiring and equipment that is subject to deposits of combustible residues shall be listed for such exposure and shall be installed as required for hazardous (classified) locations. Electrical wiring and equipment not subject to deposits of combustible residues shall be installed as required for ordinary hazard locations.~~

4. Change Section 2403.2.1.3 to read:

2403.2.1.3 Areas adjacent to spray booths. Unless otherwise approved by the applicable building code, electrical wiring and equipment located outside of, but within three feet (915 mm) horizontally and three feet (915 mm) vertically of, openings in a spray booth or a spray room shall be maintained in accordance with the applicable building code.

5. Change Section 2403.2.5 to read:

~~2403.2.5 Grounding. Metal parts of spray booths, exhaust ducts, and piping systems conveying Class I or Class II liquids shall be electrically grounded in accordance with NFPA 70. Metallic parts located in resin application areas, including exhaust ducts, ventilation fans, spray application equipment, workpieces, and piping, shall be electrically grounded.~~

C. The following changes shall be made to Section 2404, Spray Finishing:

1. Change Section 2404.1 to read:

2404.1 General. The application of flammable or combustible liquids by means of spray apparatus in continuous or intermittent processes shall be in accordance with the requirements of Sections 2403 and 2404.

2. Change ~~Section~~ Sections ~~2404.2~~ 2404.3 and 2404.4 (exceptions to Section 2404 remain) to read:

2404.3 Membrane enclosures. The operation and maintenance of membrane enclosures shall be in accordance with NFPA 33.

~~2404.2~~ 2404.4 Location of spray-finishing operations. Unless otherwise approved by the applicable building code, spray finishing operations shall not be conducted in buildings used for Group A, E, I, or R occupancies except where approved in accordance with the applicable building code. In other occupancies, spray-finishing operations shall be conducted in a spray room, spray booth, or spraying space approved for such use where required by the applicable building code.

Exceptions:

- ~~1. Automobile undercoating spray operations and spray-on automotive lining operations conducted in areas with approved natural or mechanical ventilation shall be exempt from the provisions of Section 2404 when approved and where utilizing Class IIIA or Class IIIB combustible liquids.~~
- ~~2. In buildings other than Group A, E, I, or R occupancies, approved limited spraying space in accordance with Section 2404.9.~~
- ~~3. Resin application areas used for manufacturing of reinforced plastics complying with Section 2409 shall not be required to be located in a spray room, spray booth, or spraying space.~~

3. Change Section ~~2404.3~~ 2404.5 to read:

~~2404.3~~ 2404.5 Design and construction. Design and construction of spray rooms, spray booths, and spray spaces shall be in accordance with the applicable building code. These areas shall be maintained in accordance with Sections ~~2404.3~~ 2404.5 through ~~2404.3.3~~ 2404.5.3.

4. Change Section ~~2404.3.1~~ 2404.5.1 to read:

~~2404.3.1~~ 2404.5.1 Spray rooms. Spray rooms shall be maintained in accordance with this section and remain in accordance with the applicable building code.

5. Change Section ~~2404.3.2~~ to read:

~~2404.3.2 Floor. Combustible floor construction in spray rooms shall be covered by approved, noncombustible, nonsparking material, except where combustible coverings, including thin paper or plastic and strippable coatings, are utilized over noncombustible materials to facilitate cleaning operations in spray rooms.~~

6. Change Section ~~2404.3.3~~ 2404.5.3 to read:

~~2404.3.3~~ 2404.5.3 Spray booths. The design and construction of spray booths shall be in accordance with the applicable building code and maintained in accordance with Sections ~~2404.3.3.1~~ 2404.5.3.2 through ~~2403.3.6~~ 2405.3.6 and Sections ~~2404.4~~ 2404.6 through ~~2404.8~~ 2404.10 and the applicable sections of NFPA 33.

7. Delete Section ~~2404.3.3.1~~ 2404.5.3.1.

8. Change Section ~~2404.3.3.2~~ 2404.5.3.2 to read:

~~2404.3.3.2~~ 2404.5.3.2 Surfaces. The interior surfaces of spray booths shall be smooth, shall be maintained so as to permit the free passage of exhaust air from all parts of the interior and to facilitate washing and cleaning, and shall be maintained to confine residues within the booth. Aluminum shall not be used unless approved by the applicable building code.

9. Change Section ~~2404.3.3.3~~ to read:

~~2404.3.3.3~~ Floor covering. Combustible floor construction in spray booths shall be covered by approved, noncombustible, nonsparking material, except where combustible coverings, including thin paper or plastic and strippable coatings, are utilized over noncombustible materials to facilitate cleaning operations in spray booths.

10. Change Section ~~2404.3.3.4~~ 2404.5.3.4 to read:

~~2404.3.3.4~~ 2404.5.3.4 Means of egress. Means of egress shall be maintained in accordance with the applicable building code and Chapter 10.

~~11.~~ 10. Change Section ~~2404.3.3.5~~ 2404.5.3.5 (exceptions remain) to read:

~~2404.3.3.5~~ 2404.5.3.5 Clear space. Spray booths shall be maintained so that all parts of the booth are readily accessible for cleaning. Unless otherwise approved by the applicable building code, a clear space of not less than three feet (914 mm) shall be maintained on all sides of the spray booth. This clear space shall be kept free of any storage or combustible construction. If approved in accordance with the applicable building code, the following exceptions may apply:

1. This requirement shall not prohibit locating a spray booth closer than three feet (914 mm) to or directly against an interior partition, wall, or floor and ceiling assembly that has a fire-resistance rating of not less than one hour, provided the spray booth can be adequately maintained and cleaned.

2. This requirement shall not prohibit locating a spray booth closer than three feet (914 mm) to an exterior wall or a roof assembly, provided the wall or roof is constructed of noncombustible material and the spray booth can be adequately maintained and cleaned.

~~12.~~ 11. Delete Section ~~2404.3.3.6~~ 2404.5.3.6.

~~13.~~ 12. Change Section ~~2404.3.4~~ 2404.5.4 to read:

~~2404.3.4~~ 2404.5.4 Spraying spaces. The design and construction of spray booths shall be in accordance with the applicable building code and maintained in accordance with Section ~~2404.3.3.1~~ 2404.5.5.1 and Sections ~~2404.4~~ 2404.6 through ~~2404.8~~ 2404.10.

~~14.~~ Change Section ~~2404.3.4.1~~ to read:

~~2404.3.4.1~~ Floor covering. Combustible floor construction in spraying spaces shall be covered by approved, noncombustible, nonsparking material, except where combustible coverings, such as thin paper or plastic and strippable coatings, are utilized over noncombustible materials to facilitate cleaning operations in spraying spaces.



~~15.~~ 13. Change Section ~~2404.4~~ 2404.6 to read:

~~2404.4~~ 2404.6 Fire protection. Unless otherwise permitted by the applicable building code, spray booths and spray rooms shall be protected by an approved automatic fire-extinguishing system complying with the requirements of the applicable building code and maintained in accordance with Chapter 9.

~~16.~~ 14. Change Section ~~2404.6.2.1~~ 2404.8.2.1 to read:

~~2404.6.2.1~~ 2404.8.2.1 Glass panels. Panels for luminaires or for observation shall maintain seals to confine vapors, mists, residues, dusts, and deposits to the flammable vapor area. Panels for luminaires shall be separated from the luminaire to prevent the surface temperature of the panel from exceeding 200°F (93°C).

~~17.~~ Change Section ~~2404.6.2.2~~ to read:

~~2404.6.2.2~~ Exterior luminaires. Luminaires attached to the walls or ceilings of a flammable vapor area, but outside of any classified area and separated from the flammable vapor areas by vapor-tight glass panels, shall be suitable for use in ordinary hazard locations. Such luminaires shall be serviced from outside the flammable vapor areas.

~~18.~~ 15. Change Section ~~2404.6.2.3~~ 2404.8.2.3 to read:

~~2404.6.2.3~~ 2404.8.2.3 Integral luminaires. Luminaires that are an integral part of the walls or ceiling of a flammable vapor area are allowed to be separated from the flammable vapor area by glass panels that are an integral part of the luminaire. Such luminaires shall be used only if listed for use in hazardous locations in accordance with the applicable building code and also shall be suitable for accumulations of deposits of combustible residues. Such luminaires are allowed to be serviced from inside the flammable vapor area.

~~19.~~ 16. Change Section ~~2404.7~~ 2404.9 to read:

~~2404.7~~ 2404.9 Ventilation. Mechanical ventilation of flammable vapor areas shall be maintained and operated in accordance with the applicable building code.

~~20.~~ 17. Change Section ~~2404.7.1~~ 2404.9.1 to read:

~~2404.7.1~~ 2404.9.1 Operation. Where provided, mechanical ventilation shall be kept in operation at all times while spraying operations are being conducted and for a sufficient time thereafter to allow vapors from drying coated articles and finishing material residue to be exhausted.

~~21.~~ 18. Change Section ~~2404.7.2~~ 2404.9.2 to read:

~~2404.7.2~~ 2404.9.2 Recirculation. Air exhausted from spraying operations shall not be recirculated unless otherwise permitted by the applicable building code.

~~22.~~ 19. Change Section ~~2404.7.3~~ 2404.9.3 to read:

~~2404.7.3~~ 2404.9.3 Air velocity. The required air velocity for ventilation systems shall be maintained in accordance with the applicable building code.

~~23. 20.~~ Change Section ~~2404.7.3.1~~ 2404.9.3.1 to read:

~~2404.7.3.1~~ 2404.9.3.1 Open-face or open-front spray booth. For spray application operations conducted in an open-face or open-front spray booth, the ventilation system air velocity shall be maintained in accordance with the requirements of the applicable building code.

~~24. 21.~~ Change Section ~~2404.7.3.2~~ 2404.9.3.2 to read:

~~2404.7.3.2~~ 2404.9.3.2 Enclosed spray booth or spray room with openings for product conveyance. For spray application operations conducted in an enclosed spray booth or spray room with openings for product conveyance, the ventilation system shall be maintained in accordance with the applicable building code.

~~25. 22.~~ Delete Section ~~2404.7.5.~~ 2404.9.5.

~~26. 23.~~ Change Section ~~2404.7.6~~ 2404.9.6 (items 1 and 2 remain) to read:

2404.7.6 Termination point. Unless otherwise permitted by the applicable building code, the termination point for exhaust ducts discharging to the atmosphere shall be maintained to be not less than the distances listed as follows:

- ~~1. Ducts conveying explosive or flammable vapors, fumes, or dusts: 30 feet (9144 mm) from the lot line; 10 feet (3048 mm) from openings into the building; six feet (1829 mm) from exterior walls and roofs; 30 feet (9144 mm) from combustible walls or openings into the building that are in the direction of the exhaust discharge; and 10 feet (3048 mm) above adjoining grade.~~
- ~~2. Other product-conveying outlets: 10 feet (3048 mm) from the lot line; three feet (914 mm) from exterior walls and roofs; 10 feet (3048 mm) from openings into the building; and 10 feet (3048 mm) above adjoining grade.~~

Termination locations at less than these distances shall be evaluated by the building official for compliance in accordance with the applicable building code.

~~27. 24.~~ Change Section ~~2404.7.7~~ 2404.9.7 to read:

~~2404.7.7~~ 2404.9.7 Fan motors and belts. Electric motors driving exhaust fans shall not be placed inside booths or ducts unless approved. Fan rotating elements shall be nonferrous or nonsparking or the casing shall consist of or be lined with such material. Belts shall not enter the duct or booth unless the belt and pulley within the duct are tightly enclosed.

~~28. 25.~~ Change Section ~~2404.7.8~~ 2404.9.8 to read:

~~2404.7.8~~ 2404.9.8 Filters. Unless otherwise approved by the applicable building code, air intake filters that are part of a wall or ceiling assembly shall be listed as Class I or Class II in accordance with UL 900. Exhaust filters shall be provided where required by the applicable building code.

~~29.~~ 26. Change Section ~~2404.7.8.1~~ 2404.9.8.1 to read:

~~2404.7.8.1~~ 2404.9.8.1 Supports. Supports and holders for filters shall be maintained as noncombustible materials unless otherwise approved by the applicable building code.

~~30.~~ 27. Change Section ~~2404.7.8.3~~ 2404.9.8.3 to read:

~~2404.7.8.3~~ 2404.9.8.3 Maintaining air velocity. Where provided, visible gauges, audible alarms, or pressure-activated devices shall be maintained to indicate or ensure that the required air velocity is maintained.

~~31.~~ 28. Change Section ~~2404.7.8.4~~ 2404.9.8.4 to read:

~~2404.7.8.4~~ 2404.9.8.4 Filter rolls. Unless otherwise permitted by the applicable building code, where spray booths are equipped with a filter roll that is automatically advanced, the filter roll shall be arranged to shut down the spraying operation if the filter roll fails to advance automatically.

~~32.~~ 29. Change Section ~~2404.7.8.7~~ 2404.9.8.7 to read:

~~2404.7.8.7~~ 2404.9.8.7 Waterwash spray booths. Waterwash spray booths shall be maintained so as to prevent excessive accumulation of deposits in ducts and residue at duct outlets. Such booths shall be maintained so that air and overspray are drawn through a continuously flowing water curtain before entering an exhaust duct to the building exterior.

~~33.~~ 30. Change Section ~~2404.8~~ 2404.10 to read:

~~2404.8~~ 2404.10 Interlocks. Interlocks for spray application finishes shall be maintained fully operational in accordance with the applicable building code.

~~34.~~ 31. Change Section ~~2404.8.1~~ 2404.10.1 to read:

~~2404.8.1~~ 2404.10.1 Automated spray application operations. Unless otherwise permitted by the applicable building code, where protecting automated spray application operations, automatic fire-extinguishing systems with an approved interlock feature shall maintain that feature so that, upon discharge of the system, automatic fire-extinguishing system will automatically stop the spraying operations and workpiece conveyors into and out of the flammable vapor areas. Where the building is equipped with a fire alarm system, discharge of the automatic fire-extinguishing system shall be maintained to activate the building alarm notification appliances in accordance with the applicable building code.

~~35.~~ 32. Change Section ~~2404.8.1.1~~ 2404.10.1.1 to read:

~~2404.8.1.1~~ 2404.10.1.1 Alarm station. Where required, a manual fire alarm and emergency system shutdown station shall be maintained accessible and fully operational in accordance with the applicable building code.

~~36.~~ 33. Delete Section ~~2404.8.1.2.~~ 2404.10.1.2.

~~37.~~ 34. Change Section ~~2404.8.2~~ 2404.10.2 to read:

~~2404.8.2~~ 2404.10.2 Ventilation interlock prohibited. Unless otherwise permitted by the applicable building code, air makeup and flammable vapor area exhaust systems shall not be interlocked with the fire alarm system and shall remain in operation during a fire alarm condition.

Exception: Where the applicable building code requires such ventilation to be discontinued and dampers closed.

~~38. 35.~~ Change Section ~~2404.9.3~~ 2404.11.3 to read:

~~2404.9.3~~ 2404.11.3 Ventilation. Positive mechanical ventilation providing a minimum of six complete air changes per hour shall be maintained in accordance with the applicable building code.

~~39. 36.~~ Change Section ~~2404.9.4~~ 2404.11.4 to read:

~~2404.9.4~~ 2404.11.4 Electrical wiring. Electrical wiring within 10 feet (3048 mm) of the floor and 20 feet (6096 mm) horizontally of the limited spraying space shall be designed for Class I, Division 2 locations in accordance with the applicable building code.

D. The following changes shall be made to Section 2405, Dipping Operations:

1. Change Section 2405.2 to read:

2405.2 Location of dip-tank operations. Where required by the applicable building code, dip-tank operations conducted in buildings used for Group A, I, or R occupancies shall be located in a room designed for that purpose, equipped with an approved automatic sprinkler system, and separated vertically and horizontally from other areas in accordance with the applicable building code.

2. Change Section 2405.3 to read:

2405.3 Construction of dip tanks. Dip tanks shall be constructed in accordance with Sections 2405.3.1 through 2405.3.4.3 and NFPA 34. Dip tanks, including drain boards, shall be constructed of noncombustible material and their supports shall be of heavy metal, reinforced concrete, or masonry unless otherwise approved by the applicable building code.

3. Change Section 2405.3.1 to read:

2405.3.1 Overflow. To operate dip tanks greater than 150 gallons (568 L) in capacity or 10 square feet (0.93 m<sup>2</sup>) in liquid surface area, they shall be equipped with a trapped overflow pipe leading to an approved location outside the building in accordance with the building code.

4. Change Section 2405.3.2 (exception remains) to read:

2405.3.2 Bottom drains. Unless otherwise permitted by the applicable building code, dip tanks greater than 500 gallons (1893 L) in liquid capacity shall only be operated with bottom drains that are arranged to automatically and manually drain the tank quickly in the event of a fire unless the viscosity of the liquid at normal atmospheric temperature makes this impractical. Manual operation shall continue to be from a safe, accessible location. Such drains shall be trapped and discharged to a

closed, vented salvage tank or to an approved outside location in accordance with the applicable building code.

~~Exception: Dip tanks containing Class IIIB combustible liquids, where the liquids are not heated above room temperature and the process area is protected by automatic sprinklers.~~

5. Change Section 2405.4 to read:

2405.4 Fire protection. Dip tank operations shall be protected with a fire protection system in accordance with the applicable building code and maintained in accordance with Chapter 9.

6. Change Section 2405.4.1 to read:

2405.4.1 Fixed fire-extinguishing equipment. Where required by the applicable building code, an automatic fire-extinguishing system or a dip tank cover shall be maintained.

7. Change Section 2405.4.1.1 to read:

2405.4.1.1 Fire-extinguishing system. Unless otherwise permitted by the applicable building code, an approved automatic fire-extinguishing system shall be provided for dip tanks with a 150 gallon (568 L) or more capacity or 10 square feet (0.93 m<sup>2</sup>) or larger liquid surface area.

8. Change Section 2405.7 to read:

2405.7 Ventilation of flammable vapor areas. Mechanical ventilation in flammable vapor areas shall be operated and maintained to prevent the dangerous accumulation of vapors. Where required by the applicable building code, the failure of any ventilating fan shall automatically stop the dipping conveyor system.

9. Change Section 2405.9.1 to read:

2405.9.1 Location. Unless otherwise required by the applicable building code, tanks shall be located as far as practical from furnaces and shall not be located on or near combustible floors.

10. Change Section 2405.9.2 to read:

2405.9.2 Hoods. Unless otherwise required by the applicable building code, tanks shall be operated only with a noncombustible hood and vent or other approved venting means, terminating outside of the structure to serve as a vent in case of a fire. Such vent ducts shall be treated as flues, and proper clearances shall be maintained from combustible materials.

11. Change Section 2405.9.3 to read:

2405.9.3 Alarms. Tanks shall be operated with a high-temperature-limit switch maintained to sound an alarm when the temperature of the quenching medium reaches 50°F (10°C) below the flash point or other approved level as required by the applicable building code.

12. Change Section 2405.9.4 to read:

2405.9.4 Fire protection. Unless otherwise permitted by the applicable building code, hardening and tempering tanks greater than 500 gallons (1893 L) in capacity or 25 square feet (2.3 m<sup>2</sup>) in liquid surface area shall be protected by an approved automatic fire-extinguishing system maintained in accordance with Chapter 9.

13. Change Section 2405.10.1 to read:

2405.10.1 Paint supply. Unless otherwise permitted by the applicable building code, paint operations shall be supplied by a gravity tank not exceeding 10 gallons (38 L) in capacity or by direct low-pressure pumps arranged to shut down automatically in case of a fire by means of approved heat-actuated devices in accordance with the applicable building code.

14. Change Section 2405.11 to read:

~~2405.11 Roll-coating operations. Roll-coating operations shall comply with Section 2405.10. In roll-coating operations utilizing flammable or combustible liquids, sparks from static electricity shall be prevented by electrically bonding and grounding all metallic rotating and other parts of machinery and equipment and by the installation of static collectors or by maintaining a conductive atmosphere such as a high relative humidity.~~

E. The following changes shall be made to Section 2406, Powder Coating:

1. Change Section 2406.2 to read:

2406.2 Location. Powder coating operations shall be conducted in enclosed powder coating rooms, enclosed powder coating facilities that are ventilated, or ventilated spray booths and in accordance with applicable building code.

2. Change Section 2406.3 (exception remains) to read:

2406.3 Construction of powder coating rooms and booths. The design and construction of powder coating rooms shall be in accordance with the applicable building code. Spray booths shall be constructed in accordance with Section 2404.3.3.

~~Exception: Listed spray booth assemblies that are constructed of other materials shall be allowed.~~

3. Change Section 2406.4 to read:

2406.4 Fire protection. Where required by the applicable building code, automatic fire-extinguishing systems shall be maintained in accordance with Chapter 9.

4. Delete Section 2406.4.1.

5. Change Section 2406.6.4 to read:

~~2406.6.4 Grounding and bonding. Precautions shall be taken to minimize the possibility of ignition by static electrical sparks through static bonding and grounding of powder transport, application, and recovery equipment where possible.~~

~~6. Change Section 2406.7 to read:~~

~~2406.7 Ventilation. Exhaust ventilation shall be sufficient to maintain the atmosphere below one-half the minimum explosive concentration for the material being applied. Nondeposited, air-suspended powders shall be removed through exhaust ducts to the powder recovery system.~~

F. The following changes shall be made to Section 2407, Electrostatic Apparatus:

~~1. Change Section 2407.2 to read:~~

~~2407.2 Location and clear space. A space of at least twice the sparking distance shall be maintained between goods being painted or deteared and electrodes, electrostatic atomizing heads, or conductors. A sign stating the sparking distance shall be conspicuously posted near the assembly.~~

~~Exception: Portable electrostatic paint-spraying apparatus listed for use in Class I, Division 1 locations.~~

~~2. Change Section 2407.3 to read:~~

~~2407.3 Construction of equipment. Electrodes and electrostatic atomizing heads shall be maintained in accordance with the applicable building code. Portable electrostatic paint-spraying apparatus shall be listed for use in Class I, Division 1 locations.~~

~~3. 2. Change Section 2407.3.1 (exception remains) to read:~~

~~2407.3.1 Barriers. Booths, fencing, railings, or guards shall be maintained about the equipment so that either by their location, character, or both, isolation of the process is maintained from plant storage and personnel. Railings, fencing, and guards shall be of conductive material, adequately grounded, and at least five feet (1524 mm) from processing equipment in accordance with the applicable building code.~~

~~Exception: Portable electrostatic paint-spraying apparatus listed for use in Class I, Division 1 locations.~~

~~4. 3. Change Section 2407.4 to read:~~

~~2407.4 Fire protection. Approved automatic fire-extinguishing systems shall be maintained in accordance with Chapter 9.~~

~~5. 4. Change Section 2407.4.1 (items 1 through 5 remain) to read:~~

~~2407.4.1 Protection for automated liquid electrostatic spray application equipment. Where required by the applicable building code, automated liquid electrostatic spray application equipment shall maintain an approved supervised flame detection apparatus that shall, in the event of ignition, react to the presence of flame and shall accomplish all of the following if required by the applicable building code:~~

~~1. Activation of a local alarm in the vicinity of the spraying operation and activation of the building alarm system if such a system is provided.~~

- ~~2. Shutting down of the coating material delivery system.~~
- ~~3. Termination of all spray application operations.~~
- ~~4. Stopping of conveyors into and out of the flammable vapor areas.~~
- ~~5. Disconnection of power to the high-voltage elements in the flammable vapor areas and disconnection of power to the system.~~

6. Change Section 2407.7 to read:

2407.7 Ventilation. Ventilation provided for flammable vapor areas shall be maintained in accordance with the applicable building code.

7. Change Section 2407.8 (items 1 through 4 remain) to read:

2407.8 Emergency shutdown. Where emergency shutdowns are required by the applicable building code, such devices shall be maintained with automatic controls operating without time delay to disconnect the power supply to the high-voltage transformer and signal the operator under any of the following conditions unless otherwise permitted by the applicable building code:

- ~~1. Stoppage of ventilating fans or failure of ventilating equipment from any cause.~~
- ~~2. Stoppage of the conveyor carrying articles past the high-voltage grid.~~
- ~~3. Occurrence of a ground or an imminent ground at any point of the high-voltage system.~~
- ~~4. Reduction of clearance below that required in Section 2407.2.~~

8. Change Section 2407.9 to read:

2407.9 Ventilation interlock. Unless otherwise permitted by the applicable building code, hand electrostatic equipment shall be maintained as interlocked with the ventilation system for the spraying area so that the equipment cannot be operated unless the ventilating system is in operation.

G. The following change shall be made to Section 2408, Organic Peroxides and Dual-Component Coatings:

Change Section 2408.2 to read:

2408.2 Use of organic peroxide coatings. Unless otherwise permitted by the applicable building code, spraying operations involving the use of organic peroxides and other dual-component coatings shall be conducted in approved, sprinklered spray booths complying with the applicable building code.

H. The following changes shall be made to Section 2409, Indoor Manufacturing of Reinforced Plastics:

1. Change Section 2409.3 to read:

2409.3 Fire protection. Where required by the applicable building code, automatic fire-extinguishing systems shall be maintained in accordance with Chapter 9.



2. Change Section 2409.6 (exception remains) to read:

2409.6 Ventilation. Mechanical ventilation shall be maintained throughout resin application areas in accordance with 2404.7 and the applicable building code. The ventilation rate shall be adequate to maintain the concentration of flammable vapors in the resin application area at or below 25% of the LFL unless otherwise permitted by the applicable building code.

~~Exception: Mechanical ventilation is not required for buildings that have 75% of the perimeter unenclosed.~~

~~3. Change Section 2409.6.1 to read:~~

~~2409.6.1 Local ventilation. Local ventilation shall be provided inside of work pieces where personnel will be under or inside of the work piece.~~

**13VAC5-52-300. IFC Chapter 25 Fruit and Crop Ripening.**

A. The following changes shall be made to Section 2501, General:

1. Change Section 2501.2 to read:

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

2. Change Section 2501.3 to read:

2501.3 Ethylene generators. Approved ethylene generators shall be operated and maintained in accordance with Section 2506 and the applicable building code.

B. The following change shall be made to Section 2503, Ethylene Gas:

Change Section 2503.2 to read:

2503.2 Dispensing. Valves controlling discharge of ethylene shall be maintained to limit the concentration of gas in accordance with this chapter and the applicable building code.

C. The following changes shall be made to Section 2504, Sources of Ignition:

~~1. Change Section 2504.1 to read:~~

~~2504.1 Ignition prevention. Sources of ignition shall be controlled or protected in accordance with this section and Chapter 3.~~

~~2. Change Section 2504.2 to read:~~

2504.2 Electrical wiring and equipment. Electrical wiring and equipment, including luminaires, shall be classified and maintained in accordance with Chapter 6, the applicable building code, and the maintenance provisions of NFPA 70.

~~3.~~ 2. Change Section 2504.3 to read:

2504.3 Static electricity. Bonding and grounding provided for permanent containers, piping, and equipment shall be maintained in accordance with the applicable building code. Portable containers, piping, and equipment shall be bonded and grounded in accordance with Chapter 57.

~~4.~~ 3. Change Section 2504.5 to read:

2504.5 Heating. Heating shall be maintained in accordance with Chapter 6 and the applicable building code.

D. The following changes shall be made to Section 2506, Ethylene Generators:

1. Change Section 2506.1 to read:

2506.1 Ethylene generators. Ethylene generators shall be listed and labeled by an approved testing laboratory, approved, and used only in approved rooms in accordance with the ethylene generator manufacturer's instructions. The listing evaluation shall include documentation that the concentration of ethylene gas does not exceed 25% of the lower explosive limit (LEL).

2. Change Section 2506.2 to read:

2506.2 Ethylene generator rooms. Portable ethylene generators shall be used in rooms having a volume of not less than 1,000 cubic feet (28 m<sup>3</sup>). Rooms shall have air circulation to ensure even distribution of ethylene gas and shall be free from sparks, open flames, or other ignition sources.

**13VAC5-52-310. 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.

**13VAC5-52-320. IFC Chapter 27 Semiconductor Fabrication Facilities.**

A. The following changes shall be made to Section 2701, General:

1. Change Section 2701.1 to read:

2701.1 Scope. The operation and maintenance of semiconductor fabrication facilities and comparable research and development areas classified as Group H-5 shall comply with this chapter. The use, storage, and handling of hazardous materials in Group H-5 shall comply with this chapter, other applicable provisions of this code, and requirements of the applicable building code.

~~B.~~ 2. Delete Section 2701.4.

~~C.~~ 3. Change Section 2701.5 to read:

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

~~D.~~ B. The following changes shall be made to Section 2703, General Safety Provisions:

1. Change Section 2703.1.3 (items 1 through 8 remain) to read:

2703.1.3 Signals. Unless otherwise permitted by the applicable building code, the emergency control station shall receive signals from emergency equipment and alarm and detection systems. Such emergency equipment and alarm and detections systems include the following where such equipment or systems are required by the applicable building code:

- ~~1. Automatic sprinkler system alarm and monitoring systems.~~
- ~~2. Manual fire alarm systems.~~
- ~~3. Emergency alarm systems.~~
- ~~4. Continuous gas detection systems.~~
- ~~5. Smoke detection systems.~~
- ~~6. Emergency power system.~~
- ~~7. Automatic detection and alarm systems for pyrophoric liquids and Class 3 water-reactive liquids required by Section 2705.2.3.4.~~
- ~~8. Exhaust ventilation flow alarm devices for pyrophoric liquids and Class 3 water-reactive liquids cabinet exhaust ventilation systems required by Section 2705.2.3.4.~~

~~E.~~ 2. Change Section 2703.2.2 to read:

2703.2.2 General requirements. In addition to the requirements in Section 2703.2, systems, equipment, and other processes shall also comply with Section 5003.2, other applicable provisions of this code, and the applicable building code.

~~F.~~ 3. Delete Sections 2703.3 and 2703.3.1.

~~G.~~ 4. Change Sections 2703.3.2 through 2703.3.4 and Sections 2703.3.6 through 2703.3.8 to read:

2703.3.2 Pass-throughs in exit access corridors. Pass-throughs in exit access corridors shall comply with the applicable building code.

2703.3.3 Liquid storage rooms. Liquid storage rooms shall comply with Chapter 57 and the applicable building code.

2703.3.4 HPM rooms. Hazardous production materials (HPM) rooms shall comply with the applicable building code.

~~2703.3.5 Gas cabinets. Gas cabinets shall comply with Section 5003.8.6.~~

2703.3.6 Exhausted enclosures. Exhausted enclosures shall be maintained in accordance with Section 5003.8.5 and remain in accordance with the applicable building code.

2703.3.7 Gas rooms. Gas rooms shall be maintained in accordance with Section 5003.8.4 and remain in accordance with the applicable building code.

2703.3.8 Service corridors. Service corridors shall comply with Section 2705.3 and remain in accordance with the applicable building code.

~~H.~~ 5. Change Sections ~~2703.7~~ and Section 2703.7.1 to read:

~~2703.7 Electrical wiring and equipment. Electrical wiring and equipment in HPM facilities shall comply with Sections 2703.7.1 through 2703.7.3.~~

2703.7.1 Fabrication areas. Electrical wiring and equipment in fabrication areas shall be maintained in accordance with the applicable provisions of NFPA 70 and remain in accordance with the applicable building code.

~~I.~~ 6. Change Section 2703.7.2 to read:

2703.7.2 Workstations. Electrical equipment and devices within five feet (1524 mm) of workstations in which flammable or pyrophoric gases or flammable liquids are used shall be maintained in accordance with the applicable provisions of NFPA 70 for hazardous locations. Workstations shall not be energized without adequate exhaust ventilation in accordance with Section 2703.14.

Exception: Not required when the air removal from the workstation or dilution will prevent the accumulation of flammable vapors and fumes on a continuous basis.

~~J.~~ 7. Change Section 2703.7.3 to read:

2703.7.3 Hazardous production material (HPM) rooms, gas rooms, and liquid storage rooms. Electrical wiring and equipment in HPM rooms, gas rooms, and liquid storage rooms shall be maintained in accordance with the applicable provisions of NFPA 70 and remain in accordance with the applicable building code.

~~K.~~ 8. Change Section 2703.10 to read:

2703.10 Automatic sprinkler system. Where required by the applicable building code automatic sprinkler systems shall be maintained in accordance with Chapter 9.

~~L.~~ 9. Delete Sections 2703.10.1 and 2703.10.1.1.

~~M.~~ 10. Delete Sections 2703.10.2 through 2703.10.4.4.1.

~~N.~~ 11. Change Sections 2703.10.4.4.2 and 2703.10.4.4.3 to read:

2703.10.4.4.2 Control valve. Control valves provided for sprinklers installed in exhaust ducts shall be maintained in accordance with the applicable building code.

2703.10.4.4.3 Drainage. Drainage provided to remove sprinkler water discharged in exhaust ducts shall be maintained.

~~O.~~ 12. Delete Section 2703.10.4.4.4.

~~P.~~ 13. Change Sections 2703.10.5 through 2703.12 to read:

2703.10.5 Sprinkler alarms and supervision. Automatic sprinkler systems, associated electronic supervision, and alarms shall be maintained in accordance with Chapter 9. Where required by the applicable building code, automatic sprinkler system alarm and supervisory signals shall also remain transmitted to the emergency control station.

2703.11 Manual fire alarm system. Where provided, a manual fire alarm system shall be maintained in accordance with Chapter 9 and remain throughout buildings containing a Group H-5 occupancy in accordance with the applicable building code. Where required by the applicable building code, activation of the alarm system shall also be maintained to transmit a signal to the emergency control station.

2703.12 Emergency alarm system. Emergency alarm systems shall be maintained in accordance with Chapter 9 and remain in accordance with the applicable building code. Where required by the applicable building code, emergency alarm systems shall also remain transmitted to the emergency control station.

~~Q. 14. Delete Sections 2703.12.1 and 2703.12.1.1.~~

~~R. Delete Sections 2703.12.1.2 and 2703.12.1.3.~~

~~S. Delete Sections 2703.12.2 and through 2703.12.3.~~

~~T. 15. Change Section 2703.13 to read:~~

~~2703.13 Continuous gas detection systems. Where required by the applicable building code, a continuous gas detection system shall be maintained for HPM gases. Such a system shall remain in accordance with the applicable building code where the physiological warning threshold level of the gas is at a higher level than the accepted permissible exposure limit (PEL) for the gas and for flammable gases.~~

~~U. 16. Delete Section 2703.13.1 and change Section 2703.13.2. 2703.13.2 (items 1 through 4 remain) to read:~~

~~2703.13.2 Gas detection system operation. Where required by the applicable building code, a continuous gas detection system shall be maintained capable of monitoring the room, area, or equipment in which the gas is located at or below all the following gas concentrations:~~

- ~~1. Immediately dangerous to life and health (IDLH) values when the monitoring point is within an exhausted enclosure, ventilated enclosure or gas cabinet.~~
- ~~2. Permissible exposure limit (PEL) levels when the monitoring point is in an area outside an exhausted enclosure, ventilated enclosure, or gas cabinet.~~
- ~~3. For flammable gases, the monitoring detection threshold level shall be vapor concentrations in excess of 25% of the lower flammable limit (LFL) when the monitoring is within or outside an exhausted enclosure, ventilated enclosure, or gas cabinet.~~

~~4. Except as noted in this section, monitoring for highly toxic and toxic gases shall also comply with Chapter 60.~~

~~V.~~ 17. Change Section 2703.14 to read:

2703.14 Exhaust ventilation systems for HPM. Exhaust ventilation systems and materials for exhaust ducts utilized for the exhaust of HPM shall be maintained and operated in accordance with this chapter and other applicable provisions of this code and remain in accordance with the applicable building code.

~~W.~~ 18. Delete Section 2703.14.2 and ~~add~~ change Section 2703.14.1 including items 1, 2, 3, 4, and 7 (items 5, 6 and 8 remain) to read:

2703.14.1 Operations and maintenance of HPM areas. Exhaust ventilation systems shall be maintained in the following locations in accordance with the requirements of this section and the applicable building code:

1. Fabrication areas: Exhaust ventilation for fabrication areas shall comply with the applicable building code.
2. Workstations: A ventilation system shall be maintained to capture and exhaust gases, fumes, and vapors at workstations.
3. Liquid storage rooms: Exhaust ventilation for liquid storage rooms shall comply with the applicable building code.
4. HPM rooms: Exhaust ventilation for HPM rooms shall comply with the applicable building code.
- ~~5. Gas cabinets: Exhaust ventilation for gas cabinets shall comply with Section 5003.8.6.2. The gas cabinet ventilation system is allowed to connect to a workstation ventilation system. Exhaust ventilation for gas cabinets containing highly toxic or toxic gases shall also comply with Chapter 60.~~
- ~~6. Exhausted enclosures: Exhaust ventilation for exhausted enclosures shall comply with Section 5003.8.5.2. Exhaust ventilation for exhausted enclosures containing highly toxic or toxic gases shall also comply with Chapter 60.~~
7. Gas rooms: Exhaust ventilation for gas rooms shall comply with Section 5003.8.4.2 and the applicable building code. Exhaust ventilation for gas rooms containing highly toxic or toxic gases shall also comply with Chapter 60.
- ~~8. Cabinets containing pyrophoric liquids or Class 3 water-reactive liquids: Exhaust ventilation for cabinets in fabrication areas containing pyrophoric liquids or Class 3 water-reactive liquids shall be as required in Section 2705.2.3.4.~~

~~X.~~ 19. Change Section 2703.15 to read:

2703.15 Emergency power system. Where required by the applicable building code, an emergency power system shall be maintained in accordance with Section 603.

Y. 20. Change Section 2703.15.1 including item 11 (items 1 through 10 remain) to read:

2703.15.1 Required electrical systems. Where provided or required by the applicable building code, emergency power shall be maintained for electrically operated equipment and connected control circuits, including the following systems in accordance with the applicable building code:

- ~~1. HPM exhaust ventilation systems.~~
- ~~2. HPM gas cabinet ventilation systems.~~
- ~~3. HPM exhausted enclosure ventilation systems.~~
- ~~4. HPM gas room ventilation systems.~~
- ~~5. HPM gas detection systems.~~
- ~~6. Emergency alarm systems.~~
- ~~7. Manual fire alarm systems.~~
- ~~8. Automatic sprinkler system monitoring and alarm systems.~~
- ~~9. Automatic alarm and detection systems for pyrophoric liquids and Class 3 water reactive liquids required in Section 2705.2.3.4.~~
- ~~10. Flow alarm switches for pyrophoric liquids and Class 3 water reactive liquids cabinet exhaust ventilation systems required in Section 2705.2.3.4.~~
11. Electrically operated systems required elsewhere in this code or in the applicable building code that are applicable to the use, storage, or handling of HPM.

Z. 21. Change Sections 2703.15.2, ~~2703.16~~, ~~2704.1~~, and ~~2704.2.1~~ 2703.16 to read:

2703.15.2 Exhaust ventilation systems. Where permitted by the applicable building code exhaust ventilation systems are allowed to be maintained to operate at not less than one-half the normal fan speed on the emergency power system when it is demonstrated that the level of exhaust will maintain a safe atmosphere.

2703.16 ~~Subatmospheric~~ Sub-atmospheric pressure gas systems. ~~Subatmospheric~~ Sub-atmospheric pressure gas systems (SAGS) shall be maintained in accordance with the applicable provisions of NFPA 318 and the applicable building code.

~~2704.1 General. Storage of hazardous materials shall comply with Section 2703 and this section and other applicable provisions of this code.~~

C. The following changes shall be made to Section 2704, Storage:

1. Change Section 2704.2.1 including items 2, 3, and 4 (items 1 and 5 remain) to read:

2704.2.1 Location of HPM storage in fabrication areas. Storage of HPM in fabrication areas shall be maintained within approved or listed storage cabinets, gas cabinets, or exhausted enclosures or within a workstation as follows.

- ~~1. Flammable and combustible liquid storage cabinets shall comply with Section 5704.3.2.~~
2. Hazardous materials storage cabinets shall comply with Chapter 50.
3. Gas cabinets shall comply with Chapter 50. Gas cabinets for highly toxic or toxic gases shall also comply with Chapter 60.
4. Exhausted enclosures shall comply with Chapter 50. Exhausted enclosures for highly toxic or toxic gases shall also comply with Chapter 60.
- ~~5. Workstations shall comply with Section 2705.2.3.~~

~~AA.~~ 2. Change Section 2704.2.2.1 and footnote “b” to Table 2704.2.2.1 to read:

2704.2.2.1 Storage and use in fabrication areas. The maximum quantities of hazardous materials stored or used in a single fabrication area shall not exceed the quantities set forth in Table 2704.2.2.1 unless otherwise approved by the applicable building code.

b. Quantity of hazardous materials in a single fabrication area shall not exceed the maximum allowable quantities per control area in Section 5003.1.1.

~~BB.~~ 3. Change Section 2704.3.1 to read:

2704.3.1 HPM storage. The indoor storage of HPM in quantities greater than those listed in Sections 5003.1.1 and 5704.3.4 shall be approved by the building official and located in a room complying with the requirements of the applicable building code and this code for a liquid storage room, HPM room, or gas room as appropriate for the materials stored.

~~CC.~~ D. The following changes shall be made to Section 2705, Use and Handling:

1. Change Section 2705.1 to read:

2705.1 General. The use and handling of hazardous materials shall comply with this section, Section 2703, and other applicable provisions of this code to the extent that such requirements are operational in nature and do not affect how a building is constructed.

~~DD.~~ 2. Change Delete item 2 of Section 2705.2.3.2 to read: 2705.2.3.2 (items 1, 3 and 4 remain).

~~2705.2.3.2 Protection of vessels. Vessels containing hazardous materials located in or connected to a workstation shall be protected as follows:~~

- ~~1. HPM: Vessels containing HPM shall be protected from physical damage and shall not project from the workstation.~~
- ~~2. Compressed gases: Protection for compressed gas vessels shall also comply with Section 5303.5.~~



~~3. Cryogenic fluids: Protection for cryogenic fluid vessels shall also comply with Section 5503.5.~~

~~EE.~~ 3. Change Section 2705.3.1 to read:

2705.3.1 Corridors and enclosures for stairways and ramps. Corridors and enclosures for exit stairways and ramps in new fabrication areas shall not contain HPM, except as permitted in corridors by Section 2705.3.2 and the applicable building code.

~~FF.~~ 4. Change Sections 2705.3.2.1 and 2705.3.3 to read:

2705.3.2.1 Existing fabrication area transportation. Where existing fabrication areas are not required by the applicable building code to utilize approved service corridors, HPM is allowed to be handled and transported in accordance with Section 5003.10.

2705.3.3 Service corridors. Where service corridors are required by the applicable building code and transportation of HPM from a liquid storage room, HPM room, or gas room or from the outside of a building to the perimeter wall of a fabrication area is necessary, such transport shall be through approved service corridors.

**13VAC5-52-330. IFC Chapter 28 Lumber Yards and Agro-Industrial, Solid Biomass, and Woodworking Facilities.**

A. Change Section 2801.2 to read:

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

B. Change Sections 2803.1 through 2803.3 (exception to Section 2803.3 remains) to read:

2803.1 Open yards. Open yards around structures required by the applicable building code shall be maintained. The space shall be maintained free of obstructions associated with the outdoor storage of the materials regulated by Chapter 28, which could interfere with the function of the open space, especially that of providing fire department access to the building.

2803.2 Dust control. Equipment or machinery located inside buildings that generates or emits combustible dust shall be maintained in accordance with Chapter 22 and the applicable building code. Equipment or systems that are used to collect, process, or convey combustible dusts provided with an approved explosion control system in accordance with the applicable building code shall be maintained in accordance with Chapter 9.

2803.2.1 Explosion venting. Where a dust explosion hazard exists in equipment rooms, buildings, or other enclosures, such areas shall be declared an unsafe condition in accordance with Section 110.1, and operations shall not be continued until the hazard is mitigated. Where explosion venting is provided it shall be maintained in accordance with Chapter 9 and the applicable building code.

2803.3 Waste removal. Sawmills, ~~planing~~ planing mills, and other woodworking plants shall maintain waste removal systems that collect and remove sawdust and shavings. Such systems shall be maintained in accordance with Chapter 22 and comply with the applicable building code.

~~Exception: Manual waste removal when approved.~~

C. Change Section 2803.4 to read:

2803.4 Electrical equipment. Electrical wiring and equipment shall be maintained in accordance with Chapter 6, the applicable building code, and the maintenance provisions of NFPA 70.

D. ~~Change~~ ~~Delete~~ Section 2804.2.1 and change Section 2804.2 and ~~delete~~ ~~Section 2804.2.1.~~  
Section 2804.2 to read:

2804.2 Fire alarms. Where provided, fire alarm systems shall be maintained in accordance with Chapter 9.

E. Change Section 2804.4 to read:

2804.4 Automatic sprinkler systems. Automatic sprinkler systems shall be maintained in accordance with Chapter 9.

F. Change Section 2805.2 to read:

2805.2 Dryer protection. Dryers protected by an approved, automatic deluge water-spray suppression system shall be maintained in accordance with Chapter 9. Deluge heads shall be inspected quarterly for pitch buildup. Deluge heads shall be flushed during regular maintenance for functional operation.

G. Change exception to Section 2807.2 to read:

~~2807.2 Size of piles. Piles shall not exceed 60 feet (18,288 mm) in height, 300 feet (91,440 mm) in width, and 500 feet (152 m) in length. Piles shall be separated from adjacent piles or other exposures by approved fire apparatus access roads.~~

Exception: The fire code official is authorized to allow the pile size to be increased where additional approved fire protection is provided in accordance with Chapter 9.

H. Change Section 2807.3 to read:

2807.3 Outdoor pile fire protection. Where conveyor tunnels and combustible enclosures pass under an outdoor pile, automatic sprinkler protection shall be provided. Automatic sprinkler protection shall be maintained in accordance with Chapter 9.

I. Change Section 2808.7 to read:

2808.7 Pile fire protection. Automatic sprinkler protection shall be provided in conveyor tunnels and combustible enclosures that pass under a pile. Combustible conveyor systems and enclosed conveyor systems shall be equipped with an approved automatic sprinkler system. These systems shall be maintained in accordance with Chapter 9.

Note: Systems regulated by the USBC must comply with the applicable building code.

**13VAC5-52-340. IFC Chapter 29 Manufacture of Organic Coatings.**

A. Change Section 2901.2 to read:

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

B. Change Section 2903.1 to read:

2903.1 Building features. Unless approved by the applicable building code, manufacturing of organic coatings shall be done only in buildings that do not have pits or basements.

C. Change Section 2903.2 to read:

2903.2 Location. Unless approved by the applicable building code, organic coating manufacturing operations and operations incidental to or connected with organic coating manufacturing shall not be located in buildings having other occupancies.

D. Change Section 2903.4 to read:

2903.4 Fire protection systems. Fire protection systems shall be maintained, periodically inspected, and tested in accordance with Chapter 9.

E. Change Section 2903.10 to read:

2903.10 Drainage. Drainage facilities shall be maintained to direct flammable and combustible liquid leakage and fire protection water to an approved location away from the building, any other structure, any storage area, or adjoining premises.

F. Change Section 2903.11 to read:

2903.11 Alarm system. Alarm systems shall be maintained in accordance with Chapter 9.

G. Change Section 2904.1 to read:

2904.1 Wiring and equipment. Electrical wiring and equipment shall be maintained in accordance with Chapter 6, the applicable building code, and the maintenance provisions of NFPA 70.

H. Change Section 2904.3 to read:

2904.3 Bonding. Equipment, including tanks, machinery, and piping shall not be operated where an ignitable mixture is capable of being present unless bonded and connected to a ground in accordance with the applicable building code.

I. Change Section 2904.3.1 to read:

2904.3.1 Piping. Electrically isolated sections of metallic piping or equipment shall be maintained grounded or bonded to the other grounded portions of the system in accordance with the applicable building code.

J. Change Section 2904.4 to read:

2904.4 Ground. Metal framing of buildings shall be grounded in accordance with the applicable building code.

K. Change Section 2905.1 to read:

2905.1 Process location. Process operations shall be conducted in structures approved in accordance with the applicable building code.

L. Change Section 2905.4 to read:

2905.4 Explosion control. Explosion control shall be maintained in areas subject to potential deflagration hazards as indicated by the applicable building code. Explosion control shall be maintained in accordance with Section 911 and NFPA 35.

M. Change Section 2905.5 to read:

2905.5 Ventilation. Enclosed structures in which Class I liquids are processed or handled shall be ventilated to a safe location outside of the structure in accordance with the applicable building code.

N. Change Section 2906.1 to read:

2906.1 Mills. Mills operating with close clearances that process flammable and heat-sensitive materials, such as nitrocellulose, shall maintain operations in a detached building or in a noncombustible structure without other occupancies unless otherwise approved by the applicable building code. The amount of nitrocellulose or other flammable material brought into the area shall not be more than the amount required for a batch.

O. Change Section 2909.2 to read:

2909.2 Tank storage. Tank storage for flammable and combustible liquids located inside of structures shall be limited to storage areas at or above grade that are separated from the processing area in accordance with the applicable building code. Processing equipment containing flammable and combustible liquids and storage in quantities essential to the continuity of the operations shall not be prohibited in the processing area.

P. Change Section 2909.4 to read:

2909.4 Nitrocellulose storage. Nitrocellulose storage shall be located on a detached pad or in a separate structure or a room enclosed in accordance with the applicable building code. When nitrocellulose storage is present, the area shall not be utilized for any other use in accordance with the applicable building code. Electrical wiring and equipment in storage areas adjacent to process areas shall be maintained in accordance with Section 2904.2.

Q. Change Section 2909.6 to read:

2909.6 Finished products. Finished products that are flammable or combustible liquids shall be stored outside of structures, in a separate structure, or in a room separated from the processing area

where such storage is permitted under the applicable building code. The storage of finished products shall be in tanks or closed containers in accordance with Chapter 57.

**13VAC5-52-350. IFC Chapter 30 Industrial Ovens.**

A. Change Section 3001.1 to read:

3001.1 Scope. This chapter shall apply to the maintenance and operation of industrial ovens and furnaces. Industrial ovens and furnaces shall comply with the applicable maintenance provisions of NFPA 86, the applicable building code, and this chapter. The terms "ovens" and "furnaces" are used interchangeably in this chapter.

B. Change Section 3001.2 to read:

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

C. Change Section 3003.1 to read:

3003.1 Ventilation. Ventilation or combustion air for industrial ovens or furnaces shall be maintained in accordance with the applicable building code.

D. Change Section 3003.4 to read:

3003.4 Temperatures. Unless otherwise approved by the applicable building code, roofs and floors of ovens shall maintain insulation and ventilation to prevent temperatures at combustible ceilings and floors from exceeding 160°F (71°C).

E. Change Section 3004.1 to read:

3004.1 Fuel-gas piping. Fuel-gas piping serving industrial ovens shall be maintained in accordance with this section and remain in accordance with the applicable building code.

F. Change Section 3004.2 to read:

3004.2 Shutoff valves. Manual fuel shutoff valves for industrial ovens or furnaces shall be maintained in accordance with the applicable building code.

G. Change exception to Section 3004.2.1 to read:

~~3004.2.1 Fuel supply lines. Valves for fuel supply lines shall be located within six feet (1829 mm) of the appliance served.~~

Exception: When a valve located in the same general area as the appliance served has been approved in accordance with the applicable building code.

H. Change Section 3004.3 to read:

3004.3 Valve position. Manual fuel shutoff valves shall be maintained to visually indicate the open or closed position of the valve. Manual fuel shutoff valves shall not be equipped with removable

handles or wrenches unless the handle or wrench can only be installed parallel with the fuel line when the valve is in the open position.

I. Change Sections 3005.1, 3006.1, and 3006.2 to read:

3005.1 Shut down. Interlocks shall be maintained for Class A ovens so that conveyors or sources of flammable or combustible materials shall shut down if either the exhaust or recirculation air supply fails.

3006.1 Required protection. Fire-extinguishing systems provided for Class A and Class B ovens that contain or are utilized for the processing of combustible materials shall be maintained in accordance with Chapter 9.

3006.2 Fixed fire-extinguishing systems. Fixed fire-extinguishing systems shall be maintained in accordance with Chapter 9 for Class C or Class D ovens to protect against such hazards as overheating, spillage of molten salts or metals, quench tanks, ignition of hydraulic oil, and escape of fuel.

**13VAC5-52-360. IFC Chapter 31 Tents, Temporary Special Event Structures, and Other Membrane Structures.**

A. The following change shall be made to Section 3101, General:

Change Section 3101.1 to read:

3101.1 Scope. Tents, temporary special event structures, and membrane structures shall comply with this chapter. The provisions of Section 3103 are applicable only to temporary tents and membrane structures. The provisions of Section 3104 are applicable to temporary and permanent tents and membrane structures.

B. The following changes shall be made to Section 3103, Temporary Tents and Membrane Structures:

1. Change Section 3103.1 to read:

3103.1 General. All temporary tents and membrane structures shall comply with this section.

2. Change Section 3103.2 to read:

3103.2 Approval required. Tents and membrane structures having an area in excess of 900 square feet (84 m<sup>2</sup>) shall not be erected, operated, or maintained for any purpose without first obtaining a permit and approval from the fire code official in accordance with Table 107.2.

3. ~~Add~~ Delete Section 3103.3.1 and add Section 3103.2.1 and delete Section 3103.3.1.  
~~Section 3103.2.1~~ to read:

3103.2.1 Multiple tents. The aggregate area of multiple tents separated by less than 12 feet (3658 mm) shall not exceed 900 square feet unless approved in accordance with Section 3103.2.

4. Change Section 3103.4 to read:

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

5. Change Sections ~~3103.9.1~~ 3103.8.2 through ~~3103.9.3~~ 3103.8.4 to read:

~~3103.9.1~~ 3103.8.2 Tents and membrane structures exceeding one story. Tents and membrane structures exceeding one story shall be designed and constructed to comply with the applicable building code.

~~3103.9.2~~ 3103.8.3 Tents and membrane structures greater than 7,500 square feet. Tents and membrane structures greater than 7,500 square feet shall be designed and constructed to comply with the applicable building code.

~~3103.9.3~~ 3103.8.4 Tents and membrane structures with an occupant load greater than 1,000. Tents and membrane structures with an occupant load greater than 1,000 shall be designed and constructed to comply with the applicable building code.

C. The following changes shall be made to Section 3104, Temporary and Permanent Tents and Membrane Structures:

1. Change Section 3104.1 to read:

3104.1 General. Tents and membrane structures, both temporary and permanent, shall be in accordance with this section. Permanent tents and membrane structures shall also comply with the applicable building code.

2. Change Section 3104.2 to read:

3104.2 Flame propagation performance treatment. Before a permit is granted, the owner or agent shall file a certificate executed by an approved testing laboratory certifying that the tents and membrane structures and their appurtenances; sidewalls, drops, and tarpaulins; floor coverings, bunting, and combustible decorative materials and effects, including sawdust where used on floors or passageways, are composed of material meeting the flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701 or shall be treated with a flame retardant in an approved manner and meet the flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701, and that such flame propagation performance criteria are effective for the period specified by the permit.

3. Change Section 3104.4 to read:

3104.4 Certification. An affidavit or affirmation shall be submitted to the fire code official and a copy retained on the premises on which the tent or air-supported structure is located. The affidavit shall attest to all of the following information relative to the flame propagation performance criteria of the fabric:

1. Names and address of the owners of the tent or air-supported structure.
2. Date the fabric was last treated with flame-retardant solution.

3. Trade name or kind of chemical used in treatment.

4. Name of person or firm treating the material.

5. Name of testing agency and test standard by which the fabric was tested.

D. The following changes shall be made to Section 3105, Temporary Special Event Structures:

1. Change Section 3105.1 to read:

3105.1 General. Operation and maintenance of temporary stage canopies shall be in accordance with Section 3104, Sections 3105.2 through ~~3105.7~~, 3105.6, and ANSI E1.21.

2. Change ~~Sections~~ Section 3105.2 and add Section 3105.3 3105.2.1 to read:

3105.2 Approval. Temporary stage canopies in excess of 400 square feet (37 m<sup>2</sup>) shall not be erected for any purpose without first obtaining approval and a permit from the building official.

~~3105.3~~ 3105.2.1 Permits. Permits shall be required as set forth in Section 107.2.

3. Change Section ~~3105.5~~ 3105.4 to read:

~~3105.5~~ 3105.4 Required documents. Documents shall be submitted to the building official where required by the USBC.

4. Change Sections ~~3105.6~~ 3105.5 through ~~3105.6.2~~ 3105.5.2 to read:

~~3105.6~~ 3105.5 Inspections. Inspections shall comply with Section 106 and Sections ~~3105.6.1~~ 3105.5.1 and ~~3105.6.2~~ 3105.5.2.

~~3105.6.1~~ 3105.5.1 Independent inspector. The owner of a temporary stage canopy shall employ a qualified, independent approved agency or individual to inspect the installation of a temporary stage canopy.

~~3105.6.2~~ 3105.5.2 Inspection report. The inspecting agency or individual shall furnish an inspection report to the building official and fire code official. The inspection report shall indicate that the temporary stage canopy was inspected and was or was not installed in accordance with the approved construction documents. Discrepancies shall be brought to the immediate attention of the installer for correction. Where any discrepancy is not corrected, the discrepancy shall be brought to the attention of the building official and fire code official and the designated responsible party.

5. Change Section ~~3105.7~~ 3105.6 to read:

~~3105.7~~ 3105.6 Means of egress. The means of egress for temporary stage canopies shall comply with Chapter 10 and the applicable building code.

6. Delete Section ~~3105.8~~ 3105.7.

E. The following change shall be made to Section 3106, Inflatable amusement devices:

Delete Section 3106 in its entirety.



F. The following change shall be made to Section 3107, Outdoor assembly events:

~~7. Change Section 3106.2.2~~ 3107.2.2 to read:

~~3106.2.2~~ 3107.2.2 Permits. An operational permit shall be required as set forth in Section 107.2.

~~8. Change Section 3107.10~~ to read:

~~3107.10~~ Fire protection equipment. Fire hose lines, water supplies, and other auxiliary fire equipment shall be maintained at the site in such numbers and sizes as required by the fire code official.

G. The following changes shall be made to Section 3108, Operational requirements:

~~9. 1. Change Section 3107.11~~ 3108.11 to read:

~~3107.11~~ 3108.11 Occupant load factors. The occupant load allowed in an assembly structure or portion thereof erected for a period of 180 days or less shall be determined in accordance with Chapter 10 of the IFC.

~~10. 2. Change Section 3107.12.1~~ Sections 3108.12.1 and 3108.12.2 to read:

~~3107.12.1~~ 3108.12.1 Installation. Heating or cooking equipment tanks, piping, hoses, fittings, valves, tubing, and other related components in assembly structures or portions thereof erected for 180 days or fewer shall be operated and maintained in accordance with manufacturer specifications and other provisions of this code.

~~11. Change Section 3107.12.2~~ to read:

~~3107.12.2~~ 3108.12.2 Venting. Gas, liquid, and solid fuel-burning equipment designed to be vented shall be vented to the outside air as specified by the applicable building code and shall be approved. Such vents shall be equipped with approved spark arresters where required. Where vents or flues are used, all portions of the tent or membrane structure shall be not less than 12 inches (305 mm) from the flue or vent.

~~12. Change Section 3107.12.5~~ to read:

~~3107.12.5~~ Cooking tents. Cooking tents shall be separated from other tents or membrane structures by not less than 20 feet (6096 mm).

~~13. Change Section 3107.13.1~~ to read:

~~3107.13.1~~ General. LP-gas equipment such as tanks, piping, hoses, fittings, valves, tubing, and other related components shall be approved and in accordance with Chapter 61 and with the applicable building code.

~~14. Change Section 3107.13.2 and add Table 3107.13.2~~ to read:

3107.13.2 Location of containers. LP-gas containers and tanks shall be located outside in accordance with Table 3107.13.2. Pressure relief devices shall be pointed away from the tent or membrane structure.

TABLE 3107.13.2 LOCATION OF LP-GAS CONTAINERS

| LP-Gas Container Capacity (water gallons) | Minimum Separation between LP-Gas Containers and Buildings, Public Ways, <sup>a</sup> or Lot Lines of Adjoining Property that Can be Built on |                                                   | Minimum Separation between LP-Gas Containers          |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------|
|                                           | Mounded or underground LP-gas containers <sup>a</sup> (feet)                                                                                  | Aboveground LP-gas containers <sup>b</sup> (feet) |                                                       |
| Less than 125 <sup>c,d</sup>              | 10                                                                                                                                            | 5 <sup>e</sup>                                    | None                                                  |
| 125 to 250                                | 10                                                                                                                                            | 10                                                | None                                                  |
| 251 to 500                                | 10                                                                                                                                            | 10                                                | 3                                                     |
| 501 to 2,000                              | 10                                                                                                                                            | 25 <sup>e,f</sup>                                 | 3                                                     |
| 2,001 to 30,000                           | 50                                                                                                                                            | 50                                                | 5                                                     |
| 30,001 to 70,000                          | 50                                                                                                                                            | 75                                                |                                                       |
| 70,001 to 90,000                          | 50                                                                                                                                            | 100                                               | (0.25 of sum of adjacent LP-gas container capacities) |
| 90,001 to 120,000                         | 50                                                                                                                                            | 125                                               |                                                       |

For SI: one foot = 304.8 mm, one gallon = 3.785 L.

a. Minimum distance for underground LP-gas containers shall be measured from the pressure relief device and the filling gauge vent connection at the container, except that all parts of an underground LP-gas container shall be not less than 1 foot from any building or lot line of adjoining property that can be built on.

b. For other than installations in which the overhanging structure is 50 feet or more above the relief valve discharge outlet, the distance between buildings and ASME LP-gas containers with a water capacity of 125 gallons or more, not less than 50% of the distance shall also apply to all portions of the building that project more than five feet from the building wall and that are within 10 feet of the relief valve discharge outlet. This horizontal distance shall be measured from a point determined by projecting the outside corner of the overhanging structure vertically downward to grade or other level on which the LP-gas container is installed. Distances to lot lines shall be not less than those prescribed in this table.

c. Where underground multicontainer installations are composed of individual LP-gas containers having a water capacity of 125 gallons or more, such containers shall be installed so as to provide access at their ends or sides to facilitate working with cranes or other equipment.

d. At a consumer site, if the aggregate water capacity of a multiple container installation, comprised of individual LP-gas water capacity of less than 125 gallons, is 500 gallons or more, the minimum distance shall comply with the appropriate table, applying the aggregate capacity rather than the capacity per LP-gas container. If more than one such installation is installed shall be separated from other installations by not less than 25 feet. Minimum distances between LP-gas containers shall be applied.

e. The following shall apply to aboveground containers installed alongside buildings:

1. LP-gas containers of less than a 125-gallon water capacity are allowed without a separation distance where in compliance with Table 3201.1 and 4.

2. Department of Transportation (DOT) specification LP-gas containers shall be located and installed so that the discharge container pressure relief device is not less than three feet horizontally from building openings below the level of such discharge and not be beneath buildings unless the space is well ventilated to the outside and is not enclosed for more than 50% of its pressure discharge from LP-gas container.

pressure relief devices shall be located not less than five feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances or mechanical ventilation air intakes.

3. ASME LP-gas containers of less than a 125-gallon water capacity shall be located and installed such that the discharge devices shall not terminate in or beneath buildings and shall be located not less than five feet horizontally from building level of such discharge and not less than five feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances, or mechanical ventilation air intakes.

4. The filling connection and the vent from liquid level gauges on either DOT or ASME LP-gas containers filled at the point of use shall be not less than 10 feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances or mechanical ventilation air intakes.

f. This distance is allowed to be reduced to not less than 10 feet for a single LP-gas container of 1,200-gallon water capacity that such container is not less than 25 feet from other LP-gas containers of more than 125-gallon water capacity.

g. Aboveground LP-gas containers with a water capacity of 2,000 gallons or less shall be separated from public ways by a distance of not less than five feet. Containers with a water capacity greater than 2,000 gallons shall be separated from public ways in accordance with Table 3201.1.

### **13VAC5-52-370. IFC Chapter 32 High-Piled Combustible Storage.**

A. The following changes shall be made to Section 3201, General:

1. Change Section 3201.1 (items 1, 2, 3, 5, and 6 remain) to read:

3201.1 Scope. Maintenance and operational aspects of high-piled combustible storage shall be in accordance with this chapter. In addition to the requirements of this chapter, the following material-specific requirements shall apply:

1. Aerosols shall be in accordance with Chapter 51.

2. Flammable and combustible liquids shall be in accordance with Chapter 57.

3. Hazardous materials shall be in accordance with Chapter 50.

4. Storage of combustible paper records shall be in accordance with the applicable NFPA 13 standard.

~~5. Storage of combustible fibers shall be in accordance with Chapter 37.~~

~~6. General storage of combustible material shall be in accordance with Chapter 3.~~

2. Change Section 3201.2 to read:

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

3. ~~Change~~ Delete Sections 3201.3.1 and 3201.3.2 and change Section 3201.3 including items 7, 10 and 14 (items 1 through 6, 8, 9, and 11 through 13 remain) and delete Sections 3201.3.1 and 3201.3.2.

~~Section 3201.3~~ to read:

3201.3 High-piled storage operational plan. Prior to the use and operation of high-piled storage in new structures or buildings requesting a change of occupancy or use, plans and specifications shall be submitted to the building official for review and approval. Following approval of the plans, a copy of the approved plans shall be maintained on the premises in an approved location. The onsite plans shall include the following applicable items:

- ~~1. Floor plan of the building showing locations and dimensions of high-piled storage areas.~~
- ~~2. Usable storage height for each storage area.~~
- ~~3. Number of tiers within each rack if applicable.~~
- ~~4. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.~~
- ~~5. Aisle dimensions between each storage array.~~
- ~~6. Maximum pile volume for each storage array.~~
7. Location and classification of commodities in accordance with Section 3203 or the applicable building code.
- ~~8. Location of commodities that are banded or encapsulated.~~
- ~~9. Location of required fire department access doors.~~
10. Type of fire suppression and fire detection systems.
- ~~11. Location of valves controlling the water supply of ceiling and in-rack sprinklers.~~
- ~~12. Type, location, and specifications of smoke removal and curtain board systems.~~
- ~~13. Dimension and location of transverse and longitudinal flue spaces.~~

14. Additional information regarding required design features, commodities, storage arrangement, and fire protection features within the high-piled storage area when required by the fire code official.

B. The following changes shall be made to Section 3204, Designation of High-Piled Storage Areas:

1. Change Section 3204.1 to read:

3204.1 General. The operation and maintenance of high-piled storage areas and portions of high-piled storage areas intended for storage shall be maintained in accordance with the approved plan specified in Section 3201.3 and the applicable building code.

2. Delete Section 3204.2.

C. The following changes shall be made to Section 3206, General Fire Protection and Life Safety Features:

1. Change Section 3206.1 to read:

3206.1 General. Fire protection and life safety features for high-piled storage areas shall be maintained in accordance with Sections 3206.3 through 3206.10.

2. Delete Sections 3206.2 and 3206.2.1 and Table 3206.2.

3. Change Section 3206.3 to read:

3206.3 Separation of high-piled storage areas. High-piled storage areas shall be maintained as separated from other portions of the building where required by the storage plan in Section 3201.3 and the applicable building code.

4. Change Section 3206.3.1 to read:

3206.3.1 Separation from other uses. Mixed occupancies shall be maintained as separated in accordance with the storage plan in Section 3201.3 and the applicable building code.

5. Change Section 3206.3.2 to read:

3206.3.2 Multiple high-piled storage areas. Multiple high-piled storage areas shall be maintained in accordance with the storage plan in Section 3201.3 and the applicable building code.

6. Delete Section 3206.3.2.1.

7. Change ~~Section~~ Sections 3206.4 and 3206.4.1 to read:

3206.4 Automatic sprinklers. Automatic sprinkler systems shall be maintained in accordance with Chapter 9 and remain in accordance with the applicable building code.

3206.4.1 Pallets. The requirements based on the presence of pallets shall be maintained in accordance with the storage plan in Section 3201.3 and the applicable building code.

8. Change Section 3206.4.1.1 to read:

3206.4.1.1 Plastic pallets. Plastic pallets listed and labeled in accordance with UL 2335 or FM 4996 shall be treated as wood pallets.

9. Change Section 3206.5 to read:

3206.5 Fire detection. Fire detection provided for high-piled storage areas shall be maintained in accordance with Chapter 9 and remain in accordance with the approved storage plan in Section 3201.3 and the applicable building code.

10. Change Section 3206.6 to read:

3206.6 Building access. Where building access is required by the applicable building code, fire apparatus access roads shall remain and be maintained in accordance with Section 503.

11. Change Section 3206.7 to read:

3206.7 Access doors. Access doors shall be accessible and available at all times and remain in accordance with the approved storage plan in Section 3201.3 and the applicable building code.

12. Delete Sections 3206.7.1 through 3206.7.3.

13. Change Section 3206.7.5 to read:

3206.7.5 Number of doors required. The minimum number of doors shall be maintained in accordance with the approved storage plan in Section 3201.3 and remain in accordance with the applicable building code.

14. Change Section 3206.7.6 to read:

3206.7.6 Door size and type. Access doors shall be maintained in accordance with the approved storage plan in Section 3201.3 and remain in accordance with the applicable building code. Roll-up doors shall not be used unless approved.

15. Delete Sections 3206.7.7 and 3206.7.8.

16. Change Section 3206.8 to read:

3206.8 Smoke and heat removal. Where smoke and heat removal systems, including draft curtains, are required, they shall be maintained in accordance with Chapter 9 and the approved storage plan in Section 3201.3 and remain in accordance with the applicable building code.

17. Change Section 3206.9 to read:

3206.9 Fire department hose connections. Where a standpipe system is provided, it shall be maintained in accordance with Chapter 9 and remain in accordance with the applicable building code.

18. Change Section 3206.10 to read:

3206.10 Aisles. Aisles separating storage piles or racks shall be maintained unobstructed and remain in accordance with the approved storage plan in Section 3201.3 and in accordance with the applicable building code.

19. Change Section 3206.10.1 (exceptions remain) to read:

3206.10.1 Width. Aisle width shall be maintained to the approved storage plan in Section 3201.3 and remain in accordance with the applicable building code.

**Exceptions:**

- ~~1. Aisles crossing rack structures or storage piles, which are used only for employee access, shall be a minimum of 24 inches (610 mm) wide.~~
- ~~2. Aisles separating shelves classified as shelf storage shall be a minimum of 30 inches (762 mm) wide.~~

20. Change Section 3206.10.1.1 to read:

3206.10.1.1 Sprinklered buildings. Aisles in sprinklered buildings shall be maintained in accordance with the applicable building code.

21. Change Section 3206.10.1.2 to read:

3206.10.1.2 Nonsprinklered buildings. Aisles in nonsprinklered buildings shall be maintained in accordance with the applicable building code.

22. Change Section 3206.10.2 to read:

3206.10.2 Clear height. The required aisle width shall be maintained from the floor to ceiling in accordance with the approved storage plan in Section 3201.3 and in accordance with the applicable building code. Rack structural supports and catwalks are allowed to cross aisles at a minimum height of six feet, eight inches (2032 mm) above the finished floor level, provided that such supports do not interfere with fire department hose stream trajectory.

23. Change Section 3206.10.3 to read:

3206.10.3 Dead ends. Dead-end aisles shall not exceed the approved storage plan in Section 3201.3.

D. The following changes shall be made to Section 3207, Solid-Piled and Shelf Storage:

1. Change Section 3207.2 to read:

3207.2 Fire protection. Where automatic sprinklers are provided, they shall be maintained in accordance with the applicable building code.

2. Change Section 3207.2.1 to read:

3207.2.1 Shelf storage. Shelf storage greater than 12 feet (3658 mm) but less than 15 feet (4572 mm) in height shall be in accordance with the fire protection requirements set forth in the applicable

building code. Shelf storage 15 feet (4572 mm) or more in height shall be protected in an approved manner as required by this code and the applicable building code.

3. Change Section 3207.3 to read:

3207.3 Pile dimension and height limitations. Pile dimensions, the maximum permissible storage height, and pile volume shall be maintained in accordance with the approved storage plan in Section 3201.3 and remain in accordance with the applicable building code.

4. Change Section 3207.4 to read:

3207.4 Arrays. Where an automatic sprinkler system design utilizes protection based on a closed array, array clearances shall be maintained as specified by the standard used and approved storage plan in Section 3201.3.

E. The following changes shall be made to Section 3208, Rack Storage:

1. Change Section 3208.2 to read:

3208.2 Fire protection. Where automatic sprinklers are provided, they shall be maintained in accordance with Chapter 9.

2. Change exception 2 to Section 3208.2.2 to read:

~~3208.2.2 Racks with solid shelving. Racks with solid shelving having an area greater than 20 square feet (1.9 m<sup>2</sup>), measured between approved flue spaces at all four edges of the shelf, shall be in accordance with this section.~~

**Exceptions:**

- ~~1. Racks with mesh, grated, slatted, or similar shelves having uniform openings not more than six inches (152 mm) apart, comprising not less than 50% of the overall shelf area, and with approved flue spaces are allowed to be treated as racks without solid shelves.~~
2. Racks used for the storage of combustible paper records with solid shelving shall be in accordance with the applicable NFPA 13 standard.

3. Change Section 3208.2.2.1 to read:

3208.2.2.1 Fire protection. Fire protection for racks with solid shelving shall be in accordance with the applicable building code.

4. Change Section 3208.3 to read:

3208.3 Flue spaces. Flue spaces shall be maintained in accordance with Table 3208.3 or the approved storage plan in Section 3201.3 and remain in accordance with the applicable building code.

5. Change Section 3208.3.1 to read:



3208.3.1 Flue space protection. Where required by the fire code official, flue spaces required by the applicable building code in single-row, double-row, or multiple-row rack storage installations shall be equipped with approved devices to protect the required flue spaces. Such devices shall not be removed or modified.

6. Change Section 3208.4 to read:

3208.4 Column protection. Protection for steel building columns shall be maintained in accordance with approved storage plan in Section 3201.3 and Chapter 9 and remain in accordance with the applicable building code.

7. Change Section 3208.5 to read:

3208.5 Extra-high-rack storage systems. Approval shall be obtained prior to installing extra high rack combustible storage.

8. Change Section 3208.5.1 to read:

3208.5.1 Fire protection. Fire protection provided for buildings with extra high rack combustible storage shall be maintained in accordance with the applicable building code.

F. The following changes shall be made to Section 3209, Automated Storage:

1. Change Section 3209.2 to read:

3209.2 Automatic sprinklers. Where automatic sprinklers are provided, they shall be maintained in accordance with the applicable NFPA 13 standard.

2. Change Section 3209.3 to read:

3209.3 Carousel storage. High-piled storage areas having greater than 500 square feet (46 m<sup>2</sup>) of carousel storage, including automatic shutdown devices, shall be maintained in accordance with the approved storage plan in Section 3201.3 and the applicable building code.

3. Change Section 3209.4 to read:

3209.4 Automated rack storage. High-piled storage areas with automated rack storage shall be maintained in accordance with the approved storage plan in Section 3201.3.

4. Change Section 3209.4.1 to read:

3209.4.1 Manual Activation shutdown. A manually activated emergency shutdown switch for use by emergency personnel shall be clearly identified and shall be maintained and accessible in accordance with the applicable building code.

5. Change Section 3209.4.2 to read:

3209.4.2 Automatic shutdown. Automatic shutdown, required by the applicable building code for high-piled combustible storage areas, shall be maintained in accordance with the applicable building code.

G. The following change shall be made to Section 3210, Specialty Storage:

Change Section 3210.1 to read:

3210.1 General. Records storage facilities used for the rack or shelf storage of combustible paper records greater than 12 feet (3658 mm) in height shall be maintained in accordance with Sections 3206 and 3208 and the approved storage plan in Section 3201.3 and remain in accordance with the applicable building code. Palletized storage of records shall be in accordance with Section 3207.

**13VAC5-52-380. IFC Chapter 33 Fire Safety during Construction and Demolition.**

Make the following changes to Chapter 33:

1. Change Section 3303.3.1 to read:

3303.3.1 Violations. Failure to properly conduct, document, and maintain documentation required by this section shall constitute an unlawful act in accordance with Section 111, and the fire code official may request a stop work order be issued by the building official.

2. Change Section 3303.5 to read:

~~3303.5 Fire safety for buildings of Types IV-A, IV-B, and IV-C construction. Buildings of Types IV-A, IV-B, and IV-C construction designed to be greater than six stories above grade plane shall comply with the following requirements during construction unless otherwise approved by the fire code official:~~

~~1. Standpipes shall be provided in accordance with Section 3313.~~

~~2. A water supply for fire department operations, as approved by the fire code official and the fire chief.~~

~~3. Fire safety construction features as required by the building official in accordance with the applicable building code.~~

Change Section 3306.5 to read:

3306.5 Completion before occupancy. In buildings where an automatic sprinkler system is required by this code or the applicable building code, the building or portion thereof shall not be occupied until the automatic sprinkler system has been tested and approved, except where approved by the building official.

3. Change Section 3307.1 to read:

3307.1 Required access. Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet (30 480 mm) of buildings and temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

4. Change Section 3307.1.2 to read:

3307.1.2 Stairways. Where building construction exceeds 40 feet (12,192 mm) in height above the lowest level of fire department vehicle access, a temporary or permanent stairway shall be maintained

in accordance with the applicable building code. As construction progresses, such stairway shall be maintained in accordance with the applicable building code.

5. Delete Sections 3307.5.1 and 3307.5.2 and change Section 3307.5 to read:

3307.5 Standpipes. Where required by the applicable building code, a temporary or permanent standpipe shall be maintained and remain in an operable condition so as to be available for use by the fire department.

6. Change Exceptions 2 and 4 to Section 3309.2.2 to read (Exceptions 1 and 3 remain):

2. Piping systems regulated by the Virginia Fuel Gas Code.

4. Cleaning and purging of refrigerant piping systems shall comply with the Virginia Mechanical Code.

3- 7. Change Section ~~3305.9~~ 3311.1 to read:

~~3305.9~~ 3311.1 Separations between construction areas. Separations used in Type I and Type II construction to separate construction areas from occupied portions of the building shall be maintained in accordance with the applicable building code.

~~4. Change Exception 2 to Section 3307.2.1 to read (Exceptions 1 and 3 remain):~~

~~2. Piping systems regulated by the Virginia Fuel Gas Code.~~

~~5. Change Section 3311.1 to read:~~

~~3311.1 Required access. Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet (30 480 mm) of buildings and temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.~~

~~6. 3312.1 Stairways. Where building construction exceeds 40 feet (12,192 mm) in height above the lowest level of fire department vehicle access, a temporary or permanent stairway shall be maintained in accordance with the applicable building code. As construction progresses, such stairway shall be maintained in accordance with the applicable building code.~~

~~7. Change Section 3314.1 to read:~~

~~3314.1 Where required. Where required by the applicable building code, a temporary or permanent standpipe shall be maintained and remain in an operable condition so as to be available for use by the fire department.~~

~~8. Delete Sections 3314.2 and 3314.3.~~

~~9. Change Section 3315.1 to read:~~

~~3315.1 Completion before occupancy. In buildings where an automatic sprinkler system is required by this code or the applicable building code, the building or portion thereof shall not be occupied until the~~

~~automatic sprinkler system has been tested and approved, except where approved by the building official.~~

8. Change Item 3 and delete Item 4 of Section 3312.1 to read (remainder of Section remains):

3. Fire safety construction features as required by the building official in accordance with the applicable building code.

**13VAC5-52-390. IFC Chapter 34 Tire Rebuilding and Tire Storage.**

A. Change Section 3401.1 to read:

3401.1 Scope. The maintenance and operation of tire rebuilding plants, tire storage, and tire byproduct facilities shall comply with this chapter and other applicable requirements of this code. Tire storage in buildings shall also comply with Chapter 32.

B. Change Section 3401.2 to read:

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

C. Change Section 3403.1 to read:

3403.1 Construction. Tire rebuilding plants shall maintain the requirements of the applicable building code, as to construction, separation from other buildings or other portions of the same building, and protection.

D. Change Section 3403.2 to read:

3403.2 Location. Unless otherwise approved by the applicable building code, buffing operations shall be located in a room separated from the remainder of the building housing the tire rebuilding or tire recapping operations by a fire-resistance-rated separation in accordance with the applicable building code.

E. 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.

**13VAC5-52-400. IFC Chapter 35 Welding and Other Hot Work.**

A. Change Section 3501.2 to read:

3501.2 Permits. Permits shall be required as set forth in Section 107.2.

B. Change the last sentence of Section 3504.3 to read:

Information shown on the permit shall be verified prior to signing the permit in accordance with Section 107.2.

**13VAC5-52-410. IFC Chapter 36 Marinas.**

A. Change Section 3603.5 to read:

3603.5 Electrical equipment. Electrical equipment shall be maintained in accordance with its listing, Section 603 of this code, and NFPA 303 as required for wet, damp, and hazardous locations.

B. Change Section 3604.2 to read:

3604.2 Standpipes. Marinas and boatyards equipped with standpipe systems shall be maintained in accordance with NFPA 303 and Chapter 9.

C. Change Section 3605.1 to read:

3605.1 Fuel dispensing. Marine motor fuel-dispensing facilities shall be in accordance with Chapter 23. For tanks subject to Facility and Aboveground Storage Tank (AST) Regulation (9VAC25-91), or Underground Storage Tanks: Technical Standards and Corrective Action Requirements (9VAC25-580), see Section 5701.1.1.

**13VAC5-52-420. IFC Chapter 37 Combustible Fibers.**

A. Change Section 3701.3 to read:

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

B. Change Section 3703.5 to read:

3703.5 Dust collection. Where located within a building, equipment or machinery that generates or emits combustible fibers shall be operated with an approved dust-collecting and exhaust system in accordance with the applicable building code and maintained in accordance with Chapter 22.

C. Change Section 3704.3 to read:

3704.3 Storage of more than 100 cubic feet to 500 cubic feet. Loose combustible fibers in quantities exceeding 100 cubic feet (3 m<sup>3</sup>) but not exceeding 500 cubic feet (14 m<sup>3</sup>) shall be stored in rooms in accordance with the applicable building code.

Note: These rooms are typically required to be fire resistance rated in accordance with the applicable building code.

D. Change Section 3704.4 to read:

3704.4 Storage of more than 500 cubic feet to 1,000 cubic feet. Loose combustible fibers in quantities exceeding 500 cubic feet (14 m<sup>3</sup>) but not exceeding 1,000 cubic feet (28 m<sup>3</sup>) shall be stored in rooms in accordance with the applicable building code.

Note: These rooms are typically required to be fire resistance rated in accordance with the applicable building code.

E. Change Section 3704.5 to read:

3704.5 Storage of more than 1,000 cubic feet. Loose combustible fibers in quantities exceeding 1,000 cubic feet (28 m<sup>3</sup>) shall be stored in rooms in accordance with the applicable building code.

Note: These rooms may be required to be fire resistance rated and protected by fire suppression systems in accordance with the applicable building code.

### **13VAC5-52-430. IFC Chapter 38 Higher Education Laboratories.**

The following changes shall be made to Chapter 38 Higher Education Laboratories.

1. Change Sections 3801.1 and 3801.2 to read:

3801.1 Scope. Higher education laboratories and laboratory suites complying with the requirements of this chapter and the applicable building code shall be permitted to exceed the maximum allowable quantities of hazardous materials in control areas without requiring classification as a Group H occupancy.

3801.2 Application. The provisions of this chapter shall be applied as exceptions or additions to applicable requirements of this code. Unless specifically modified by this chapter, the storage, use, and handling of hazardous materials shall comply with the provisions in Chapters 50 through 67 and the applicable building code for quantities not exceeding the maximum allowable quantity.

2. Change Sections 3803.1, 3803.1.7, and 3803.2.1 (exception to Section 3803.2.1 remains) to read:

3803.1 Scope. Higher education laboratories and laboratory suites shall be in accordance with the general safety provisions in Sections 3803.1.1 through 3803.2.2.

3803.1.7 Automatic fire-extinguishing systems. Where provided, an automatic sprinkler system shall be maintained in accordance with Chapter 9.

3803.2.1 Container size. The maximum container size for all hazardous materials shall be 5.3 gallons (20 L) for liquids, 50 pounds (22.7 kg) for solids, 100 cubic feet (2.83 m<sup>3</sup>) for health-hazard gases per the applicable building code, and 500 cubic feet (14.15 m<sup>3</sup>) for all other gases in accordance with the applicable building code.

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

3. Delete Section 3804.1.1.3 and Table 3804.1.1 and change Sections 3804.1 through 3804.1.1.2, 3804.1.1.4, and 3804.1.1.6 through 3804.1.2 to read:

3804.1 General. Where laboratory suites are provided, they shall be constructed in accordance with the applicable building code and approved by the building official.

3804.1.1 Laboratory suites. The number of laboratory suites and percentage of maximum allowable quantities of hazardous materials in laboratory suites shall be in accordance with the applicable building code.

3804.1.1.1 Separation from other non-laboratory areas. Laboratory suites shall maintain separation from other portions of the building in accordance with Chapter 7 and the applicable building code.

3804.1.1.2 Separation from other laboratory suites. Laboratory suites shall be separated from other laboratory suites in accordance with Chapter 7 and the applicable building code.

3804.1.1.4 Maximum number. The maximum number of laboratory suites shall be in accordance with the applicable building code. Where a building contains both laboratory suites and control areas, the total number of laboratory suites and control areas within a building shall not exceed the maximum number of laboratory suites in accordance with the applicable building code.

3804.1.1.6 Standby or emergency power. Emergency or standby power for higher education laboratory suites shall be maintained in accordance with Section 1203.2.14.

3804.1.1.7 Ventilation. Ventilation shall be maintained in accordance with Chapter 7 of NFPA 45 and the applicable building code.

3804.1.1.8 Liquid-tight floor. Portions of laboratory suites where hazardous materials are present shall be maintained with a liquid-tight floor in accordance with the applicable building code.

3804.1.1.9 Automatic fire-extinguishing systems. Buildings containing laboratory suites shall be maintained throughout with an approved automatic sprinkler system in accordance with Chapter 9.

3804.1.2 Percentage of maximum allowable quantity in each laboratory suite. The percentage of maximum allowable quantities of hazardous materials in each laboratory suite shall be in accordance with the applicable building code.

4. Delete Table 3805.4 and change Sections 3805.1 through 3805.4 to read:

3805.1 Scope. Storage and use of hazardous materials in existing higher education laboratories located within existing buildings not equipped throughout with an automatic sprinkler system is permitted where such use complies with the applicable building code, Section 3803, Chapters 50 through 67, as applicable, and Sections 3805.2 through 3805.4.

3805.2 Nonsprinklered laboratories. The maximum allowable quantities of hazardous materials in storage and use in control areas in higher education laboratories located in buildings not equipped throughout with an automatic sprinkler system in accordance with the applicable NFPA 13 standard shall be in accordance with the applicable building code and Sections 3805.2.1 and 3805.2.2.

3805.2.1 Restricted materials storage. Where approved in accordance with the applicable building code, storage of the following hazardous materials in buildings not equipped throughout with an automatic sprinkler system to the applicable NFPA 13 standard are allowed within a higher education laboratory control area where maintained in accordance with this section:

1. Pyrophorics.
2. Class 4 Oxidizers.

Additional quantity increases shall be prohibited, and such materials shall be stored in accordance with all of the following:

1. Containers shall be completely sealed and stored in accordance with the manufacturer's recommendations.
2. Storage shall be within approved hazardous material 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.

3805.2.2 Restricted materials use. Where approved by the applicable building code, the use of the following hazardous materials in buildings not equipped throughout with an automatic sprinkler system in accordance with the applicable NFPA 13 standard shall be allowed within a higher education laboratory control area where maintained in accordance with this section:

1. Pyrophorics.
2. Class 4 Oxidizers.

Additional quantity increases shall be prohibited, and such materials shall only be 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 not less than two feet (610 mm) 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 (6096 mm) of the use in accordance with Section 906.

3805.3 Restricted materials automatic fire detection. Where provided in higher education laboratories in nonsprinklered buildings, an automatic fire detection system shall be maintained in accordance with Chapter 9.

3805.3.1 System supervision and monitoring. Where required or provided, 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, onsite location.

3805.4 Percentage of maximum allowable quantity per control area. The percentage of maximum allowable quantities per control area of hazardous materials in higher education laboratories in existing nonsprinklered buildings shall be permitted to be increased only in accordance with the applicable building code and approval from the Building Official.

5. Delete Table 3806.2.1 and change Sections 3806.1 through 3806.2.1 to read:



3806.1 Scope. Storage and use of hazardous materials in existing higher education laboratories within buildings equipped throughout with an automatic sprinkler system in accordance with the applicable NFPA 13 standard shall be in accordance with Section 3803 and Chapters 50 through 67, as applicable, except as modified by this section.

3806.2 Hazardous materials storage and use. Storage and use of hazardous materials within control areas in higher education laboratories equipped with an automatic sprinkler system shall be in accordance with this section and Chapters 50 through 67, as applicable.

Exception: Existing laboratories in buildings equipped throughout with an automatic sprinkler system constructed and approved as laboratory suites in accordance the applicable building code are permitted to comply with Section 3804.

3806.2.1 Percentage of maximum allowable quantities per control area. The percentage of maximum allowable quantities per control area of hazardous materials in higher education laboratories equipped with an automatic sprinkler system shall be in accordance with the applicable building code.

#### **13VAC5-52-440. IFC Chapter 39 Processing and Extraction Facilities.**

Delete Sections 3904.2.2.1 through 3904.2.2.3 and change Sections 3901.1, 3901.3, 3903.1, 3903.4.1, 3904.1, 3904.2.1, 3904.2.2, 3905.1, and 3905.1.1 to read:

~~1.~~ 3901.1 Scope. Plant processing or extraction facilities shall comply with this chapter and the applicable building code. The extraction process includes the act of extraction of the oils and fats by use of a solvent, desolventizing of the raw material, production of the miscella, distillation of the solvent from the miscella, and solvent recovery. The use, storage, transfilling, and handling of hazardous materials in these facilities shall comply with this chapter, other applicable provisions of this code, and the applicable building code.

~~2.~~ 3901.3 Permits. Permits shall be required as set forth in Section 107.2.

~~3.~~ 3903.1 Locations. Processing located in a building shall be maintained in accordance with the applicable building code.

~~4.~~ 3903.4.1 Industrial ovens. The use of industrial ovens shall comply with the applicable building code and Chapter 30.

~~5.~~ 3904.1 General requirements. Systems and equipment used with the processing and extraction of oils and products from plants shall comply with Chapter 50, other applicable provisions of this code, and the applicable building code.

~~6.~~ 3904.2.1 Listings. Systems or equipment used for the extraction of oils from plant material shall be listed and labeled in accordance with the applicable building code and be operated and maintained in accordance with the listing and the manufacturer's instructions.

~~7-~~ 3904.2.2 Approvals. Systems or equipment used for the extraction of oils from plant material shall be approved in accordance with the applicable building code.

~~8-~~ 3905.1 Gas detection. Continuous gas detection system provided in accordance with the applicable building code for extraction processes utilizing flammable gases as solvents shall be maintained as approved. The gas detection threshold shall be not greater than 25% of the lower explosive limit or lower flammable limit (LEL/LFL) of the materials, unless otherwise approved in accordance with the applicable building code.

~~9-~~ 3905.1.1 System design. Flammable gas detection system provided in accordance with the applicable building code shall be calibrated to the types of fuels or gases used for the extraction process. The gas detection system shall be maintained. The gas detection threshold shall be not greater than 25% of the lower explosive limit or lower flammability limit (LEL/LFL) of the materials, unless otherwise approved in accordance with the applicable building code.

### **13VAC5-52-450. IFC Chapter 40 Storage of Distilled Spirits and Wines.**

A. Make the following changes to Section 4003:

1. Change Section 4003.1 to read:

4003.1 Spill control. Where provided or required by the applicable building code, drainage or containment systems, including curbs, scuppers, special drains, or other suitable means to prevent the flow of spills throughout the building, shall be maintained.

2. Change Section 4003.2 to read:

4003.2 Ventilation. For rooms and spaces where distilled spirits and wines in barrels and casks are stored, ventilation shall be operated and maintained in accordance with the applicable building code to prevent vapors from concentrating above 25% of the lower flammable limit.

3. Change Section 4003.4 to read:

4003.4 Lightning. Lightning protection equipment shall be maintained in accordance with the applicable NFPA 70 and NFPA 780.

B. Make the following changes to Section 4004:

Change Section 4004.3 to read:

4004.3 Basement storage. Class I liquids shall be allowed to be stored in basements in amounts not exceeding the maximum allowable quantity per control area for use-open systems where approved in accordance with the applicable building code, and automatic suppression or other fire protection systems are maintained in accordance with Chapter 9. Class II and Class IIIA liquids shall also be allowed to be stored in basements where approved in accordance with the applicable building code and automatic suppression or other fire protection systems are maintained in accordance with Chapter 9.

C. Make the following changes to Section 4005:

1. Delete ~~Section 4005.1~~. Sections 4005.1.1 through 4005.1.4.6.3, including tables, and change Section 4005.1 to read:

4005.1 Palletized storage of distilled spirits in wooden barrels. Automatic sprinkler systems provided or required in accordance with the applicable building code for the protection of palletized storage of distilled spirits in wooden barrels, shall be maintained in accordance with Chapter 9 and the applicable building code.

2. Delete Sections 4005.2.1 through 4005.2.3.6, including figures and tables, and change Section 4005.2 to read:

4005.2 Rack storage in wooden barrels. Automatic sprinkler systems provided or required in accordance with the applicable building code for the protection of rack storage of distilled spirits and wine greater than 20 percent alcohol in wooden barrels, shall be maintained in accordance with Chapter 9 and the applicable building code.

3. Change Section 4005.3 to read:

4005.3 Wine with 20 percent or less alcohol content. Automatic sprinkler systems provided or required in accordance with the applicable building code for the protection of storage of wine in barrels with an alcohol content of 20 percent or less, shall be maintained in accordance with Chapter 9 and the applicable building code.

**13VAC5-52-460. IFC Chapter 41 Temporary heating and cooking operations.**

A. Change Section 4101.2 to read: Operational permits shall be obtained as set forth in Section 107.2.

B. Change Sections 4101.6.1 and 4101.6.2 and add Table 4101.6.2 to read:

4101.6.1 General. LP-gas equipment such as tanks, piping, hoses, fittings, valves, tubing, and other related components shall be approved and in accordance with Chapter 61 and with the applicable building code.

4101.6.2. Location of containers. LP-gas containers and tanks shall be located outside in accordance with Table 4101.6.2. Pressure relief devices shall be pointed away from the tent or membrane structure.

**TABLE 4101.6.2 LOCATION OF LP-GAS CONTAINERS**

| <u>LP-Gas Container Capacity<br/>(water gallons)</u> | <u>Minimum Separation between LP-Gas Containers and<br/>Buildings, Public Ways,<sup>b</sup> or Lot Lines of Adjoining Property<br/>that Can be Built on</u> |                                                             | <u>Minimum Separation<br/>between LP-Gas<br/>Containers<sup>b, c</sup> (feet)</u> |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                                      | <u>Mounded or underground LP-<br/>gas containers<sup>a</sup> (feet)</u>                                                                                     | <u>Aboveground LP-gas<br/>containers<sup>b</sup> (feet)</u> |                                                                                   |

|                                     |           |                          |                                                                     |
|-------------------------------------|-----------|--------------------------|---------------------------------------------------------------------|
| <u>Less than 125<sup>c, d</sup></u> | <u>10</u> | <u>5<sup>e</sup></u>     | <u>None</u>                                                         |
| <u>125 to 250</u>                   | <u>10</u> | <u>10</u>                | <u>None</u>                                                         |
| <u>251 to 500</u>                   | <u>10</u> | <u>10</u>                | <u>3</u>                                                            |
| <u>501 to 2,000</u>                 | <u>10</u> | <u>25<sup>e, f</sup></u> | <u>3</u>                                                            |
| <u>2,001 to<br/>30,000</u>          | <u>50</u> | <u>50</u>                | <u>5</u>                                                            |
| <u>30,001 to<br/>70,000</u>         | <u>50</u> | <u>75</u>                | <u>(0.25 of sum of diameters of<br/>adjacent LP-gas containers)</u> |
| <u>70,001 to<br/>90,000</u>         | <u>50</u> | <u>100</u>               |                                                                     |
| <u>90,001 to<br/>120,000</u>        | <u>50</u> | <u>125</u>               |                                                                     |

For SI: one foot = 304.8 mm, one gallon = 3.785 L.

- a. Minimum distance for underground LP-gas containers shall be measured from the pressure relief device and the filling or liquid-level gauge vent connection at the container, except that all parts of an underground LP-gas container shall be not less than 10 feet from a building or lot line of adjoining property that can be built on.
- b. For other than installations in which the overhanging structure is 50 feet or more above the relief-valve discharge outlet. In applying the distance between buildings and ASME LP-gas containers with a water capacity of 125 gallons or more, not less than 50% of this horizontal distance shall also apply to all portions of the building that project more than five feet from the building wall and that are higher than the relief valve discharge outlet. This horizontal distance shall be measured from a point determined by projecting the outside edge of such overhanging structure vertically downward to grade or other level on which the LP-gas container is installed. Distances to the building wall shall be not less than those prescribed in this table.
- c. Where underground multicontainer installations are composed of individual LP-gas containers having a water capacity of 125 gallons or more, such containers shall be installed so as to provide access at their ends or sides to facilitate working with cranes or hoists.
- d. At a consumer site, if the aggregate water capacity of a multiple-container installation, comprised of individual LP-gas containers having a water capacity of less than 125 gallons, is 500 gallons or more, the minimum distance shall comply with the appropriate portion of this table, applying the aggregate capacity rather than the capacity per LP-gas container. If more than one such installation is made, each installation shall be separated from other installations by not less than 25 feet. Minimum distances between LP-gas containers need not be applied.
- e. The following shall apply to above-ground containers installed alongside buildings:
  1. LP-gas containers of less than a 125-gallon water capacity are allowed without a separation distance where in compliance with Items 2, 3, and 4.

2. Department of Transportation (DOTn) specification LP-gas containers shall be located and installed so that the discharge from the container pressure relief device is not less than 3 feet horizontally from building openings below the level of such discharge and shall not be beneath buildings unless the space is well ventilated to the outside and is not enclosed for more than 50 percent of its perimeter. The discharge from LP-gas container pressure relief devices shall be located not less than 5 feet from exterior sources of ignition, openings into direct-vent (sealed combustion system) appliances or mechanical ventilation air intakes.
3. ASME LP-gas containers of less than a 125-gallon water capacity shall be located and installed such that the discharge from pressure relief devices shall not terminate in or beneath buildings and shall be located not less than 5 feet horizontally from building openings below the level of such discharge and not less than 5 feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances, or mechanical ventilation air intakes.
4. The filling connection and the vent from liquid-level gauges on either DOTn or ASME LP-gas containers filled at the point of installation shall be not less than 10 feet from exterior sources of ignition, openings into direct vent (sealed combustion system) appliances or mechanical ventilation air intakes.
- f. This distance is allowed to be reduced to not less than 10 feet for a single LP-gas container of 1,200-gallon water capacity or less, provided that such container is not less than 25 feet from other LP-gas containers of more than 125-gallon water capacity.
- g. Aboveground LP-gas containers with a water capacity of 2,000 gallons or less shall be separated from public ways by a distance of not less than five feet. Containers with a water capacity greater than 2,000 gallons shall be separated from public ways in accordance with this table.

C. Delete Section 4104.5.1 and change Section 4104.5 to read:

4104.5 Separation of cooking tents. Cooking tents shall be separated from other tents or membrane structures by not less than 20 feet (6096 mm).

D. Change Section 4106, Mobile Food Preparation Vehicles, to read:

4106.1 General. Mobile food preparation vehicles that are equipped with appliances that utilize open flames or produce smoke or grease laden vapors shall comply with this section. Indoor use of mobile food preparation vehicles is prohibited unless approved by the fire code official.

4106.1.1 Wheel chocks. Wheel chocks shall be used to prevent mobile food preparation vehicles from moving.

4106.1.2 Separation. Mobile food preparation vehicles shall be separated from buildings or structures, combustible materials, vehicles, and other cooking operations by a minimum of 10 ft. (3m).

4106.2 Permit required. Permits shall be required as set forth in Section 107.2.

4106.2.1 Permit authority having jurisdiction (AHJ). The enforcing agent of a permit requirement on a mobile food preparation vehicle (MFPV) shall be the appointed fire official for the Virginia local government to which the food truck is identified for personal property tax payment of the vehicle. If

no such entity exists, if the local government has elected to not enforce this section of the SFPC, or if the MFPV is housed out of state, then it shall be the State Fire Marshal's Office (SFMO) or designee.

4106.3 Seating. Seating for the public within any mobile food preparation vehicles is prohibited.

4106.4 Exhaust hood. Cooking equipment that produces grease laden vapors shall be provided with a kitchen exhaust hood in accordance with NFPA 96.

4106.5 Fire protection. Fire protection shall be provided in accordance with Sections 4106.5.1 through 4106.5.2.

4106.5.1 Fire protection for cooking equipment. Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with Section 904.3.1.

4106.5.2 Fire extinguisher. Portable fire extinguishers shall be provided in accordance with Section 906.4.

4106.6 Appliance connection to fuel supply. Gas cooking appliances shall be secured in place and connected to fuel supply piping with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector and appliance manufacturer's instructions.

4106.6.1 Construction and modifications. Following initial construction and any modifications of the fuel system, the system, including hoses, shall be proven free of leaks by performing a pressure test in accordance with NFPA 58 at not less than the normal operating pressure.

4106.6.2 Leak detection. Gas systems shall be inspected prior to each use and following fuel tank replacement or refill in one of the following methods:

1. A water and soap solution shall be applied to every accessible connection or connection manipulated during the replacement or fueling and observed for evidence of gas leakage.
2. Pressure testing in accordance with Annex L of NFPA 58.

4106.6.3 Leaks. When leaks are discovered during inspections and testing, the fuel supply shall be secured in the "off" position or disconnected from the appliance, and the appliance shall not be operated until serviced by a qualified person.

4106.7 Cooking oil storage containers. Cooking oil storage containers within mobile food preparation vehicles shall have a minimum aggregate area volume not to exceed 120 gallons (454 L) and shall be stored in such a way as to not be toppled or damaged during transport.

4106.8 Cooking oil storage tanks. Cooking oil storage tanks within mobile food preparation vehicles shall comply with Sections 4106.8.1 through 4106.8.5.

4106.8.1 Metallic storage tanks. Metallic cooking oil storage tanks shall be listed in accordance with UL 142 or UL 80, and shall be installed in accordance with the tank manufacturer's instructions.

4106.8.2 Nonmetallic tanks. Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall also comply with all of the following:

1. Tanks shall be listed for use with cooking oil, including maximum temperature to which the tanks will be exposed to during use.

2. Tank capacity shall not exceed 200 gallons (757 L) per tank.

4106.8.3 Cooking oil storage system components. Metallic and nonmetallic cooking oil storage system components shall include piping, connections, fittings, valves, tubing, hose, pumps, vents, and other related components used for the transfer of cooking oil.

4106.8.4 Design criteria. The design, fabrication, and assembly of system components shall be suitable for the working pressures, temperatures, and structural stresses to be encountered by the components.

4106.8.5 Tank venting. Normal and emergency venting shall be provided for cooking oil storage tanks.

4106.8.5.1 Normal vents. Normal vents shall be located above the maximum normal liquid line and shall have a minimum effective area not smaller than the largest filling or withdrawal connection. Normal vents are not required to vent to the exterior.

4106.8.5.2 Emergency vents. Emergency relief vents shall be located above the maximum normal liquid line and shall be in the form of a device that will relieve excessive internal pressure caused by an exposure fire. For nonmetallic tanks, the emergency relief vent shall be allowed to be in the form of construction. Emergency vents are not required to discharge to the exterior.

4106.9 Liquefied petroleum gas (LP-gas) systems. Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with NFPA 58, Chapter 61, and Sections 4106.9.1 through 4106.9.5.

4106.9.1 Maximum aggregate volume. The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds propane capacity.

4106.9.2 Protection of container. LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement.

4106.9.3 LP-gas container construction. LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.

4106.9.4 Protection of system piping. LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

4106.9.5 LP-gas alarms. A listed LP-gas alarm shall be installed with the vehicle in the vicinity of LP-gas system components, in accordance with manufacturer's instructions.

4106.10 Compressed natural gas (CNG) systems. Where CNG systems provide fuel for cooking appliances, such systems shall comply with Sections 4106.10.1 through 4106.10.4.

4106.10.1 CNG containers supplying only cooking fuel. CNG containers installed solely to provide fuel for cooking purposes shall be in accordance with Sections 4106.10.1.1 through 4106.10.1.3.

4106.10.1.1 Maximum aggregate volume. The maximum aggregate capacity of CNG containers transported on the vehicle shall not exceed 1,300 pounds water capacity.

4106.10.1.2 Protection of container. CNG containers shall be securely mounted and restrained to prevent movement. Containers shall not be installed in locations subject to direct vehicle impact.

4106.10.1.3 CNG container construction. The construction of CNG containers shall be approved.

4106.10.2 CNG containers supplying transportation and cooking fuel. Where CNG containers and systems are used to supply fuel for cooking purposes in addition to being used for transportation fuel, the installation shall be in accordance with NFPA 52.

4106.10.3 Protection of system piping. CNG system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

4106.10.4 Methane alarms. A listed methane gas alarm shall be installed within the vehicle in accordance with manufacturer's instructions.

4106.11 Maintenance. Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 4106.11.1 through 4106.11.3.

4106.11.1 Exhaust system. The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with Chapter 6.

4106.11.2 Fire protection systems and devices. Fire protection systems and devices shall be maintained in accordance with Chapter 9.

4106.11.3 Fuel-gas systems. LP-gas containers installed on the vehicle and fuel-gas piping systems shall be inspected annually by an approved inspection agency or a company that is registered with the U.S. Department of Transportation to requalify LP-gas cylinders to ensure that system components are free of damage, suitable for the intended service, and not subject to leaking. CNG containers shall be inspected every three years in a qualified service facility. CNG containers shall not be used past their expiration dates listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel-gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection.

### **13VAC5-52-480. IFC Chapter 50 Hazardous Materials - General Provisions.**

A. The following changes shall be made to Section 5001, General:

1. Change the first paragraph of Section 5001.1 (second paragraph and exceptions remain) to read:



5001.1 Scope. Prevention, control, and mitigation of dangerous conditions related to storage, dispensing, use, and handling of hazardous materials shall be in accordance with this chapter for operational usage. Quantities within buildings shall be maintained in accordance with the applicable building code.

~~This chapter shall apply to all hazardous materials, including those materials regulated elsewhere in this code, except that where specific requirements are provided in other chapters, those specific requirements shall apply in accordance with the applicable chapter. Where a material has multiple hazards, all hazards shall be addressed.~~

Exceptions:

- ~~1. In retail or wholesale sales occupancies, the quantities of medicines, foodstuff or consumer products, and cosmetics containing not more than 50% by volume of water-miscible liquids and with the remainder of the solutions not being flammable shall not be limited, provided such materials are packaged in individual containers not exceeding 1.3 gallons (5 L).~~
- ~~2. Quantities of alcoholic beverages in retail or wholesale sales occupancies shall not be limited providing the liquids are packaged in individual containers not exceeding 1.3 gallons (5 L).~~
- ~~3. Application and release of pesticide and agricultural products and materials intended for use in weed abatement, erosion control, soil amendment, or similar applications where applied in accordance with the manufacturer's instructions and label directions.~~
- ~~4. The offsite transportation of hazardous materials where in accordance with U.S. Department of Transportation regulations.~~
- ~~5. Building materials not otherwise regulated by this code.~~
- ~~6. Refrigeration systems (see Section 608).~~
- ~~7. Stationary storage battery systems regulated by Section 1207.~~
- ~~8. The display, storage, sale, or use of fireworks and explosives in accordance with Chapter 56.~~
- ~~9. Corrosives utilized in personal and household products in the manufacturer's original consumer packaging in Group M occupancies.~~
- ~~10. The storage of distilled spirits and wines in wooden barrels and casks.~~
- ~~11. The use of wall-mounted dispensers containing alcohol-based hand rubs classified as Class I or Class II liquids where in accordance with Section 5705.5.~~
- ~~12. Specific provisions for flammable liquids in motor fuel dispensing facilities, repair garages, airports, and marinas in Chapter 23.~~

~~13. Storage and use of fuel oil in tanks and containers connected to oil-burning equipment. Such storage and use shall be in accordance with Section 605. For abandonment of fuel oil tanks, Chapter 57 applies.~~

~~14. Storage and display of aerosol products complying with Chapter 51.~~

~~15. Storage and use of flammable or combustible liquids that do not have a fire point when tested in accordance with ASTM D92 not otherwise regulated by this code.~~

~~16. Flammable or combustible liquids with a flash point greater than 95°F (35°C) in a water-miscible solution or dispersion with a water and inert (noncombustible) solids content of more than 80% by weight that do not sustain combustion, not otherwise regulated by this code.~~

~~17. Commercial cooking oil storage tank systems located within a building and designed and installed in accordance with Section 607 and NFPA 30.~~

2. Delete Section 5001.1.1.

3. Change Section 5001.3.3.9 to read:

5001.3.3.9 Reliable power source. Where a power supply is relied upon to prevent or control an emergency condition that could endanger people or property, the power supply shall be maintained in accordance with the applicable building code.

4. Change Section 5001.3.3.10 to read:

5001.3.3.10 Ventilation. Where ventilation is required by the applicable building code, it shall be maintained.

5. Change Section 5001.5 to read:

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

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

The Hazardous Materials Management Plan (HMMP) shall be maintained onsite for use by emergency responders and shall be updated not less than annually.

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

The Hazardous Materials Information System (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.

8. 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.

9. Add Section 5001.7, including subsections, to read:

5001.7 Operational requirements for Group B ~~teaching and research~~ higher education laboratories. ~~Teaching and research~~ Higher education laboratories in Group B educational occupancies above the 12th grade utilizing Section 428 of the USBC, Part I, Construction, or Section 306.1 of the USBC, Part II, Existing Buildings, shall comply with this section and other applicable requirements of this code. In the case of conflicts between the requirements of Section 428 of the USBC, Part I, Construction or Section 306.1 of the USBC, Part II, Existing Buildings and provisions of this code other than those set out in this section, Section 428 of the USBC, Part I, Construction or Section 306.1 of the USBC, Part II, Existing Buildings, 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 onsite, 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~~. 8.3.4.4.1.

5001.7.6 Maintenance of storage, dispensing, use, and handling requirements. Storage, dispensing, use, and handling requirements in the USBC, Part I, Construction or the USBC, Part II, Existing Buildings 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 (20 L) for liquids, 50 pounds (23 kg) for solids, 100 cubic feet (2.8. m<sup>3</sup>) for health hazard gases, and 500 cubic feet (14 m<sup>3</sup>) for all other gases.

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

5001.7.9 Density. Quantities of Class I, Class II, and Class IIIA combustible or flammable liquids in storage and use within control areas or laboratory suites shall not exceed eight gallons per 100 square feet (30 L/9.3 m<sup>2</sup>) of floor area, with not more than four gallons per 100 square feet (15 L/9.3 m<sup>2</sup>) being in use. Quantities of Class I flammable liquids in storage and use shall not exceed four gallons per 100 square feet (15 L/9.3 m<sup>2</sup>) of floor area with not more than two gallons (7.5 L) being in use. The maximum in use in open systems is limited to 10% of these quantities. Densities shall be reduced by 25% on the 4th-floor 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 in existing buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the USBC, Part I, Construction shall be allowed within a control area at 25% of the limits 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 in existing buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the USBC, Part I, Construction shall be allowed within a control area at 25% of the limits 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 (610 mm) 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 (6096 mm) of the use in accordance with Section 906.

B. The following changes shall be made to Section 5003, General Requirements:

1. Change Section 5003.1.1 and delete Table 5003.1.1(1).

5003.1.1 Maximum allowable quantity per control area. The maximum allowable quantity per control area shall be maintained in accordance with the applicable building code or Table 5003.1.1(3) and Table 5003.1.1(4) for outdoor control areas.

2. Delete ~~Table~~ Tables 5003.1.1(2) and 5003.1.1(5), and change Sections 5003.1.3 and 5003.1.4 to read:

5003.1.3 Quantities not exceeding the maximum allowable quantity per control area. The storage, use, and handling of hazardous materials in quantities not exceeding the maximum allowable quantity per control area indicated in the applicable building code shall be in accordance with Sections 5001 and 5003. For outdoor control areas, quantities exceeding the maximum allowable quantity per control area indicated in Table 5003.1.1(3) or Table 5003.1.1(4) shall be in accordance with Sections 5001 and 5003.

5003.1.4 Quantities exceeding the maximum allowable quantity per control area. The storage, use, and handling of hazardous materials in quantities exceeding the maximum allowable quantity per control area indicated in the applicable building code shall be approved by the building official in accordance with the applicable building code and maintained in accordance with this chapter. For outdoor control areas, quantities exceeding the maximum allowable quantity per control area indicated in Table 5003.1.1(3) or Table 5003.1.1(4) shall be in accordance with this chapter.

3. ~~Change Section 5003.2 to read:~~

~~5003.2 Systems, equipment, and processes. Systems, equipment, and processes utilized for storage, dispensing, use, or handling of hazardous materials shall be in accordance with Sections 5003.2.1 through 5003.2.9.~~

4. Change Section 5003.2.1 to read:

5003.2.1 Design and construction of containers, cylinders, and tanks. Portable containers and cylinders shall be designed and constructed in accordance with approved standards. Containers, cylinders, and other means used for containment of hazardous materials shall be of an approved type. Pressure vessels not meeting U.S. Department of Transportation requirements for transportation shall comply with the ASME Boiler and Pressure Vessel Code.

Tanks shall be installed in accordance with the applicable building code and shall be maintained.

5. Change Section 5003.2.2 to read:

5003.2.2 Piping, tubing, valves, and fittings. Piping, tubing, valves, and fittings conveying hazardous materials shall be maintained in accordance with ~~ASME B31~~ ASME B31.1 or other approved standards in accordance with the applicable building code.

6. Delete Sections 5003.2.2.1 and 5003.2.2.2.

7. Change Section 5003.2.3 to read:

5003.2.3 Equipment, machinery, and alarms. Equipment, machinery, and detection and alarm systems associated with the use, storage, or handling of hazardous materials shall be listed or approved.

8. Change Section 5003.2.4 to read:

5003.2.4 Installation of tanks. Installation of tanks shall be in accordance with Sections 5003.2.4.1 through 5003.2.4.2.1. For tanks subject to Facility and Aboveground Storage Tank (AST) Regulation (9VAC25-91) or Underground Storage Tanks: Technical Standards and Corrective Action Requirements (9VAC25-580), see Section 5701.1.1.

9. Change Section 5003.2.4.1 to read:

5003.2.4.1 Underground tanks. Where provided or required by the applicable building code, secondary containment for underground tanks shall be maintained. In lieu of secondary containment for an underground tank, an aboveground tank in an underground vault complying with the applicable building code shall be permitted.

10. Change Section 5003.2.4.2 to read:

5003.2.4.2 Aboveground tanks. Aboveground stationary tanks used for the storage of hazardous materials shall be maintained in accordance with the requirements for outdoor storage of the particular material involved.

Exception: Aboveground tanks that are installed in vaults complying with the applicable building code and maintained in accordance with Section 5303.16 or ~~5704.2.8~~ 5704 shall not be required to comply with location and protection requirements for outdoor storage.

11. Change Sections 5003.2.7 and 5003.2.8 to read:

5003.2.7 Liquid-level limit control. Where provided or required by the applicable building code, liquid-level limit controls, or other approved means to prevent overfilling of atmospheric tanks having a capacity greater than 500 gallons (1893 L) and that contain hazardous material liquids shall be maintained.

5003.2.8. Seismic protection. Where provided, bracing and anchoring for machinery and equipment utilizing hazardous materials shall be maintained in accordance with the applicable building code.

12. Change the second sentence of Section 5003.2.9 (first sentence and exceptions remain) and items 1, 2, 4, and 5 of Section 5003.2.9.1 (item3 remains) to read:

Records of the tests conducted, or maintenance performed shall be maintained on the premises or other approved location and made available for inspection by the fire code official, and a copy of the records shall be provided to the fire code official on request.

~~5003.2.9.1 Equipment, devices, and systems requiring testing. The following equipment, systems, and devices shall be tested in accordance with Sections 5003.2.9 and 5003.2.9.2.~~

1. Gas detection systems, alarms, and automatic emergency shutoff valves required by ~~Section 6004.2.2.10~~ by the applicable building code for highly toxic and toxic gases.
2. Limit control systems for liquid level, temperature, and pressure required by Sections 5004.8 and 5005.1.4.
- ~~3. Emergency alarm systems and supervision required by Sections 5004.9 and 5005.4.4.~~
4. Monitoring and supervisory systems required by the applicable building code.
5. Manually activated shutdown controls required by the applicable building code for compressed gas systems conveying pyrophoric gases.

13. 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 the responsibility of the owner, operator, or other person responsible for the unauthorized discharge.

Note: Owners and operators of certain underground and aboveground 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 (§ 62.1-44.34:10 et seq.) of Title 62.1 of the Code of Virginia.

14. Change Sections ~~5003.8 and 5003.8.1~~ 5003.8, 5003.8.1, and 5003.8.2 to read:

5003.8 Construction requirements. Buildings, control areas, enclosures, and cabinets for hazardous materials shall be in accordance with Sections 5003.8.1 through 5003.8.6.3.

5003.8.1 Buildings. Buildings or portions thereof in which hazardous materials are stored, handled, or used shall be maintained in accordance with the applicable building code.

~~15. Change Section 5003.8.2 and change Table 5003.8.2 to Table 5003.12 Outdoor Separation and replace "a detached building" on the top row of the Table with "separation":~~

5003.8.2 Detached buildings. Group H occupancies containing quantities of hazardous materials in excess of those set forth in the applicable building code shall be approved by the building official and located in accordance with the applicable building code.

15. Change Table 5003.8.2 to Table 5003.12 Outdoor Separation, replace “A detached building” on the top row of Table with “Separation”, and change footnote “b” to read:

- b. “Maximum Allowable Quantity” means the maximum allowable quantity per control area set forth by Section 5003.1.1.

16. Change ~~Sections~~ exception to Section 5003.8.3 through and Sections 5003.8.3.1 and 5003.8.3.2 to read:

~~5003.8.3 Control areas. Control areas shall comply with Sections 5003.8.3.1 through 5003.8.3.5.~~

Exception: Higher education laboratories in accordance with Chapter 38 and the applicable building code.

5003.8.3.1 Control area. Fire barriers separating control areas shall be maintained in accordance with Chapter 7.

5003.8.3.2 Percentage of maximum allowable quantities. The percentage of maximum allowable quantities of hazardous materials per control area allowed at each floor level within a building shall be maintained in accordance with this chapter and the applicable building code.

17. Delete Table 5003.8.3.2.

18. Change Section 5003.8.3.3 to read:

5003.8.3.3 Number. The maximum number of control areas per floor within a building shall be maintained in accordance with this chapter and the applicable building code.

19. Delete Section 5003.8.3.4.

20. Delete Sections 5003.8.3.5.1 through 5003.8.3.5.3 and change ~~Section~~ Sections 5003.8.3.5 and 5003.8.3.5.4 to read:

5003.8.3.5 Hazardous material in Group M display and storage areas and in Group S storage areas. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials allowed within a single control area of a Group M display and storage area or a Group S storage area shall comply with this chapter and the applicable building code. The aggregate quantity is allowed by the applicable building code to exceed the maximum allowable quantities per control area ~~specified in the applicable building code~~ without classifying the building or use as a Group H occupancy, provided that the materials are displayed and stored shall be maintained in accordance with Section 5003.11 and the applicable building code.

5003.8.3.5.4 Flammable gas. The aggregate quantity of Category 1B flammable gas having a burning velocity of 3.9 in/s (10 cm/s) or less stored and displayed within a single control area of a Group M



occupancy, in an outdoor control area or stored in a single control area of a Group S occupancy, shall not exceed the amount allowed by the applicable building code.

21. Change Sections 5003.8.4 through 5003.8.5.3 and 5003.8.6.2 to read:

5003.8.4 Gas rooms. Where a gas room is provided it shall be maintained in accordance with the provisions of Chapter 60, this chapter, and the applicable building code.

5003.8.4.1 Protection. Where provided or required by the applicable building code, fire protection systems and fire-rated separation shall be maintained.

5003.8.4.2 Ventilation system. Where provided or required by the applicable building code, ventilation systems for gas rooms shall be operated and maintained. Highly toxic and toxic gases shall comply with Section 6004.2.2.6 and the applicable building code.

5003.8.5 Exhausted enclosures. Where an exhausted enclosure is used to increase maximum allowable quantity per control area, the exhausted enclosure shall be maintained in accordance with this chapter, Chapter 60, and the applicable building code.

5003.8.5.1 Materials. Exhausted enclosures shall be maintained as approved by the applicable building code. Where noncombustible materials were required by the applicable building code, combustible materials are prohibited.

5003.8.5.2 Ventilation. Where provided or required by the applicable building code, the ventilation system for exhausted enclosures shall be operated and maintained. Ventilation systems used for highly toxic and toxic gases shall comply with this chapter; Items 1, 2, and 3 of Section 6004.1.3; and the applicable building code.

5003.8.5.3 Fire-extinguishing system. Where provided or required by the applicable building code, fire-extinguishing systems for exhaust enclosures shall be maintained in accordance with Chapter 9 and the applicable building code.

5003.8.6.2 Ventilation. Where provided or required by the applicable building code, the ventilation system for gas cabinets shall be operated and maintained. Ventilation systems used for highly toxic and toxic gases shall comply with this chapter; Items 1, 2, and 3 of Section 6004.1.2; and the applicable building code.

22. Change the first sentence of Section 5003.9.9 (the second sentence and exceptions remain) and add a sentence after exceptions to read:

~~5003.9.9 Shelf storage. Shelving shall be of substantial construction and shall comply with the requirements of this chapter and the applicable building code. Shelving shall be treated, coated, or constructed of materials that are compatible with the hazardous materials stored. Shelves shall be provided with a lip or guard when used for the storage of individual containers.~~

Exceptions:

~~1. Storage in hazardous material storage cabinets or laboratory furniture specifically designed for such use.~~

~~2. Storage of hazardous materials in amounts not requiring a permit in accordance with Section 5001.5.~~

Shelf storage of hazardous materials shall be maintained in an orderly manner.

23. Change Section 5003.9.10 by replacing the reference to "Table 5003.1.1(1)" with a reference to "Section 5003.1.1". ~~Section 5003.11~~ to read:

~~5003.11 Group M storage and display and Group S storage. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single control area of a Group M occupancy or an outdoor control area or stored in a single control area of a Group S occupancy is allowed to exceed the maximum allowable control area indicated in Section 5003.1 and the applicable building code when maintained in accordance with Sections 5003.11.1 through 5003.11.3.10.~~

24. Change ~~Section~~ Sections 5003.11 and 5003.11.1 to read:

5003.11 Group M storage and display and Group S storage. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single control area of a Group M occupancy or an outdoor control area or stored in a single control area of a Group S occupancy is allowed to exceed the maximum allowable control area indicated in Section 5003.1 when maintained in accordance with Sections 5003.11.1 through 5003.11.3.10.

~~5003.11.1 Maximum allowable quantity per control area in Group M or Group S occupancies. Nonflammable solid and nonflammable or noncombustible liquid hazardous materials.~~ The aggregate amount of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single control area of a Group M ~~occupancy~~ occupancy, in an outdoor control area, or stored in a single control area of a Group S occupancy shall not exceed the amounts set forth in the applicable building code.

25. Rename Table 5003.11.1 to Table 5003.11.1 Maximum Allowable Quantity Per Outdoor Control Area in Group M And S Occupancies—Nonflammable Solids, Nonflammable, and Noncombustible Liquids.

26. Change ~~footnote~~ footnotes "b" and "d" of Table 5003.11.1 to read:

b. Maximum allowable quantities shall be increased 100% in buildings equipped throughout with an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard. Where Note c applies, the increase for both notes shall be applied accumulatively

d. See the applicable building code for design and number of control areas.

27. Change ~~Section 5003.11.2~~ to read:

~~5003.11.2 Maximum allowable quantity per outdoor control area in Group M or Group S occupancies. The aggregate amount of nonflammable solid and nonflammable or noncombustible~~

liquid hazardous materials stored and within a single outdoor control area of a Group M shall not exceed the amounts set forth in Table 5003.11.1.

28. Change Section ~~5003.11.3~~ 5003.11.1.1 to read:

~~5003.11.3~~ 5003.11.1.1 Storage and display. Storage and display shall be in accordance with Sections ~~5003.11.3.1~~ Sections 5003.11.1.1.1 through ~~5003.11.3.10~~ 5003.11.1.1.10.

29. ~~28.~~ Change Section ~~5003.11.3.1~~ 5003.11.1.1.1 to read:

~~5003.11.3.1~~ 5003.11.1.1.1 Density. Storage and display of solids shall not exceed the density of floor area allowed by the applicable building code. Storage and display of liquids shall not exceed the amount per square foot allowed by the applicable building code.

30. ~~29.~~ Change the first sentence of Section ~~5003.11.3.2~~ 5003.11.1.1.2 (second sentence remains) to read:

~~5003.11.3.2~~ 5003.11.1.1.2 Storage and display height. Unless otherwise approved in accordance with the applicable building code, display height shall not exceed six feet (1829 mm) above the finished floor in display areas of Group M occupancies. ~~Storage height shall not exceed eight feet (2438 mm) above the finished floor in storage areas of Group M and Group S occupancies.~~

31. ~~30.~~ Change Section ~~5003.11.3.4~~ 5003.11.1.1.4 to read:

~~5003.11.3.4~~ 5003.11.1.1.4 Racks and shelves. Racks and shelves used for storage or display shall be maintained in accordance with Section 5003.9.9.

32. ~~31.~~ Change Section ~~5003.11.3.8~~ 5003.11.1.1.8 to read:

~~5003.11.3.8~~ 5003.11.1.1.8 Floors. Floors shall be maintained in accordance with Section 5004.12 unless otherwise approved by the applicable building code.

32. Delete Table 5003.11.2, change Section 5003.11.2 by replacing the reference to "Table 5003.11.2" with "the applicable building code", and change Section 5003.11.2.1 to read:

5003.11.2.1 Fire protection and storage arrangements. Fire protection and container storage arrangements for quantities of Category 1B flammable gases shall be maintained in accordance with the applicable building code.

33. Change the first sentence of Section 5003.13.2 (second sentence remains):

The storage, use and handling of hazardous materials on top of a roof or canopy shall not exceed the maximum allowable quantity set forth by the applicable building code.

34. Delete Section 5003.13.3.

35. Delete the second sentence of Section 5003.13.4 (first sentence remains), and change Section 5003.13.5 to read:

5003.13.5 Weather protection. Weather protection provided for sheltering rooftop storage or use shall be maintained in accordance with the applicable building code.

C. The following changes shall be made to Section 5004, Storage:

1. Change Section 5004.1 to read:

5004.1 Scope. Storage of hazardous materials in amounts exceeding the maximum allowable quantity per control area shall be maintained in accordance with Sections 5001, 5003, and 5004 and the applicable building code. Storage of hazardous materials in amounts not exceeding the maximum allowable quantity per control area shall be in accordance with Sections 5001 and 5003 and the applicable building code. Retail and wholesale storage and display of nonflammable solid and nonflammable and noncombustible liquid hazardous materials in Group M occupancies and Group S storage shall be maintained in accordance with Section 5003.11 and the applicable building code.

2. Change ~~Sections~~ Section 5004.2 (exception remains), through and Sections 5004.2.1 and 5004.2.2 to read:

5004.2 Spill control and secondary containment for liquid and solid hazardous materials. Spill control and secondary containment for rooms, buildings, or areas used for the storage of liquid or solid hazardous materials shall be maintained in accordance with Sections 5004.2.1 through 5004.2.3 and the applicable building code.

~~Exception: Outdoor storage of containers on approved containment pallets in accordance with Section 5004.2.3.~~

5004.2.1 Spill control for hazardous material liquids. Where provided or required by the applicable building code, spill control for hazardous materials shall be maintained. For individual vessels having a capacity of more than 55 gallons (208 L) or in which the aggregate capacity of multiple vessels exceeds 1,000 gallons (3785 L), spill control shall be maintained to prevent the flow of liquids to adjoining areas in accordance with the applicable building code.

5004.2.2 Secondary containment for hazardous material liquids and solids. Where provided or required by the applicable building code, secondary containment for hazardous materials shall be maintained.

3. Change Section 5004.2.2.1 to read:

5004.2.2.1 Containment and drainage methods. Facilities, equipment, and method used for containment and drainage of hazardous materials and fire protection water shall be maintained in accordance with this chapter and the applicable building code.

4. Delete Section 5004.2.2.3.

5. Change ~~Sections~~ the last sentence of Section 5004.2.2.5 (remainder of section remains) and Section 5004.2.2.6 to read:

~~5004.2.2.5 Monitoring. An approved monitoring method shall be provided to detect hazardous materials in the secondary containment system. The monitoring method is allowed to be visual inspection of the primary or secondary containment or other approved means. Where secondary containment is subject to the intrusion of water, a monitoring method for detecting water shall be provided. Where monitoring devices are provided, they shall be maintained in accordance with the applicable building code.~~

5004.2.2.6 Drainage system design. Drainage systems shall be maintained in accordance with this chapter and the applicable building code.

6. Change Section 5004.3 to read:

5004.3 Ventilation. Indoor storage areas and storage buildings shall maintain ventilation in accordance with the applicable building code and shall be operated and maintained in accordance with this chapter. Storage areas for flammable solids shall comply with Chapter 59.

7. Delete Section 5004.3.1.

8. Change Section 5004.5 to read:

5004.5 Automatic sprinkler systems. Automatic sprinkler systems for the storage of hazardous materials shall be maintained in accordance with this chapter, Chapter 9, and the applicable building code.

9. Change Section 5004.6 to read:

5004.6 Explosion control. Explosion control for storage rooms, areas, and buildings shall be maintained in accordance with this chapter, Chapter 9, and the applicable building code.

10. Change Section 5004.7 to read:

5004.7 Standby or emergency power. Where mechanical ventilation, treatment systems, temperature control, alarm, detection, or other electrically operated systems are required to have emergency or standby power systems in accordance with the applicable building code, those power systems shall be operated and maintained in accordance with NFPA 70, Section 1203, and this chapter.

11. Delete Section 5004.7.1.

12. Delete Section 5004.7.2.

13. Change Sections 5004.8 through 5004.8.2 to read:

5004.8 Limit controls. Limit controls shall be maintained in accordance with Sections 5004.8.1 and 5004.8.2.

5004.8.1 Temperature control. Where provided or required by the applicable building code, temperature control devices for materials that must be kept at temperatures other than normal

ambient temperatures to prevent a hazardous reaction shall be maintained to keep the temperature within a safe range.

5004.8.2 Pressure control. Where provided or required by the applicable building code, pressure control devices on stationary tanks and equipment containing hazardous material liquids that can generate pressures exceeding design limits because of exposure fires or internal reaction shall be maintained to relieve excessive internal pressure.

14. Change Section 5004.9 to read:

5004.9 Emergency alarm. Where provided or required by the applicable building code, manual emergency alarm systems in rooms or areas used for storage of hazardous materials shall be maintained in accordance with Chapter 9 and the applicable building code.

15. Change Section 5004.10 to read:

5004.10 Supervision and monitoring. Where emergency alarm, detection, and automatic fire-extinguishing systems are required by the applicable building code to be electrically supervised, they shall maintain monitoring by an approved supervising station or, when approved, sound an audible and visual signal at a constantly attended onsite location.

16. Change Section 5004.12 to read:

5004.12 Noncombustible floors. Except for surfacing, floors of storage areas shall remain noncombustible where required by the applicable building code.

17. Change Section 5004.13 (exception remains) to read:

5004.13 Weather protection. Where overhead noncombustible construction is provided for sheltering outdoor hazardous material storage areas, such storage shall not be considered indoor storage where the area is constructed in accordance with the requirements for weather protection as required by the applicable building code.

~~Exception: Storage of explosive materials shall be considered as indoor storage.~~

D. The following changes shall be made to Section 5005, Use, Dispensing, and Handling:

1. Change Sections 5005.1 and 5005.1.2 through 5005.1.5 to read:

5005.1 General. Use, dispensing, and handling of hazardous materials in amounts exceeding the maximum allowable quantity per control area shall be maintained in accordance with Sections 5001, 5003, and 5005 and the applicable building code. Use, dispensing, and handling of hazardous materials in amounts not exceeding the maximum allowable quantity per control area set forth in Section 5003.1 shall be maintained in accordance with Sections 5001 and 5003 and the applicable building code.

5005.1.2 Noncombustible floor. Except for surfacing, floors of areas where liquid or solid hazardous materials are dispensed or used in open systems shall be maintained as noncombustible and liquid-tight where required by the applicable building code.

5005.1.3 Spill control and secondary containment for hazardous material liquids. Where provided or required by the applicable building code, spill control and secondary containment for hazardous materials shall be maintained in accordance with Section 5004.2 and the applicable building code.

5005.1.4 Limit controls. Limit controls shall be maintained in accordance with Sections 5005.1.4.1 through 5005.1.4.4.

5005.1.4.1 High-liquid-level control. Where provided or required by the applicable building code, liquid-level limit controls or other approved means to prevent overfilling of open tanks shall be maintained.

5005.1.4.2 Low-liquid-level control. Where provided or required by the applicable building code, liquid-level limit controls or other approved means to prevent a low-liquid level in a tank from creating a hazardous condition, including overheating of a tank or its contents, shall be maintained.

5005.1.4.3 Temperature control. Where provided or required by the applicable building code, temperature controls shall be maintained in accordance with Section 5004.8.1.

5005.1.4.4 Pressure control. Where provided or required by the applicable building code, pressure controls shall be maintained in accordance with Section 5004.8.2.

5005.1.5 Standby or emergency power. Where mechanical ventilation, treatment systems, temperature control, alarm, detection, or other electrically operated systems are required to have emergency or standby power systems in accordance with the applicable building code, those power systems shall be operated and maintained in accordance with NFPA 70, Section 1203, and this chapter.

2. Delete Section 5005.1.5.1 and change Sections 5005.1.6 through 5005.1.9 (exception to Section 5005.1.9 remains) to read:

5005.1.6 Supervision and monitoring. Where emergency alarm, detection, and automatic fire-extinguishing systems are required by the applicable building code to be electrically supervised, they shall maintain monitoring by an approved supervising station or, when approved, sound an audible and visual signal at a constantly attended onsite location.

5005.1.7 Lighting. Natural or artificial lighting provided for use, dispensing, and handling of hazardous materials shall be maintained in accordance with this chapter, Chapter 6, and the applicable building code.

5005.1.8 Fire-extinguishing systems. Where fire-extinguishing systems for rooms or areas in which hazardous materials are dispensed or used are required by the applicable building code, they shall be maintained in accordance with this chapter, Chapter 9, and the applicable building code.

5005.1.9 Ventilation. Where provided or required by the applicable building code, exhaust ventilation for indoor dispensing and use areas shall be operated and maintained in accordance with the applicable building code and Section 5004.3.

~~Exception: Ventilation is not required for dispensing and use of flammable solids other than finely divided particles.~~

3. Delete Sections 5005.1.11 and 5005.1.12.

4. Change Section 5005.2 to read:

5005.2 Indoor dispensing and use. Indoor dispensing and use of hazardous materials shall be in buildings complying with the ~~International Building Code~~ applicable building code and in accordance with Section 5005.1, Sections 5005.2.1 through 5005.2.1.4, and ~~Sections 5005.2.2.1 through 5005.2.2.4.~~

5. Change Section 5005.2.1.3 to read:

5005.2.1.3 Spill control for hazardous material liquids. Where spill control is provided in accordance with the applicable building code for buildings, rooms, or areas where hazardous material liquids are dispensed into vessels exceeding a 1.3-gallon (5 L) capacity or used in open systems exceeding a 5.3-gallon (20 L) capacity, spill control shall be maintained in accordance with this chapter.

6. Change Section 5005.2.1.4 to read:

5005.2.1.4 Secondary containment for hazardous material liquids. Where secondary containment is provided in accordance with the applicable building code for hazardous material liquids, it shall be maintained.

7. Delete Table 5005.2.1.4.

8. ~~Change Section 5005.2.2 to read:~~

~~5005.2.2 Closed systems. Use of hazardous materials in closed containers or systems shall be in accordance with Sections 5005.2.2.1 through 5005.2.2.4.~~

9. Change ~~Section~~ Sections 5005.2.2.1 through 5005.2.2.4 (exception to Section 5005.2.2.2 remains) to read:

5005.2.2.1 Ventilation. Where closed systems are designed to be opened as part of normal operations, ventilation required by the applicable building code shall be operated and maintained in accordance with Section 5005.2.1.1.

5005.2.2.2 Explosion control. Where provided or required by the applicable building code, explosion control shall be maintained in accordance with Section 5004.6 where an explosive environment exists because of the hazardous materials dispensed or used or as a result of the dispensing or use process.



~~Exception: Where process vessels are designed to contain fully the worst case explosion anticipated within the vessel under process conditions based on the most likely failure.~~

5005.2.2.3 Spill control for hazardous material liquids. Where provided in accordance with the applicable building code for buildings, rooms, or areas where hazardous material liquids are used in individual vessels exceeding a 55-gallon (208 L) capacity with the applicable building code, spill control shall be maintained in accordance with Section 5004.2.

5005.2.2.4 Secondary containment for hazardous material liquids. Where provided in accordance with the applicable building code, secondary containment for buildings, rooms, or areas where hazardous material liquids are used shall be maintained in accordance with Section 5004.2.2.

10. Change Section 5005.3.4 to read:

5005.3.4 Spill control for hazardous material liquids in open systems. Outdoor areas where hazardous material liquids are dispensed in vessels exceeding a 1.3-gallon (5 L) capacity or used in open systems exceeding a 5.3-gallon (20 L) capacity shall be provided with spill control in accordance with the applicable building code.

11. Change Section 5005.3.5 (items 1 and 2 remain) to read:

5005.3.5 Secondary containment for hazardous material liquids in open systems. Where required, outdoor areas where hazardous material liquids are dispensed or used in open systems shall be provided with secondary containment in accordance with the applicable building code where the capacity of an individual vessel or system or the capacity of multiple vessels or systems exceeds the following:

- ~~1. Individual vessel or system: greater than 1.3 gallons (5 L).~~
- ~~2. Multiple vessels or systems: greater than 5.3 gallons (20 L).~~

12. Change Section 5005.3.6 to read:

5005.3.6 Spill control for hazardous material liquids in closed systems. Outdoor areas where hazardous material liquids are used in closed systems exceeding 55 gallons (208 L) shall be provided with spill control in accordance with the applicable building code.

13. Change Section 5005.3.7 (items 1 and 2 remain) to read:

5005.3.7 Secondary containment for hazardous material liquids in closed systems. Where required, outdoor areas where hazardous material liquids are dispensed or used in closed systems shall be provided with secondary containment in accordance with the applicable building code where the capacity of an individual vessel or system or the capacity of multiple vessels or systems exceeds the following:

- ~~1. Individual vessel or system greater than 55 gallons (208 L).~~
- ~~2. Multiple vessels or systems greater than 1,000 gallons (3785 L).~~

14. Change Section 5005.3.9 (exception remains) to read:

5005.3.9 Weather protection. Where overhead noncombustible construction is provided for sheltering outdoor hazardous material use areas, such use shall not be considered indoor use where the area is constructed in accordance with the requirements for weather protection as required in the applicable building code.

~~Exception: Use of explosive materials shall be considered as indoor use.~~

15. Change Section 5005.4 to read:

5005.4 Handling. Handling of hazardous materials shall be maintained in accordance with Sections 5005.4.1 through 5005.4.4.

16. Change Section 5005.4.1 to read:

5005.4.1 Quantities exceeding the maximum allowable quantity per control area. Handling of hazardous materials in outdoor locations in amounts exceeding the maximum allowable quantity per the applicable building code shall be in accordance with Sections 5001, 5003, 5005.1, and 5005.4.

17. Change Section 5005.4.2 to read:

5005.4.2 Quantities not exceeding the maximum allowable quantity per control area. Handling of hazardous materials in indoor locations in amounts not exceeding the maximum allowable quantity per the applicable building code shall be in accordance with Sections 5001, 5003, and 5005.1. Handling of hazardous materials in outdoor locations in amounts not exceeding the maximum allowable quantity per Table 5003.1.1(3) and Table 5003.1.1(4) shall be in accordance with Sections 5001 and 5003.

18. Change Section 5005.4.4 to read:

5005.4.4 Dispensing, use, and handling. Hazardous materials having a hazard ranking of 3 or 4 in accordance with NFPA 704 shall not be transported through corridors, interior exit stairways or ramps, or exit passageways unless such areas maintain an emergency telephone system, a local manual alarm station, or an approved alarm-initiating device throughout the transport route in accordance with the applicable building code. Where required by the applicable building code, the signal shall be relayed to an approved central, proprietary, or remote station service or constantly attended onsite location and shall also initiate a local audible alarm.

**13VAC5-52-490. IFC Chapter 51 Aerosols.**

A. Change Section 5101.1 to read:

5101.1 Scope. The provisions of this chapter and NFPA 30B shall apply to the manufacturing, storage, and display of aerosol products. Manufacturing of aerosol products using hazardous materials shall also comply with Chapter 50.

B. Change Section 5101.2 to read:

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

C. Change Sections 5104.1, ~~5104.1.1~~, 5104.1.1 (items 1 through 4 remain), 5104.1.3.1, 5104.2, and 5104.2.2 to read:

5104.1 General. The inside storage of Level 2 and Level 3 aerosol products shall be maintained in accordance with Sections 5104.2 through 5104.7 and the applicable provisions of NFPA 30B and remain in accordance with the applicable building code.

5104.1.1 Plastic containers. Aerosol products in plastic containers larger than four fluid ounces (118 ml), but not to exceed 33.8 fluid ounces (1000 ml), shall be allowed only where in accordance with this section. The commodity classification shall be Class III commodities, as defined in the applicable NFPA 13 standard where any of the following conditions are met:

- ~~1. Base product has no fire point where tested in accordance with ASTM D 92, and nonflammable propellant.~~
- ~~2. Base product has no sustained combustion as tested in accordance with Appendix H, "Method of Testing for Sustained Combustibility," in U.S. Department of Transportation 49 CFR Part 173, and nonflammable propellant.~~
- ~~3. Base product contains up to 20% by volume (15.8% by weight) of ethanol, isopropyl alcohol, or both in an aqueous mix and nonflammable propellant.~~
- ~~4. Base product contains 4.0% by weight or less of an emulsified flammable liquefied gas propellant within an aqueous base. The propellant shall remain emulsified for the life of the product. Where such propellant is not permanently emulsified, the propellant shall be nonflammable.~~

5104.1.3.1 Storage, use, or handling. The storage, use, or handling of plastic aerosol X products shall be prohibited unless otherwise specified by the applicable building code.

5104.2 Storage in Groups A, B, E, F, I, and R. Storage quantities of Level 2 and Level 3 aerosol products in occupancies in Groups A, B, E, F, I, and R shall be limited and maintained in accordance with the applicable building code.

5104.2.2 Aerosol cooking spray products. Storage of aerosol cooking spray products in Groups A, B, E, F, and R occupancies shall not be more than 1,000 pounds (454 kg) net weight unless otherwise specified by the applicable building code.

D. Change Sections 5104.3 and 5104.3.1 to read:

5104.3 Storage in general purpose warehouses. Aerosol storage in general purpose warehouses utilized only for warehousing type operations involving mixed commodities shall be maintained in accordance with Section 5104.3.1 or 5104.3.2 and remain in accordance with the applicable building code.

5104.3.1 Nonsegregated storage. Nonsegregated storage areas shall be maintained in accordance with the applicable building code.

E. Delete Table 5104.3.1.

F. Change Section 5104.3.2 to read:

5104.3.2 Segregated storage. Segregated storage areas shall be maintained in accordance with the applicable building code.

G. Delete Table 5104.3.2.

H. Change Sections 5104.3.2.1 and 5104.3.2.2 to read:

5104.3.2.1 Chain link fence enclosures. Chain link fence enclosures shall be maintained in accordance with the applicable building code.

5104.3.2.2 Aisles. The minimum aisle requirements for solid pile or palletized segregated storage in general purpose warehouses shall be maintained in accordance with Table 5104.3.2.2 and remain in accordance with the applicable building code.

I. Delete the bottom two rows of Table 5104.3.2.2.

J. Change Sections ~~5104.3.3 through 5104.4.4~~ 5104.3.3, 5104.4.1, 51.4.4.3, and 5104.5 to read:

5104.3.3 Aerosol cooking spray products. Solid pile, palletized, or rack storage of aerosol cooking spray products in a general purpose warehouse shall not be more than 2,500 pounds (1135 kg) net weight unless protected in accordance with NFPA 30B or otherwise specified by the applicable building code.

~~5104.4 Storage in aerosol warehouses. The total quantity of Level 2 and Level 3 aerosol products in a warehouse utilized for the storage, shipping, and receiving of aerosol products shall not be restricted in structures complying with Sections 5104.4.1 through 5104.4.4.~~

5104.4.1 Automatic sprinkler system capability. Aerosol warehouses protected by an approved wet-pipe automatic sprinkler system in accordance with NFPA 30B and the applicable building code shall be maintained in accordance with Chapter 9. The highest classification level of aerosol product present shall not exceed the capability of the approved sprinkler system.

~~5104.4.2 Pile and palletized storage aisles. Solid pile and palletized storage shall be arranged so the maximum travel distance to an aisle is 25 feet (7620 mm). Aisles shall have a minimum width of four feet (1219 mm).~~

5104.4.3 Rack storage aisles. Rack storage shall be maintained in accordance with Chapter 32 and remain in accordance with the applicable building code.

~~5104.4.4 Combustible commodities. Combustible commodities other than flammable and combustible liquids shall be permitted to be stored in an aerosol warehouse.~~

~~Exception: Flammable and combustible liquids in one quart (946 mL) metal containers and smaller shall be permitted to be stored in an aerosol warehouse.~~

5104.5 Storage in inside flammable liquid storage rooms. Inside flammable liquid storage rooms shall be maintained in accordance with Section 5704.3.7 unless otherwise approved by the applicable building code. The maximum quantities of aerosol products shall be maintained in accordance with the applicable code.

K. Delete Sections 5104.5.1 and 5104.5.2.

L. Change Sections 5104.6 and ~~5104.6.1~~ through 5104.6.3 to read:

5104.6 Storage in liquid warehouses. The storage of Level 2 and Level 3 aerosol products in liquid warehouses shall be maintained in accordance with the applicable provisions of NFPA 30B. Unless otherwise approved by the applicable building code, the storage shall be maintained within segregated storage areas in accordance with Section 5104.3.2 and Sections 5104.6.1 through 5104.6.3.

5104.6.1 Containment. Spill control or drainage shall be maintained in accordance with the applicable building code.

5104.6.2 Sprinkler system. Sprinkler protection shall be maintained in accordance with Chapter 9.

5104.6.3 Opening protection into segregated storage areas. Fire doors or gates opening into the segregated storage area shall be maintained in accordance with Chapter 7 and remain in accordance with the applicable building code.

M. Change Section 5104.7 to read:

5104.7 Storage in Group M occupancies. Storage of Level 2 and Level 3 aerosol products in occupancies in Group M shall be maintained in accordance with the applicable building code. Retail display shall be maintained in accordance with Section 5106.

N. Delete Table 5104.7 and Sections 5104.8.1 and 5104.8.2.

O. Change Sections 5104.8, 5106.1, and 5106.2.1 to read:

5104.8 Storage of aerosol cooking spray products. Aerosol cooking spray products shall be permitted to be stored in a general purpose warehouse in accordance with the applicable building code.

5106.1 General. This section shall apply to the retail display of 500 pounds (227 kg) or more of Level 2 and Level 3 aerosol products and plastic Aerosol 3 products.

5106.2.1 Maximum quantities in retail display areas. Aerosol products in retail display areas shall not exceed quantities needed for display and normal merchandising and shall not exceed the quantities in the applicable building code.

P. Delete Table 5106.2.1.

Q. Change Sections 5106.2.2 and 5106.2.3 to read:

~~5106.2.2 Display of containers. Level 2 and Level 3 aerosol and plastic Aerosol 3 containers shall not be stacked more than six feet (1829 mm) high from the base of the aerosol array to the top of the aerosol array unless the containers are placed on fixed shelving or otherwise secured in an approved manner. When storage or retail display is on shelves, the height of such storage or retail display to the top of aerosol containers shall not exceed eight feet (2438 mm).~~

~~5106.2.3 Combustible cartons. Aerosol products located in retail display areas shall be removed from combustible cartons.~~

Exceptions:

1. Display areas that use a portion of combustible cartons that consist of only the bottom panel and not more than two inches (51 mm) of the side panel are allowed.
2. Where the display area is protected in accordance with Tables 6.3.2.7(a) through 6.3.2.7(l) of NFPA 30B, storage of aerosol products in combustible cartons is allowed.

R. Change Section 5106.2.4 to read:

~~5106.2.4 Retail display automatic sprinkler system. When an automatic sprinkler system is required for the protected retail display of aerosol products, the wet-pipe automatic sprinkler system shall be maintained in accordance with Chapter 9.~~

S. Change Sections 5106.2.5 through 5106.4 to read:

5106.2.5 Retail display automatic sprinkler system. Where an automatic sprinkler system is required for the protected retail display of aerosol products, the wet-pipe automatic sprinkler system shall be in accordance with Chapter 9 and the applicable NFPA 13 standard.

5106.3 Aerosol display and normal merchandising exceeding eight feet (2438 mm) high. Aerosol display and merchandising exceeding eight feet in height shall be maintained in accordance with Sections 5106.3.1 through 5106.3.3.

5106.3.1 Maximum quantities in retail display areas. Aerosol products in retail display areas shall not exceed quantities needed for display and normal merchandising and shall not exceed the quantities in the applicable building code.

5106.3.2 Automatic sprinkler protection. Where provided, automatic sprinkler protection for aerosol and plastic Aerosol 3 display and merchandising areas shall be maintained in accordance with the applicable building code.

5106.3.3 Separation of aerosol areas. Separation of aerosol and plastic Aerosol 3 areas shall be maintained in accordance with the applicable building code.

5106.4 Maximum quantities in storage areas. Aerosol and plastic Aerosol 3 products in storage areas adjacent to retail display areas shall not exceed the quantities approved under the applicable building code.

~~T.~~ R. Delete Table 5106.4.

~~U.~~ S. Change Sections 5106.5 through ~~5106.5.2~~ and 5106.5.1 to read:

5106.5 Special protection design for Level 2 and Level 3 aerosols adjacent to flammable and combustible liquids in double-row racks. The display and merchandising of Level 2 and Level 3 aerosols adjacent to flammable and combustible liquids in double-row racks shall be maintained in accordance with Sections 5106.5.1 through 5106.5.8 or Section 5106.3.3.

5106.5.1 Fire protection. Fire protection for the display and merchandising of Level 2 and Level 3 aerosols in double-row racks shall be maintained in accordance with Chapter 9 and the applicable provisions of NFPA 30B.

~~5106.5.2 Cartoned products. Level 2 and Level 3 aerosols displayed or merchandised more than eight feet (2438 mm) above the finished floor shall be in cartons.~~

~~V.~~ T. Change Sections 5106.5.3 through 5106.5.8 to read:

5106.5.3 Shelving. Shelving in racks shall be maintained in accordance with the applicable building code.

5106.5.4 Aisles. Aisles shall be maintained between rows of racks and adjacent solidly piled or palletized merchandise in accordance with the applicable building code.

5106.5.5 Flue spaces. Flue spaces in racks shall be maintained in accordance with the applicable building code.

5106.5.6 Horizontal barriers. Horizontal barriers shall be maintained in accordance with the applicable building code.

5106.5.7 Class I, Class II, Class III, Class IV, and plastic commodities. Class I, Class II, Class III, Class IV, and plastic commodities located adjacent to Level 2 and Level 3 aerosols and plastic Aerosol 3 shall maintain protection from an approved NFPA 13 sprinkler system where required in accordance with the applicable building code.

5106.5.8 Flammable and combustible liquids. Class I, Class II, Class III A, and Class III B liquids shall be allowed to be maintained adjacent to Level 2 and Level 3 aerosol products in accordance with the applicable building code.

~~W.~~ U. Change Section 5107.1 to read:

5107.1 General. Manufacturing facilities shall be maintained in accordance with the applicable provisions of NFPA 30B and remain in accordance with the applicable building code.

### 13VAC5-52-500. IFC Chapter 53 Compressed Gases.

A. Change the first sentence of Section 5301.1 (remainder of section and exceptions remain) to read:

~~5301.1 Scope. Storage, use, and handling of compressed gases in compressed gas containers, cylinders, tanks, and systems shall comply with the applicable building code, this chapter, and the use and handling provisions of NFPA 55, including those gases regulated elsewhere in this code. Partially full compressed gas containers, cylinders, or tanks containing residual gases shall be considered as full for the purposes of the controls required.~~

~~Liquefied natural gas for use as a vehicular fuel shall also comply with NFPA 52 and NFPA 59A.~~

~~Compressed gases classified as hazardous materials shall also comply with Chapter 50 for general requirements and chapters addressing specific hazards, including Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids), and 64 (Pyrophoric Materials).~~

~~Compressed hydrogen (CH<sub>2</sub>) for use as a vehicular fuel shall also comply with Chapters 23 and 58 of this code and NFPA 2.~~

~~Cutting and welding gases shall also comply with Chapter 35.~~

~~LP gas shall also comply with Chapter 61.~~

**Exceptions:**

~~1. Gases used as refrigerants in refrigeration systems (see Section 606).~~

~~2. Compressed natural gas (CNG) for use as a vehicular fuel shall comply with Chapter 23, NFPA 52, and the International Fuel Gas Code.~~

~~3. Cryogenic fluids shall comply with Chapter 55.~~

B. Change Section 5301.2 to read:

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

C. Change Section 5303.16 to read:

5303.16 Vaults. Where approved by the applicable building code, generation, compression, storage, and dispensing equipment for compressed gases located in either above-grade or below-grade vaults shall be maintained in accordance with this section.

D. Delete Sections 5303.16.1 through 5303.16.3.

E. Delete Section 5303.16.5.

F. Delete Sections 5303.16.7 through 5303.16.10.

G. Delete Sections 5303.16.12 and 5303.16.14.



H. Change Sections 5305.5 and 5306.2 to read:

5305.5 Venting. Venting shall be operated, maintained, and directed to an approved location in accordance with this chapter and the applicable building code.

5306.2 Interior supply location. Unless otherwise approved by the applicable building code, medical gases shall be stored in areas dedicated to the storage of such gases without other storage or uses. Medical gases shall be stored in areas approved under the applicable building code.

I. Delete Sections 5306.2.1 and 5306.2.2.

J. Change Sections ~~5307.1 through 5307.4.5~~ 5307.2 and 5307.2.1 to read:

~~5307.1 General. Compressed gases in storage or use not regulated by the material-specific provisions of Chapters 6, 54, 55, and 60 through 67, including asphyxiant, irritant, and radioactive gases, shall comply with this section in addition to other requirements of this chapter.~~

5307.2 Ventilation. Indoor storage and use areas and storage buildings shall be maintained with ventilation in accordance with Section 5004.3 and the applicable building code. Where mechanical ventilation is provided, the systems shall be operational during such time as the building or space is occupied.

5307.2.1 Gas detection system. In rooms or areas not operating with ventilation in accordance with Section 5307.2, a gas detection system, complying with the applicable building code or where approved by the building official, an oxygen depletion alarm system, either of which initiates audible and visible alarm signals in the room or area where sensors are installed, shall be maintained in accordance with Chapter 9.

~~5307.3 Insulated liquid carbon dioxide systems used in beverage dispensing applications. Insulated liquid carbon dioxide systems with more than 100 pounds (45.4 kg) of carbon dioxide used in beverage dispensing applications shall comply with Section 5307.3.1.~~

K. Change Sections 5307.3.1 through 5307.4.1 (items 1 through 8 of Section 5307.4.1 remain) to read:

5307.3.1 Ventilation. Insulated liquid carbon dioxide storage tanks, cylinders, piping, and equipment located indoors, in rooms or areas containing storage tanks, cylinders, piping, and equipment and in other areas where a leak of carbon dioxide is expected to accumulate, shall maintain and operate ventilation in accordance with the applicable building code and Section 5004.3 and keep the room containing carbon dioxide at a negative pressure in relation to the surrounding area.

Exception: Where a gas detection system was approved in accordance with the applicable building code.

5307.3.2 Gas detection system. Gas detection systems for insulated carbon dioxide systems shall be maintained in accordance with the applicable building code.

5307.4 Carbon dioxide enrichment systems. The maintenance of carbon dioxide enrichment systems with more than 100 pounds (45.4 kg) of carbon dioxide and carbon dioxide enrichment systems with

any quantity of carbon dioxide having a remote fill connection shall comply with Sections 5307.4.1 through 5307.4.7.

5307.4.1 Documentation. Where required by the fire code official for an operational permit in accordance with Section 107.2, the following shall be provided:

- ~~1. Total aggregate quantity of liquid carbon dioxide in pounds or cubic feet at normal temperature and pressure.~~
- ~~2. Location and total volume of the room where the carbon dioxide enrichment operation will be conducted. Identify whether the room is at grade or below grade.~~
- ~~3. Location of containers relative to equipment, building openings, and means of egress.~~
- ~~4. Manufacturer's specifications and pressure rating, including cut sheets, of all piping and tubing to be used.~~
- ~~5. A piping and instrumentation diagram that shows piping support and remote fill connections.~~
- ~~6. Details of container venting, including vent line size, material, and termination location.~~
- ~~7. Alarm and detection system and equipment, if applicable.~~
- ~~8. Seismic support for containers.~~

L. Change Sections 5307.4.2 through 5307.4.4 to read:

5307.4.2 Equipment. Pressure relief, vent piping, fill indicators, fill connections, vent terminations, piping systems, and the storage, use, and handling of the carbon dioxide shall be maintained in accordance with Chapter 53, the applicable building code, and the applicable maintenance provisions of NFPA 55.

5307.4.3 Gas detection system. Gas detection systems for carbon dioxide enrichment systems shall be maintained in accordance with the applicable building code.

5307.4.3.1 System activation. System activation shall be maintained in accordance with the applicable building code.

5307.4.4 Pressurization and ventilation. Rooms or indoor areas in which carbon dioxide enrichment is provided shall be operated and maintained at a negative pressure in relation to the surrounding areas in the building in accordance with the applicable building code.

~~5307.4.5 Signage. Hazard identification signs shall be posted at the entrance to the room and indoor areas where the carbon dioxide enrichment process is located and at the entrance to the room or indoor area where the carbon dioxide containers are located. The sign shall be not less than eight inches (200 mm) in width and six inches (150 mm) in height and indicate:~~

~~CAUTION — CARBON DIOXIDE GAS~~  
  
~~VENTILATE THE AREA BEFORE ENTERING.~~

~~A HIGH CARBON DIOXIDE (CO<sub>2</sub>) GAS CONCENTRATION IN THIS AREA CAN CAUSE ASPHYXIATION.~~

**13VAC5-52-510. IFC Chapter 54 Corrosive Materials.**

A. Change Sections 5401.1 (exceptions remain) and 5401.2 to read:

5401.1 Scope. Maintenance and operational aspects of the storage and use of corrosive materials shall be in accordance with this chapter. Compressed gases shall also comply with Chapter 53.

**Exceptions:**

- ~~1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.~~
- ~~2. Stationary storage battery systems in accordance with Section 1207.~~
- ~~3. This chapter shall not apply to R-717 (ammonia) where used as a refrigerant in a refrigeration system (see Section 608).~~

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

B. Change Sections 5403.1 and 5403.2 to read:

5403.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of corrosive materials in amounts not exceeding the maximum allowable quantity per the applicable building code shall be maintained in accordance with Sections 5001, 5003, and 5401.

5403.2 Quantities exceeding the maximum allowable quantity per control area. The storage and use of corrosive materials in amounts exceeding the maximum allowable quantity per the applicable building code shall be maintained in accordance with this chapter and Chapter 50.

C. Change Section 5404.1 by replacing the reference to "Table 5003.1.1(2)" with a reference to "Section 5003.1.1", and change Sections 5404.1.1 and 5404.2.1 to read:

5404.1.1 Liquid-tight floor. In addition to the provisions of Section 5004.12, floors in storage areas for corrosive liquids shall be maintained as liquid-tight construction in accordance with the applicable building code.

5404.2.1 Aboveground outside storage tanks. Where secondary containment is provided for aboveground outside storage tanks of corrosive liquids, secondary containment shall be maintained in accordance with Section 5004.2.2.

D. Change Section 5405.1 by replacing the reference to "Table 5003.1.1(2)" with a reference to "Section 5003.1.1", and change Section 5405.1.2 to read:

5405.1.2 Ventilation. Where required, mechanical exhaust ventilation shall be maintained and operated in accordance with the applicable building code.

### 13VAC5-52-520. IFC Chapter 55 Cryogenic Fluids.

- A. Change Sections the first sentence of Section 5501.1 (remainder of section, including exceptions, remains) and 5501.2 to read:

5501.1 Scope. Maintenance and operational aspects of the storage, use, and handling of cryogenic fluids shall comply with this chapter and NFPA 55. ~~Cryogenic fluids classified as hazardous materials shall also comply with the general requirements of Chapter 50. Partially full containers containing residual cryogenic fluids shall be considered as full for the purposes of the controls required.~~

Exceptions:

1. ~~Fluids used as refrigerants in refrigeration systems (see Section 608).~~
2. ~~Liquefied natural gas (LNG), which shall comply with NFPA 59A.~~

~~Oxidizing cryogenic fluids, including oxygen, shall comply with Chapter 63, as applicable.~~

~~Flammable cryogenic fluids, including hydrogen, methane, and carbon monoxide, shall comply with Chapters 23 and 58, as applicable.~~

~~Inert cryogenic fluids, including argon, helium, and nitrogen, shall comply with ANSI/CGA P-18.~~

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

- B. Change Delete the first sentence of Section 5503.1.2 (second sentence remains). to read:

~~5503.1.2 Concrete containers. Barrier materials and membranes used in connection with concrete, but not functioning structurally, shall be compatible with the materials contained.~~

- C. Change Sections the first sentence of Section 5503.5.2 (remainder of section remains) and Section 5503.6 to read:

~~5503.5.2 Securing of containers. Stationary containers shall be secured to foundations in accordance with the applicable building code. Portable containers subject to shifting or upset shall be secured. Nesting shall be an acceptable means of securing containers.~~

5503.6 Electrical wiring and equipment. Electrical wiring and equipment shall be maintained in accordance with the applicable provisions of NFPA 70, the applicable building code, and Sections 5503.6.1 and 5503.6.2.

- D. Change Section 5504.2.1 to read:

5504.2.1 Stationary containers. Stationary containers shall remain in accordance with the applicable building code and comply with the maintenance provisions of this section and those applicable to the type of fluid stored.

- E. Change Section 5504.2.1.2 to read:

5504.2.1.2 Indoor storage areas. Cryogenic fluids in stationary containers stored indoors shall be stored in buildings, rooms, or areas constructed for this use in accordance with the applicable building code.

F. Change Sections 5504.2.1.3, 5504.2.2.2, and 5504.2.2.3 to read:

5504.2.1.3 Ventilation. Storage areas for stationary containers shall be ventilated in accordance with the applicable building code.

5504.2.2.2 Indoor storage areas. Cryogenic fluids in portable containers stored indoors shall only be stored in buildings, rooms, or areas constructed for this use in accordance with the applicable building code.

5504.2.2.3 Ventilation. Storage areas for portable containers shall be ventilated in accordance with the applicable building code.

G. Change Sections 5505.4.1 and 5505.4.1.1 (exception remains) to read:

5505.4.1 Dispensing areas. Dispensing of cryogenic fluids with physical or health hazards shall be conducted in approved locations.

5505.4.1.1 Ventilation. Ventilation required by the applicable building code shall be maintained and operated in areas where cryogenic fluids are dispensed.

~~Exception: Cryogenic fluids that can be demonstrated not to create harmful vapors.~~

### **13VAC5-52-530. IFC Chapter 56 Explosives and Fireworks.**

A. Change Exception 4 ~~in~~ to 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 Group 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 Group R-5.

C. Change Exception 4 ~~in~~ to 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 (exception to Section 5601.2.1, and Section 5601.2.3 remain) 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, and no permit may 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, and 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, and no person may offer for sale explosives, explosive materials, or fireworks upon highways, sidewalks, public property, or in assembly or educational occupancies.

5601.2.2.1 Permissible fireworks. Where the sale or retail display of permissible fireworks is allowed by Section 5601.1.3, Exception 4, such sales or retail display shall comply with the applicable requirements of NFPA 1124 - 06 edition.

~~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 the 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 Background clearance card (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 the applicant's 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 a BCC if the individual's 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 that 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 million.

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 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 million.

F. ~~Change entire Section 5601.4~~ Add Sections 5601.4.1 through 5601.4.6.2 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 that impair sensory or motor skills, shall be at least 21 years of age, and shall 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 persons approved by the SFMO.
2. For certification as an unrestricted blaster, at least one year under direct supervision by a certified unrestricted blaster or an other person approved by the SFMO.
3. For certification as a pyrotechnician, aerial or pyrotechnician, proximate, the applicant must have been 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 (i) 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 the applicant's 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 the blaster or pyrotechnician certification if the individual's 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 State Review Board. The party's appeal to 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. Change Table 5601.8.1(1) by replacing all references to Table 5605.3 with “the applicable building Code”, change footnote “b” of Table 5601.8.1(1), and change Section 5601.8.1.1 (exception remains) to read:

b. Linear interpolation between tabular values in the referenced Q-D tables shall not be allowed. Nonlinear interpolation of the values shall be allowed subject to an approved technical opinion and report prepared by a registered design professional.

5601.8.1.1 Mass-detonating explosives (Division 1.1, 1.2, or 1.5). The total net explosive weight of mass-detonating explosives (Division 1.1, 1.2, or 1.5) shall be used. See Table 5604.5.2(1) as appropriate.

~~Exception: Where the TNT equivalence of the explosive material has been determined, the equivalence is allowed to be used to establish the net explosive weight.~~

- I. Change Section 5601.8.1.3 ~~to read:~~ by replacing references to Table 5605.3 with references to Section 5605.3.

~~5601.8.1.3 Combinations of mass-detonating and non-mass-detonating explosives (excluding Division 1.4). Combination of mass-detonating and non-mass-detonating explosives (excluding Division 1.4) shall be as follows:~~

~~1. Where Divisions 1.1 and 1.2 explosives are located in the same site, determine the distance for the total quantity considered first as Division 1.1 and then as Division 1.2. The required distance is the greater of the two. When the Division 1.1 requirements are controlling and the TNT equivalence of the Division 1.2 is known, the TNT equivalent weight of the 1.2 items shall be allowed to be added to the total explosive weight of Division 1.1 items to determine the net explosive weight for Division 1.1 distance determination. See Table 5604.5.2(2) or Table 5605.3 as appropriate.~~

~~2. Where Divisions 1.1 and 1.3 explosives are located in the same site, determine the distances for the total quantity considered first as 1.1 and then as 1.3. The required distance is the greater of the two. When the Division 1.1 requirements are controlling and the TNT equivalence of the 1.3 is known, the TNT equivalent weight of the 1.3 items shall be allowed to be added to the total explosive weight of Division 1.1 items to determine the net explosive weight for Division 1.1 distance determination. See Table 5604.5.2(1) or Table 5604.5.2(2) or 5605.3, as appropriate.~~

~~3. Where Divisions 1.1, 1.2, and 1.3 explosives are located in the same site, determine the distances for the total quantity considered first as 1.1, next as 1.2, and finally as 1.3. The required distance is the greatest of the three. As allowed by subdivisions 1 and 2 of this subsection, TNT equivalent weights for 1.2 and 1.3 items are allowed to be used to determine~~

~~the net weight of explosives for Division 1.1 distance determination. Table 5604.5.2(1) or 5605.3 shall be used when TNT equivalency is used to establish the net explosive weight.~~

~~4. For composite pyrotechnic items Division 1.1 and Division 1.3, the sum of the net weights of the pyrotechnic composition and the explosives involved shall be used. See Tables 5604.5.2(1) and 5604.5.2(2).~~

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

Background clearance card (BCC).

Blaster, restricted.

Blaster, unrestricted.

Design.

Designated individual.

Explosive manufacturing.

Permissible fireworks.

Pyrotechnician (fireworks operator).

Pyrotechnician, aerial.

Pyrotechnician, proximate.

Reactive targets.

Responsible management.

Restricted explosives manufacturing.

Sole proprietor.

Unrestricted explosives manufacturing.

K. Change Section 5603.4 to read:

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

L. Change Section 5605.1 (exceptions remain) to read:

5605.1 General. The restricted and unrestricted manufacture, assembly, and testing of explosives, ammunition, blasting agents, and fireworks shall comply with the requirements of this section, NFPA 495, NFPA 1124, or NFPA 1126.

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.~~

M. Add Section 5605.1.1 to read:

5605.1.1 Permits. Permits for the restricted and unrestricted explosives 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 for unrestricted explosives manufacturing of any explosive material shall be prohibited unless such manufacture is authorized by a federal license and conducted in accordance with recognized safety practices. All restricted explosives manufacturing shall comply with the instructions provided by the supplier of the components used in the manufacture of the explosive material.

Exceptions:

1. Any recreational use of reactive targets is not required to obtain a permit for restricted explosives manufacture or explosives use when such manufacture and use complies with all of the following:
  - 1.1. The manufacture and use is limited to one pound or less per unit on private property with the permission of the property owner and used no closer than 500 feet from a roadway or structure;
  - 1.2. The manufacture of the reactive target complies with the instructions provided by the producer of the components used in the manufacture;
  - 1.3. The reactive target manufactured is for immediate use without any residual storage or transportation; and
  - 1.4. The exploding or use of the target is in conformance with its intended purpose by the manufacturer of the reactive target and does not involve the deliberate destruction of any property, vehicle, structure, or animal life.
2. 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 is not required to obtain a permit for restricted explosives manufacture when such manufacture complies with all of the following:
  - 2.1. The manufacture of the explosives is conducted by the owner of such real estate;
  - 2.2. The manufacture of the explosives complies with the instructions provided by the producer of the components used in the manufacture;

2.3. The explosive used does not include reactive targets;

2.4. The reactive target manufactured is for immediate use without any residual storage or transportation; and

2.5. A permit to use explosives has been obtained in accordance with Section 107.2.

3. An applicant that is performing nonpersonal, business work is not required to obtain a permit for restricted explosives manufacture when such manufacture complies with all of the following:

3.1. The applicant's certified blaster who manufactures the explosives complies with the instructions provided by the producer of the components used in the manufacture;

3.2. The explosive used does not include the use of reactive targets;

3.3. The explosive material manufactured is for immediate use without any residual storage or transportation; and

3.4. A permit to use explosives has been obtained in accordance with Section 107.2.

N. Delete Table 5605.3 and change Section 5605.3 to read:

5605.3 Intraplant separation of operating buildings. Separation of explosives manufacturing buildings and fireworks manufacturing buildings, including those where explosive charges are assembled, manufactured, prepared, or loaded utilizing Division 1.1, 1.2, 1.3, 1.4, or 1.5 explosives shall be separated from all other buildings, including magazines, within the confines of the manufacturing plant at a distance not less than that required by the applicable building code or Table 5604.5.2(3), as applicable. The quantity of explosives in an operating building shall be the net weight of all explosives contained therein.

O. Change Section 5605.4 to read:

5605.4 Separation of manufacturing operating buildings from inhabited buildings, public traffic routes, and magazines. Where an operating building on an explosive materials plant site is designed to contain explosive materials, the distance between such a building and inhabited buildings, public traffic routes, and magazines required by the applicable building code shall be maintained.

P. Change Section 5605.5 to read:

5605.5 Buildings and equipment. Buildings or rooms that exceed the maximum allowable quantity per control area of explosive materials in accordance with the applicable building code shall be operated in accordance with this section and maintain the requirements of the applicable building code for Group H occupancies.

Q. Change the second sentence of Section (the first sentence remains) 5605.6.4 to read:

~~5605.6.4 Quantity limits. The quantity of explosives at any particular work station shall be limited to that posted on the load limit signs for the individual work station. The total quantity of explosives for~~

multiple workstations shall not exceed that established by the intraplant distances in Table 5604.5.2(3) and the applicable building code.

- R. Change Section 5605.6.4.1 by replacing the reference to “Table 5605.3” with a reference to “Section 5605.3”. to read:

~~5605.6.4.1 Magazines. Magazines used for storage in processing areas shall be in accordance with the requirements of Section 5604.5.1. All explosive materials shall be removed to appropriate storage magazines for unattended storage at the end of the work day. The contents of indoor magazines shall be added to the quantity of explosives contained at individual workstations, and the total quantity of material stored, processed, or used shall be utilized to establish the intraplant separation distances indicated by Table 5605.3 or Table 5604.5.2(3) as appropriate.~~

- S. 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 Group R-3 and Group 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 Group R-5. In other than Group R-3 or Group 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.

- T. Delete Sections 5606.4.1, 5606.4.2, and 5606.4.3.

- U. 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 eight pounds (3.6 kg) or less capacity shall be displayed in Group M occupancies.

- V. Delete Section 5606.5.1.3.

- W. Change Section 5606.5.2.1 to read:

5606.5.2.1 ~~Smokeless propellant~~ 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 the applicable NFPA 13 standard.

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

X. Change item 2.6 of Section 5606.5.2.3 (remainder of Section remains) to read:

~~5606.5.2.3 Small arms primers. Commercial stocks of small arms primers shall be stored as follows:~~

~~1. Quantities not to exceed 750,000 small arms primers stored in a building shall be arranged such that not more than 100,000 small arms primers are stored in any one pile, and piles are not less than 15 feet (4572 mm) apart.~~

~~2. Quantities exceeding 750,000 small arms primers stored in a building shall comply with all of the following:~~

~~2.1. The warehouse or storage building is not open to unauthorized personnel.~~

~~2.2. Small arms primers shall be stored in cabinets. Not more than 200,000 small arms primers shall be stored in any one cabinet.~~

~~2.3. Shelves in cabinets shall have vertical separation of not less than two feet (610 mm).~~

~~2.4. Cabinets shall be located against walls of the warehouse or storage room with not less than 40 feet (12,192 mm) between cabinets. The minimum required separation between cabinets~~



shall be allowed to 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 shall be firmly attached to the wall and shall be constructed of steel not less than 1/4 inch thick (6.4 mm), two-inch (51 mm) nominal thickness wood, brick, or concrete block.

2.5. Small arms primers 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.

2.6. The building shall be protected throughout with an automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

3. Small arms primers not stored in accordance with Item 1 or 2 of this section shall be stored in a magazine meeting the requirements of Section 5604 and NFPA 495.

Y. 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 onsite by a person properly certified by the SFMO as a restricted or unrestricted blaster.

Z. 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<br>Blast (shot) Record |                                                                                  |               |             |                |
|-------------------------------------|----------------------------------------------------------------------------------|---------------|-------------|----------------|
| Block 1<br>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?<br>Cloudy? Overcast?)                                                           | Wind direction and<br>speed<br><br>@ _____ mph                 | Temperature<br><br>F° / C°                                                                                                                                                                            |
| 2 | Topography (Flat?<br>Hilly? Mountainous?)                                                       | Distance from blast site<br>to nearest inhabited<br>building:  | Distance from nearest<br>inhabited building<br>determined by:<br><br><input type="checkbox"/> GPS coordinates<br><input type="checkbox"/> Measurement<br><input type="checkbox"/> Estimated           |
| 3 | Use of nearest<br>inhabited building<br>(Dwelling? Business?<br>Apartment Building?<br>School?) | Direction from blast<br>site to nearest<br>inhabited building: | Direction from blast site<br>to nearest inhabited<br>building determined by:<br><br><input type="checkbox"/> GPS instrument<br><input type="checkbox"/> Compass<br><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<br>or holes                                                                                                                                                                                  | Depth of hole or holes                                       |
| 2 | Were any holes decked?<br><br><input type="checkbox"/> Yes<br><br><input type="checkbox"/> No | How many holes<br>were decked?<br><br><input type="checkbox"/> N/A<br><br>(If applicable, indicate on any attached shot<br>pattern drawing which holes were decked and<br>the number of decks for the holes.) | How many decks per hole?<br><br><input type="checkbox"/> N/A |
| 3 | Shot pattern                                                                                  | Depth of sub-<br>drilling                                                                                                                                                                                     | Drilling angle                                               |

|                                                              |                                                                                                      |                                                                                                                                                                                                                                               |                                                                                                                                 |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
|                                                              | <input type="checkbox"/> Check this box if only single hole.                                         |                                                                                                                                                                                                                                               |                                                                                                                                 |
| 4                                                            | Burden                                                                                               | Spacing of holes                                                                                                                                                                                                                              | Water height                                                                                                                    |
| 5                                                            | Stemming height                                                                                      | Material used for stemming                                                                                                                                                                                                                    | Check box for flyrock precautions taken                                                                                         |
| Additional Blaster notations on shot layout and precautions: |                                                                                                      | <input type="checkbox"/> Mats<br><input type="checkbox"/> Overburden<br><input type="checkbox"/> None taken                                                                                                                                   |                                                                                                                                 |
| Block 4                                                      |                                                                                                      |                                                                                                                                                                                                                                               |                                                                                                                                 |
| Seismic Control Measures (N/A = Not Applicable)              |                                                                                                      |                                                                                                                                                                                                                                               |                                                                                                                                 |
| 1                                                            | Was scaled distance formula used?<br><br><input type="checkbox"/> Yes<br><input type="checkbox"/> No | Indicate which scaled distance equation was used. <input type="checkbox"/> N/A<br><input type="checkbox"/> $W(lb) = \{D(ft)/50\}^2$<br><input type="checkbox"/> $W(lb) = \{D(ft)/55\}^2$<br><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?<br><br><input type="checkbox"/> Yes<br><input type="checkbox"/> No             | Seismograph manufacturer and model number: <input type="checkbox"/> N/A                                                                                                                                                                       | Seismograph serial number:<br><input type="checkbox"/> N/A<br>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:<br><input type="checkbox"/> N/A <input type="checkbox"/> GPS coordinates<br><input type="checkbox"/> Estimated <input type="checkbox"/> Measurement                                                                   |                                                                                                                                 |
| 4                                                            | Seismograph <input type="checkbox"/> N/A                                                             | Seismograph recordings: <input type="checkbox"/> N/A                                                                                                                                                                                          |                                                                                                                                 |

|                                                                |                                                                                                               |                                    |                                                                                                      |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------|
| Geophone Minimum Frequency<br>_____ Hz                         |                                                                                                               | Transverse _____ in/s _____ Hz     |                                                                                                      |
| Seismograph                                                    |                                                                                                               | Vertical _____ in/s _____ Hz       |                                                                                                      |
| Microphone Minimum Frequency<br>_____ Hz                       |                                                                                                               | Longitudinal _____ in/s _____ Hz   |                                                                                                      |
|                                                                |                                                                                                               | Acoustic _____ dB _____ Hz         |                                                                                                      |
| 5                                                              | Seismograph trigger level <input type="checkbox"/> N/A<br><br>_____ in/s _____ dB                             |                                    |                                                                                                      |
| Additional Blaster notations on seismic control measures:      |                                                                                                               |                                    |                                                                                                      |
| Block 5                                                        |                                                                                                               |                                    |                                                                                                      |
| Quantity and Product                                           |                                                                                                               |                                    |                                                                                                      |
| 1                                                              | Maximum allowable charge weight per 8 ms interval<br><br><input type="checkbox"/> Delay not used<br>_____ lbs |                                    | Initiation (Check)<br><br><input type="checkbox"/> Electric<br><input type="checkbox"/> Non-electric |
| 2                                                              | Maximum number of holes/decks per 8 ms interval<br><br><input type="checkbox"/> Delay not used<br>_____ lbs   |                                    | <input type="checkbox"/> Electronic                                                                  |
| 3                                                              | Maximum weight or sticks of explosive per hole<br><br>_____ 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)                 |

AA. 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, 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.

BB. 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 onsite 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.

CC. ~~Change~~ Add a second sentence Section 5608.4 (existing sentence and exceptions remain) 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-foot per inch (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.

DD. 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 <sup>a</sup>                                                                                                                     |                                            | Minimum Secured Diameter of Site |     | Vertical Mortars <sup>b</sup> |     | Angled Mortars <sup>c</sup> 1/3 offset |     | Mortars to Special Hazards <sup>d</sup> |     |
| 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. (76-mm) 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.

EE. Add Sections 5608.4.1 and 5608.4.2 to read:

5608.4.1 Nonsplitting, nonbursting comets, and mines. For nonsplitting or no-bursting comets and mines containing only stars or nonsplitting or nonbursting 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.

### **13VAC5-52-540. IFC Chapter 57 Flammable and Combustible Liquids.**

A. The following changes shall be made to Section 5701, General:

1. Add Section 5701.1.1 to read:

5701.1.1 Other regulations. Provisions of ~~Facility and Aboveground Storage Tank (AST) Regulation (9VAC25-91) and Underground Storage Tanks: Technical Standards and Corrective Action Requirements (9VAC25-580)~~ 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 9VAC25-91 and 9VAC25-580, the provisions of 9VAC25-91 and 9VAC25-580 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.

2. Delete item 11 (items 1 through 10, 12 and 13 remain) of Section 5701.2.

3. Change Section 5701.3 to read:

5701.3 Referenced documents. The applicable requirements of Chapter 50, other chapters of this code, and the applicable building code pertaining to flammable liquids shall apply.

4. Change Section 5701.4 to read:

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

B. The following changes shall be made to Section 5703, General Requirements:

1. Change Sections 5703.1 and 5703.1.1 to read:

5703.1 Electrical. Electrical wiring and equipment shall be maintained in accordance with Chapter 6, NFPA 70, and the applicable building code.

5703.1.1 Classified locations for flammable liquids. Where flammable liquids are stored, handled, dispensed, or mixed, the extent of classified locations identified in accordance with the applicable building code shall be maintained. The extent of the classified area is allowed to be reduced, or



eliminated where sufficient technical justification is provided to the fire code official that a concentration in the area in excess of 25% of the lower flammable limit (LFL) cannot be generated.

2. Delete Table 5703.1.1.

3. Change Section 5703.1.2 to read:

5703.1.2 Classified locations for combustible liquids. In areas where Class II or Class III liquids are heated above their flash points, the extent of classified locations identified in accordance with the applicable building code shall be maintained.

4. Change Section 5703.1.3 to read:

5703.1.3 Other applications. The fire code official is authorized to determine the extent of the Class I electrical equipment and wiring location when a condition is not regulated by the applicable building code, this code, or NFPA 70.

5. Change Sections 5703.2 and 5703.6 to read:

5703.2 Fire protection. Fire protection for the storage, use, dispensing, mixing, handling, and onsite transportation of flammable and combustible liquids shall be maintained in accordance with this chapter, Chapter 9, and the applicable building code.

5703.6 Piping systems. Piping systems and their component parts for flammable and combustible liquids shall be maintained in accordance with this section and the applicable building code.

6. Change Section ~~5703.6.1. Delete Section 5703.6.2.~~ 5703.6.1 to read:

5703.6.1 Nonapplicability. The provisions of Section 5703.6 shall not apply to gas or oil well installations; piping that is integral to stationary or portable engines, including aircraft, watercraft, and motor vehicles; and piping in connection with boilers and pressure vessels regulated by the applicable building code.

7. Delete Section 5703.6.2 and Table 5703.6.2.

8. Delete Sections 5703.6.2.1 and 5703.6.3.

9. Change the first sentence of Section 5703.6.3.1 (remainder of section, including exception, remains) to read:

~~5703.6.3.1 Existing piping. Existing piping shall be tested in accordance with the applicable building code when the fire code official has reasonable cause to believe that a leak exists. Piping that could contain flammable or combustible liquids shall not be tested pneumatically. Such tests shall be at the expense of the owner or operator.~~

~~Exception: Vapor-recovery piping is allowed to be tested using an inert gas.~~

10. Delete Sections 5703.6.6 through 5703.6.7, 5703.6.9, 5703.6.9.1, and 5703.6.11 and change Sections 5703.6.4, 5703.6.5, 5703.6.8, and 5703.6.10 to read:

5703.6.4 Protection from vehicles. Guard posts or other approved means shall be maintained to protect piping, valves, or fittings subject to vehicular damage in accordance with Section 312.

5703.6.5 Protection from external corrosion and galvanic action. Where subject to external corrosion, piping, related fluid-handling components, and supports for both underground and aboveground applications shall maintain corrosion protection.

5703.6.8 Piping supports. Piping systems required to be substantially supported and protected against physical damage and excessive stresses arising from settlement, vibration, expansion, contraction, or exposure to fire shall have the support and protection maintained.

5703.6.10 Pipe joints. Joints shall be maintained liquid tight.

C. The following changes shall be made to Section 5704, Storage:

1. Change Sections 5704.1 and 5704.2.5.

5704.1 General. The storage of flammable and combustible liquids in containers and tanks shall be in accordance with this section and the applicable sections of Chapter 50. For tanks subject to Facility and Aboveground Storage Tank (AST) Regulation (9VAC25-91) and Underground Storage Tanks: Technical Standards and Corrective Action Requirements (9VAC25-580), see Section 5701.1.1.

5704.2.5 Explosion control. Explosion control shall be maintained in accordance with Chapter 9 and the applicable building code.

2. Delete Sections 5704.2.7.1 through 5704.2.7.3.5.3 and change Section 5704.2.7 to read:

5704.2.7 Maintenance requirements for tanks. Tanks shall be maintained in accordance with NFPA 30. Each tank shall maintain a permanent nameplate or marking indicating the standard used as the basis of design.

3. Change Section 5704.2.7.4 to read:

5704.2.7.4 Emergency venting. Where provided in accordance with the applicable building code, emergency venting for stationary, aboveground tanks shall be maintained.

4. Delete Sections 5704.2.7.5 and 5704.2.7.5.1.

5. Delete Section 5704.2.7.5.3.

6. Delete Sections 5704.2.7.5.5 through 5704.2.7.5.5.2.

7. Delete Sections 5704.2.7.5.7 and 5704.2.7.5.8.

8. Change the first sentence of Section 5704.2.7.6 (second sentence remains) to read:

~~5704.2.7.6 Repair, alteration, or reconstruction of tanks and piping. The repair, alteration, or reconstruction, including welding, cutting, and hot tapping of storage tanks and piping that have been placed in service, shall be in accordance with NFPA 30 and the applicable building code. Hot work, as defined in Section 202, on such tanks shall be conducted in accordance with Section 3510.~~

9. Delete Sections 5704.2.7.7 through 5704.2.7.9.

10. Delete Sections 5704.2.7.11 through 5704.2.8.3.

11. Change Section 5704.2.8.5 to read:

5704.2.8.5 Anchoring. Vaults and their tanks shall maintain anchoring in accordance with the applicable building code to withstand uplifting by ground water or flooding, including when the tank is empty.

12. Delete Sections 5704.2.8.7 and 5704.2.8.8.

13. Change Section 5704.2.8.9 to read:

5704.2.8.9 Ventilation. Where required by the applicable building code, vaults that contain tanks of Class I liquids provided with an exhaust system shall be operated and maintained in accordance with Section 5004.3.

14. Delete Section 5704.2.8.10 and change Section 5704.2.8.11 to read:

5704.2.8.11 Liquid and vapor detection. Where required by the applicable building code, vaults shall maintain an approved vapor and liquid detection system. Where required by the applicable building code the following arrangements shall be maintained. The system shall be maintained with onsite audible and visual warning devices with battery backup. Vapor detection systems shall be maintained to sound an alarm when the system detects vapors that reach or exceed 25% of the lower explosive limit (LEL) of the liquid stored. Where required, liquid detection systems shall be maintained to sound an alarm upon detection of any liquid, including water. Liquid detectors shall be maintained in accordance with the manufacturer's instructions. Where required, activation of either vapor or liquid detection systems shall cause a signal to be sounded at an approved, constantly attended location within the facility serving the tanks or at an approved location. Where required by the applicable building code, activation of vapor detection systems shall also shut off dispenser pumps.

15. Delete Sections 5704.2.8.13 and 5704.2.8.14.

16. Delete Section 5704.2.8.16.

17. Delete Section 5704.2.8.18.

18. Change Sections 5704.2.9 and 5704.2.9.1 to read:

5704.2.9 Aboveground tanks. Aboveground storage of flammable and combustible liquids in tanks shall comply with Section 5704.2 and Sections 5704.2.9.1 through 5704.2.9.7.7. For tanks subject to Facility and Aboveground Storage Tank (AST) Regulation (9VAC25-91), see Section 5701.1.1.

5704.2.9.1 Existing noncompliant installations. Existing aboveground tanks shall be maintained in accordance with the code requirements that were applicable at the time of installation.

Aboveground tanks that were installed in violation of code requirements applicable at the time of installation shall be made code compliant or shall be removed in accordance with Section 5704.2.14.

19. Delete Sections 5704.2.9.2 through 5704.2.9.2.3.

20. Change Section 5704.2.9.3 to read:

5704.2.9.3 Supports, foundations, and anchorage. Supports, foundations, and anchorages for aboveground tanks shall be maintained in accordance with NFPA 30 and the applicable building code.

21. Change Sections 5704.2.9.4 and 5704.2.9.5 to read:

5704.2.9.4 Stairways, platforms, and walkways. Stairways, platforms, and walkways shall be maintained in accordance with NFPA 30 and the applicable building code.

5704.2.9.5 Aboveground tanks inside of buildings. Aboveground tanks inside of buildings shall be maintained in accordance with the applicable building code and Sections 5704.2.9.5.1 and 5704.2.9.5.2.

22. Change Sections 5704.2.9.5.1 and 5704.2.9.5.2 to read:

5704.2.9.5.1 Overfill prevention. Where required by the applicable building code, aboveground tanks storing Class I, Class II, and Class IIIA liquids inside buildings shall maintain a device or other means to prevent overflow into the building, including a float valve, a preset meter on the fill line, a valve actuated by the weight of the tank's contents, a low-head pump that is incapable of producing overflow, or a liquid-tight overflow pipe at least one pipe size larger than the fill pipe and discharging by gravity back to the outside source of liquid or to an approved location. Where required, tanks containing Class IIIB liquids and connected to fuel-burning equipment shall maintain a means to prevent overflow into buildings in accordance with the applicable building code.

5704.2.9.5.2 Fill pipe connection operations. Where required by the applicable building code, fill pipe connections for tanks storing Class I, Class II, and Class IIIA liquids and Class IIIB liquids connected to fuel-burning equipment shall be maintained in accordance with Section 5704.2.9.7.7.

23. Change Section 5704.2.9.6 to read:

5704.2.9.6 Aboveground tanks outside of buildings. Aboveground tanks outside of buildings shall be maintained in accordance with the applicable building code.

24. Delete Sections 5704.2.9.6.1 through 5704.2.9.7.3.

25. Change Sections 5704.2.9.7.5, ~~5704.2.9.7.5.2~~, and 5704.2.9.7.6 to read:

5704.2.9.7.5 Overfill prevention. Protected aboveground tanks shall not be filled in excess of 95% of their capacity. Where required by the applicable building code, an overfill prevention system shall be maintained for each tank. During tank-filling operations, the system shall comply with one of the following unless otherwise approved in accordance with the applicable building code:

1. The system shall:

1.1. Provide an independent means of notifying the person filling the tank that the fluid level has reached 90% of tank capacity by providing an audible or visual alarm signal,

providing a tank level gauge marked at 90% of tank capacity, or other approved means;  
and

1.2. Automatically shut off the flow of fuel to the tank when the quantity of liquid in the tank reaches 95% of tank capacity. For rigid hose fuel-delivery systems, an approved means shall be provided to empty the fill hose into the tank after the automatic shutoff device is activated.

2. The system shall reduce the flow rate to not more than 15 gallons per minute (0.95 L/s) so that at the reduced flow rate, the tank will not overfill for 30 minutes and automatically shut off flow into the tank so that none of the fittings on the top of the tank are exposed to product because of overfilling.

~~5704.2.9.7.5.2 Determination of available tank capacity. The filling procedure shall require the person filling the tank to determine the gallonage (literage) required to fill it to 90% of capacity before commencing the fill operation.~~

5704.2.9.7.6 Fill pipe connections. Where required by the applicable building code, the fill pipe shall be maintained with a means for making a direct connection to the tank vehicle's fuel delivery hose so that the delivery of fuel is not exposed to the open air during the filling operation.

26. Delete Sections 5704.2.9.7.8 through 5704.2.10.3.

27. Delete Section 5704.2.10.5.

28. Change Sections 5704.2.11 and 5704.2.11.1 to read:

5704.2.11 Underground tanks. Underground storage of flammable and combustible liquids in tanks shall comply with Section 5704.2 and Sections 5704.2.11.1 through 5704.2.11.4.2. For tanks subject to 9VAC25-580, Underground Storage Tanks: Technical Standards and Corrective Action Requirements (9VAC25-580), Requirements, see Section 5701.1.1.

5704.2.11.1 Location. The location of flammable and combustible liquid storage tanks located underground, either outside or under buildings, shall be in accordance with the applicable building code.

29. Delete Section 5704.2.11.2 and change Sections 5704.2.11.3 and 5704.2.11.4 to read:

5704.2.11.3 Overfill protection and prevention systems. Fill pipes shall be equipped with a spill container and where required by the applicable building code, an overfill prevention system in accordance with NFPA 30.

5704.2.11.4 Leak prevention. Leak prevention for underground tanks shall be maintained in accordance with the applicable building code and Sections 5704.2.11.4.1 and 5704.2.11.4.2.

30. Change Section 5704.2.11.4.2 to read:

5704.2.11.4.2 Leak detection. Where required by the applicable building code, underground storage tank systems shall maintain an approved method of leak detection from any component of the system that is designed and installed in accordance with NFPA 30.

31. Delete Section 5704.2.11.4.2.1.

32. Change Section 5704.2.12.2 to read:

5704.2.12.2 Testing of underground tanks. Before being covered or placed in use, tanks and piping connected to underground tanks shall be tested for tightness in the presence of the fire code official. Piping shall be tested in accordance with the applicable building code. The system shall not be covered until it has been approved.

33. Change Sections ~~5704.2.13.1.1, 5704.2.13.1.2, 5704.2.13.1.3, and 5704.2.13.1.5~~ Section 5704.2.13.1.1 to read:

5704.2.13.1.1 Temporarily out of service. Underground tanks temporarily out of service shall have the fill line, gauge opening, vapor return, and pump connection secure against tampering. Normal and emergency vent lines shall remain open and be maintained.

Exception: Underground storage tank systems subject to 9VAC25-580, Underground Storage Tanks: Technical Standards and Corrective Action Requirements (9VAC25-580) Requirements, that are out-of-service shall comply with the temporary closure requirements of 9VAC25-580-310.

34. Change item 3 of Section 5704.2.13.1.2 (remainder of section, including items 1 and 2 remains) to read:

~~5704.2.13.1.2 Out of service for 90 days. Underground tanks not used for a period of 90 days shall be safeguarded in accordance with all the following or be removed in accordance with Section 5704.2.14:~~

- ~~1. Flammable or combustible liquids shall be removed from the tank.~~
- ~~2. All piping, including fill line, gauge opening, vapor return, and pump connection, shall be capped or plugged and secured from tampering.~~
3. Normal and emergency vent lines shall remain open and be maintained.

35. Add an exception to Section 5704.2.13.1.3, and change Sections 5704.2.13.1.5, 5704.3, and 5704.3.3.5 to read:

~~5704.2.13.1.3 Out of service for one year. Underground tanks that have been out of service for a period of one year shall be removed from the ground in accordance with Section 5704.2.14 or abandoned in place in accordance with Section 5704.2.13.1.4.~~

Exception: Underground storage tank systems subject to 9VAC25-580, Underground Storage Tanks: Technical Standards and Corrective Action Requirements (9VAC25-580) Requirements,

that are in compliance with the performance standards of 9VAC25-580-50 and 9VAC25-580-60 are allowed to remain temporarily closed for a period of more than one year in accordance with 9VAC25-580-310 as part of the Virginia Department of Environmental Quality's program.

5704.2.13.1.5 Reinstallation of underground tanks. Tanks that are to be reinstalled for flammable or combustible liquid service shall be approved by the building official.

34. Change Section 5704.3 to read:

5704.3 Container and portable tank storage. Storage of flammable and combustible liquids in closed containers that do not exceed 60 gallons (227 L) in individual capacity and portable tanks that do not exceed 660 gallons (2498 L) in individual capacity and limited transfers incidental thereto shall comply with Sections 5704.3.1 through 5704.3.8.4.

35. Change Section 5704.3.3.5 to read:

5704.3.3.5 Shelf storage. Shelving shall be of approved construction, adequately braced, and anchored. Seismic requirements shall be in accordance with the applicable building code.

36. Delete Section 5704.3.3.5.2 and change Section 5704.3.3.5.1 to read: 5704.3.3.5.2.

5704.3.3.5.1 Use of wood. Wood of at least one inch (25 mm) nominal thickness is allowed to be used as shelving, racks, dunnage, scuffboards, floor overlay, and similar installations.

37. Change Section 5704.3.3.6 to read:

5704.3.3.6 Rack storage. Where storage on racks is allowed by the applicable building code and elsewhere in this code, a minimum four-foot-wide (1219 mm) aisle shall be maintained between adjacent rack sections and any adjacent storage of liquids unless otherwise approved by the applicable building code. Main aisles shall be a minimum of eight feet (2438 mm) wide unless otherwise approved by the applicable building code.

38. Change Section 5704.3.4 to read:

5704.3.4 Quantity limits for storage. Liquid storage quantity limitations shall comply with Sections 5704.3.4.1 through 5704.3.4.4 and the applicable building code.

39. Change Section 5704.3.4.1 to read:

5704.3.4.1 Maximum allowable quantity per control area. For occupancies other than Group M wholesale and retail sales uses, indoor storage of flammable and combustible liquids exceeding the maximum allowable quantities per control area indicated in the applicable building code or the additional limitations set forth in this section shall be approved by the building official in accordance with the applicable building code.

For Group M occupancy wholesale and retail sales uses, indoor storage of flammable and combustible liquids shall not exceed the maximum allowable quantities per control area indicated in

the applicable building code unless approved by the building official in accordance with the applicable building code.

Storage of hazardous production material flammable and combustible liquids in Group H-5 occupancies shall be in accordance with Chapter 27 and the applicable building code.

40. Delete Table 5704.3.4.1.

41. Change Sections 5704.3.4.2 through 5704.3.4.4 to read:

5704.3.4.2 Occupancy quantity limits. The following limits for quantities of stored flammable or combustible liquids shall not be exceeded unless approved by the building official in accordance with the applicable building code:

1. Group A occupancies: Quantities in Group A occupancies shall not exceed that necessary for demonstration, treatment, laboratory work, maintenance purposes, and operation of equipment and shall not exceed quantities set forth in the applicable building code.
2. Group B occupancies: Quantities in drinking, dining, office, and school uses within Group B occupancies shall not exceed that necessary for demonstration, treatment, laboratory work, maintenance purposes, and operation of equipment and shall not exceed quantities set forth in the applicable building code.
3. Group E occupancies: Quantities in Group E occupancies shall not exceed that necessary for demonstration, treatment, laboratory work, maintenance purposes, and operation of equipment and shall not exceed quantities set forth in the applicable building code.
4. Group F occupancies: Quantities in dining, office, and school uses within Group F occupancies shall not exceed that necessary for demonstration, laboratory work, maintenance purposes, and operation of equipment and shall not exceed quantities set forth in the applicable building code.
5. Group I occupancies: Quantities in Group I occupancies shall not exceed that necessary for demonstration, laboratory work, maintenance purposes, and operation of equipment and shall not exceed quantities set forth in the applicable building code.
6. Group M occupancies: Quantities in dining, office, and school uses within Group M occupancies shall not exceed that necessary for demonstration, laboratory work, maintenance purposes, and operation of equipment and shall not exceed quantities set forth in the applicable building code. The maximum allowable quantities for storage in wholesale and retail sales areas shall be in accordance with Section 5704.3.4.1.
7. Group R occupancies: Quantities in Group R occupancies shall not exceed that necessary for maintenance purposes and operation of equipment and shall not exceed quantities set forth in the applicable building code.



8. Group S occupancies: Quantities in dining and office uses within Group S occupancies shall not exceed that necessary for demonstration, laboratory work, maintenance purposes, and operation of equipment and shall not exceed quantities set forth in the applicable building code.

5704.3.4.3 Quantities exceeding limits for control areas. Where required by the applicable building code, quantities exceeding those allowed in control areas set forth in Section 5704.3.4.1 shall be in liquid storage rooms or liquid storage warehouses approved by the building official in accordance with Sections 5704.3.7 and 5704.3.8, and the applicable building code.

5704.3.4.4 Liquids for maintenance and operation of equipment. In all occupancies, quantities of flammable and combustible liquids in excess of 10 gallons (38 L) used for maintenance purposes and the operation of equipment shall be stored in liquid storage cabinets in accordance with Section 5704.3.2. Quantities not exceeding 10 gallons (38 L) are allowed to be stored outside of a cabinet when in approved containers located in private garages or other approved locations.

42. Change Section 5704.3.5.1 to read:

5704.3.5.1 Basement storage. Class I, Class II, and Class IIIA liquids shall be allowed to be stored in basements in amounts not exceeding the maximum allowable quantity per control area for use-open systems when approved by the building official in accordance with the applicable building code.

43. Change Exception to Section 5704.3.6.2 by replacing the reference to "Table 5704.3.4.1" with "the applicable building code", and change footnote "b" to Table 5704.3.6.3(4) to read: to read:

~~Exception: Metal containers not exceeding 55 gallons (208 L) are allowed to store up to 240 gallons (908 L) of the maximum allowable quantity per control area of Class IB and Class IC liquids in a control area. The building shall be equipped throughout with an approved automatic sprinkler system in accordance with the applicable building code. The containers shall be provided with plastic caps without cap seals and shall be stored upright. Containers shall not be stacked or stored in racks and shall not be located in areas accessible to the public.~~

b. For storage heights above 4 feet or ceiling heights greater than 18 feet, an engineering design prepared by a registered design professional shall be provided to the fire code official for review and approval.

44. Change Section 5704.3.7.1 to read:

5704.3.7.1 General. Quantities of liquids exceeding those set forth in the applicable building code for storage in control areas shall be stored in a liquid storage room complying with the applicable building code.

45. Change Add a sentence at the beginning of Section 5704.3.7.2.2 to read:

~~5704.3.7.2.2 Separation and aisles.~~ Unless otherwise approved in accordance with the applicable building code, separation and aisles shall comply with this section.

Piles shall be separated from each other by at least four foot (1219 mm) aisles. Aisles shall be provided so that all containers are 20 feet (6096 mm) or less from an aisle. Where the storage of liquids is on racks, a minimum four foot wide (1219 mm) aisle shall be provided between adjacent rows of racks and adjacent storage of liquids. Main aisles shall be a minimum of eight feet (2438 mm) wide.

Additional aisles shall be maintained for access to doors, required windows and ventilation openings, standpipe connections, mechanical equipment, and switches. Such aisles shall be at least three feet (914 mm) in width, unless greater widths are required for separation of piles or racks, in which case the greater width shall be provided.

46. Change Sections 5704.3.7.3 through 5704.3.7.5 to read:

5704.3.7.3 Spill control and secondary containment. Where provided or required by the applicable building code, liquid storage rooms shall maintain spill control and secondary containment in accordance with Section 5004.2 and the applicable building code.

5704.3.7.4 Ventilation. Where provided or required by the applicable building code, liquid storage rooms shall be ventilated in accordance with Section 5004.3 and the applicable building code.

5704.3.7.5 Fire protection. Fire protection for liquid storage rooms shall comply with the applicable building code and Sections 5704.3.7.5.1 and 5704.3.7.5.2.

47. Change Section 5704.3.7.5.1 to read:

5704.3.7.5.1 Fire-extinguishing systems. Fire-extinguishing systems for liquid storage rooms shall be maintained in accordance with Chapter 9 and the applicable building code.

48. Change Sections 5704.3.8 and 5704.3.8.1 to read:

5704.3.8 Liquid storage warehouses. Buildings used for storage of flammable or combustible liquids in quantities exceeding those set forth in Section 5704.3.4 for control areas and Section 5704.3.7 for liquid storage rooms shall be approved by the building official in accordance with the applicable building code.

5704.3.8.1 Quantities and storage arrangement. The total quantities of liquids in a liquid storage warehouse shall not be limited unless otherwise limited by the applicable building code. Unless otherwise approved by the applicable building code, the arrangement of storage shall be in accordance with Table 5704.3.6.3(2) or 5704.3.6.3(3).

49. Change Sections 5704.3.8.1.1 and 5704.3.8.1.2 to read:

5704.3.8.1.1 Mixed storage. Mixed storage shall be in accordance with Section 5704.3.7.2.1 unless otherwise required by the applicable building code.

5704.3.8.1.2 Separation and aisles. Separation and aisles shall be in accordance with Section 5704.3.7.2.2 unless otherwise required by the applicable building code.

50. Change Sections 5704.3.8.2 through 5704.3.8.4 to read:

5704.3.8.2 Spill control and secondary containment. Liquid storage warehouses shall maintain spill control and secondary containment as set forth in Section 5004.2 and the applicable building code.

5704.3.8.3 Ventilation. Ventilation for liquid storage warehouses storing containers greater than five gallons (19 L) in capacity shall be operated and maintained in accordance with the applicable building code.

5704.3.8.4 Fire extinguishing systems. Automatic sprinkler systems for liquid storage warehouses shall be maintained in accordance with Chapter 9 and the applicable building code.

51. Change Section 5704.3.8.5 to read:

5704.3.8.5 Warehouse hose lines. Where provided or required by the applicable building code, in liquid storage warehouses either 1-1/2-inch (38 mm) lined or one-inch (25 mm) hard rubber hand hose lines shall be maintained in sufficient number to reach all liquid storage areas and shall be maintained in accordance with Chapter 9.

52. Change Section 5704.4.3 (exception remains) to read:

5704.4.3 Spill control and secondary containment. Where provided in accordance with the applicable building code, spill control and secondary containment for storage areas shall be maintained in accordance with Section 5703.4 and the applicable building code.

**Exception:**

~~Containers stored on approved containment pallets in accordance with Section 5004.2.3 and containers stored in cabinets and lockers with integral spill containment.~~

53. Change Section 5704.4.7 to read:

5704.4.7 Weather protection. Weather protection for outdoor storage shall be maintained in accordance with Section ~~5004.13~~ and 5004.13 and the applicable building code.

D. The following ~~change~~ changes shall be made to Section 5705, Dispensing, Use, Mixing, and Handling:

1. Change Section 5705.3.5.1 by replacing the reference to “Table 5003.1.1(1)” with a reference to “Section 5003.1.1”, and change ~~Section~~ Sections 5705.3.5.2 and 5705.3.6.2.3 to read:

5705.3.5.2 Occupancy quantity limits. The following limits for quantities of flammable and combustible liquids used, dispensed or mixed based on occupancy classification shall not be exceeded, unless approved by the building official in accordance with the applicable building code:

1. Group A occupancies: Quantities in Group A occupancies shall not exceed that necessary for demonstration, treatment, laboratory work, maintenance purposes and operation of equipment, and shall not exceed quantities set forth in the applicable building code.
2. Group B occupancies: Quantities in drinking, dining, office and school uses within Group B occupancies shall not exceed that necessary for demonstration, treatment, laboratory work,

maintenance purposes and operation of equipment, and shall not exceed quantities set forth in the applicable building code.

3. Group E occupancies: Quantities in Group E occupancies shall not exceed that necessary for demonstration, treatment, laboratory work, maintenance purposes and operation of equipment and shall not exceed quantities set forth in the applicable building code.
4. Group F occupancies: Quantities in dining, office and school uses within Group F occupancies shall not exceed that necessary for demonstration, laboratory work, maintenance purposes and operation of equipment, and shall not exceed quantities set forth in the applicable building code.
5. Group I occupancies: Quantities in Group I occupancies shall not exceed that necessary for demonstration, laboratory work, maintenance purposes and operation of equipment, and shall not exceed quantities set forth in the applicable building code.
6. Group M occupancies: Quantities in dining, office and school uses within Group M occupancies shall not exceed that necessary for demonstration, laboratory work, maintenance purposes and operation of equipment, and shall not exceed quantities set forth in the applicable building code.
7. Group R occupancies: Quantities in Group R occupancies shall not exceed that necessary for maintenance purposes and operation of equipment, and shall not exceed quantities set forth in the applicable building code.
8. Group S occupancies: Quantities in dining and office uses within Group S occupancies shall not exceed that necessary for demonstration, laboratory work, maintenance purposes and operation of equipment and shall not exceed quantities set forth in the applicable building code.

Exception: Cleaning with Class I, II, or IIIA liquids shall be in accordance with Section 5705.3.6.

5705.3.6.2.3 Solvent quantity limits. Solvent quantities shall be limited in accordance with the applicable building code.

2. Change Section 5705.5 including Items 4 and ~~7~~ 8 (Items 1 through 3 and 5 through ~~6~~ 7 remain) to read:

5705.5 Alcohol-based hand rubs classified as Class I or Class II liquids. The use of approved dispensers containing alcohol-based hand rubs classified as Class I or Class II liquids shall be in accordance with all of the following:

4. Dispensers shall be mounted or located so that the bottom of the dispenser is not less than 42 inches (1067 mm) and not more than 48 inches (1219 mm) above the finished floor.

~~7~~ 8. Dispensers installed or located in occupancies with carpeted floors shall only be allowed in smoke compartments or fire areas equipped throughout with an approved automatic sprinkler system in accordance with NFPA 13 or NFPA 13R or the applicable building code.

3. Change Section 5705.5.1, including Item ~~5~~ 4 (Items 1 through 4 ~~3~~ remain) to read:

5705.5.1 Corridor installations. Where approved dispensers containing alcohol-based hand rubs are installed or located in corridors, they shall be in accordance with all of the following:

~~5. 4.~~ Projections into a corridor shall be in accordance with the applicable building code.

E. The following changes shall be made to Section 5706, Special Operations:

1. Change Section 5706.2.4.2 by replacing the reference to “Section 5704.2.7.3” with “the applicable building code”. to read:

~~5706.2.4.2 Vents. Tanks shall be provided with a method of normal and emergency venting. Normal vents shall be in accordance with the applicable building code.~~

~~Emergency vents shall be in accordance with Section 5704.2.7.4. Emergency vents shall be arranged to discharge in a manner that prevents localized overheating or flame impingement on any part of the tank in the event that vapors from such vents are ignited.~~

2. Change Section 5706.2.6 to read:

5706.2.6 Spill control, drainage control, and diking. Where provided or required by the applicable building code, indoor storage and dispensing areas shall be maintained with spill control and drainage control as set forth in Section 5703.4. Where provided or required by the applicable building code, outdoor storage areas shall be maintained with drainage control or ~~diking as set forth in Section 5704.2.10.~~ diking.

3. Delete Section 5706.3.3.1.

4. Change Sections 5706.4.1, 5706.4.2, 5706.4.4, 5706.4.7.6, and 5706.4.9 to read:

5706.4.1 Building construction. Buildings shall be maintained in accordance with the applicable building code.

5706.4.2 Means of egress. Rooms in which liquids are stored, used, or transferred by pumps shall have means of egress maintained in accordance with Chapter 10 and the applicable building code to prevent occupants from being trapped in the event of fire.

5706.4.4 Ventilation. Ventilation for rooms, buildings, and enclosures in which Class I liquids are pumped, used, or transferred shall be operated and maintained in accordance with the applicable building code. When natural ventilation is inadequate, mechanical ventilation shall be provided in accordance with the applicable building code.

5706.4.7.6 Piping, valves, and fittings. Piping, valves, and fittings shall be maintained in accordance with the applicable building code.

5706.4.9 Drainage control. Loading and unloading areas shall be maintained with drainage control in accordance with this chapter and the applicable building code.

5. Change Sections 5706.4.10, 5706.5.1.2, 5706.5.1.3, 5706.5.1.5, ~~5706.5.1.6, 5706.8.1, 5706.8.3, and 5706.8.5~~ 5706.5.1.6 to read:

5706.4.10 Fire protection. Fire protection for bulk plants or terminals shall be maintained in accordance with Chapter 9, Sections 5706.4.10.1 through 5706.4.10.4, and the applicable building code.

5706.5.1.2 Weather protection canopies. Where weather protection canopies are provided, they shall be approved by the building official and maintained in accordance with Section 5004.13 and the applicable building code.

5706.5.1.3 Ventilation. Ventilation shall be operated and maintained to prevent accumulation of vapors in accordance with the applicable building code.

5706.5.1.5 Spill control and secondary containment. Areas where transfer operations are located shall be maintained with spill control and secondary containment in accordance with the applicable building code.

5706.5.1.6 Fire protection. Fire protection shall be maintained in accordance with Chapter 9, Section 5703.2, and the applicable building code.

6. Change exception to Section 5706.8.1 to read:

~~5706.8.1 Over pressure or vacuum protection. Tanks and equipment shall have independent venting for over pressure or vacuum conditions that might occur from malfunction of the vapor recovery or processing system.~~

Exception: For tanks, venting shall comply with the applicable building code.

7. Change Sections 5706.8.3 and 5706.8.5 to read:

5706.8.3 Vapor collection systems and overfill protection. The operation of the vapor collection system and overfill protection shall be in accordance with this section and Section 19.5 of NFPA 30.

5706.8.5 Overfill protection. Storage tanks served by vapor recovery or processing systems shall be equipped with overfill protection in accordance with the applicable building code.

~~6. 8. Change Section 5707.1 and delete Delete Sections 5707.1.1 through 5707.6.6. 5707.6.6, and change Section 5707.1 to read:~~

Section 5707.1 to read:

5707.1 Mobile fueling operations. Delivery of Class I, Class II, and Class III liquids to the fuel tank of a highway vehicle from a tank vehicle, a tank carried on a vehicle, or a nonportable container is prohibited.

Exceptions:

1. The refueling of highway vehicles in an emergency.
2. The refueling of vehicles in compliance with Sections 5706.5.4.1 through 5706.5.4.5.
3. Vehicles used for farm operations and machinery.

**13VAC5-52-550. IFC Chapter 58 Flammable Gases and Flammable Cryogenic Fluids.**

A. Change Sections 5801.1 (exceptions 1 through 4 to Section 5801.1 remain) and 5801.2 to read:

5801.1 Scope. The storage and use of flammable gases and flammable cryogenic fluids shall be in accordance with this chapter and NFPA 55. Compressed gases shall also comply with Chapter 53 and cryogenic fluids shall also comply with Chapter 55. Flammable cryogenic fluids shall comply with Section 5806. Hydrogen motor fuel-dispensing stations and repair garages and their associated aboveground hydrogen storage systems shall also be designed, constructed and maintained in accordance with Chapter 23 and NFPA 2.

**Exceptions:**

- ~~1. Gases used as refrigerants in refrigeration systems (see Section 608).~~
- ~~2. Liquefied petroleum gases and natural gases regulated by Chapter 61.~~
- ~~3. Fuel gas systems and appliances regulated under the International Fuel Gas Code other than gaseous hydrogen systems and appliances.~~
- ~~4. Pyrophoric gases in accordance with Chapter 64.~~

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

B. Change Sections 5803.1, 5803.1.1.2, 5803.1.5, and 5804.1 to read:

5803.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of flammable gases in amounts not exceeding the maximum allowable quantity per control area in accordance with the applicable building code shall be maintained in accordance with Sections 5001, 5003, 5801, and 5803.

5803.1.1.2 Aggregate quantity. The aggregate quantities of flammable gases used for maintenance purposes and operation of equipment shall be maintained as to not exceed the maximum allowable quantity per control area indicated in the applicable building code.

5803.1.5 Electrical. Electrical wiring and equipment shall be maintained in accordance with Chapter 6 and NFPA 70.

5804.1 Indoor storage. Indoor storage of flammable gases in amounts exceeding the maximum allowable quantity per control area in accordance with the applicable building code, shall be maintained in accordance with Sections 5001, 5003, and 5004; this chapter; and the applicable building code.

C. Change Sections 5804.1.1, 5805.1, and 5806.2 to read:

5804.1.1 Explosion control. Buildings or portions thereof containing flammable gases and provided with explosion control shall be maintained in accordance with Chapter 9 and remain in accordance with the applicable building code.

5805.1 General. The use of flammable gases in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1.1 or Table 5003.1.1(3) shall be in accordance with Sections 5001, 5003, and 5005 and this chapter.

5806.2 Limitations. Storage of flammable cryogenic fluids in stationary containers outside of buildings may be subject to local ordinances or other regulations.

D. Change Section 5806.3 to read:

5806.3 Aboveground tanks for liquid hydrogen. Aboveground tanks for the storage of liquid hydrogen shall be maintained in accordance with the applicable building code.

E. Delete Sections 5806.3.1 through 5806.3.2.1.

F. Change Section 5806.4 to read:

5806.4 Underground tanks for liquid hydrogen. Underground tanks for the storage of liquid hydrogen shall be maintained in accordance with the applicable building code.

G. Delete Sections 5806.4.1 through 5806.4.3.

H. Change Section 5806.4.4 to read:

5806.4.4 Anchorage and security. Anchorage provided for tanks and systems shall be maintained in accordance with the applicable building code.

I. Delete Sections 5806.4.5 through 5806.4.8.3.

J. Change Sections 5807.1.10 and 5808.1 to read:

5807.1.10 Electrical. Electrical components for metal hydride storage systems shall be maintained in accordance with Chapter 6 and NFPA 70.

5808.1 General. Where required by the applicable building code, hydrogen fuel gas rooms shall be maintained.

K. Delete Sections 5808.3.1 and 5808.3.2 and change Sections 5808.2 and 5808.3 to read:

5808.2 Location. Unless otherwise permitted by the applicable building code, hydrogen fuel gas operations shall not be located below grade.

5808.3 Pressure control. Unless otherwise approved by the applicable building code, hydrogen fuel gas rooms shall maintain a negative pressure in relation to surrounding rooms and spaces. Windows shall remain in accordance with the applicable building code and shall not be able to be opened.

L. Change Sections 5808.4 and 5808.5 to read:

5808.4 Exhaust ventilation. Ventilation required for hydrogen fuel gas rooms shall be maintained and operated in accordance with the applicable building code.



5808.5 Gas detection system. Gas detection systems required for hydrogen fuel gas rooms shall be maintained and operated in accordance with the applicable building code.

M. Change Sections 5808.5.1 (items 1 and 2 of Section 5808.5.1 remain) and 5808.5.2 to read:

5808.5.1 Operation. Where provided, activation of the gas detection system shall occur as designed and approved under the applicable building code. At no time shall the level of flammable gas exceed 25% lower flammable limit (LFL) and the system shall be maintained to result in both of the following:

- ~~1. Initiation of distinct audible and visual alarm signals both inside and outside of the hydrogen fuel gas room.~~
- ~~2. Activation of the mechanical exhaust ventilation system.~~

5808.5.2 Failure of the gas detection system. Unless otherwise required by the applicable building code, failure of the gas detection system shall result in the activation of the mechanical exhaust ventilation system, cessation of the hydrogen generation, and the sounding of a trouble signal in an approved location.

N. Change Sections 5808.6 and 5808.7 to read:

5808.6 Explosion control. Explosion control required for hydrogen fuel gas rooms shall be maintained in accordance with the applicable building code and Chapter 9.

5808.7 Standby power. Standby power provided for mechanical ventilation and gas detection systems shall be maintained in accordance with Chapter 12 and remain in accordance with the applicable building code.

O. Delete Sections 5809.1.1 through 5809.6.7 and change Section 5809.1 to read:

5809.1 General. On-demand hydrogen mobile fueling operations that dispense gaseous hydrogen into the fuel tanks of motor vehicles is prohibited.

Exceptions:

1. The refueling of highway vehicles in an emergency.
2. Vehicles used for farm operations and machinery.

### **13VAC5-52-560. IFC Chapter 59 Flammable Solids.**

A. Change Section 5901.2 to read:

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

B. Change Section 5904.1 to read:

5904.1 Indoor storage. Indoor storage of flammable solids in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1.1 and the applicable building code

shall be maintained in accordance with Sections 5001, 5003, and 5004 and this chapter and approved in accordance with the applicable building code.

C. Change Section 5904.1.1 to read:

5904.1.1 Pile size limits and location. Unless otherwise approved in accordance with the applicable building code, flammable solids stored in quantities greater than 1,000 cubic feet (28 m<sup>3</sup>) shall be separated into piles each not larger than 1,000 cubic feet (28 m<sup>3</sup>).

D. Change Sections 5904.1.2 and 5904.1.3 to read:

5904.1.2 Aisles. Unless otherwise approved in accordance with the applicable building code, aisle widths between piles shall be maintained to be not less than the height of the piles or four feet (1219 mm), whichever is greater.

5904.1.3 Basement storage. Flammable solids shall not be stored in basements unless approved in accordance with the applicable building code.

E. Sections 5904.2 and 5905.1 by replacing the reference to “Table 5003.1.1(1)” with a reference to “Section 5003.1.1”, and change

F. Change Sections 5906.2 through 5906.2.3 to read:

5906.2 Storage of magnesium articles. The storage of magnesium shall comply with Sections 5906.2.1 through 5906.4.3.

5906.2.1 Storage of greater than 50 cubic feet. Unless otherwise approved in accordance with the applicable building code, magnesium storage in quantities greater than 50 cubic feet (1.4 m<sup>3</sup>) shall be separated from storage of other materials that are either combustible or in combustible containers by aisles. Piles shall be separated by aisles with a minimum width of not less than the pile height.

5906.2.2 Storage of greater than 1,000 cubic feet. Unless otherwise approved in accordance with the applicable building code, magnesium storage in quantities greater than 1,000 cubic feet (28 m<sup>3</sup>) shall be separated into piles not larger than 1,000 cubic feet (28 m<sup>3</sup>) each. Piles shall be separated by aisles with a minimum width of not less than the pile height. Unless approved by the applicable building code, such storage shall not be located in nonsprinklered buildings of Type III, Type IV, or Type V construction, as defined in the applicable building code.

5906.2.3 Storage in combustible containers or within 30 feet of other combustibles. Unless otherwise approved in accordance with the applicable building code, where stored in nonsprinklered buildings of Type III, Type IV, or Type V construction as defined in the applicable building code, magnesium shall not be stored in combustible containers or within 30 feet (9144 mm) of other combustibles.

~~F.~~ G. Change ~~Sections~~ Section 5906.3.1 and 5906.4 to read:

5906.3.1 Indoor storage. Unless otherwise approved in accordance with the applicable building code, indoor storage of pigs, ingots, and billets shall only be on floors of noncombustible construction. Piles

shall not be larger than 500,000 pounds (226.8 metric tons) each. Piles shall be separated by aisles with a minimum width of not less than one-half the pile height.

~~5906.4 Storage of fine magnesium scrap. The storage of scrap magnesium shall comply with Sections 5906.4.1 through 5906.4.3.~~

~~G.~~ H. Change Sections 5906.4.2 through 5906.5 and Sections 5906.5.3, 5906.5.3.1, 5906.5.3.2, and 5906.5.4 to read:

5906.4.2 Storage of 50 to 1,000 cubic feet. Unless otherwise approved by the applicable building code, storage of fine magnesium scrap in quantities greater than 50 cubic feet (1.4 m<sup>3</sup>) (six 55-gallon (208 L) steel drums) shall be maintained separated from other occupancies by an open space of at least 50 feet (15,240 mm) or by a fire-resistance rated barrier constructed and approved in accordance with applicable building code.

5906.4.3 Storage of greater than 1,000 cubic feet. Storage of fine magnesium scrap in quantities greater than 1,000 cubic feet (28 m<sup>3</sup>) shall be maintained separated from all buildings other than those used for magnesium scrap recovery operations by a distance of not less than 100 feet (30,480 mm) unless otherwise approved by the applicable building code.

5906.5 Use of magnesium. The use of magnesium shall comply with Sections 5906.5.1 through 5906.5.8 and only be conducted in buildings or structures approved for that use in accordance with the applicable building code.

5906.5.3 Dust collection. Where provided, magnesium grinding and buffing and wire-brushing operations, other than rough finishing of castings, shall be conducted with approved hoods or enclosures for dust collection in accordance with the applicable building code.

5906.5.3.1 Ducts. Where provided, connecting ducts or suction tubes shall be maintained as completely grounded, as short as possible, and without bends. Ducts shall be maintained with a smooth interior, with internal lap joints pointing in the direction of airflow, and without unused capped side outlets, pockets, or other dead-end spaces which allow an accumulation of dust.

5906.5.3.2 Independent dust separators. Each machine shall be maintained with an individual dust-separating unit in accordance with the applicable building code.

5906.5.4 Power supply interlock. Where provided, power supply to machines shall be maintained to be interlocked with exhaust airflow and liquid pressure level or flow. The interlock shall be maintained to shut down the machine it serves when the dust removal or separator system is not operating properly.

~~H.~~ I. Change Section 5906.5.5 to read:

5906.5.5 Electrical equipment. Electric wiring, fixtures, and equipment in the immediate vicinity of and attached to dust-producing machines, including those used in connection with separator equipment, shall be maintained in accordance with Chapter 6, NFPA 70, and the applicable building code.

~~F.~~ J. Change Section 5906.5.6 to read:

5906.5.6 Grounding. Where required by the applicable building code, equipment shall be maintained securely grounded by permanent ground wires in accordance with NFPA 70.

**13VAC5-52-570. IFC Chapter 60 Highly Toxic and Toxic Materials.**

A. Change Sections 6001.1 (Exceptions remain) and 6001.2 to read:

6001.1 Scope. The outside storage and use of highly toxic and toxic materials and the maintenance and operational aspects of inside storage and use of highly toxic and toxic materials shall comply with this chapter. Compressed gases shall also comply with Chapter 53.

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

B. Change Section 6003.1.1 by replacing the reference to "Table 5003.1.1(2)" with a reference to "Section 5003.1.1".

C. Change Section 6003.1.2 by replacing the reference to "Table 5003.1.1(2)" with a reference to "Section 5003.1.1".

D. Change Section 6003.1.4 to read:

6003.1.4 Indoor storage. Indoor storage of highly toxic and toxic solids and liquids shall comply with the applicable building code.

~~E.~~ E. Delete Section 6003.2.5 and change Sections 6003.1.4.1 and 6003.1.4.2 to read:

6003.1.4.1 Floors. In addition to the requirements set forth in Section 5004.12, where liquid-tight floors were required by the applicable building code, liquid-tight floors shall be maintained.

6003.1.4.2 Separation of highly toxic solids and liquids. In addition to the requirements set forth in Section 5003.9.8, unless approved in accordance with the applicable building code, highly toxic solids and liquids in storage shall be located in approved hazardous material storage cabinets or isolated from other hazardous material storage in accordance with the applicable building code.

~~F.~~ F. Change Item 5 of Section 6004.1.2 (Items 1 through 4 remain) to read:

5. Gas cabinets required by Section 6004.2 or 6004.3 shall be equipped with an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard. Alternative fire-extinguishing systems shall not be used.

~~G.~~ G. Change Item 4 of Section 6004.1.3 (Items 1 through 3 remain) to read:

4. Exhausted enclosures required by Section 6004.2 or 6004.3 shall be equipped with an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard. Alternative fire-extinguishing systems shall not be used.

~~H.~~ H. Change Section 6004.2.1.1 by replacing the reference to "Table 5003.1.1(2)" with a reference to "Section 5003.1.1".

I. Change Section 6004.2.1.2 by replacing the reference to “Table 5003.1.1(2)” with a reference to “Section 5003.1.1”.

J. Change Sections 6004.2.2.5, 6004.2.2.6, and 6004.2.2.8 to read: Delete exception 2 to item 1 of Section 6004.2.2.5.

~~6004.2.2.5 Piping and controls of stationary tanks. In addition to the requirements of Section 5003.2.2, piping and controls on stationary tanks shall comply with the following requirements:~~

~~1. Pressure relief devices shall be vented to a treatment system designed in accordance with Section 6004.2.2.7.~~

~~Exception: Pressure relief devices on outdoor tanks provided exclusively for relieving pressure due to fire exposure are not required to be vented to a treatment system provided that:~~

~~1. The material in the tank is not flammable.~~

~~2. The tank is located not less than 30 feet (9144 mm) from combustible materials or structures or is shielded by a fire barrier complying with Section 6004.3.2.1.1.~~

~~2. Filling or dispensing connections shall be provided with a means of local exhaust. Such exhaust shall be designed to capture fumes and vapors. The exhaust shall be directed to a treatment system in accordance with Section 6004.2.2.7.~~

~~3. Stationary tanks shall be provided with a means of excess flow control on all tank inlet or outlet connections.~~

~~Exceptions:~~

~~1. Inlet connections designed to prevent backflow.~~

~~2. Pressure relief devices.~~

K. Change item 2 of Section 6004.2.2.6 to read:

~~6004.2.2.6 Gas rooms. Gas rooms shall comply with Section 5003.8.4 and both of the following requirements:~~

~~1. The exhaust ventilation from gas rooms shall be directed to an exhaust system.~~

~~2. Approved automatic sprinkler systems in gas rooms shall be maintained in accordance with Chapter 9 and the applicable building code.~~

L. Change Section 6004.2.2.8 to read:

6004.2.2.8 Emergency power. Emergency power shall be maintained in accordance with Chapter 12, NFPA 70, and the applicable building code.

~~G. M.~~ Delete Sections 6004.2.2.8.1, 6004.2.2.10, 6004.2.2.10.1, 6004.2.2.10.2, and 6004.2.2.10.3 and change Section 6004.2.2.9 to read:

6004.2.2.9 Automatic fire detection system for highly toxic compressed gases. Where provided in rooms or areas where highly toxic compressed gases are stored or used, an approved automatic fire detection system shall be maintained in accordance with Chapter 9 and the applicable building code.

~~H. N.~~ Change Section 6004.3.3 (Exception remains) to read:

6004.3.3 Outdoor storage weather protection for portable tanks and cylinders. Weather protection in accordance with Section 5004.13 shall be provided for portable tanks and cylinders located outdoors and not within gas cabinets or exhausted enclosures. The storage area shall be equipped with an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

**13VAC5-52-580. IFC Chapter 61 Liquefied Petroleum Gases.**

A. Change Sections 6101.1 and 6101.2 and delete Section 6101.3.

6101.1 Scope. Storage, handling, and transportation of liquefied petroleum gas (LP-gas) and LP-gas equipment pertinent to systems for such uses shall comply with this chapter and NFPA 58. Properties of LP-gases shall be determined in accordance with Appendix B of NFPA 58.

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 an operational permit has been issued for that location by the fire code official, except when the container is for temporary use on construction sites.

B. Change the title of Section 6103 to "Use of Equipment" and change Section 6103.1 to read:

6103.1 General. The use of LP-gas equipment shall be in accordance with the ~~International~~ Virginia Fuel Gas Code and NFPA 58, except as otherwise provided in this chapter.

C. Delete Section 6103.3.

D. Change Section 6104.1 to read:

6104.1 General. The storage and handling of LP-gas and the maintenance of related equipment shall comply with applicable building code.

E. Delete Sections 6104.2 through 6104.4 and Table 6104.3.

F. Add Section 6106.4 to read:

6106.4 DOTn cylinders filled on site. U.S. Department of Transportation (DOTn) cylinders in stationary service that are filled onsite 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.

G. Change Section 6108.1 to read:

6108.1 General. Fire protection for installations having LP-gas storage containers shall be maintained in accordance with the applicable building code.

H. Change Section 6109.11.2 to read:

6109.11.2 Storage. Storage in buildings and rooms used for gas manufacturing, gas storage, ~~gas-air mixing~~, ~~gas-air mixing~~ and vaporization shall be approved in accordance with the applicable building code. These areas are to be maintained in accordance with the applicable building code and NFPA 58.

I. Add an exception to Section 6111.2 to read:

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

### **13VAC5-52-590. IFC Chapter 62 Organic Peroxides.**

A. Change Section 6201.2 to read:

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

B. Change Sections 6203.1 and 6203.1.1 to read:

6203.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of organic peroxides in amounts not exceeding the maximum allowable quantity per control area indicated in Section 5003.1 shall be maintained in accordance with Sections 5001, 5003, 6201, and 6203.

6203.1.1 Special limitations for indoor storage and use by occupancy. The indoor storage and use of organic peroxides shall be maintained in accordance with Sections 6203.1.1.1 through 6203.1.1.4.

C. Change Sections 6203.1.1.1 (Items 1 and 2 remain) and 6203.1.1.3 to read:

6203.1.1.1 Group A, E, I, or U occupancies. Unless otherwise approved by the applicable building code, in Group A, E, I, or U occupancies, any amount of unclassified detonable and Class I organic peroxides shall be stored in accordance with the following:

6203.1.1.3 Group B, F, M, or S occupancies. Unless otherwise approved by the applicable building code, unclassified detonable, and Class I organic peroxides shall not be stored or used in offices or retail sales areas of Group B, F, M, or S occupancies.

D. Change Section 6203.1.1.4 (Items 1 and 2 remain) to read:

6203.1.1.4 Classrooms. Unless otherwise approved by the applicable building code, in classrooms in Group B, F, or M occupancies, any amount of unclassified detonable and Class 1 organic peroxides shall be stored in accordance with the following:

E. Change Section 6204.1 by replacing the reference to “Table 5003.1.1(1)” with a reference to “Section 5003.1.1”, and change Sections 6203.2 and 6204.1.1 to read:

6203.2 Quantities exceeding the maximum allowable quantity per control area. The storage and use of organic peroxides in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1 shall be maintained in accordance with Chapter 50 and this chapter and comply with the applicable building code.



6204.1.1 Detached storage. Unless otherwise approved by the applicable building code, storage of organic peroxides shall be in detached buildings when required by Section 5003.8.2.

F. Change the Title of Table 6204.1.2 to Organic Peroxides-Distance to Exposures from Outdoor Storage Areas.

G. Change ~~Section~~ Sections 6204.1.2 through 6204.1.6 to read:

6204.1.2 Distance from detached buildings to exposures. Detached storage buildings for Class I, Class II, Class III, Class IV, and Class V organic peroxides shall be located in accordance with the applicable building code and maintain separation distances from exposures in accordance with Table ~~6204.1.2~~.

6204.1.2. Detached buildings containing quantities of unclassified detonable organic peroxides in excess of those set forth in Table 5003.8.2 shall be located in accordance with the applicable building code and maintain separation distances from exposures in accordance with Table 5604.5.2(1).

6204.1.3 Liquid-tight floor. Liquid-tight floors shall be maintained in accordance with the applicable building code.

6204.1.4 Electrical wiring and equipment. Electrical wiring and equipment in storage areas for Class I or Class II organic peroxides shall be maintained in accordance with Chapter 6 and remain as classified in accordance with the applicable building code.

6204.1.5 Smoke detection. Smoke detection systems shall be maintained in accordance with the Chapter 9.

6204.1.6 Maximum quantities. Maximum allowable quantities per building in a mixed occupancy building or detached storage building shall not exceed the amounts set forth by the applicable building code.

H. Change Sections 6204.1.10 and 6204.1.11 to read:

6204.1.10 Explosion control. Explosion control for indoor storage rooms, areas, and buildings containing unclassified detonable and Class 1 organic peroxides shall be maintained in accordance with Chapter 9.

6204.1.11 Standby power. Standby power for storage areas of Class 1 and unclassified detonable organic peroxide shall be maintained in accordance with Section 1203.

I. Delete Section 6204.1.11.1.

J. Change Section 6204.2.5 to read:

6204.2.5 Separation. In addition to the requirements of Section 5003.9.8, outdoor storage areas for organic peroxides in amounts exceeding those specified in Table 5003.12 shall be located a minimum distance of 50 feet (15,240 mm) from other hazardous material storage.

K. Change Section 6205.1 to read: by replacing the reference to "Table 5003.1.1(1)" with a reference to "Section 5003.1.1".

~~6205.1 General. The use of organic peroxides in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1.1 or Table 5003.1.1(3) shall be in accordance with Sections 5001, 5003, and 5005 and this chapter.~~

**13VAC5-52-600. IFC Chapter 63 Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluid.**

A. Change Section 6301.2 to read:

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

B. Change Section 6303.1 to read:

6303.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of oxidizing materials in amounts not exceeding the maximum allowable quantity per control area indicated in Section 5003.1 shall be maintained in accordance with Sections 5001, 5003, 6301, and 6303. Oxidizing gases shall also comply with Chapter 53.

C. Change Section 6303.1.1.1.1 (items 1 and 2 remain) to read:

6303.1.1.1.1 Group A, E, I, or U occupancies. Unless otherwise approved by the applicable building code, in Group A, E, I, or U occupancies, any amount of Class 4 liquid and solid oxidizers shall be stored in accordance with the following:

- ~~1. Class 4 liquid and solid oxidizers shall be stored in hazardous materials storage cabinets complying with Section 5003.8.7.~~
- ~~2. The hazardous materials storage cabinets shall not contain other storage.~~

D. Change Section 6303.1.1.2 to read: by replacing the reference to "Table 5003.1.1(1)" with "the applicable building code".

~~6303.1.1.2 Oxidizing gases. Except for cylinders of nonliquefied compressed gases not exceeding a capacity of 250 cubic feet (7 m<sup>3</sup>) or liquefied compressed gases not exceeding a capacity of 46 pounds (21 kg) each used for maintenance purposes, patient care, or operation of equipment, oxidizing gases shall not be stored or used in Group A, E, I, or R occupancies or in offices in Group B occupancies. The aggregate quantities of gases used for maintenance purposes and operation of equipment shall not exceed the maximum allowable quantity per control area listed in the applicable building code. Medical gas systems and medical gas supply cylinders shall also be in accordance with Section 5306.~~

E. Change Section 6303.1.2 to read:

6303.1.2 Emergency shutoff. Compressed gas systems conveying oxidizing gases with manual or automatic emergency shutoff valves in accordance with the applicable building code shall be maintained and be accessible to be activated at each point of use and at each source.

F. Delete Sections 6303.1.2.1 and 6303.1.2.2.

G. Change Sections ~~6303.1.3, 6303.1.4, and 6303.1.5~~ the title of Table 6303.1.4 to Outdoor Storage of

Class 1, 2 and 3 Oxidizer Liquids and Solids, and add a sentence to Section 6303.1.4 to read:

~~6303.1.3 Ignition source control. Ignition sources in areas containing oxidizing gases shall be controlled in accordance with Section 5003.7.~~

~~6303.1.4 Class 1 oxidizer storage configuration. The outdoor storage configuration of Class 1 liquid and solid oxidizers shall be as set forth in Table 6303.2.~~ Indoor storage shall be in accordance with the applicable building code.

H. Change the first sentence of Section 6303.1.5 (second sentence remains) to read:

~~6303.1.5 Class 3 liquid and solid oxidizers. Unless otherwise approved by the applicable building code, a maximum of 200 pounds (91 kg) of solid or 20 gallons (76 L) of liquid Class 3 oxidizer is allowed in Group I occupancies when such materials are necessary for maintenance purposes or operation of equipment. The oxidizers shall be stored in approved containers and in an approved manner.~~

~~H. Change the title of Table 6303.1.4 to Outdoor Storage of Class 1 Oxidizer Liquids and Solids.~~

I. Change Sections 6304.1 through 6304.1.5 to read:

6304.1 Indoor storage. Indoor storage of oxidizing materials in amounts exceeding the maximum allowable quantity per control area indicated in the applicable building code shall be maintained in accordance with Sections 5001, 5003, and 5004 and this chapter and comply with the applicable building code.

6304.1.1 Explosion control. Explosion control for indoor storage rooms, areas, and buildings containing Class 4 liquid or solid oxidizers shall be maintained in accordance with Chapter 9.

6304.1.2 Automatic sprinkler system. The automatic sprinkler system for oxidizer storage shall be maintained in accordance with Chapter 9.

6304.1.3 Liquid-tight floor. In addition to Section 5004.12, liquid-tight floors of storage areas for liquid and solid oxidizers shall be maintained.

6304.1.4 Smoke detection. Smoke detection systems shall be maintained in accordance with Chapter 9.

6304.1.5 Storage conditions. The maximum quantity of oxidizers per building in storage buildings shall not exceed those quantities set forth in the applicable building code. The storage configuration for liquid and solid oxidizers shall be as set forth in the applicable building code. Class 2 oxidizers shall not be stored in basements unless approved by the applicable building code. Class 3 and Class 4 oxidizers in amounts exceeding the maximum allowable quantity per control area set forth in 5003.1 shall be stored on the ground floor only unless otherwise approved by the applicable building code.

J. Delete ~~Change the title of~~ Tables 6304.1.5(1), 6304.1.5(2), and ~~6304.1.5(3).~~ 6304.1.5(3) to read:

Table 6304.1.5(1) Outdoor Storage of Class 2 Oxidizer Liquids and Solids.

Table 6304.1.5(2) Outdoor Storage of Class 3 Oxidizer Liquids and Solids.

Table 6304.1.5(3) Outdoor Storage of Class 4 Oxidizer Liquids and Solids.

K. Change Section 6304.1.8 to read:

6304.1.8 Detached storage. Storage of liquid and solid oxidizers shall be in detached buildings where required by the applicable building code.

L. Change Section 6304.2.2 and change the title of Tables 6304.2.2(1), 6304.2.2(2), and 6304.2.2(3) to read:

6304.2.2 Storage configuration for liquid and solid oxidizers. Storage configuration for liquid and solid oxidizers shall be maintained in accordance with ~~Table 6303.2~~ Table 6303.1.4 and Tables ~~6304.2.2(1)~~ 6304.1.5(1) through ~~6304.2.2(3)~~ 6304.1.5(3) and comply with the applicable building code.

~~Table 6304.2.2(1) Outdoor Storage of Class 2 Oxidizer Liquids and Solids.~~

~~Table 6304.2.2(2) Outdoor Storage of Class 3 Oxidizer Liquids and Solids.~~

~~Table 6304.2.2(3) Outdoor Storage of Class 4 Oxidizer Liquids and Solids.~~

M. Change Sections Section 6305.1 and ~~6306.4~~ to read:

6305.1 Scope. The use of oxidizers in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1.1 or Table 5003.1.1(3) shall be maintained in accordance with Sections 5001, 5003, and 5005 and this chapter and comply with the applicable building code. Oxidizing gases shall also comply with Chapter 53.

N. Change Exceptions 1 and 2 to Section 6306.4 to read:

~~6306.4 Maximum aggregate quantity. The maximum aggregate quantity of liquid oxygen allowed in storage and in use in each dwelling unit shall be 31.6 gallons (120 L).~~

Exceptions:

1. The maximum aggregate quantity of liquid oxygen allowed in Group I-4 occupancies shall be limited by the maximum allowable quantity set forth in the applicable building code.
2. Where individual sleeping rooms are separated from the remainder of the dwelling unit by fire-resistant-rated assemblies constructed in accordance with the applicable building code, the maximum aggregate quantity per dwelling unit shall be increased to allow a maximum of 31.6 gallons (120 L) of liquid oxygen per sleeping room.

### **13VAC5-52-610. IFC Chapter 64 Pyrophoric Materials.**

A. Change Section 6401.2 to read:

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

B. Change Sections 6403.1 and 6403.1.1 to read:

6403.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of pyrophoric materials in amounts not exceeding the maximum allowable quantity per control area indicated in Section 5003.1 shall be maintained in accordance with Sections 5001, 5003, 6401, and 6403.

6403.1.1 Emergency shutoff. Manual or automatic emergency shutoff valves for compressed gas systems conveying pyrophoric gases shall be maintained and accessible to be activated at each point of use and at each source in accordance with the applicable building code.

C. Delete Sections 6403.1.1.1 and 6403.1.1.2, and change Section ~~6403.2~~ 6403.2 to read:

6403.2 Quantities exceeding the maximum allowable quantity per control area. The storage and use of pyrophoric materials in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1 shall be maintained in accordance with Chapter 50 and this chapter and comply with the applicable building code.

D. Change Sections the first sentence of Section 6404.1 (second sentence remains) and Section 6404.1.1 to read:

~~6404.1 Indoor storage.~~ Indoor storage of pyrophoric materials in amounts exceeding the maximum allowable quantity per control area indicated in the applicable building code shall be in accordance with Sections 5001, 5003, and 5004 and this chapter and comply with the applicable building code. ~~The storage of silane gas and gas mixtures with a silane concentration of 1.37% or more by volume shall be maintained in accordance with CGA G-13.~~

6404.1.1 Liquid-tight floor. In addition to the requirements of Section 5004.12, liquid-tight floors shall be maintained in accordance with the applicable building code.

E. Change Sections 6404.1.2, 6404.1.3, ~~6404.1.4~~, 6404.1.4 (exception remains), and 6404.2.2 to read:

6404.1.2 Pyrophoric solids and liquids. Unless otherwise approved by the applicable building code, storage of pyrophoric solids and liquids shall be limited to the following:

1. A maximum area of 100 square feet (9.3 m<sup>2</sup>) per pile. Storage shall not exceed five feet (1524 mm) in height. Individual containers shall not be stacked.
2. Aisles between storage piles shall be a minimum of 10 feet (3048 mm) in width.
3. Individual tanks or containers shall not exceed 500 gallons (1893 L) in capacity.

6404.1.3 Pyrophoric gases. Storage of pyrophoric gases shall be in detached buildings when required by the applicable building code.

6404.1.4 Separation from incompatible materials. In addition to the requirements of Section 5003.9.8, indoor storage of pyrophoric materials shall be isolated from incompatible hazardous

materials in accordance with the applicable building code. Fire-resistance-rated construction and openings shall be maintained in accordance with Chapter 7.

~~Exception: Storage in approved hazardous materials storage cabinets constructed in accordance with Section 5003.8.7.~~

6404.2.2 Weather protection. Automatic fire-extinguishing systems for overhead sheltering of outdoor storage areas of pyrophoric materials shall be maintained in accordance with Chapter 9.

F. Change Sections Section 6405.1 by replacing the reference to “Table 5003.1.1(1)” with “Section 5003.1.1”. and 6405.2 to read:

~~6405.1 General. The use of pyrophoric materials in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1.1 or Table 5003.1.1(3) shall be in accordance with Sections 5001, 5003, and 5005 and this chapter.~~

G. Change Section 6405.2 to read:

6405.2 Weather protection. Automatic fire-extinguishing system for overhead sheltering of outdoor use areas of pyrophoric materials shall be maintained in accordance with Chapter 9.

#### **13VAC5-52-620. IFC Chapter 65 Pyroxylin (Cellulose Nitrate) Plastics.**

A. Change Section 6501.2 to read:

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

B. Change Sections 6504.1.1 and 6504.1.3 to read:

6504.1.1 Storage of incoming material. Unless otherwise approved by the applicable building code, where raw material in excess of 25 pounds (11 kg) is received in a building or fire area, raw material shall be stored in an approved vented cabinet or approved vented vault equipped with an approved automatic sprinkler system in accordance with the applicable building code.

6504.1.3 Storage of additional material. Raw material in excess of that allowed by Section 6504.1.2 shall remain stored in vented vaults or other arrangement approved in accordance with the applicable building code.

C. Change Section 6504.2 to read:

6504.2 Fire protection. Unless otherwise permitted by the applicable building code, buildings, or portions thereof used for the manufacture or storage of articles of cellulose nitrate (pyroxylin) plastic in quantities exceeding 100 pounds (45 kg) shall maintain an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard and the applicable building code.

#### **13VAC5-52-630. IFC Chapter 66 Unstable (Reactive) Materials.**

A. Change Section 6601.2 to read:

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

B. ~~Change Section 6603.1.1 to read:~~

~~6603.1.1 General. The storage and use of unstable (reactive) materials in amounts not exceeding the maximum allowable quantity per control area indicated in Section 5003.1 shall be in accordance with Sections 5001, 5003, 6601, and 6603.~~

~~C.~~ Change Section 6603.1.2 to read:

6603.1.2 Limitations for indoor storage and use by occupancy. The indoor storage of unstable (reactive) materials shall be maintained in accordance with Sections 6603.1.2.1 through 6603.1.2.5 and comply with the applicable building code.

~~D.~~ C. Change ~~Sections~~ Section 6603.1.2.1 (items 1 and 2 remain) and 6604.1 to read:

6603.1.2.1 Group A, E, I, or U occupancies. Unless otherwise approved by the applicable building code, in Group A, E, I, or U occupancies, any amount of Class 3 and Class 4 unstable (reactive) materials shall be stored in accordance with the following:

- ~~1. Class 3 and Class 4 unstable (reactive) materials shall be stored in hazardous material storage cabinets complying with Section 5003.8.7.~~
- ~~2. The hazardous material storage cabinets shall not contain other storage.~~

D. Change Section 6604.1 to read:

6604.1 Indoor storage. Indoor storage of unstable (reactive) materials in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1.1 shall be maintained in accordance with Sections 5001, 5003, and 5004 and this chapter and comply with the applicable building code.

In addition, Class 3 and Class 4 unstable (reactive) detonable materials shall be stored in accordance with the applicable building code requirements for explosives.

E. Change Section 6604.1.1 to read:

6604.1.1 Detached storage. Storage of unstable (reactive) materials shall be maintained in detached buildings when required by the applicable building code.

F. Change Sections 6604.1.2, 6604.1.3, and 6604.1.5 to read:

6604.1.2 Explosion control. Explosion control for indoor storage rooms, areas, and buildings containing Class 3 or Class 4 unstable (reactive) materials shall be maintained in accordance with Chapter 9.

6604.1.3 Liquid-tight floor. Liquid-tight floors of storage areas shall be maintained in accordance with the applicable building code.

6604.1.5 Location in building. Unstable (reactive) materials shall not be stored in basements unless approved.

G. Change Section 6605.1 by replacing the reference to “Table 5003.1.1(1)” with “Section 5003.1.1”. to read:

~~6605.1 General. The use of unstable (reactive) materials in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1.1 or Table 5003.1.1(3) shall be in accordance with Sections 5001, 5003, and 5005 and this chapter.~~

**13VAC5-52-640. IFC Chapter 67 Water-Reactive Solids and Liquids.**

A. Change Section 6701.2 to read:

6701.2 Permits. Permits shall be required as set forth in Section 107.2.

B. Change Section 6703.1 to read:

6703.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of water reactive solids and liquids in amounts not exceeding the maximum allowable quantity per control area indicated in Section 5003.1 shall be maintained in accordance with Sections 5001, 5003, 6701, and 6703.

C. Change Section 6703.2 to read:

6703.2 Quantities exceeding the maximum allowable quantity per control area. The storage and use of water-reactive solids and liquids in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1 shall be maintained in accordance with Chapter 50 and this chapter and comply with the applicable building code.

D. Change Section 6704.1 to read:

6704.1 Indoor storage. Indoor storage of water-reactive solids and liquids in amounts exceeding the maximum allowable quantity per control area indicated in the applicable building code shall be maintained in accordance with Sections 5001, 5003, and 5004 and this chapter and comply with the applicable building code.

E. Change Section 6704.1.1 to read:

6704.1.1 Detached storage. The storage of water-reactive solids and liquids shall be in detached buildings where required by the applicable building code.

F. Change Section 6704.1.2 to read:

6704.1.2 Liquid-tight floor. In addition to the provisions of Section 5004.12, liquid-tight floors in storage areas for water reactive solids and liquids shall be maintained in accordance with the applicable building code.

G. Change Section 6704.1.3 to read:



6704.1.3 Waterproof room. Rooms or areas used for the storage of water-reactive solids and liquids shall be maintained in a manner that resists the penetration of water in accordance with the applicable building code.

H. Change the first sentence of Section 6704.1.5 (remainder of Section, including exception, remains) to read:

~~6704.1.5 Storage configuration. Water-reactive solids and liquids stored in quantities greater than 500 cubic feet (14 m<sup>3</sup>) shall be maintained separated into piles, each not larger than 500 cubic feet (14 m<sup>3</sup>) unless otherwise approved by the applicable building code. Aisle widths between piles shall not be less than the height of the pile or four feet (1219 mm), whichever is greater.~~

~~Exception: Water-reactive solids and liquids stored in tanks.~~

~~Class 2 water-reactive solids and liquids shall not be stored in basements unless such materials are stored in closed water-tight containers or tanks.~~

~~Class 3 water-reactive solids and liquids shall not be stored in basements.~~

~~Class 2 or 3 water-reactive solids and liquids shall not be stored with flammable liquids.~~

I. Change Section 6704.1.6 to read:

6704.1.6 Explosion control. Explosion control for indoor storage rooms, areas, and buildings containing Class 2 or Class 3 water-reactive solids and liquids shall be maintained in accordance with Chapter 9.

J. Change Section 6704.2.5 to read:

6704.2.5 Containment. Secondary containment shall be maintained in accordance with the provisions of Section 5004.2.2.

K. Change Section 6705.1 by replacing the reference to "Table 5003.1.1(1)" with "Section 5003.1.1". to read:

~~6705.1 General. The use of water-reactive solids and liquids in amounts exceeding the maximum allowable quantity per control area indicated in Section 5003.1.1 or Table 5003.1.1(3) shall be in accordance with Sections 5001, 5003, and 5005 and this chapter.~~

### **13VAC5-52-680. IFC Chapter 80 Referenced Standards.**

Add the following standards to the list of referenced standards in Chapter 80 of the IFC:

| Standard reference number | Title                                                             |
|---------------------------|-------------------------------------------------------------------|
| CGA C-6 (2001)            | Standards for Visual Inspection of Steel Compressed Gas Cylinders |

|              |                                                                                             |
|--------------|---------------------------------------------------------------------------------------------|
| NA3178       | Smokeless Powder for Small Arms                                                             |
| NFPA 1124-06 | Code for the Manufacture, Transportation, and Storage of Fireworks and Pyrotechnic Articles |

### Documents Incorporated by Reference (13VAC5-52)

American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036

(<https://www.ansi.org>):

ANSI Z21.69/CSA 6.16-15, Connectors for Movable Gas Appliances

ANSI/CGA ~~P-18(2013)~~, P-18-(2018), Standard for Bulk Inert Gas Systems

ANSI E1.21-2020, Entertainment Technology: Temporary Structures Used for Technical Production of Outdoor Entertainment Events

The American Society of Mechanical Engineers, Two Park Avenue, New York, NY 10016-5990

(<https://www.asme.org>):

B31.1-2022, Power Piping

ASME Boiler and Pressure Vessel ~~Code-2010/2011 addenda~~ Code - 2023

ASME ~~A17.1-19/CSA B44-19~~, A17.1-2022/CSA B44-2022, Safety Code for Elevators and Escalators

ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959

(<https://www.astm.org>):

ASTM D ~~92-12b~~, 92-2018, Standard Test Method for Flash and Fire Points by Cleveland Open Cup

ASTM E ~~84-2013A~~, 84-2021a, Test Method for Surface Burning Characteristics of Building Materials

ASTM E ~~108-2017~~, 108-20a, Standard Test Method for Fire Tests of Roof Coverings

ASTM E ~~1354-2017~~, 1354-2022, Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter

ASTM E ~~1537-15~~, 1537-2022, Standard Test Method for Fire Testing of Upholstered Furniture

ASTM E ~~1590-17~~, 1590-2022, Standard Test Method for Fire Testing of Mattresses

State of California Department of Consumer Affairs, Bureau of Electronics and Appliance Repair, Home Furnishings and Thermal Insulation, 4244 South Market Court, Suite D, Sacramento, CA 95834-1243

([www.bearhfti.ca.gov](http://www.bearhfti.ca.gov)):

California Technical Bulletin 129-1992

California Technical Bulletin 133-1991

Compressed Gas Association, 14501 George Carter Way, Suite 103, Chantilly, VA 20151  
([www.cganet.com](http://www.cganet.com)):

CGA C-6-2001, Standards for Visual Inspection of Steel Compressed Gas Cylinders, Eighth Edition  
European Committee for Standardization (EN), Central Secretariat, Rue de Stassart 36, B-1050 Brussels  
(<https://www.cen.eu>):

~~EN 1081, 1998 Resilient Floor Coverings - Determination of the Electrical Resistance~~

International Code Council, Inc., 200 Massachusetts Avenue, NW, Suite 250, Washington, DC 20001  
(<http://www.iccsafe.org>):

International Fire Code - ~~2021~~ 2024 Edition

International Fuel Gas Code - ~~2021~~ Edition

International Residential Code - ~~2021~~ Edition

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471  
(<http://www.nfpa.org>):

NFPA ~~2-20~~, 2-23, Hydrogen Technologies Code

NFPA ~~11-16~~, 11-21, Standard for Low-, Medium- and High-Expansion Foam

NFPA ~~12-18~~, 12-22, Standard on Carbon Dioxide Extinguishing Systems

NFPA ~~12A-18~~, 12A-22, Standard on Halon 1301 Fire Extinguishing Systems

NFPA ~~13-19~~, 13-22, Standard for the Installation of Sprinkler Systems

NFPA ~~13D-19~~, 13D-22, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes

NFPA ~~13R-19~~, 13R-22, Standard for the Installation of Sprinkler Systems in Low Rise Residential Occupancies

NFPA ~~14-19~~, 14-24, Standard for the Installation of Standpipe and Hose Systems

NFPA 16-19, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems

NFPA 17-21, Standard for Dry Chemical Extinguishing Systems

NFPA 17A-21, Standard for Wet Chemical Extinguishing Systems

NFPA ~~20-19~~, 20-22, Standard for the Installation of Stationary Pumps for Fire Protection

NFPA ~~25-20~~, 25-23, Standard for Inspection, Testing and Maintenance of Water-based Fire Protection Systems

NFPA ~~30-21~~, 30-24, Flammable and Combustible Liquids Code

NFPA ~~30A-21~~, 30A-24, Code for Motor Fuel Dispensing Facilities and Repair Garages

NFPA ~~30B-19~~, 30B-23, Code for the Manufacture and Storage of Aerosol Products

NFPA 31-20, Standard for the Installation of Oil-Burning Equipment

NFPA ~~32-16~~, 32-21, Standard for Drycleaning Plants

NFPA ~~34-18~~, 34-21, Standard for Dipping, Coating and Printing Processes Using Flammable or Combustible Liquids

NFPA ~~35-16~~, 35-21, Standard for the Manufacture of Organic Coatings

NFPA ~~45-19~~, 45-24, Standard on Fire Protection for Laboratories Using Chemicals

NFPA ~~52-19~~, 52-23, Vehicular Gaseous Fuel System Code

NFPA ~~55-20~~, 55-23, Compressed Gases and Cryogenic Fluids Code

NFPA ~~58-20~~, 58-24, Liquefied Petroleum Gas Code

NFPA ~~59A-19~~, 59A-23, Standard for the Production, Storage and Handling of Liquefied Natural Gas (LNG)

NFPA 69-19, Standard on Explosion Prevention Systems

NFPA ~~70-20~~, 70-23, National Electrical Code

NFPA ~~72-19~~, 72-22, National Fire Alarm and Signaling Code

NFPA ~~80-19~~, 80-22, Standard for Fire Doors and Other Opening Protectives

NFPA ~~86-19~~, 86-23, Standard for Ovens and Furnaces

NFPA ~~96-21~~, 96-24, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations

NFPA ~~110-19~~, 110-22, Standard for Emergency and Standby Power Systems

NFPA ~~111-19~~, 111-22, Standard on Stored Electrical Energy Emergency and Standby Power Systems

NFPA 211-16, Standard for Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances

NFPA ~~286-19~~, 286-24, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth

NFPA 303-21, Fire Protection Standard for Marinas and Boatyards

NFPA ~~495-18~~, 495-23, Explosives Materials Code

~~NFPA 303-21, Fire Protection Standard for Marinas and Boatyards~~

NFPA ~~704-17~~, 704-22, Standard System for Identification of the Hazards of Materials for Emergency Response

NFPA ~~720-15~~, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment

NFPA 853-20, Installation of Stationary Fuel Cell Power Systems

NFPA ~~1123-18~~, 1123-22, Code for Fireworks Display

NFPA 1124-06, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles

NFPA ~~1124-17~~, 1124-22, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles

NFPA 1126-21, Standard for the Use of Pyrotechnics Before a Proximate Audience

NFPA ~~2001-18~~, 2001-22, Standard on Clean Agent Fire Extinguishing Systems

NFPA 2010-20, Standard for Fixed Aerosol Fire-Extinguishing Systems

Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062 (<http://www.ul.com>):

UL 80-07, Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids-with revisions through August 2009

UL 87A-15, Outline of Investigation for Power-Operated Dispensing Devices for Gasoline and Gasoline/ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent

UL 142-06, Steel Aboveground Tanks for Flammable and Combustible Liquids-with revisions through February 12, 2010

UL 199E-04, Outline of Investigation for Fire Testing of Sprinklers and Water Spray Nozzles for Protection of Deep Fat Fryers

UL 217-15, Single and Multiple Station Smoke Alarms-with revisions through November 2016

UL 710B-2011, Recirculating Systems

UL 790-04, Standard Test Methods for Fire Tests of Roof Coverings-with revisions through October 2008

UL ~~1278-00~~, Standard for Movable and Wall- or Ceiling-Hung Electric Room Heaters, Third Edition, June 21, 2000

UL 1315-17, Standard for Safety for Metal Waste Paper Containers

UL 1805-02, Standard for Laboratory Hoods and Cabinets



## Tab 2

### SFPC Proposals Recommended by the General Stakeholder Workgroup as Consensus for Approval

| Proposal No. | Proposal ID   | Description                                                                                                                                                                                                                                    | Page            |
|--------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1            | FP105.3.1-4   | Deletes the requirement for fire officials to notify DHCD when new technical assistants are hired. (USBC Part I companion proposal B105.2-24; USBC Part III companion proposal PM104.4-24)                                                     | Tab 2 – Page 1  |
| 2            | FP112.1-24    | Clarifies that the written request for appeals is not considered to be complete and filed until the fee levied by the local governing body is paid. [USBC Part I companion proposal B119.5(1)-24; USBC Part III companion proposal PM107.5-24] | Tab 2 – Page 3  |
| 3            | FP112.5-24    | Clarifies that the reaffirmation of a prior code decision does not constitute a new application of code subject to appeal. (USBC companion proposal B119.5-24)                                                                                 | Tab 2 – Page 5  |
| 4            | FP112.5(1)-24 | Clarifies that any person aggrieved by the local enforcing agency's application of the SFPC or the refusal to grant a modification to the provisions of the SFPC may appeal to the LBFPCA.                                                     | Tab 2 – Page 7  |
| 5            | FP202-24      | Adds “boats and watercraft” to the definition of Mobile Food Preparation Vehicles” with the intent of addressing boats and watercraft being converted to a food preparation type vehicle.                                                      | Tab 2 – Page 9  |
| 6            | FP307.2-24    | Exempts prescribed fires conducted by Virginia Certified Prescribed Burn Managers from the permitting requirements.                                                                                                                            | Tab 2 – Page 11 |
| 7            | FP405.5-24    | Adds new definition of “Personal Emergency Evacuation Plan (PEEP)” and requires building management to coordinate the development of a PEEP with occupants with special needs and other high-risk populations, upon request.                   | Tab 2 – Page 13 |
| 8            | FP501.5-24    | Prohibits the occupancy and operation of any portion of a building or structure prior to the fire code official’s approval of the required fire service features.                                                                              | Tab 2 – Page 15 |
| 9            | FP807.2-24    | Clarifies that combustible decorative materials on doors are subject to the same regulations and limitations applied to walls and ceilings.                                                                                                    | Tab 2 – Page 17 |





|    |                |                                                                                                                                                                                                                                                          |                    |
|----|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 10 | FP901.6.3-24   | Requires records of all system inspections, tests and maintenance to be kept on the premises or other approved location for not less than 3 years and be made available for the fire code official upon request.                                         | Tab 2 –<br>Page 19 |
| 11 | FP904.2.2.1-24 | Requires a plan approved by the authority having jurisdiction prior to any changes to the cookline, hood or suppression system.                                                                                                                          | Tab 2 –<br>Page 21 |
| 12 | FP1208-24      | Adds new requirements for electric vehicle charging systems, including the installation of emergency shutoff controls, provisions for impact protection, and the posting of emergency procedures. (USBC companion proposal B406.2.7-24)                  | Tab 2 –<br>Page 23 |
| 13 | FP1208(1)-24   | Adds new requirements for electric vehicle charging systems, including the installation of emergency shutoff controls, provisions for impact protection, and the posting of emergency procedures on a sign located in an approved, conspicuous location. | Tab 2 –<br>Page 25 |
| 14 | FP3303.1-24    | Allows the fire official to determine when projects warrant the need for development, implementation and maintenance of an approved, written site safety plan.                                                                                           | Tab 2 –<br>Page 33 |
| 15 | FP4101.9-24    | Correlates existing Virginia amendments related to tents, membrane structures, and cooking operations with new requirements in the 2024 International Fire Code.                                                                                         | Tab 2 –<br>Page 35 |
| 16 | FP5001.7-24    | Deletes without substitution operational requirements for Group B teaching and research laboratories in Section 5107 to eliminate confusion with requirements in Chapter 38.                                                                             | Tab 2 –<br>Page 37 |
| 17 | FP6112-24      | Adds new definition of “LP-Gas Marketer” and related requirements.                                                                                                                                                                                       | Tab 2 –<br>Page 41 |



# FP105.3.1-24

SFPC: 105.3.1

**Proponents:** DHCD Staff, representing DHCD (sbco@dhcd.virginia.gov)

## 2021 Virginia Statewide Fire Prevention Code

**Revise as follows:**

**105.3.1 Notification.** The fire official or their designee shall notify the *DHCD* within 60 days of the ~~employment, contract or termination separation~~ of all ~~a~~ *technical assistants* *assistant* for enforcement of the SFPC.

### **Reason Statement:**

The requirement for localities/Fire Officials to notify DHCD when they hire a new technical assistant is no longer necessary, as actions required for new technical assistants (creating a DHCD registration system profile and requesting a Learning Center account) can and should be completed by the new employee. There is no special action required on the part of DHCD.

It remains important for localities to notify DHCD when a technical assistant leaves a locality so that the DHCD profile can be updated accordingly. The word "termination" is changed to "separation" to be inclusive or more inclusive of any situation where the employee leaves the locality, including resignation, termination, or retirement. "or their designee" is added to recognize that this notification does not need to come from the Building Official directly. The phrase "for enforcement of the SFPC" is removed because the definition of technical assistant covers this and removal increases consistency with the DHCD notification sections in the VCC and VPMC.

**Cost Impact:** The code change proposal will not increase or decrease the cost This proposal will not increase or decrease cost.



# FP112.1-24

SFPC: 112.1, 112.5

**Proponents:** Eric Mays, representing Prince William County (emays@pwcgov.org)

## 2021 Virginia Statewide Fire Prevention Code

**Revise as follows:**

**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 Review Board. Fees may be levied by the local governing body in order to defray the cost of such appeals.

**112.5 Application for appeal.** The *owner* of a structure, the owner's agent or any other person involved in the maintenance of the structure, or activity, 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 *LBFPCA* and then to the 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 State Review Board. The appeal shall be submitted to the *LBFPCA* within 14 calendar days of the application of the SFPC. When the local governing body has established a fee for the filing of an appeal, the local enforcing agency shall establish a written policy for the process and methods of payments. The written request for appeal is not considered to be complete and filed until the fee is paid. 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 State Review Board shall hear appeals of any local fire code violation.

**Reason Statement:** The Code Change Proposal is to clarify the requirements related to the timely filing of an appeal. The Virginia Construction Code requires appeals to be submitted within 30 days of the code official's decision and to be heard by the local appeals board within 30 days. The State Technical Review Board recently held a preliminary hearing to determine if an appeal was submitted in a timely manner. The appeal application fee was not paid until approximately 3 months after the filing of the written request to appeal; thereby delaying the appeal process. The current Code does not address any linkage between the appeal application and the payment of an appeal application fee. For consistency, the Code Change Proposal address the VCC, VRC, VMC and SFPC.

**DHCD Staff Note:** This code change proposal was initially submitted as part of proposal B119.5(1)-24. DHCD Staff split proposal B119.5(1)-24 into three separate proposals:

B119.5(1)-24: VCC portion of original proposal

FP112.1-24: SFPC portion of original proposal (this proposal)

PM107.5-24: VPMC portion of original proposal

**Cost Impact:** The code change proposal will not increase or decrease the cost The code change provides an administrative clarification and does not impact cost.



# FP112.5-24

SFPC: 112.5

**Proponents:** Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

## 2021 Virginia Statewide Fire Prevention Code

**Revise as follows:**

**112.5 Application for appeal.** The *owner* of a structure, the owner's agent or any other person involved in the maintenance of the structure, or activity, 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 *LBFPCA* and then to the 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 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.~~decision. Reaffirmation of a prior code decision does not constitute a new application of code subject to appeal.

**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 State Review Board shall hear appeals of any local fire code violation.

**Reason Statement:** This proposal is a companion change to proposal B119.5 which has received consensus for approval. The new language provided here for the SFPC is identical to proposal B119.5 for the Virginia Construction Code and the Virginia Property Maintenance Code which closes a potential loop hole regarding the time limit for appeals. See the reason statement in proposal B119.5 for more details.

**Cost Impact:** The code change proposal will not increase or decrease the cost This is an administrative change that does not impact cost.





# FP112.5(1)-24

SFPC: 112.5

**Proponents:** DHCD staff on behalf of the State Building Code Technical Review Board (TRB); (sbco@dhcd.virginia.gov)

## 2021 Virginia Statewide Fire Prevention Code

**Revise as follows:**

**112.5 Application for appeal.** ~~The owner of a structure, the owner's agent or any other person involved in the maintenance of the structure, or activity, 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. Any person aggrieved by the local enforcing agency's application of the SFPC or the refusal to grant a modification to the provisions of the SFPC may appeal to the LBFPCA.~~ The appeal shall first lie to the *LBFPCA* and then to the 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 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.

Exception: Any summons issued in accordance with 111.5 of this code are not eligible for appeal.

**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 State Review Board shall hear appeals of any local fire code violation.

**Reason Statement:** This proposal was submitted by DHCD staff on behalf of the State Building Code Technical Review Board (TRB). The purpose of the proposal is to have the language in the SFPC align with the language for similar provisions in the VCC and VPMC. The addition of the exception is consistent with the NOV notice of appeal in Section 111.5.

**Cost Impact:** The code change proposal will not increase or decrease the cost This code change proposal will not increase or decrease the cost.



# FP202-24

## SFPC: SECTION 202

**Proponents:** Gerry Maiatico, County of Warren & Virginia Fire Prevention Association, representing Virginia Fire Prevention Association (gmaiatico@warrencountyfire.com)

## 2021 Virginia Statewide Fire Prevention Code

### Revise as follows:

**MOBILE FOOD PREPARATION VEHICLES.** Vehicles, covered trailers, carts, and enclosed trailers, boats and watercraft, or other moveable devices capable of being able to be occupied by persons during cooking operations and that contain cooking equipment that utilize open flames or are capable of producing smoke or grease laden vapors for the purpose of preparing and serving food to the public. Vehicles, boats or watercraft used for private recreation shall not be considered mobile food preparation vehicles.

**Reason Statement:** Multiple localities have experienced boats and watercraft being converted to a food preparation type vehicle. The current definition of a mobile food preparation vehicle is not clear as to if this type of apparatus is included. This proposed language provides that clarity.

**Cost Impact:** The code change proposal will not increase or decrease the cost No impact



# FP307.2-24

SFPC: 307.2

**Proponents:** John Miller, representing Virginia Department of Forestry (john.miller@dof.virginia.gov)

## 2021 Virginia Statewide Fire Prevention Code

**Revise as follows:**

**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.

**Exception:** Permitting under this section is not required for prescribed fires conducted by Virginia Certified Prescribed Burn Managers in accordance with §§ 10.1-1150.1 through 10.1-1150.6 of the Code of Virginia.

**Reason Statement:** Certified Prescribed Burn Managers are recognized under Virginia Code of Law 10.1-1150.1 through 10.1-1150.6. Certified Prescribed Burn Managers are certified following their proven experience in the administration and management of prescribed burns, must complete a certification class provided by the Virginia Department of Forestry, and agree to comply with the provision of the above referenced certification code sections regarding burn planning and management. This exemption removes the 307.2 requirement to obtain a permit prior to kindling a fire for this class of burners.

The 307.2 permitting requirements add an additional unnecessary administrative step to the very extensive silvicultural fire planning requirements expected of Virginia Certified Prescribed Burn Managers. There is also a concern that in lieu of a consistent statewide permitting process, Virginia localities left to enforce this permitting requirement on their own will create a wide diversity of requirements and expectations across the Commonwealth, creating their own special challenges for this special class of practitioners working to meet these requirements on an annual basis.

The Virginia Department of Forestry reports that there is an average of 410 prescribed burns completed annually by Virginia Certified Prescribed Burn Managers, totaling more than 18,500 acres.

**Cost Impact:** The code change proposal will decrease the cost

The proposed code change significantly reduces the staff time and costs associated with administering a permit process for silvicultural fires. The proposed code change also reduces the time and costs incurred by the practitioners of silvicultural burning who must work to meet the new permitting requirements.



# FP405.5-24

SFPC: SECTION 202 (New), 404.1.1 (New), 907.8.2.1 (New)

**Proponents:** Elizabeth Bennett-Parker, representing Virginia House of Delegates District 5 (delebennett-parker@house.virginia.gov)

## 2021 Virginia Statewide Fire Prevention Code

**Add new text as follows:**

**SECTION 202 GENERAL DEFINITIONS. Personal Emergency Evacuation Plan (PEEP).** A dedicated plan, unique to an individual who may require particular assistance or support to appropriately respond to an alarm or other emergency and evacuate from the premises. Such plan may include practice exercises, in addition to any required emergency evacuation drills, to establish and maintain the effectiveness of the plan and evacuation.

**404.1.1 Personal Emergency Evacuation Plan (PEEP).** Where occupants include those who have special needs or other high-risk populations, building management shall coordinate the development of a personal emergency evacuation plan with such occupants upon occupant request. Any plan to defend-in-place shall be required to be approved by the fire code official.

**907.8.2.1 Occupant Notification.** Where testing requires activation of fire alarm notification devices in occupied areas, notification to the occupants regarding the testing shall be provided before and after testing in accordance with section 14.2.4 of NFPA 72.

**Reason Statement:** This proposal ensures that building management provides tenants with advance notice (between 3 and 14 days) of planned emergency evacuation drills. Advance notification is critical for residents with disabilities, including those with autism and related sensory sensitivities, who may experience distress or disorientation from loud alarms and unexpected disruptions. Clear notice helps tenants prepare appropriately, promotes equitable participation in safety procedures, and supports the overall effectiveness of emergency preparedness.

**DHCD Staff Note:** The original proposal intended to modify Section 405.5; hence the proposal designation of FP405.5-24. The proposal was ultimately modified to no longer amend Section 405.5. For record keeping purposes, the proposal designation remains the same.

**Cost Impact:** The code change proposal will not increase or decrease the cost. The proposal provides a very minor additional requirement for when building management must notify tenants, as they already often do in this circumstance and are required to do in other circumstances. It will not lead to cost changes.





# FP501.5-24

SFPC: 501.5 (New)

**Proponents:** Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

## 2021 Virginia Statewide Fire Prevention Code

**Add new text as follows:**

**501.5 Approval.** It shall be unlawful to occupy or operate any portion of a building, structure, or premises unless the installation of the fire service features required by this chapter have been approved by the fire code official.

**Reason Statement:** Currently, Chapter 5 of the Virginia Statewide Fire Prevention Code requires a number of Fire Service Features (such as fire department access, water supply, etc.) to be provided as part of a new building, structure or premises. Although the plans for such features are required to be approved by the Fire Code Official (VSFPC 501.3), the installation of these features is not specifically required to be inspected or approved by the Fire Code Official prior to use or occupancy. This proposal adds a new section to clarify that the Fire Code Official must also approve the installation of required Fire Service Features.

**Cost Impact:** The code change proposal will not increase or decrease the cost This code change proposal is to clarify that required Fire Service Features are to be approved by the Fire Code Official. There is no increase or decrease to the cost of construction or installation.



# FP807.2-24

SFPC: 807.2, 807.3

**Proponents:** Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

## 2021 Virginia Statewide Fire Prevention Code

**Revise as follows:**

**807.2 Combustible decorative materials.** In Groups A, B, E, I, M and R-1 and in dormitories in Group R-2, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from doors, walls or ceilings shall comply with Section 807.3 and shall not exceed 10 percent of the specific door, wall or ceiling area to which such materials are attached.

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 to be *interior finish*, shall comply with Section 803 and shall not be considered *decorative materials* or furnishings.

### **Exceptions:**

1. In auditoriums in Group A, the permissible amount of curtains, draperies, fabric hangings, and similar combustible decorative materials suspended from walls or ceilings shall not exceed 75 percent of the aggregate wall area where the *building* is equipped throughout with an *approved* automatic sprinkler system in accordance with the applicable NFPA 13 standard and where the material is installed in accordance with the *applicable building code*.
2. In Group R-2 dormitories, within sleeping units and dwelling units, the permissible amount of curtains, draperies, fabric hangings, and similar decorative materials suspended from walls or ceilings shall not exceed 50 percent of the aggregate wall areas where the *building* is equipped throughout with an *approved* automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.
3. In Group B and M occupancies, the amount of combustible fabric partitions suspended from the ceiling and not supported by the floor shall comply with Section 807.3 and shall not be limited.
4. The 10-percent limit shall not apply to curtains, draperies, fabric hangings and similar combustible decorative materials used as window coverings.
5. In occupancies equipped throughout with an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard, combustible decorative materials on exit access doorways shall not exceed 50% of the surface area of the door and shall not obstruct the door operation.

**807.3 Acceptance criteria and reports.** Where required to exhibit improved fire performance, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from doors, walls or ceilings shall be tested by an *approved* agency and meet the flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701 or exhibit a maximum rate of heat release of 100 kW when tested in accordance with NFPA 289, using the 20 kW ignition source. Reports of test results shall be prepared in accordance with the test method used and furnished to the *fire code official* upon request.

**Reason Statement:** This proposal is to provide clarification regarding the limits of combustible decorative materials on doors. It makes it clear that combustible decorative materials on doors are subject to the same regulations and limitations applied to walls and ceilings. It also provides a new exception for exit access doors that is consistent with the existing exception in SFPC 807.4 allowing up to 50% of a door to be covered with combustible artificial decorative vegetation when the facility is provided with an approved fire sprinkler system.

**Cost Impact:** The code change proposal will not increase or decrease the cost This proposal is a clarification that doors are included in the requirements for combustible decorative materials on walls and does not increase costs.



# FP901.6.3-24

SFPC: 901.6.3

**Proponents:** Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

## 2021 Virginia Statewide Fire Prevention Code

**Revise as follows:**

**901.6.3 Records.** Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained. Records shall be maintained on the premises or other *approved* location for not less than 3 years, or a different period of time where specified in this code or referenced standards. Records shall be made available for inspection by the *fire code official*, and a copy of the records shall be provided to the *fire code official* on request.

**Reason Statement:** The proposed change is restore language from the model code that was removed from the SFPC in the 2015 edition. The change clarifies the minimum duration that records are to be retained and that they are to be made available to the Fire Official upon request. The added language is identical to the language outlined in section 110.3 of the 2024 International Fire Code.

**Cost Impact:** The code change proposal will not increase or decrease the cost The proposal addresses how existing records are to be retained and made available to the Fire Official so there is no cost impact.



# FP904.2.2.1-24

IFC: 904.14.5.1.1 (New)

**Proponents:** Lee Stoermer, representing Loudoun County Fire Rescue Fire Marshal Office (lee.stoermer@loudoun.gov)

## 2024 International Fire Code

**Add new text as follows:**

**904.14.5.1.1 Approved plans.** Any changes to the cookline, hood or suppression system shall have a plan approved by the authority having jurisdiction prior to the changes occurring, in accordance with all applicable codes and standards.

### **Reason Statement: Justification**

Restaurants and other commercial food preparation establishments often replace their cooking appliances or alter the cook line arrangement under the kitchen hood. It is imperative that the appliances remain in their approved locations, under their respective fire suppression nozzles, under the Type I hood. The Type I hood suppression systems are designed to protect specific appliances with specific nozzles, and there are requirements for nozzle angles or nozzle height over individual appliances. Altering appliance locations can easily render the fire suppression system ineffective. Having the approved plans immediately available at all times the cookline is in operation allows the fire inspector to determine if any changes were made that could adversely affect performance of the fire suppression system that creates a hazardous condition.

**Cost Impact:** The code change proposal will not increase or decrease the cost No cost increase or decrease, as an approved plan is required prior to installation already, and should be maintained on site for maintenance reference.





# FP1208-24

SFPC: 1208 (New), 1208.1 (New), 1208.2 (New), 1208.3 (New), 1208.4 (New)

**Proponents:** Ernest Little, Retired Prince William County Department of Fire and Rescue, representing Myself (prwfm4@aol.com)

## 2021 Virginia Statewide Fire Prevention Code

Add new text as follows:

### **1208** **Electric Vehicle Charging Stations**

**1208.1 General.** Electrical vehicle charging systems, where provided, shall be maintained in accordance with the applicable building code.

**1208.2 Emergency Shutoff.** Where provided, emergency shutoffs shall be maintained in accordance with the applicable building code.

**1208.3 Impact Protection.** Electric vehicle charging stations shall be protected against physical damage, in an approved manner, and be maintained in accordance with Section 312 where charging stations are located in areas near parking areas, multiple charging stations, or other areas where there is a potential for vehicle impacts.

**1208.4 Emergency Procedures.** Approved emergency procedures shall be maintained on a sign at an approved and conspicuous location of the charging station(s). The sign shall read:

IN CASE OF EMERGENCY

1. IF POSSIBLE, DISABLE THE VEHICLE TO PREVENT MOVEMENT
2. USE THE ELECTRIC VEHICLE EMERGENCY SHUT OFF
3. REPORT THE INCIDENT TO THE FIRE DEPARTMENT. FIRE DEPARTMENT PHONE NUMBER: \_\_\_\_\_
4. FACILITY ADDRESS: \_\_\_\_\_

#### **Reason Statement:**

The Virginia Construction (VCC) and Virginia Statewide Fire Prevention Code (SFPC) lack an emergency disconnecting requirement similar to that required by NFPA 30A at motor fuel dispensing facilities. Charging stations supplying DC power to electric vehicles (EVs) are available to the general public along major highways and have become more available in public parking garages, public parking lots, and workplace parking lots. When an emergency occurs at one of these EV charging stations, first responders need a quick means to disconnect power in order to mitigate the emergency safely. The proposed amendments are intended to correct a previously unknown existing hazard. The proposed amendments intend to offer the public a benefit that would lessen a recognized (known) hazard or ameliorate a continuing dangerous condition or situation.

The 2024 International Fire Code references the National Fire Protection Association (NFPA) 2023 National Electrical Code (NEC) which had a tentative interim amendment (TIA) regarding vehicle impact protection and emergency shutoffs. This TIA was considered by the National Fire Protection Association in development of the 2026 NEC) and emergency disconnects for electric vehicle charging stations were added to the code requirements. The 2026 NEC will be published in October of 2025. The impact protection provision of the amendments brings an existing requirement of the NEC for electrical equipment exposed to vehicle impact into the VCC to make the requirement easier to access for installers of electric vehicle charging equipment.

Currently, shutdown controls are required for both refueling stations and DC charging stations; however, access to these shutdowns is quite different and create unnecessary and potentially lethal intervention hazard delays for first responders who are called to address emergencies at DC charging stations.

#### **Concerns:**

- (1) First responders, who respond to emergencies at DC Charging stations do so in an electrical energy environment that can exceed normal household voltages. These first responders are not trained, nor equipped, to operate in electrical hazard areas without a shut off or lock out device being available.
- (2) First responders do not have tools capable of ensuring that the DC energy hazard has been controlled. Unlike AC hazards, where tools have been made available to first responders that allow them to gather some information about the energy status of electrical equipment, there are very few tools available to first responders for ascertaining DC energy status.
- (3) While not required at EV charging stations, some vendors are installing emergency shut offs and they are being installed in locations that are not safe or readily accessible for first responders. Some are being installed at the actual charging device location rather than at a safe location away from the hazard area. While well intended, the installation of these devices requires first responders to work in the hazard area to operate them. NFPA 30A requires that the e-stop be located at least 20 feet away from the hazard.
- (4) EV Charging station electrical shut offs are not labelled and are not readily accessible and Energy disconnects (per code) are allowed to be in locked cabinets which are often not labeled. This creates confusion and frustration for first responders attempting to address the electrical hazards present. Since emergency shut offs have been present at refueling stations since 1984, first responders look for emergency shut offs where they have seen at refueling stations.

**Cost Impact:** The code change proposal will increase the cost. There will be cost associated with the installation of impact protection, disconnecting means, and the required materials. The cost could be offset by the reduction in damaged components due to vehicle impact and the possible injury to first responders due to exposure to live electrical components in mitigating events associated with malfunction or misuse of electric vehicle charging equipment.

# FP1208(1)-24

SFPC: 1208 (New), 1208.1 (New), 1208.2 (New), 1208.3 (New), 1208.4 (New), 1208.5 (New)

**Proponents:** Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

## 2021 Virginia Statewide Fire Prevention Code

Add new text as follows:

### **1208** **Electric Vehicle Charging Systems**

**1208.1 General.** Where provided, electric vehicle charging systems shall be in accordance with this section.

Exception: Sections 1208.3 through 1208.5 shall not apply to electric vehicle charging systems located at one- and two-family dwellings.

**1208.2 Operations and Maintenance.** Where provided, electric vehicle charging systems shall be operated and maintained in accordance with the applicable building code, the listing and the manufacturer instructions.

**1208.3 Emergency Disconnects and Shutoffs.** Where provided, electric vehicle charging system electrical power disconnects, emergency disconnects and shutoffs shall be maintained in accordance with the applicable building code, the listing and the manufacturer instructions. Where electrical power disconnects, emergency disconnects or shutoffs are not provided and labeled at the electric vehicle charging system equipment, an approved sign or label shall be provided and maintained at the equipment to indicate the location of the electrical power disconnect for the electric vehicle charging system.

**1208.4 Impact Protection.** Where subject to motor vehicle impact or other physical damage, electric vehicle charging system equipment protection shall be provided and maintained in accordance with the applicable building code and section 312.

**1208.5 Emergency Procedures.** Emergency procedures shall be provided and maintained on an approved sign at an approved and conspicuous location at the charging station(s). The sign shall read:

IN CASE OF FIRE:

1. IF POSSIBLE, SHUT OFF AND UNPLUG THE VEHICLE

2. USE THE EV CHARGER EMERGENCY DISCONNECT

3. REPORT THE INCIDENT TO THE FIRE DEPARTMENT

FIRE DEPARTMENT PHONE NUMBER: \_\_\_\_\_

FACILITY ADDRESS: \_\_\_\_\_

#### **Reason Statement:**

This proposal builds on the consensus proposal FP1208 which provides operations and maintenance requirements for electric vehicle charging stations. Most of the sections in this proposal mirror the sections in FP1208 but this proposal is intended to provide additional clarifications and electrical power disconnect information. Section 1208.1 includes an exception to make it abundantly clear that the majority of this section does not apply to one- and two-family dwellings. Section 1208.2 adds language to ensure that requirements from the product listing or manufacturer's instructions are required to be followed. Section 1208.3 specifically addresses maintaining and identifying the location of the electrical power disconnect, emergency disconnect and any emergency shutoff when provided for this equipment. Section 1208.4 ensures that vehicle impact protection is consistent with the applicable building code and SFPC section 312. Finally, section 1208.5 provides revised wording to provide clear and consistent terminology. All of these requirements are needed to help address emerging fire safety concerns as identified in a recent Fire Protection Research Foundation reports.

<https://www.nfpa.org/news-blogs-and-articles/blogs/2024/07/12/parking-garages-and-evs>

Although the frequency of electric vehicle fires has not been shown to be significantly different than other vehicle fires, the impact of these fires to the fire service and ultimately the community is exponentially different. For example, where the water required to extinguish a traditional internal combustion engine vehicle fire is approximately 500 gallons typically from a single fire apparatus and concluded in about 30 minutes, the water needed for an electric vehicle fire is measured in thousands of gallons involving multiple apparatus for at least 60-90 minutes and often much more. If you haven't experienced a typical electric vehicle fire, the following video provides an excellent perspective on these types of incidents.

<https://youtu.be/J0gRFIbsx1E>

As the installation and use of electric vehicle charging stations continues to grow throughout Virginia, it is critical that fire safety concerns, particularly regarding identifying the location of the electrical power disconnect, be adequately addressed at the lowest possible cost.

**Cost Impact:** The code change proposal will increase the cost. Although minimal, this proposal does add a requirement for labeling/signage of the electrical power disconnects at electric vehicle charging stations as well as a sign for emergency procedures. The vehicle impact protection referenced, is a long-standing requirement of the National Electric Code so that is not an increased cost for this proposal. Also, except for the labeling/signage for the electrical power disconnects, all other requirements within this proposal are already consensus changes in proposal FP1208.

[HOME](#)

Today's vehicles contain roughly three times the amount of plastics that they did in the 1970s.

## Research Insights: Fire Safety for Electric Vehicles and Other Modern Vehicles in Parking Structures

By Victoria Hutchison Lutz

12-Jul-2024

Over the past five years, the electric vehicle (EV) market has seen substantial growth, with global sales reaching 10 million in 2023 and EV market share rising to 14 percent. Advances in battery technology, falling costs, supportive government policies, and expanded charging infrastructure have driven this growth. Major automakers have committed to EVs, offering more model options, while consumer awareness and demand for sustainable transport have surged, particularly in Europe, China, and North America.

Recent changes in vehicle design, materials, and motor technologies, however, have raised concerns in the fire protection community. Vehicles have become heavier and now incorporate substantially more plastic components. The shift to battery electric vehicles (BEVs), hydrogen fuel cells, and hybrid vehicles also introduces different fire hazards compared to traditional internal combustion engine (ICE) vehicles, potentially requiring modifications to traditional fire protection design strategies and firefighting tactics applied in parking structures.

While vehicle fires are common, large-scale parking garage fires are rare but can cause significant economic losses, as seen in incidents at Liverpool's Echo Arena, Stavanger Airport, and Luton Airport. In August, a fire involving an EV in a parking garage in South Korea damaged hundreds of vehicles and forced nearby residents to evacuate, triggering debate over whether EVs should be allowed in the country's underground parking garages.

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**RELATED:** Explore training from NFPA related to alternative fuel vehicles

These events highlight the need to reclassify vehicle fire hazards and reevaluate recommended protection measures. As a result, stakeholders have been coming to NFPA® and the Fire Protection Research Foundation (FPRF), the research affiliate of NFPA, with questions around the fire safety impact of EVs in parking structures. Some of the most frequently asked questions include:

- How do modern vehicles differ from legacy vehicles? How have they changed?
- How does the fire hazard of an EV compare to an ICE vehicle?
- Is the current protection guidance in applicable codes and standards adequate?

To answer these questions, the Fire Protection Research Foundation conducted a Phase II research study, following up on a preliminary literature review from 2020, to provide data and insight to these questions and identify knowledge gaps that needs to be filled through an experimental test program. So, let’s dig into some of our key findings.

How do modern vehicles differ from legacy vehicles? How have they changed?

In 2021, the average vehicle contained 411 lbs (186 kg) of plastics, constituting 9.6 percent of a vehicle’s total weight. In the 1970s, plastics made up less than 3 percent of the average vehicle’s weight.

This increase in plastic content has the potential to enhance the combustible energy in a fire, potentially leading to higher heat release rates, longer burning durations, and greater risk of fire spread in parking garages compared to older vehicles. Thus, fire test data from older vehicles may not fully represent modern vehicles, which have a higher plastic content. This difference could impact the applicability of the test results to current vehicle fire scenarios and design fires.

How does the hazard of an EV compare to an ICE vehicle?

The heat release rate is the most common measure used to characterize the amount of energy a fire produces over time, or more simply, the speed at which a fire burns fuel and releases heat. While experimental test results show that an ICE vehicle fire and an EV fire may have different peak heat release rates, their total heat release is similar for both vehicle types, meaning they pose a similar overall hazard.

While ignition method, location, vehicle age and composition, ventilation conditions, and other factors have a significant influence on fire development and overall hazard, review of the available testing literature has found vehicle fires, both ICEVs and BEVs, too often exceed a heat flux threshold of 25 kW/m<sup>2</sup> (which is the exposure threshold for ignition of nearby combustibles), which suggests a high risk of fire spread to adjacent vehicles without sprinkler protection, regardless of these conditions.

A summary of key differences between EVs and ICEVs are provided in the table below.

|                      | EV                                                                                              | ICE                                                                        |
|----------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| Fuel Source          | Lithium-ion batteries                                                                           | Gasoline                                                                   |
| Fire Causes          | Short circuit, puncture, overheating, overcharging, over-discharging                            | Fuel or oil leak, overheating, worn out parts, loose electrical components |
| Suppression Time     | ~60–90+ min                                                                                     | ~30 min                                                                    |
| Water Usage (manual) | Reports of up to thousands of gallons of water have been used, requiring sustained water supply | ~500 gallons                                                               |

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|                                         |                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reignition Potential</b>             | Likely, and fairly common                                                                                                                                                                                                                                                                                                                   | Rare                                                                                                                                                                                                                                                                                                                            |
| <b>Fire Size</b>                        | <p>Avg Heat Release Rate: 1.5–8<sup>+</sup> MW</p> <p>Avg Total Heat Release: 5.9 GJ</p> <p>Can be large if the initiating vehicle fire is allowed to propagate to an adjacent vehicle, but fires can typically be contained to one vehicle with protection by automatic sprinklers or intervention by the fire service prior to spread</p> | <p>Avg Heat Release Rate: 6.5–8 MW</p> <p>Avg Total Heat Release: 5.9 GJ</p> <p>Can be large if the initiating vehicle fire is allowed to propagate to an adjacent vehicle, but fires can typically be contained to one vehicle with protection by automatic sprinklers or intervention by the fire service prior to spread</p> |
| <b>Toxicity of Runoff</b>               | <p>Water runoff has a pH of 7.3–7.7</p> <p>Copper, antimony, and higher concentrations of manganese, nickel, cobalt, hydrogen fluoride, and lithium</p>                                                                                                                                                                                     | <p>Water runoff has a pH of 2.6–2.8</p> <p>Higher concentrations of lead, copper, polycyclic aromatic hydrocarbons, and volatile organic compounds, testing showed higher toxicity towards aquatic species</p>                                                                                                                  |
| <b>Special Post-Fire Considerations</b> | Often towed and recommended to be placed 50 ft away from all surroundings (due to reignition risk)                                                                                                                                                                                                                                          | Vehicles/engines should be inspected to see how much damage was done to determine if repairs can occur                                                                                                                                                                                                                          |
| <b>Additional Hazards</b>               | Stranded energy (reignition risk), electrocution risk, handling by secondary responders, projectiles and explosions, toxic gas release                                                                                                                                                                                                      | Toxic gas release, lots of combustible fuel still accessible to the fire (i.e., a full gas tank)                                                                                                                                                                                                                                |

## Is the current protection guidance in applicable codes and standards appropriate?

The codes and standards related to parking garage fire protection have evolved. Per NFPA 88A, Standard for Parking Structures, sprinkler protection is now required in all parking structures. Additionally, many codes and standards have increased the required sprinkler density for parking garages; most notably NFPA 13, Standard for the Installation of Automatic Sprinkler Systems, has changed the classification of parking garages from Ordinary Hazard Group 1 (~0.15 gpm/ft<sup>2</sup>) to Ordinary Hazard Group 2 (~0.2 gpm/ft<sup>2</sup>).

The SPRF review of the codes and standards, though, revealed that there are very few national requirements for fire protection in automated parking structures or vertical stackers over two-tiers high. This has led some municipalities to enact their own to

create local fire protection requirements for these types of parking structures.

The literature review identified a few vehicle fire tests that included sprinklers and aimed to determine if sprinklers could prevent fire spread to adjacent vehicles. One study by Arvidson and Westlund used sprinklers with a density of 10 mm/minute, between Ordinary Hazard Group 2 and Extra Hazard Group 1 design densities in the U.S. They measured heat flux at 500 mm (1.64 ft) for four tests, with two ICEVs and two BEVs, and found that the BEV fires did not spread to neighboring vehicles. Another study by the Building Research Establishment (BRE) used a sprinkler system with a British Standard Ordinary Hazard Group 2 density (which is between Light and Ordinary Hazard Group 1 density in the U.S.) and found that the vehicle fire did not spread to nearby vehicles under that protection. However, a similar test without sprinklers showed fire spreading to all three vehicles.

Data on sprinkler effects on vehicle fires and effective density to prevent spread in parking garages is limited. However, existing data indicates that sprinklers can control fires and limit them to the initial vehicle, though the optimal design density is still unknown. More research is needed to properly design sprinkler systems to prevent vehicle-to-vehicle fire spread in parking garages.

## Next steps

Through the comprehensive review and analysis of parking structure characteristics, fire statistics, incident case studies, evolution of vehicle composition, codes and standards, and the latest full-scale fire test data, three key gaps emerged:

- **NFPA 13 Hazard Classification for Modern Vehicles:** The current NFPA 13 hazard classification for modern vehicles in parking garages lacks testing data to support its accuracy. Despite evolving codes and standards requiring sprinklers in new parking garages and increasing the necessary sprinkler water density, the technical justification for these water density selections remains unclear.
- **Worst-Case Scenario Conditions:** The specific conditions leading to the worst-case scenario for vehicle fires in parking garages are not well understood. Variables such as vehicle size and type, fire ignition location, sprinkler placement, window positions, and other configuration-specific details can significantly affect fire development and spread.
- **Fire Safety in Vertical Vehicle Stackers and Automated Parking Structures:** There is a notable deficiency in experimental data regarding fire safety in modern vehicles parked in vertical stackers and automated parking structures. Existing data and guidance on proper fire safety measures in these types of parking facilities are extremely limited.

To address these knowledge gaps, a testing plan was developed, outlining a test matrix, necessary data, and evaluation criteria. The Fire Protection Research Foundation's proposed testing initiatives aim to enhance our understanding of fire hazards in parking structures and improve fire protection strategies, ultimately ensuring safer environments as vehicle technologies and parking facility designs continue to evolve.

To learn more, [download the final report](#).

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Research Project Manager

Victoria Hutchison Lutz

NFPA Research Project Manager

4 Comments

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Newest

J

**Josphine** 9 months ago

Interesting read on EV safety in parking garages—wondering how places like Ezy Book Airport Parking are adapting to these fire risks as EV adoption grows.

0

0

Reply

J

**Jim wilson** 1 year ago

I believe within 99% what's causing these fires on level two chargers it's a lengthy explanation so give me a call and I'll explain to you. 703-297-5218.

0

0

Reply

D

**Duane Perry** 1 year ago

My name is Duane Perry, and I am currently the Fire Marshal for the Washington Metropolitan Area Transit Authority which covers Washington DC, Maryland, and Virginia. Our current problems or issues are much, much greater. These concerns are amplified greatly with the introduction of commercial vehicles such as passenger buses, the large recharging facilities, and the interface of solar panels. As a mass transit agency, we operate hundreds of buses which are in the process of being modified to a hybrid system or completely replaced with battery electric buses. The biggest issue again, is the lack of infrastructure and the failure of code to keep up with the changing times.

**Question #1:**

I understand that either immersing a BEV in a tank of water or rolling it on its side to spray the battery pack from the vehicle bottom are the most effective ways of extinguishing a BEV fire and cooling the battery. These are not options in an underground parking structure. Should sprinklers be installed in the floors?

Question #1 - Response.

I believe we are missing several key issues that deal with infrastructure. First, why just an underground facility? Second, why not an open parking structure that is 11 or 12 stories high with designated EV parking areas? I would recommend staying with NFPA 88, the various building codes, and ensuring the appropriate safety measures are added. For an example, does the ventilation system need to be increased or changed to a hazardous material exhaust. As for a sprinkler system in the floor, i believe we would find out that the system would be ineffective and the maintenance and upkeep would not be feasible.

**Question #2:**

How is hydroflouric acid (hydrogen flouride gas + water) to be contained (to prevent environmental damage) and disposed of? What of its toxic and corrosive effects on people and building structure?

**Question #2 - Response.**

There is no physical way to contain the acid or gas during a fire event. Most codes identify the property owner as the responsible person/party responsible for disposal. As for the toxic and corrosive effects on people or the structure, there has not been enough study and analysis for anyone to come to a conclusion. There are too many variables.

**Question #3:**

What about the structural integrity of the building above the underground parking structure if there is a BEV fire (degradation of concrete due to prolonged and/or high heat associated with BEV fires)? Those of us living in apartments would hate to become homeless en mass, and for an extended period of time (years to demolish and rebuild).

**Question #3 - Response**

Very good question. That may happen anyway due to the fire, depending on the variables. Another through would be affect the water weight has on the structure. My recommendation would be that all EV parking would be at grade level or 1 or 2 stories above. Just a through.

Duane

571-233-5280

dtperry@wmata.com

👍 0 🗨️ 0 Reply

M

**M. Perry** 1 year ago

I understand that either immersing a BEV in a tank of water, or rolling it on its side to spray the battery pack from the vehicle bottom are the most effective ways of extinguishing a BEV fire and cooling the battery. These are not options in an underground parking structure. Should sprinklers be installed in the floors?

How is hydroflouric acid (hydrogen flouride gas + water) to be contained (to prevent environmental damage) and disposed of? What of its toxic and corrosive effects on people and building structure?

What about the structural integrity of the building above the underground parking structure if there is a BEV fire (degradation of concrete due to prolonged and/or high heat associated with BEV fires)? Those of us living in apartments would hate to become homeless en mass, and for an extended period of time (years to demolish and rebuild).

👍 0 🗨️ 0 Reply

# FP3303.1-24

IFC: 3303.1

**Proponents:** Ron Clements, Chesterfield, representing Building Inspection Department (clementsro@chesterfield.gov)

## 2024 International Fire Code

**Revise as follows:**

**3303.1 Program development and maintenance.** ~~The~~When required by the fire official or where a fire watch is required in accordance with Section 3303.5.1, the owner or owner's authorized agent shall be responsible for the development, implementation and maintenance of an *approved*, written *site safety plan* establishing a fire prevention program at the project site applicable throughout all phases of the construction, repair, *alteration* or demolition work. The plan addresses the requirements of this chapter and other applicable portions of this code, the duties of staff and staff training requirements. The plan shall be submitted and *approved* before a building permit is issued. ~~construction operations begin.~~ Any changes to the plan shall be submitted for approval.

**Reason Statement:** Prior to the 2021 SFPC, the owners responsibility section did not mandate approval of the plan prior to permit issuance. The 2018 was amended to state that the plan shall be available for the fire code official to review upon request. The Section in the 2021 edition was amended to mandate that the plan shall be submitted and approved prior to building permit issuance. The SFPC applies to all structures, including single family dwellings and accessory structures. The requirement for the fire safety plan applies to all construction from a simple repair to construction of a high rise. Though this is a good requirement for construction of a high rise, it is not practical for small jobs and minor repairs. I doubt any fire officials are enforcing this on every project in the jurisdiction nor are building officials holding up permit issuance until the plan is approved; but, that is the requirement. This proposal gives authority to the fire official to determine when the size and risks of the construction project warrant the need for such a comprehensive plan and does not base permit issuance on approval of the plan. This code change also contributes to regulatory reduction.

**Cost Impact:**

Assuming for smaller jobs the time to develop the plan takes half a day I estimate the plan development cost to be \$500.00. The daily fire safety inspection is probably on average 1 hour long (will vary greatly depending on job type and size) say \$100.00 an hour/day. Assuming the typical house or smaller commercial job averages 90 days for construction, this code change will save approximately \$9,500.00 per project.



# FP4101.9-24

IFC: 4101.9, 4101.9.1 (New), 4104.1, 4104.3, 4104.4, 4104.5, 4104.5.1

**Proponents:** Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyyva.gov)

## 2024 International Fire Code

**4101.9 Cooking operations.** Portable cooking equipment using combustible oils or solids shall comply with all of the following:

1. A noncombustible lid shall be immediately available. The lid shall be of sufficient size to cover the cooking well completely.
2. Equipment shall be placed on a noncombustible surface.
3. A portable fire extinguisher for protection appropriate to the cooking media shall be provided at a location *approved by the fire code official*.

**Add new text as follows:**

**4101.9.1 Separation From Tents or Structures.** Cooking appliances or devices that produce sparks or grease-laden vapors or flying embers (firebrands) shall not be used within 10 feet (3048 mm) of a tent or structure.

Exceptions:

1. Designated cooking tents not occupied by the public when approved by the fire code official.
2. Tents or structures where cooking appliances are protected with an automatic fire-extinguishing system in accordance with the applicable building code.

**Revise as follows:**

**4104.1 Portable fuel-fired cooking appliances.** Portable fuel-fired cooking appliances shall be permitted to be used in all occupancies in accordance with this section.

**4104.3 Indoor cooking.** Portable fuel-fired cooking appliances used indoors shall not be used indoors. Portable fuel-fired cooking appliances in tents and membrane structures shall not be located within 10 feet (3048 mm) of exits or combustible materials.

Exception: Cooking operations in accordance with section 4104.6.

**4104.4 Cooking operations Venting.** Cooking that produces sparks or grease-laden vapors shall not be performed within 10 feet (3048 mm) of a tent or membrane structure except where the following conditions are met:

1. Cooking devices shall be isolated from the public.
2. Cooking devices shall be maintained and used according to the manufacturer's instructions.

**Exception:** Designated cooking tents with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

Gas, liquid, and solid fuel-burning equipment designed to be vented shall be vented to the outside air as specified by the applicable building code and shall be approved. Such vents shall be equipped with approved spark arresters where required. Where vents or flues are used, all portions of the tent or membrane structure shall be not less than 12 inches (305 mm) from the flue or vent.

**4104.5 Separation of cooking tents.** Tents with sidewalls or drops where cooking is performed shall be separated from other non-cooking tents or membrane structures by not less than 10 feet (3048 mm).

**Exception:** Small tents limited to 100 square feet (9.3 m<sup>2</sup>) that are accessory to the cooking operations of the cooking tent and are not occupied by the public.

**4104.5.1 Groups of cooking tents..** Cooking tents shall be permitted to be placed side by side where the following conditions are met:

1. The area of the cooking tents has a maximum area of 700 square feet (65 m<sup>2</sup>).
2. Each grouping of tents shall have a fire break clearance of at least 12 feet (3658 mm).
- ~~3. A fire access aisle separating rows of cooking tents has a minimum width of 16 feet (4877 mm) clear.~~

**Reason Statement:** The purpose of this proposal is to revise six sections of the new Chapter 41 in the 2024 International Fire Code to improve the implementation and transition to this chapter for Virginia.

Section 4101.9 is provided for context and no changes are proposed.

Section 4101.9.1 is proposed as a new section that restores the content from section 3106.5.1 and 3107.12.6 from the current 2021 Virginia Statewide Fire Prevention Code. This proposal does reduce the required separation distance from 20ft to 10ft for consistency with similar requirements in section 4104 but keeps the exceptions consistent with those in the current 2021 Virginia Statewide Fire Prevention Code. This section is proposed to be located in 4101.9 since it applies to cooking operations beyond just those regulated by section 4104.

Section 4104.1 is revised to simplify the scope of this section and avoid confusion arising from interpreting the phrase, "shall be permitted to be used in all occupancies" as permission to use any portable fuel-fired cooking appliances inside of all occupancies. As noted below, section 4104 provides no requirements for carbon monoxide detection or ventilation making the indoor use of most portable fuel-fired cooking appliances particularly hazardous and dangerous for occupants.

Section 4104.3 is revised to restore the language to the context that it was derived from in section 3107.12.3 of the 2021 Virginia Statewide Fire Prevention Code which only applies to tents and membrane structures. The proposal also emphasizes that the use of portable fuel-fired cooking appliances are prohibited inside of buildings. Similar to how using portable generators or other portable fuel-fire equipment inside buildings is hazardous to occupants, permitting the use of a portable fuel-fired grills, turkey fryers, or other fuel-fire cooking appliances inside of a building is dangerous and should not be suggested as acceptable by this section. This change is particularly important for section 4104 since there are no additional requirements to ensure proper ventilation and protections for carbon monoxide detection for the indoor use of portable fuel-fire cooking appliances. The proposal also includes a new exception highlighting acceptable indoor cooking arrangements when authorized by 4104.6 (approved arrangements for warming of food, cooking demonstrations or similar operations that use solid flammables, butane, or other similar devices that do not pose an ignition hazard).

Section 4104.4 is replaced by the language in section 3107.12.2 of the 2021 Virginia Statewide Fire Prevention Code which has been deleted for portable appliances in the 2024 International Fire Code. Since the original content of 4104.4 will now be addressed by 4101.9.1, the original language is deleted and this section has been selected as the location to restore the important language regarding the appropriate arrangement of ventilation where required for portable fuel-fired cooking appliances.

Section 4104.5 and 4104.5.1 are proposed to replace the current Virginia amendment to provide the added flexibility for cooking tents as provided in the 2024 International Fire Code. This additional flexibility is important for arrangements such as fairs or events where tents are often in rows or are grouped together. The proposal keeps the Virginia amendment language to allow this section to apply to all cooking tents - with or without sides or drops. It also does not include item 3 from 4104.5.1 which would create a conflict with section 503 for the minimum width of fire access routes. Fire apparatus access routes for tents are already regulated by 3103.7.1 and section 503.

**Cost Impact:** The code change proposal will not increase or decrease the cost. The proposal restores current 2021 Virginia Statewide Fire Prevention Code language in the transition to a new Chapter and does not impact cost.

# FP5001.7-24

SFPC: 5001.7, 5001.7.1, 5001.7.2, 5001.7.3, 5001.7.4, 5001.7.5, 5001.7.6, 5001.7.7, 5001.7.8, 5001.7.9, 5001.7.10, 5001.7.11, 3803.2.2

**Proponents:** Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

## 2021 Virginia Statewide Fire Prevention Code

**Delete without substitution:**

**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 428 of the *USBC*, Part I, Construction, or Section 306.1 of the *USBC*, Part II, Existing Buildings, shall comply with this section and other applicable requirements of this code. In the case of conflicts between the requirements of Section 428 of the *USBC*, Part I, Construction, or Section 306.1 of the *USBC*, Part II, Existing Buildings, and provisions of this code other than those set out in this section, Section 428 of the *USBC*, Part I, Construction, or Section 306.1 of the *USBC*, Part II, Existing Buildings, 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 *USBC*, Part I, Construction, or the *USBC*, Part II, Existing Buildings, 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 (20 L) for liquids, 50 pounds (23 kg) for solids, 100 cubic feet (2.8 m<sup>3</sup>) for health hazard gases and 500 cubic feet (14 m<sup>3</sup>) for all other gases.

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

**5001.7.9 Density.** Quantities of Classes I, II, and IIIA combustible or flammable liquids in storage and use within control areas or *laboratory suites* shall not exceed 8 gallons per 100 square feet (30 L/9.3 m<sup>2</sup>) of floor area, with not more than 4 gallons per 100 square feet (15 L/9.3 m<sup>2</sup>) being in use. Quantities of Class I flammable liquids in storage and use shall not exceed 4 gallons per 100 square feet

(15 L/9.3 m<sup>2</sup>) of floor area with not more than 2 gallons (7.5 L) being in use. The maximum in use in open systems is limited to 10 percent of these quantities. Densities shall be reduced by 25 percent on the 4th floor through 6th floor levels above grade plane of the *building* and 50 percent above the 6th floor level. The density is to be reduced to 50 percent 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 in existing *buildings* not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *USBC*, Part I, Construction, shall be allowed within a control area at 25 percent of the limits 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 in existing *buildings* not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *USBC*, Part I, Construction, shall be allowed within a control area at 25 percent of the limits 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 2 feet (610 mm) 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 (6096 mm) of the use in accordance with Section 906.

**Revise as follows:**

**3803.2.2 Density.** Quantities of Class I, Class II and Class IIIA combustible or flammable liquids in storage and use shall not exceed 8 gallons (30 L) per 100 square feet (9.29 m<sup>2</sup>) of floor area. Densities shall area, with not more than four gallons per 100 square feet (15L/9.3m<sup>2</sup>) being in use. Quantities of Class I flammable liquids in storage and use shall not exceed four gallons per 100 square feet (15L/9.3m<sup>2</sup>) of floor area with not more than two gallons (7.5L) 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 floors of the building, and by 50 percent above the 6th floor. The density is to be reduced to 50% of these values for buildings that are not equipped with an approved automatic fire sprinkler system. Regardless of the density, the *maximum allowable quantity per control area or laboratory suite* in accordance with this chapter, shall not be exceeded.

**Exception:** Designated hazardous waste collection areas or rooms within a *laboratory suite* or *control area* are not limited, but such materials shall not exceed the maximum allowable quantity per *laboratory suite* or *control area*.

**Reason Statement:** This proposal removes duplicated code sections from SFPC 5001.7 that are now in Chapter 38. The requirements in this section were added for the 2015 SFPC as an early adoption of regulations for high education laboratories prior to Chapter 38 existing



in the code. Since Chapter 38 is now part of the SFPC, these sections are no longer needed and could create confusion as they duplicate requirements from Chapter 38. An item by item list is provided below to illustrate where the requirement remains in Chapter 38. The language from 5001.7.9 is proposed to be relocated to 3803.2.2.

5001.7 - 3801 and Chapter 1 (administrative)

5001.7.1 - 3803.1.1

5001.7.2 - 3803.1.2

5001.7.3 - 3803.1.3

5001.7.4 - 3803.1.4

5001.7.5 - 3803.1.5

5001.7.6 - 3801.2 and 3803.2

5001.7.7 - 3803.1.6

5001.7.8 - 3803.2.1

5001.7.9 - Language proposed to be relocated to 3803.2.2

5001.7.10 - 3805.2.1

5001.7.11 - 3805.2.2

**Cost Impact:** The code change proposal will not increase or decrease the cost This change is administrative and will not impact cost.



# FP6112-24

SFPC: 6112 (New), 6112.1 (New), 6112.2 (New), 6112.3 (New), 6112.4 (New), 6112.4.1 (New), 6112.5 (New), 6112.6 (New), 6112.6.1 (New), 6112.6.2 (New), 6112.7 (New), 6112.7.1 (New), 6112.8 (New), 6112.9 (New), 6112.10 (New), 6112.10.1 (New), 6112.10.2 (New), 6112.11 (New), 6112.12 (New)

**Proponents:** Lee Stoermer, representing Loudoun County Fire Rescue Fire Marshal Office (lee.stoermer@loudoun.gov)

## 2021 Virginia Statewide Fire Prevention Code

Add new text as follows:

### 6112 LP-Gas Marketer Requirements

**6112.1 General.** LP-gas marketers shall comply with sections 6112.1 through 6112.12.

**6112.2 Definitions . UNCONTROLLED LEAK.** An uncontrolled leak shall be defined as one that cannot be controlled with the closing of a valve that immediately stops the flow of product.

**LP-GAS MARKETER.** LP-gas marketer or 'marketer' means a person engaged primarily in the sale of odorized LP-gas to the ultimate consumer or to retail LP-gas dispenser(s). "Marketer" shall also mean and include the owner or operator of a bulk plant.

**6112.3 Emergency notifications LP-gas marketer.** Upon notification by a customer of a known or suspected gas leak, the LP-gas marketer shall:

1. Instruct the customer to shut off LP-gas container valve if safe to do so.
2. Instruct the customer to exit the home and move to a safe location outside or to a neighbor's home.
3. Instruct the customer to immediately call 9-1-1 from a safe area for assistance.
4. Dispatch an appropriately qualified individual to provide skilled support to emergency services on site, as needed.

**6112.4 LP-gas marketer onsite responsibilities.** Upon arrival at the site, LP-gas marketer representative shall:

1. Meet with the emergency services incident commander and coordinate next actions.
2. Perform an incident size-up to determine if there is an uncontrolled leak if emergency services were not notified.
3. Call 9-1-1 immediately if there is an uncontrolled leak, or if an unsafe condition is identified that could be immediately hazardous to life and health. Coordinate actions with the emergency services incident commander upon their arrival.
4. Document actions taken and maintain in accordance with 6112.6 through 6112.6.2 at the conclusion of the incident.

**6112.4.1 Unsafe conditions.** Unsafe conditions shall include suspicion of a flammable environment caused by the fuel gas, suspicion of concentrations of carbon monoxide or decreased levels of oxygen. Suspected leaks shall be determined by use of metering or gauging devices. At no time shall a person's olfactory (sense of smell) be used as the measurement of a leak.

**6112.5 Notification of flaring operations.** Any flaring operations that are being conducted at a location other than at the LP-gas marketer's facility shall require notification of the fire department for emergency operations or, when a nonemergent situation, be approved by the fire code official prior to the flaring operation.

**6112.6 Customer records.** Individual records for each customer shall be maintained by the LP-gas marketer for the life of the customer's relationship plus 24 months. Records shall include documentation of actions taken upon report of odors or leaks communicated to the LP-gas marketer.

**6112.6.1 Records information minimums.** Records shall include at a minimum the date, time, customer's name, address of suspected leak, and the findings or resolution.

**6112.6.2 Records accessibility.** Records shall be made available for review upon written request by the fire code official. Records of maintenance and repairs shall be transferred to other marketers or service personnel when requested, including cathodic protection testing records.

**6112.7 Notification for unsafe customer owned containers.** Immediately upon becoming aware of a customer-owned LP-gas container that is deemed no longer suitable for continued service, the LP-gas marketer shall notify the fire code official in writing if the customer refuses to remove the container from service. Actions taken shall be documented and maintained as per 6112.6 through 6112.6.2.

**6112.7.1 Notification requirements of unsafe containers.** Written notification shall include, at a minimum, the physical location (address) of the LP-gas container, type of LP-gas container (aboveground, underground, or mounded), size (gallage) of LP-gas container, description of problem, and current volume(%) reading at time of suitability determination.

**6112.8 LP-gas operational status verification.** Where damage is noted to a container and/or appurtenances during inspection, further operations shall be stopped until operational status is confirmed and repairs completed. Emergency conditions (odor or leak) shall be reported using notifications as listed in 6112.3 and 6112.4, and actions taken shall be documented and maintained in accordance with 6112.6 through 6112.6.2.

**6112.9 Identification of out-of-service LP-gas containers.** LP-gas containers that are deemed no longer suitable for continued service shall be clearly identified at the fill connection(s) by using out-of-service tags and/or a lock out/tag out system with hazard/danger tag; a copy of the out of-service tag shall be provided to the customer, and a copy of the out-of-service tag shall be maintained in accordance with 6112.6 through 6112.6.2. Containers deemed unsafe shall be reported in accordance with 6112.7 through 6112.7.1.

**6112.10 Returning an LP-gas container to service.** All repairs shall be completed as per the applicable code or standards. Actions taken shall be documented and maintained in accordance with sections 6112.6 through 6112.6.2.

**6112.10.1 Returning containers to service documentation.** When returning a container previously deemed no longer suitable for service to normal operation, actions taken shall be documented and maintained in accordance with sections 6112.6 through 6112.6.2.

**6112.10.2 Out of service tag.** After returning to service, "Out of Service" tags shall be removed from the LP-gas container and the LP-gas marketer shall notify the fire code official when the container is returned to service. Actions taken shall be documented and maintained in accordance with 6112.6 through 6112.6.2.

**6112.11 Container pressure and leak testing.** Following any empty LP-gas condition, no more than 5% of the containers' volume shall be filled until all required leak and pressure testing has been completed, as per applicable codes and standards (e.g. NFPA 58). Actions taken shall be documented and maintained in accordance with 6112.6 through 6112.6.2.

**6112.12 LP-gas marketer identification labels.** LP-gas marketer information shall be attached to the container, on the dome assembly or other conspicuous location. This information shall contain, at a minimum, the marketer's name and a 24-hour emergency contact number. Labels shall be clearly identifiable with the current LP-gas marketer information prominently displayed. The "current LP-gas marketer" is considered the one that has most recently performed work on, or transferred LP-gas into, the container. Customers who own their tank shall maintain labels and allow application by any provider who services the container.

**Reason Statement:** Reason statement:

On February 16<sup>th</sup>, 2024, in Loudoun County, Virginia, an explosion occurred as the result of a leak from a 500-gallon underground Liquefied Petroleum Gas (LPG) storage tank. This explosion injured ten (10) first responders and resulted in the death of Firefighter Trevor Brown, from the Sterling Volunteer Fire Company (SVFC).

During the investigation it was identified that an LPG provider (retailer, vendor, distributor, maintenance/service provider, etc.) could become complacent with their knowledge of Fire Code requirements, to include tracking inspection, maintenance, and repair records, testing documents, and appropriately identifying an out-of-service or impaired LPG system

An independent, multijurisdictional committee completed an after-action report of this incident to identify respective education, training, and response recommendations to reduce the risk of similar types of events occurring in the future. A separate Fire Prevention Code Investigation was conducted that identified perceived gaps in existing Fire Codes, which should also be addressed to reduce associated risk to members of the community, members of the LPG industry, and first responders.

The new fire code sections presented here highlight issues identified during those investigations and are intended to reduce risk, strengthen requirements, and provide additional enforcement tools to support overall safety. While most LPG providers are already following these procedures, failure to consistently follow Fire Code requirements could result in another catastrophic explosion, injuries, or death.

These additions support a culture of safety and transparency which requires LPG providers to maintain appropriate service records and provide accurate information and documentation to customers; these actions allow access to vital information that can be shared with first responders in an emergency, and to the Fire Code Official when needed. While additional documentation may be required, respective effort and personnel costs associated with time or labor should be minimal. LPG providers should already be routinely utilizing leak detection equipment, so no additional costs should be expected; the multi-gas atmospheric monitoring requirements can be fulfilled by requesting assistance from fire and rescue resources if an LPG provider does not have access to multi-gas atmospheric monitoring equipment.

In closing, these recommendations support the promise that was made to the family of Firefighter Trevor Brown (SVFC) to identify why the explosion occurred, and to take the steps necessary to help reduce the likelihood of similar events from occurring in the future so that his loss was not in vain.

**Cost Impact:** The code change proposal will not increase or decrease the cost. Costs associated with these code section changes should be minimal, if any, as these are items that vendors should already be performing if currently properly following NFPA 58 standards, as well as contacting emergency services for atmospheric monitoring if required during an emergency or uncontrolled leak situation.

#### Attached Files

- **VAPGA\_Ltr of Support - VA Fire Code Proposal - 12.8.25 (002).pdf**  
<https://va.cdpass.com/proposal/1365/1953/files/download/1040/>
- **Silver Ridge afteraction report doc link.pdf**  
<https://va.cdpass.com/proposal/1365/1953/files/download/937/>
- **LP Gas SFPC 2024 changes.pdf**  
<https://va.cdpass.com/proposal/1365/1953/files/download/934/>



December 8, 2025

**Re: Support for Code Change Proposal - FP6112-24**

This letter is to confirm that the Virginia Propane Gas Association (VAPGA) supports **FP6112-24** as amended and sent over in proposed final draft form by Lee Stoermer, representing Loudoun County Fire Rescue Fire Marshal Office, via email on 12/8/2025. The association and its member companies appreciate the collaboration and opportunity to engage in this process in a transparent and equitable manner.

Regards,

A handwritten signature in black ink that reads "Zach R. Eisenman". The signature is fluid and cursive, with the first name "Zach" being the most prominent.

Zach R. Eisenman  
Executive Director  
Virginia Propane Gas Association  
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# Loudoun County Combined Fire and Rescue System

P.O. BOX 7100

801 Sycolin Road SE, Suite 200, Leesburg, VA 20177-7100

Phone 703-777-0333

## For Additional Information:

Laura Rinehart, Public Information Officer

[Laura.Rinehart@loudoun.gov](mailto:Laura.Rinehart@loudoun.gov) or 571-233-1649

Annemarie Antignano, Communications Specialist

[Annemarie.Antignano@loudoun.gov](mailto:Annemarie.Antignano@loudoun.gov) or 571-498-3880

January 14, 2025

## For Immediate Release:

### Significant Incident Report on February 2024 Silver Ridge Explosion Released

The Loudoun County Combined Fire and Rescue System's (LC-CFRS) Significant Incident Report (SIR) is complete for the 2024 explosion in Sterling that resulted in the line of duty death of Firefighter Trevor Brown and injured thirteen others.

On February 16, 2024, LC-CFRS units were operating on the scene of a gas leak at 347 Silver Ridge Drive where their investigation identified an underground propane tank in the rear of the structure that was leaking. Firefighters immediately upgraded the call, requesting a Hazardous Materials Team, and evacuated the residents from the home. Shortly thereafter, a catastrophic explosion occurred, leveling the home and trapping several firefighters in the burning debris. Two firefighters had to be rescued by Rapid Intervention Teams after they were unable to escape. Tragically, ten first responders were significantly injured, two civilians received minor injuries, and Firefighter Trevor Brown lost his life.

Immediately following the incident, System Chief Keith Johnson established a Significant Incident Team (SIT) led by Chief Thomas Coe of Frederick County, Maryland, Division of Fire and Rescue Services, and consisting of fourteen internal and external stakeholders and subject matter experts. The objective of the SIT was to gather and assess all available information regarding the incident, identifying both strengths and weaknesses in adherence to local and regional operational protocols. The Significant Incident Report (SIR) developed by the SIT contains a comprehensive review and analysis of factors, actions, and other items surrounding this incident and recommendations aimed at enhancing future response efforts in a safe and efficient manner.

The following concepts highlight the challenges faced by first responders in this rapidly evolving incident and the factors that contributed to the sequence of events that occurred:

- **Risk Assessment:** Key indicators were not fully understood during the initial and on-going size-ups, which compromised the safety of on-scene personnel.
- **Event Escalation:** The incident escalated from a routine outside gas leak call to a catastrophic explosion, catching responders off guard.
- **Communication Challenges:** There were delays in relaying critical information and confusion regarding mayday calls, which impacted the effectiveness of response efforts.
- **Resource Allocation:** There were issues with resource allocation and coordination, particularly ensuring an adequate water supply and managing the rescue operation of trapped personnel.



- **Command Structure:** The Command structure faced challenges in managing the complex and rapidly evolving situation, leading to difficulties in coordinating rescue efforts, patient treatment/transport, and ensuring scene accountability.

The SIT also determined key factors that favorably impacted incident outcomes. These findings include:

- **Training:** LC-CFRS requires firefighter mayday training as part of the Firefighter I and II curriculum that contributed to positive outcomes for the first responders trapped in the explosion. Prior to the incident, telecommunicators from the Loudoun County Fire and Rescue Emergency Communications Center (LCFR-ECC) participated in mayday training that helped prepare them for the intricacies of firefighter rescue operations.
- **LCFR-ECC Management and Coordination:** The LCFR-ECC staff worked diligently to manage and track radio communications throughout the incident and ensured the Incident Commander was provided with the information in a timely manner.
- **Technical Rescue Expertise:** Two technical rescue units, one from Loudoun County's Kincora Station and the other from Fairfax County's North Point Station, arrived quickly and used their extensive training to rapidly develop a victim removal plan and executed that plan in a coordinated effort.
- **Behavioral Health Response:** The emotional and mental well-being of LC-CFRS members was a high priority during and after the Silver Ridge Drive Incident. As responders were released from the scene, they were directed to a central location where peer support team members, clinicians, and canines were available for support. The LC-CFRS Behavioral Health Team remains engaged and ready to assist our personnel.

In summary, the completed SIR underscores the need for continuous improvement in emergency response protocols, training, and communication strategies to mitigate risks and enhance the safety of responders in high-pressure situations. By implementing the recommendations outlined in this report, LC-CFRS members can better prepare for, and respond to, similar incidents in the future, ultimately saving lives and safeguarding communities. In the coming months, LC-CFRS leadership will work to identify resources and opportunities utilizing recommendations from this report to develop additional training and establish priorities and focus areas for further improvements.

A criminal case remains open after charges were filed against an employee of the gas company that filled the propane tank belonging to the residents of 347 Silver Ridge Drive. On Monday, October 21, 2024, findings from the Loudoun County Fire and Rescue Fire Marshal's Office (LCFR-FMO) investigation were presented to a Loudoun County Circuit Court Grand Jury, resulting in the indictment of Roger Bentley, a former employee of Southern States Cooperative, Inc. – Leesburg – Fairfax Petroleum Service's (Southern States) on various charges related to the incident. The Loudoun County Commonwealth Attorney's Office continues working with LCFR-FMO as they prepare for the upcoming criminal trial. All previously issued press releases regarding the Silver Ridge Drive incident can be found on the [official LCFR website](#).

The completed SIR and Recommendations Matrix are available on the [Significant Incident Reviews page](#) of our website, along with a link to the previously issued press releases regarding the Silver Ridge Drive incident.

###



## SECTION 6112

### LP-Gas Vendor Requirements

#### 6112.1 Emergency Notifications Required.

Any report of an uncontrolled leak or undetermined source of an LPG odor that is reported directly to an LP-gas vendor shall be reported to immediately the local fire department or 911.

##### 6112.1.1 Emergency Notifications Required

All reports of an odor or leak shall be documented and maintained within the customer's record, and shall be available for review by the Fire Official upon request. This record should include at a minimum the date, time, caller's name, address of suspected leak, phone number, and a description of the problem/complaint along with resolution. Records shall be maintained for the life of the LP-gas container.

#### 6112.2 Notification of flaring operations.

Any flaring operations that are being conducted at a location other than at the LP-gas vendor's facility, shall be approved by the Fire Code Official prior to the flaring operation.

#### 6112.3 Customer Records.

Individual records for each customer shall be maintained by the LP-gas vendor for the life of the customer's LP-gas container of any fixed site LPG tank. If a customer transfers LP-gas service to another vendor, customer records shall be transferred upon request to the new LP-gas vendor. This shall apply to all ASME aboveground LP-gas storage containers and ASME underground or mounded LP-gas storage containers. Records shall be maintained as hard copy or electronically. Records shall be available for review by the Fire Official upon request. \*\*Customer files shall, at a minimum, include container data plate information, installation date, inspection records, maintenance records, testing records, and transfer history.

#### 6112.4 Notification for Impaired or Out-of-Service LP-gas Containers.

Within 7 days of becoming aware of an impaired or out-of-service LPG container, the LPG Company shall notify the Fire Official in writing or through IROL if available in that jurisdiction. Information shall include physical location (address) of the LPG container, type of LPG container (aboveground, underground, or mounded), size (gallage) of LPG container, description of problem, testing records, and current volume (%) reading at time of discovery.

##### 6112.4.1 LP-Gas Operational Status Verification

Where damage is noted to a container and/or appurtenances during inspection, further operations shall be stopped until operational status is confirmed. Emergency conditions (odor or leak) shall be reported using notifications as listed in 6112.1.

#### 6112.4.2 Identification of Out-of-Service LP-Gas Containers

LP-gas containers that are impaired or out-of-service shall be clearly identified at the fill connection(s) by using out-of-service tags and/or a lock out/tag out system with hazard/danger tag; a copy of the out-of-service tag shall be provided to the customer, and a copy of the out-of-service tag shall be placed in the customer's file.

#### 6112.4.3 Returning an LP-gas Container to service

Any repairs shall be completed as per the applicable Building Code. When returning an out-of-service container to normal operation, the operational status shall be approved by no less than two (2) qualified personnel that agree the service is completed properly. Out of Service tags shall be removed from the LP-gas container and all repair/maintenance performed shall be documented and provided to the customer; documentation shall be completed within the customer's file after the LP-gas container is returned to normal operational status. Copies of these documents shall be forwarded to the Fire Official.

#### 6112.5 Cathodic Testing.

Cathodic testing shall follow NFPA 58 Liquefied Petroleum Gas Code. Records of cathodic protection testing shall be maintained by the LP-gas vendor and be available for review by the Fire Official upon request.

#### 6112.6 Atmospheric Monitoring Requirements.

Anytime an LP gas vendor is investigating a gas odor or gas leak emergency involving an underground LP-gas container or an aboveground LP-gas container, atmospheric monitoring (metering) devices shall be utilized to ensure a safe working environment and for identifying a safe area for workers, emergency service personnel, and the community.

##### 6112.6.1 Atmospheric Monitoring

Combustible gas instruments ("CGI's") may be used to help pinpoint the source of a leak, however, an atmospheric monitoring device capable of identifying the following shall also be utilized: Oxygen (%), Hydrogen Sulfide (PPM), Carbon Monoxide (PPM), and Lower Explosive Limit (LEL) of LPG (%).

#### 6112.7 Container pressure and leak testing.

Following any empty LP-gas condition, no more than 5% of the tank's volume shall be filled until required leak and pressure testing is complete, per NFPA 58.

#### 6112.8 LP-gas vendor identification labels.

LP-gas vendor information shall be attached to the container, on the dome assembly or other conspicuous location. This information shall contain the vendor's name and a 24-hour emergency contact number. Identification labels shall be readily visible.

**Tab 3**

**SFPC Proposals Recommended by the General Stakeholder  
Workgroup as Non-Consensus**

| <b>Proposal No.</b> | <b>Proposal ID</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                            | <b>Page</b>     |
|---------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 18                  | FP107.11-24        | Increases State Fire Marshal's Office (SFMO) fees. Fees are adjusted for the cumulative CPI increase from 2009 to present.                                                                                                                                                                                                    | Tab 3 – Page 1  |
|                     |                    | Staff Summary                                                                                                                                                                                                                                                                                                                 | Tab 3 – Page 5  |
| 19                  | FP107.12-24        | Adds new SFMO fees for: General Fire Code Inspections; Re-inspections; Retail Sale of 1.4G Va. Permissible Fireworks; and Mobile Food Preparation Vehicles                                                                                                                                                                    | Tab 3 – Page 9  |
|                     |                    | Staff Summary                                                                                                                                                                                                                                                                                                                 | Tab 3 – Page 13 |
| 20                  | FP107.12.1-24      | Requires the Board to consider adjustment of the SFMO inspection fees each cycle, based on a report submitted by the SFMO. Requires the Board to provide a written explanation to SFMO and Virginia Fire Services Board (VFSB) if fees are not adjusted.                                                                      | Tab 3 – Page 17 |
|                     |                    | Staff Summary                                                                                                                                                                                                                                                                                                                 | Tab 3 – Page 18 |
| 21                  | FP601.2-24         | Gives the fire official specific authority to require disconnection of a utility (electric, gas, etc.) when the utility is related to a condition that is deemed hazardous or unsafe.                                                                                                                                         | Tab 3 – Page 21 |
|                     |                    | Staff Summary                                                                                                                                                                                                                                                                                                                 | Tab 3 – Page 23 |
| 22                  | FP906.1-24         | Requires portable fire extinguishers in group R-2 occupancies and deletes an existing Virginia amendment which exempts groups A, B and E occupancies from the requirement to provide portable fire extinguishers, if the buildings are equipped throughout with quick response sprinklers (Companion USBC Proposal B906.1-24) | Tab 3 – Page 27 |
|                     |                    | Staff Summary                                                                                                                                                                                                                                                                                                                 | Tab 3 – Page 29 |
| 23                  | FP4106.1.3-24      | Adds a new definition of “utilities” and new requirements for Mobile Food Preparation Vehicles with the intent of ensuring they remain mobile and are not utilized as permanent structures.                                                                                                                                   | Tab 3 – Page 31 |
|                     |                    | Staff Summary                                                                                                                                                                                                                                                                                                                 | Tab 3 – Page 32 |



# FP107.11-24

SFPC: 107.11, 107.12

**Proponents:** Greg Cavalli, representing Virginia Department of Fire Programs (gregory.cavalli@vdfp.virginia.gov); Billy Hux, representing Virginia Department of Fire Programs (billy.hux@vdfp.virginia.gov)

## 2021 Virginia Statewide Fire Prevention Code

Revise as follows:

**107.11 State Fire Marshal's office permit fees for explosives, blasting agents, theatrical flame effects, and fireworks.** Complete permit applications shall be submitted to and received by the State Fire Marshal's Office not less than 15 days prior to the planned use or event. A ~~\$500~~ \$750 expedited handling fee will be assessed on all permit applications submitted less than 15 days prior to the planned use or event. Inspection fees will be assessed at a rate of ~~\$60~~ \$90 per staff member per hour during normal business hours (Monday through Friday, 8:30 a.m. to 4:30 p.m.) and at a rate of ~~\$90~~ \$135 per hour at all other times (nights, weekends, holidays). State Fire Marshal's Office permit fees shall be as follows:

1. Storage of explosives and *blasting agents*, 12-month *permit* ~~\$250~~ \$375 first magazine, plus \$150 ~~\$225~~ per each additional magazine on the same site.
2. Use of explosives and *blasting agents*, nonfixed site, 6-month *permit* ~~\$250~~ \$375 per site, plus inspection fees.
3. Use of explosives and *blasting agents*, fixed site, 12-month *permit* ~~\$250~~ \$375 per site.
4. Sale of explosives and *blasting agents*, 12-month *permit* ~~\$250~~ \$375 per site.
5. Manufacture explosives (unrestricted), *blasting agents*, and fireworks, 12-month *permit* ~~\$250~~ \$375 per site.
6. Manufacture explosives (restricted), 12-month *permit* ~~\$20~~ \$30 per site.
7. Fireworks display in or on state-owned property ~~\$300~~ \$450 plus inspection fees.
8. Pyrotechnics or proximate audience displays in or on state-owned property ~~\$300~~ \$450 plus inspection fees.
9. Flame effects in or on state-owned property ~~\$300~~ \$450 plus inspection fees.
10. Flame effects incidental to a permitted pyrotechnics display ~~\$150~~ \$225 (flame effects must be individual or group effects that are attended and manually controlled).

**Exception:** Permit fees shall not be required for the storage of explosives or *blasting agents* by state and local law enforcement and fire agencies.

**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~~ \$525 for occupant load of 100 or less.
  - 1.2. ~~\$450~~ \$675 for occupant load of 101 to 200.
  - 1.3. ~~\$500~~ \$750 for occupant load of 201 to 300
  - 1.4. ~~\$500~~ \$750 plus \$50 \$75 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~~ ~~\$225~~ for 3,500 square feet ( $325\text{ m}^2$ ) or less.
  - 2.2. ~~\$200~~ ~~\$300~~ for greater than 3,500 square feet ( $325\text{ m}^2$ ) up to 7,000 square feet ( $650\text{ m}^2$ ).
  - 2.3. ~~\$250~~ ~~\$375~~ for greater than 7,000 square feet ( $650\text{ m}^2$ ) up to 10,000 square feet ( $929\text{ m}^2$ ).
  - 2.4. ~~\$250~~ ~~\$375~~ plus ~~\$50~~ ~~\$75~~ for each additional 3,000 square feet ( $279\text{ m}^2$ ) where square footage exceeds 10,000 square feet ( $929\text{ m}^2$ ).
3. Assembly areas that are part of private college dormitories.
  - 3.1. ~~\$50~~ ~~\$75~~ for 10,000 square feet ( $929\text{ m}^2$ ) or less provided the assembly area is within or attached to a dormitory *building*.
  - 3.2. ~~\$100~~ ~~\$150~~ for greater than 10,000 square feet ( $929\text{ m}^2$ ) up to 25,000 square feet ( $2323\text{ m}^2$ ) provided the assembly area is within or attached to a dormitory *building*, such as gymnasiums, auditoriums or cafeterias.
  - 3.3. ~~\$100~~ ~~\$150~~ for up to 25,000 square feet ( $2323\text{ m}^2$ ) provided the assembly area is in a separate or separate *buildings* such as gymnasiums, auditoriums or cafeterias.
  - 3.4. ~~\$150~~ ~~\$225~~ for greater than 25,000 square feet ( $2323\text{ m}^2$ ) 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~~ ~~\$450~~ for 1 to 50 beds.
  - 4.2. ~~\$400~~ ~~\$600~~ for 51 to 100 beds.
  - 4.3. ~~\$500~~ ~~\$750~~ for 101 to 150 beds.
  - 4.4. ~~\$600~~ ~~\$900~~ for 151 to 200 beds.
  - 4.5. ~~\$600~~ ~~\$900~~ plus ~~\$100~~ ~~\$150~~ for each additional 100 beds where the number of beds exceeds 200.

5. *State-Regulated Care Facilities:*

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

- 5.1.1. ~~\$50~~ \$75 for 1 to 8.
- 5.1.2. ~~\$75~~ \$110 for 9 to 20.
- 5.1.3. ~~\$100~~ \$150 for 21 to 50.
- 5.1.4. ~~\$200~~ \$300 for 51 to 100.
- 5.1.5. ~~\$300~~ \$450 for 101 to 150.
- 5.1.6. ~~\$400~~ \$600 for 151 to 200.
- 5.1.7. ~~\$500~~ \$750 for 201 or more.

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

5.2 Family Day Homes licensed by the Department of Education based on licensed capacity as follows:

- 5.2.1. ~~\$50~~ \$75 for 1 to 8.
- 5.2.2. ~~\$75~~ \$110 for 9 to 20.
- 5.2.3. ~~\$100~~ \$150 for 21 to 50.
- 5.2.4. ~~\$200~~ \$300 for 51 to 100.
- 5.2.5. ~~\$300~~ \$450 for 101 to 150.
- 5.2.6. ~~\$400~~ \$600 for 151 to 200.
- 5.2.7. ~~\$500~~ \$750 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~~ \$75 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 (914 mm) in diameter and more than 2 feet (610 mm) in height, but not more than 9 feet (2743 mm) in diameter and not more than 6 feet (1829 mm) in height, the *permit* fee is \$ ~~50~~ \$75. 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~~ \$150. 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~~ \$300.
- 7.2. For a large *bonfire* pile with a total fuel area more than 9 feet (2743 mm) in diameter and more than 6 feet (1829 mm) in height, the *permit* fee is ~~\$150~~ \$300. 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~~ \$450. 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~~ \$600.

**Reason Statement:** While conducting research on fee revenue for the State Fire Marshal's Office, which was mandated by the Virginia General Assembly via the 2025 state budget, Virginia Department of Fire Programs (VD FP) staff identified a significant deficit in the SFMO inspection program. This report will be publicly released soon and should include joint recommendations between the Board of

Housing and Community Development and the Virginia Fire Services Board. This deficit has forced the SFMO to operate with vacant positions in order to stay within its operating budget. The fees provided in 107.12 have remained unchanged since 2009, which is a major factor in creating this deficit. While the hourly fees for fireworks, blasting agents, and explosives were not directly addressed by the research, they likewise have not been updated since 2009 and are subject to the same inflationary forces as the fees the research did examine. The cumulative rate of inflation per the Consumer Price Index (CPI) for that time period, for example, is 50.58% according to the United States Department of Labor. Additionally, since 2009, several factors have led to increased costs by SFMO. These costs include vehicle costs, salaries, and technological costs. Inflation has increased cost of living adjustments to salaries and prices paid for services such as software subscriptions. Continuous supply-side shocks in the past few years have kept vehicle costs high on top of inflationary pressures. All of these factors contribute to the deficit. This proposal would adjust fees from their current 2009-era levels in accordance with the CPI to help alleviate this deficit.

The proposed fees are based on current fees adjusted for the cumulative CPI increase from 2009 to present. These increases would reduce the SFMO inspection program deficit and allow the office to fill vacant positions, increasing fire safety in the localities in which the SFMO serves as the authority for enforcing the SFPC. Currently, the SFMO holds liability for all provisions of the Statewide Fire Prevention Code on all state property, 63 counties, 130 towns, and 6 cities in the Commonwealth.

**Cost Impact:** The code change proposal will increase the cost

The code change proposal will result in cost increases. It should be noted that local fire marshals, who have the ability to adjust their fees on an annual basis, already may charge more for these inspections than the SFMO currently does. For example, the base rate for fireworks/pyrotechnics/flame effects permits are \$1000 for Stafford County and \$450 for the City of Virginia Beach.



## **FP107.11-24 – Staff Summary**

**Proponent:** Greg Cavalli, representing Virginia Department of Fire Programs; and Billy Hux, representing Virginia Department of Fire Programs

**Brief Description:** Increases State Fire Marshal's Office (SFMO) fees. Fees are adjusted for the cumulative Consumer Price Index (CPI) increase from 2009 to present.

### **STUDY GROUP OR SUB-WORKGROUP INFORMATION**

The proposal was reviewed and discussed by the Statewide Fire Prevention Code (SFPC) Sub-Workgroup members and other interested stakeholders in attendance at its meeting on November 21, 2025.

#### **SFPC Sub-Workgroup Membership and Representation**

- Gerry Maiatico – Virginia Fire Prevention Association (VFPA)
- Billy Hux – Virginia Department of Fire Programs/State Fire Marshal's Office (VDFP/SFMO)
- Perry Weller or Andrew Milliken – Virginia Fire Services Board (VFSB)
- Jimmy Moss – Virginia Building and Code Officials Association (VBCOA)
- Steven Shapiro – Virginia Apartment Management Association, Apartment & Office Building Association of Metropolitan Washington (AOBA/VAMA)
- Tommy Herbert – Virginia Restaurant Lodging and Travel Association (VRLTA)
- Mike O'Connor – Virginia Propane Gas Association, Virginia Petroleum and Convenience Marketers Association (VPCMA)
- John Armstrong – Dominion Energy
- Todd Spruill – Virginia Fire Chiefs Association (VFCA)

#### **Sub-Workgroup members in attendance – November 21, 2025:**

- Billy Hux
- Mike O'Connor
- Scott Pedowitz

#### **Other Stakeholders in attendance – November 21, 2025:**

- Andrew Milliken – Virginia Fire Services Board (VFSB), Codes and Standards Committee
- Chris Barfield – University of Virginia, Building Official's Office
- Christian Tucker – Virginia Cable Telecommunications Association (VCTA)
- Greg Cavalli – State Fire Marshal's Office (SFMO), Virginia Department of Fire Programs (VDFP)
- John Miller – Virginia Department of Forestry
- Lee Stoermer – Loudon County Fire Rescue Fire Marshal Office, Virginia Fire Services Board (VFSB), Codes and Standards Committee
- Zach Eisenman – Virginia Propane Gas Association (VAPGA)

## **Discussion:**

**Greg C** provided an overview of the proposal which increases the SFMO permit fees for explosives, blasting agents, theatrical flame effects, fireworks, and annual compliance inspection fees.

**Mike O** asked DHCD staff for clarification if the Board instructed proposals not to increase costs on consumers.

**Florin Moldovan** (DHCD staff) commented that the code development process is open to anyone who wants to submit code change proposals and staff cannot prevent anyone from submitting what they believe to be beneficial for them, the Commonwealth as a whole, or otherwise. Each proposal is required to be provided with a Cost Impact statement indicating whether the proposal increases cost, decreases cost, or has a neutral impact. Ultimately the Board is going to make their own decisions. Further, he encouraged those in attendance to provide feedback to the proponents, as applicable.

**Jeff Brown** (DHCD staff) added that at one of the earlier meetings DHCD staff did mention that there were executive orders from the current administration to reduce regulatory requirements and costs and that there is a heightened focus on that to increase affordability. However, part of the regulatory reduction considers things that are necessary for health, safety, and welfare.

**Mike O** asked **Greg C** if the department had done any research and reached out to other stakeholder groups that might be impacted.

**Greg C** responded that no specific industries have been contacted but the research they have done was for a report that was mandated by the General Assembly.

**Billy H** clarified that their department is not 100 percent funded by the general fund. Mandated inspections such as dorms, hospitals and nursing homes are covered by the general fund, but the rest of the fire code inspections do not and there is a deficit in funding these inspections.

**Mike O** asked if the report could be shared with the group.

**Greg C** read the following statement from the Preface of the report in question:

“Virginia’s adopted budget (2025 Va. Acts Ch. 725) directed the Department of Fire Programs in cooperation with the State Fire Marshals Office, Virginia Fire Services Board, the Department of Housing and Community Development, and the Board of Housing and Community Development to conduct an assessment of the fees charged by the State Fire Marshals Office to conduct safety inspections. The assessment shall include a review of existing inspection fees, the number of inspections conducted by fee category, the cost of conducting each inspection, and the total revenue from each fee category to determine whether there is a need to adjust the fees based on the market cost of conducting inspections.”

**Mike O** asked DHCD staff if “moving on” to the next proposal meant that there was consensus for the proposal.

**Florin M** clarified for the group that official votes are not taken in the Sub-Workgroup meetings, but if anyone wishes to speak in opposition, or support, or wants to provide additional feedback to the proponent, that this is the forum to do so.

**Florin M** emphasized the importance of attending the General Stakeholder Workgroup meeting and encouraged everyone to attend as that is when a recommendation from the stakeholders to the Board will be assigned for each proposal.

## **GENERAL STAKEHOLDER WORKGROUP INFORMATION**

### **Third GSW Meeting — 01/05/2026**

**Support:** Andrew Milliken, Stafford County Fire Marshal's Office and VFSB Codes and Standards Committee.

**Opposition:** Andrew Clark, Home Builders Association of Virginia (HBAV).

#### **Discussion:**

**Greg C** provided an overview of the proposal.

- a. **Andrew C** asked if this was the same proposal that came up in the last cycle.
- b. **Greg C** answered that it was not.
- c. **Andrew C** noted that the Reason Statement states that joint recommendations between the Board of Housing and Community Development (Board) and the Virginia Fire Services Board are to be included in a report that has not been made public. **Andrew C** asked if this proposal is similar to proposals or recommendations in the report.
- d. **Greg C** responded that this proposal does not represent a joint recommendation under the report. The Virginia Fire Services Board approved of all their recommendations, but they have not reached consensus with the Virginia Board of Housing and Community Development.
- e. **Andrew C** reiterated that his concern is that this proposal doesn't reflect what joint recommendations could come from the two boards.
- f. **Andrew M** asserted that if the boards have objections to this proposal, they can discuss it at the board meeting, and it would seem more appropriate to show that there is consensus among the stakeholders than non-consensus among the stakeholders because of potential board opposition.

**DHCD Staff Note:** N/A



# FP107.12-24

SFPC: 107.12

**Proponents:** Greg Cavalli, representing Virginia Department of Fire Programs (gregory.cavalli@vdfp.virginia.gov); Billy Hux, representing Virginia Department of Fire Programs (billy.hux@vdfp.virginia.gov)

## 2021 Virginia Statewide Fire Prevention Code

Revise as follows:

**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 3,500 square feet ( $325 \text{ m}^2$ ) or less.
  - 2.2. \$200 for greater than 3,500 square feet ( $325 \text{ m}^2$ ) up to 7,000 square feet ( $650 \text{ m}^2$ ).
  - 2.3. \$250 for greater than 7,000 square feet ( $650 \text{ m}^2$ ) up to 10,000 square feet ( $929 \text{ m}^2$ ).
  - 2.4. \$250 plus \$50 for each additional 3,000 square feet ( $279 \text{ m}^2$ ) where square footage exceeds 10,000 square feet ( $929 \text{ m}^2$ ).
3. Assembly areas that are part of private college dormitories.
  - 3.1. \$50 for 10,000 square feet ( $929 \text{ m}^2$ ) or less provided the assembly area is within or attached to a dormitory *building*.
  - 3.2. \$100 for greater than 10,000 square feet ( $929 \text{ m}^2$ ) up to 25,000 square feet ( $2323 \text{ m}^2$ ) 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 ( $2323 \text{ m}^2$ ) 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 ( $2323 \text{ m}^2$ ) 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. *State-Regulated Care Facilities:*

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

- 5.1.1. \$50 for 1 to 8.
- 5.1.2. \$75 for 9 to 20.
- 5.1.3. \$100 for 21 to 50.
- 5.1.4. \$200 for 51 to 100.
- 5.1.5. \$300 for 101 to 150.
- 5.1.6. \$400 for 151 to 200.
- 5.1.7. \$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.

5.2 Family Day Homes licensed by the Department of Education based on licensed capacity as follows:

- 5.2.1. \$50 for 1 to 8.
- 5.2.2. \$75 for 9 to 20.
- 5.2.3. \$100 for 21 to 50.
- 5.2.4. \$200 for 51 to 100.
- 5.2.5. \$300 for 101 to 150.
- 5.2.6. \$400 for 151 to 200.
- 5.2.7. \$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 (914 mm) in diameter and more than 2 feet (610 mm) in height, but not more than 9 feet (2743 mm) in diameter and not more than 6 feet (1829 mm) 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 (2743 mm) in diameter and more than 6 feet (1829 mm) 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.

8. General fire code inspection: any annual statewide fire prevention code inspection that is requested or conducted in a commercial occupancy where the State Fire Marshal is the authority having jurisdiction, where the inspection is either requested voluntarily or when there is a substantiated complaint for which code violations were discovered. \$250.

- 9. Re-inspection: \$200.
- 10. Retail sale of 1.4G Virginia Permissible Fireworks - permanent and temporary facilities:
  - 10.1. 45-day permit: \$350.
  - 10.2. 365-day permit: \$750.
- 11. Mobile food preparation vehicle: \$200.

**Reason Statement:** While conducting research on fee revenue for the State Fire Marshal's Office, which was mandated by the Virginia General Assembly via the 2025 state budget, Virginia Department of Fire Programs (VD FP) staff identified a significant deficit in the SFMO inspection program. This report will be publicly released soon and should include joint recommendations between the Board of Housing and Community Development and the Virginia Fire Services Board. This deficit has forced the SFMO to operate with vacant positions in order to stay within its operating budget. Three categories of inspections account for over 95% of the deficit: general fire code inspections, re-inspections, and fireworks retailer inspections. Additionally, the SFMO has been tasked with the inspection of an increasing number of Mobile Food Preparation Vehicles as specified in Section 319 of the SFPC, an inspection type for which no fee exists under 107.12.

Since 2009, when the SFMO moved from the Department of Housing and Community Development to VD FP, several factors have led to increased costs by SFMO. These costs include vehicle costs, salaries, and technological costs. Inflation has increased cost of living adjustments to salaries and prices paid for services such as software subscriptions. Continuous supply-side shocks in recent years have kept vehicle costs high on top of inflationary pressures. The cumulative rate of inflation for that time period, per the Consumer Price Index, is 50.58% according to the United State Department of Labor.

Under 13VAC5-52-40 Section 104.2, the SFMO is responsible for enforcing the SFPC for all localities that choose not to adopt and enforce the code. Based on information collected for the report, the current fee schedule only allows the SFMO to conduct roughly two-thirds of its inspection duties, largely due to positions being held vacant in order to allow the office to operate within its budget. As the SFMO currently holds liability for all provisions of the Statewide Fire Prevention Code on all state property, in 63 counties, 130 towns, and 6 cities in the Commonwealth, the ability to fill vacant deputy fire marshal positions will increase fire safety in those localities. However, unlike those localities that do enforce the code locally, the SFMO is not able to charge fees in these common inspection categories. Adopting the proposed fees for these inspections would help address much of the deficit, allowing the office to fill vacant positions and better protect citizens of the Commonwealth.

The proposed fee under item #8 would apply only to the General Fire Inspections specified in the proposal. Inspections conducted by the SFMO under a General Assembly mandate will not be charged a fee.

**Cost Impact:** The code change proposal will increase the cost The code change proposal will produce cost increases for these four inspection categories as the code currently does not allow the SFMO to charge fees in these areas. However, these fees are already being charged in some localities that enforce the SFPC and are not uncommon.

**When a fee would be incurred**

- 1) XYZ Inc. is required by its insurance carrier to have a fire safety inspection conducted annually according to the terms of its policy. As the company is located in a county that has not appointed a local fire marshal, it contacts the State Fire Marshal's office to request a general fire safety inspection. The company would pay \$250 for this inspection.
- 2) The State Fire Marshal's Office receives a complaint from a member of the public alleging that XYZ Inc.'s building has several unsafe conditions that violate the fire code. Upon an inspection by a state fire marshal, it is established that there are, in fact, several violations of the fire code. XYZ would then pay \$250 for the inspection.

**When a fee would not be incurred**

XYZ is subject to another complaint that there are additional fire code violations on the premises. This time, the state fire marshal's inspection determines that the complaint was false and there are no violations of the fire code. As the complaint was not valid, XYZ would not be charged a fee for the inspection.



## **FP107.12-24 – Staff Summary**

**Proponent:** Greg Cavalli, representing Virginia Department of Fire Programs; and Billy Hux, representing Virginia Department of Fire Programs

**Brief Description:** Adds new SFMO fees for: General Fire Code Inspections; Re-inspections; Retail Sale of 1.4G Va. Permissible Fireworks; and Mobile Food Preparation Vehicles.

### **STUDY GROUP OR SUB-WORKGROUP INFORMATION**

The proposal was reviewed and discussed by the Statewide Fire Prevention Code (SFPC) Sub-Workgroup members and other interested stakeholders in attendance at its meeting on November 21, 2025.

#### **SFPC Sub-Workgroup Membership and Representation**

- Gerry Maiatico – Virginia Fire Prevention Association (VFPA)
- Billy Hux – Virginia Department of Fire Programs/State Fire Marshal's Office (VDFP/SFMO)
- Perry Weller or Andrew Milliken – Virginia Fire Services Board (VFSB)
- Jimmy Moss – Virginia Building and Code Officials Association (VBCOA)
- Steven Shapiro – Virginia Apartment Management Association, Apartment & Office Building Association of Metropolitan Washington (AOBA/VAMA)
- Tommy Herbert – Virginia Restaurant Lodging and Travel Association (VRLTA)
- Mike O'Connor – Virginia Propane Gas Association, Virginia Petroleum and Convenience Marketers Association (VPCMA)
- John Armstrong – Dominion Energy
- Todd Spruill – Virginia Fire Chiefs Association (VFCA)

#### **Sub-Workgroup members in attendance – November 21, 2025:**

- Billy Hux
- Mike O'Connor
- Scott Pedowitz

#### **Other Stakeholders in attendance – November 21, 2025:**

- Andrew Milliken – Virginia Fire Services Board (VFSB), Codes and Standards Committee
- Chris Barfield – University of Virginia, Building Official's Office
- Christian Tucker – Virginia Cable Telecommunications Association (VCTA)
- Greg Cavalli – State Fire Marshal's Office (SFMO), Virginia Department of Fire Programs (VDFP)
- John Miller – Virginia Department of Forestry
- Lee Stoermer – Loudon County Fire Rescue Fire Marshal Office, Virginia Fire Services Board (VFSB), Codes and Standards Committee
- Zach Eisenman – Virginia Propane Gas Association (VAPGA)

## Discussion:

**Greg C** provided an overview of the proposal which adds SFMO inspection fees for general fire code inspections, re-inspections, the retail sale of 1.4G Virginia Permissible Fireworks, and mobile food preparation vehicles.

**Scott P** expressed concerns with Item 8 “General fire code inspection” and Item 9 “Re-inspection”.

**Mike O** asked for clarification that the fee proposed for a general fire code inspection is a new fee.

**Greg C** responded that there are currently no fees for general fire code inspections. The VDFP had discussions with the Board and came to a consensus to narrow the definition of what general fire code inspections would incur a fee, and that information will be in a forthcoming report.

**Billy H** added that the number of general fire code inspections and re-inspections is approximately 1000 a year based on the previous fiscal year. The majority of those inspections are requested by a commercial occupancy for insurance purposes or some type of accreditation. The fee was based off the average of various fire marshal office fees throughout the state but did not include offices in northern Virginia.

**Mike O** asked for clarification that general fire code inspections are requested and not outreach on the part of the department.

**Greg C** read the new definition of *general fire code inspection* included in the forthcoming report:

“The category of general fire code inspections for the purposes of this recommendation would encompass any statewide fire prevention code inspection that is requested or conducted from a commercial occupancy where the state fire marshal is the authority having jurisdiction. The general fire code inspections that would be charged fees under this recommendation do not fall under General Assembly mandated inspections. Rather the fee would be charged for inspections only requested for commercial occupancy either by a business owner or a valid complaint.”

**Mike O** asked for clarification that this only applies to requested inspections and valid complaints.

**Greg C** confirmed that that is correct.

**Andrew M** asked if the report had been published.

**Greg C** explained that the report has not been published but will be presented to the VFSB on December 2nd. **Greg C** was prepared to answer any questions about the research that was done to compile the report but stressed that the report cannot be shared because it has not yet been approved.

## GENERAL STAKEHOLDER WORKGROUP INFORMATION

### Third GSW Meeting — 01/05/2026

**Support:** None

**Opposition:** Steve Shapiro, AOBA and VAMA; and Andrew Clark, Home Builders Association of Virginia (HBAV).

**Discussion:**

**Jeff Brown** (DHCD staff) announced that there was a floor modification to this proposal, which was shared on the screen.

**Greg C** provided an overview of the proposal and the associated floor modification.

- a. **Steve S** asked what Consumer Price Index was used.
- b. **Greg C** clarified that proposal FP107.11-24 increased existing fees, and this proposal introduces new fees based on the Consumer Price Index (CPI) going back to 2009.
- c. **Steve S** explained that the concern is the number of new fees and their associated costs. **Steve S** questioned the justification of the costs of new fees.
- d. **Andrew C** expressed opposition for the same reason as opposition to proposal FP107.11-24 (Excerpt pertaining to FP107.11-24 provided below).

**FP107.11-24 Discussion:**

**Greg C** provided an overview of the proposal.

- a. **Andrew C** asked if this was the same proposal that came up in the last cycle.
- b. **Greg C** answered that it was not.
- c. **Andrew C** noted that the Reason Statement states that joint recommendations between the Board of Housing and Community Development (Board) and the Virginia Fire Services Board are to be included in a report that has not been made public. **Andrew C** asked if this proposal is similar to proposals or recommendations in the report.
- d. **Greg C** responded that this proposal does not represent a joint recommendation under the report. The Virginia Fire Services Board approved of all their recommendations, but they have not reached consensus with the Virginia Board of Housing and Community Development.
- e. **Andrew C** reiterated that his concern is that this proposal doesn't reflect what joint recommendations could come from the two boards.
- f. **Andrew M** asserted that if the boards have objections to this proposal, they can discuss it at the board meeting, and it would seem more appropriate to show that there is consensus among the stakeholders than non-consensus among the stakeholders because of potential board opposition.

**DHCD Staff Note:** N/A



# FP107.12.1-24

SFPC: 107.12.1 (New)

**Proponents:** Greg Cavalli, representing Virginia Department of Fire Programs (gregory.cavalli@vdfp.virginia.gov); Billy Hux, representing Virginia Department of Fire Programs (billy.hux@vdfp.virginia.gov)

## 2021 Virginia Statewide Fire Prevention Code

Add new text as follows:

**107.12.1 Market based fee adjustment.** Prior to the start of the code development cycle, the State Fire Marshal shall submit a report to the Board of Housing and Community Development. This report shall detail the number of inspections, by category, conducted in the period since the previous code development cycle, the revenues collected by the State Fire Marshal's Office through fees, and the costs of conducting the inspections. The Board shall consider the report and decide if a fee adjustment should be made based on the market costs of conducting the inspections. Should the Board decide not to adjust the fees, it will provide a written explanation to the State Fire Marshal's Office and the Virginia Fire Services Board that provides the reasons why it has decided against adjustment.

**Reason Statement:** While conducting research on fee revenue for the State Fire Marshal's Office, which was mandated by the Virginia General Assembly via the 2025 state budget, Virginia Department of Fire Programs (VDFP) staff identified a significant deficit in the SFMO inspection program. This report will be publicly released soon and should include joint recommendations between the Board of Housing and Community Development and the Virginia Fire Services Board. This deficit has forced the SFMO to operate with vacant positions in order to stay within its operating budget. The fees provided in 107.12 have remained unchanged since 2009, which is a major factor in creating this deficit. Since 2009, several factors have led to increased costs by SFMO. These costs include vehicle costs, salaries, and technological costs. Inflation has increased cost of living adjustments to salaries and prices paid for services such as software subscriptions. Continuous supply-side shocks in the past few years have kept vehicle costs high on top of inflationary pressures. The cumulative rate of inflation for that time period, per the Consumer Price Index, is 50.58% according to the United State Department of Labor. This change would provide a needed mechanism for adjusting fees as the costs associated with providing inspections fluctuate. The current fee schedule only allows the SFMO to conduct roughly two-thirds of its inspection duties, largely due to positions being held vacant in order to allow the office to operate within its budget. By generating more revenue from the inspection program, the SFMO would be able to fill at least some of the positions that are currently vacant. As the SFMO currently holds liability for all provisions of the Statewide Fire Prevention Code on all state property, 63 counties, 130 towns, and 6 cities in the Commonwealth, the ability to fill vacant deputy fire marshal positions will increase fire safety in those localities.

**Cost Impact:** The code change proposal may cause cost increases down the line or possibly cost decreases, depending on the market and the costs of conducting inspections. Any cost increases would reflect the diminished purchasing power of the dollar as driven by increases in the Consumer Price Index. Fees in localities that appoint a local fire marshal may already be adjusted, as local fire marshals have the ability to request such adjustments from their local governing body on an annual basis. It should be noted that this will *not* resolve the deficit SFMO faces, as it only creates a mechanism for regular reporting to the Board of Housing and Community Development.

## **FP107.12.1-24 – Staff Summary**

**Proponent:** Greg Cavalli, representing Virginia Department of Fire Programs; and Billy Hux, representing Virginia Department of Fire Programs

**Brief Description:** Requires the Board to consider adjustment of the SFMO inspection fees each cycle, based on a report submitted by the SFMO. Requires the Board to provide a written explanation to SFMO and Virginia Fire Services Board (VFSB) if fees are not adjusted.

### **STUDY GROUP OR SUB-WORKGROUP INFORMATION**

The proposal was reviewed and discussed by the Statewide Fire Prevention Code (SFPC) Sub-Workgroup members and other interested stakeholders in attendance at its meeting on November 21, 2025.

#### **SFPC Sub-Workgroup Membership and Representation**

- Gerry Maiatico – Virginia Fire Prevention Association (VFPA)
- Billy Hux – Virginia Department of Fire Programs/State Fire Marshal's Office (VDFP/SFMO)
- Perry Weller or Andrew Milliken – Virginia Fire Services Board (VFSB)
- Jimmy Moss – Virginia Building and Code Officials Association (VBCOA)
- Steven Shapiro – Virginia Apartment Management Association, Apartment & Office Building Association of Metropolitan Washington (AOBA/VAMA)
- Tommy Herbert – Virginia Restaurant Lodging and Travel Association (VRLTA)
- Mike O'Connor – Virginia Propane Gas Association, Virginia Petroleum and Convenience Marketers Association (VPCMA)
- John Armstrong – Dominion Energy
- Todd Spruill – Virginia Fire Chiefs Association (VFCA)

#### **Sub-Workgroup members in attendance – November 21, 2025:**

- Billy Hux
- Mike O'Connor
- Scott Pedowitz

#### **Other Stakeholders in attendance – November 21, 2025:**

- Andrew Milliken – Virginia Fire Services Board (VFSB), Codes and Standards Committee
- Chris Barfield – University of Virginia, Building Official's Office
- Christian Tucker – Virginia Cable Telecommunications Association (VCTA)
- Greg Cavalli – State Fire Marshal's Office (SFMO), Virginia Department of Fire Programs (VDFP)
- John Miller – Virginia Department of Forestry
- Lee Stoermer – Loudon County Fire Rescue Fire Marshal Office, Virginia Fire Services Board (VFSB), Codes and Standards Committee

- Zach Eisenman – Virginia Propane Gas Association (VAPGA)

**Discussion:**

**Greg C** provided an overview of the proposal which creates a new market-based fee adjustment process where the State Fire Marshall shall submit a report detailing inspection numbers to the Board prior to the start of each code development cycle.

**Mike O** questioned if this proposal makes the increase in the cost of the first two proposals necessary.

**Greg C** countered that the department came up with several options as directed by the General Assembly and the options are being presented as individual proposals so the Board can decide which plan makes the most sense.

**Scott P** was opposed and preferred that the fee structure remain part of the stakeholder process.

**Florin Moldovan** (DHCD Staff) clarified for the group that changes to the proposals in cdpVA can no longer be made. However, floor modifications are allowed to be introduced during the General Stakeholder Workgroup meeting. To streamline discussions during the meeting, proponents are strongly encouraged to provide staff with a document showing the changes between the proposal in cdpVA and the version they would like to be considered as a floor modification, a few days ahead of the meeting. DHCD staff will work with proponents to put the changes in the correct format to show the differences between the original proposal and the revised proposal.

## **GENERAL STAKEHOLDER WORKGROUP INFORMATION**

### **Third GSW Meeting — 01/05/2026**

**Support:** Andrew Milliken, Stafford County Fire Marshal's Office and VFSB Codes and Standards Committee; and Shahriar Amiri, Arlington County.

**Opposition:** Steve Shapiro, AOBA and VAMA; Andrew Clark, Home Builders Association of Virginia (HBAV); and Mark Graver, City of Waynesboro and VBCOA Region III.

**Discussion:**

**Gregg C** provided an overview of the proposal.

- Shahriar A** declared that it makes sense to adjust fees because business costs increase.
- Steve S** expressed that the determination of fees was now being taken out of the hands of the stakeholders and will only be decided by the Board of Housing.
- Shahriar A** responded that localities are allowed to increase permit fees without a consensus process so fees for the State Fire Marshal's Office to perform inspections should be treated the same way.

- d. **Andrew C** questioned what the Consumer Price Index has to do with the cost for government services.
- e. **Mark G** declared that he feels this proposal adds an administrative burden to state government and was in opposition.

***DHCD Staff Note:*** N/A



# FP601.2-24

IFC: 601.2; SFPC: 110.1; IFC: SECTION 202 (New)

**Proponents:** Gerry Maiatico, County of Warren & Virginia Fire Prevention Association, representing Virginia Fire Prevention Association (gmaiatico@warrencountyfire.com); Austin Cucciardo, Warren County Dept of Fire and Rescue Services, representing Virginia Fire Prevention Association (acucciardo@warrencountyfire.com)

## 2024 International Fire Code

Revise as follows:

**601.2 Hazard abatement.** Operations or conditions deemed unsafe or hazardous by the *fire code official* shall be abated. Equipment, appliances, materials and systems that are modified or damaged and constitute an electrical shock or fire hazard shall not be used. When in the fire code official's opinion, there is actual or potential danger to the occupants or extreme risk of fire to the property due to the improper installation, use and/or maintenance of equipment, appliances, or the building *utilities* and violations of this code have been found, the fire code official may order the *utilities* service to be disconnected or terminated to the affected equipment, appliance, building or portions thereof. Abatement of hazards, repairs or reconnection of *utilities* to the affected equipment, appliance, building or portions thereof shall be done in accordance with the applicable building code.

## 2021 Virginia Statewide Fire Prevention Code

Revise as follows:

**110.1 General.** The fire official shall order the following dangerous or hazardous conditions or materials found to be noncompliant with provisions found within the subsequent sections of this code 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~~ *equipment, appliances* or ~~appliances~~ *any portion of a building's utilities*.
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.

## 2024 International Fire Code

Add new text as follows:

**New Definition.** Utilities. The essential services that enable a building, equipment or an appliance to function effectively.

**Reason Statement:** Section 110.1 (7) of the SFPC provides language to render a unsafe condition due to *hazardous conditions arising from defective or improperly used or installed electrical wiring, equipment, or appliances*. There are no immediate actions outside of section "601.2 Hazard Abatement" and "601.2.1 Correction of Unsafe Condition" that provides provisions for immediate safety actions such as securing and/or terminating power or other essential services to the equipment, appliance, building or portions thereof. Only the language "shall not be used".

This proposal will afford the Fire Code Official to cause for the immediate termination and/or disconnection of a buildings utilities for the effected equipment, appliance, building or portions thereof.

This proposal defines "utilities" while amending the unsafe structure 110.1 (7) to include all the buildings utilities and not limited this provision to electrical in nature.

Similar language is included in section 111.1 if the IFC, which is deleted and replaced with VA Chapter 1. This proposal also ensures that all corrective actions and/or reconnection of the utilities is done so in accordance with the applicable building code.

**Cost Impact:** The code change proposal will not increase or decrease the cost No impact forseen

## **FP601.2-24 – Staff Summary**

**Proponents:** Gerry Maiatico, County of Warren & Virginia Fire Prevention Association, representing Virginia Fire Prevention Association; Austin Cucciardo, Warren County Dept of Fire and Rescue Services, representing Virginia Fire Prevention Association

**Brief Description:** Gives the fire code official specific authority to require disconnection of a utility (electric, gas, etc.) when the utility is related to a condition that is deemed hazardous or unsafe. Adds new definition of “utilities”.

### **STUDY GROUP OR SUB-WORKGROUP INFORMATION**

The proposal was reviewed and discussed by the Statewide Fire Prevention Code (SFPC) Sub-Workgroup members and other interested stakeholders in attendance at the first and second SFPC Sub-Workgroup meetings on July 8, 2025, and September 26, 2025, respectively.

#### **SFPC Sub-Workgroup Membership and Representation**

- Gerry Maiatico – Virginia Fire Prevention Association (VFPA)
- Billy Hux – Virginia Department of Fire Programs/State Fire Marshal’s Office (VDFP/SFMO)
- Perry Weller or Andrew Milliken – Virginia Fire Services Board (VFSB)
- Jimmy Moss – Virginia Building and Code Officials Association (VBCOA)
- Steven Shapiro – Virginia Apartment Management Association, Apartment & Office Building Association of Metropolitan Washington (AOBA/VAMA)
- Tommy Herbert – Virginia Restaurant Lodging and Travel Association (VRLTA)
- Mike O’Connor – Virginia Propane Gas Association, Virginia Petroleum and Convenience Marketers Association (VPCMA)
- John Armstrong – Dominion Energy
- Todd Spruill – Virginia Fire Chiefs Association (VFCA)

#### **Sub-Workgroup members in attendance – July 8, 2025**

- Mike O’Connor
- Steve Shapiro
- Andrew Milliken
- Tommy Herbert
- Billy Hux
- Gerry Maiatico
- Todd Spruill

#### **Other Stakeholders in attendance – July 8, 2025**

- Chris Barfield – University of Virginia, Building Official’s Office
- Nicholas Bowles – Nottoway County
- Greg Cavalli – Policy Analyst, Virginia Department of Fire Programs

#### **Discussion:**

- **Florin Moldovan** (DHCD Staff) – Turns the floor over to proponent Gerry.
- **Gerry** – This proposal attempts to address local concerns in Warren County and was sent through the VFSB for consideration. The proposal provides explicit authority for fire officials to order the disconnecting of utility services (primarily electrical) to a building, equipment, or portion thereof. Modeled after International Fire Code (IFC) Chapter 1 language that is amended out in Virginia. Adds parallel language to Statewide Fire Prevention Code (SFPC) Chapters 1 & 6.
- **Florin** – Notes that this proposal aligns the SFPC with the model code; notes the Virginia Property Maintenance Code (VPMC) already grants similar power, but not every locality enforces VPMC.
- **Steve** – Struggles with the newly defined word “utilities” and the qualifier “essential.” Wonders about solar power and whether that fits into the understanding of “utilities.”
- **Gerry** – Considered listing each service but feared omitting one, open to edits.
- **Andrew** – VFSB has discussed this topic generally but has not reviewed the specifics of the proposal. Suggests deleting “essential,” restoring “electric wiring,” and using “including but not limited to” followed by a list of applicable equipment and appliances. “If it’s not an essential service, then it’s not a utility.”
- **Gerry** – Agrees that if it’s not an essential service, then it’s not a utility.
- **Florin** – Proposal will appear as-is at the July 29 General Stakeholder Workgroup meeting; floor modifications can be submitted ahead of time. Encourages Gerry and Andrew to reach consensus and send a red-line Word file to staff.

#### **Sub-Workgroup members in attendance — September 26, 2025:**

- Mike O’Connor
- Steve Shapiro
- Perry Weller

#### **Other stakeholder in attendance – September 26, 2025**

- Greg Cavalli – Policy Analyst, Virginia Department of Fire Programs
- Chris Barfield – University of Virginia, Building Official’s Office
- Christian Tucker – Virginia Cable Telecommunications Association (VCTA)
- Ernie Little – Virginia Fire Prevention Association (VFPA)
- Andrew Milliken – Virginia Fire Services Board (VFSB)

#### **Discussion:**

**Florin M.** (DHCD Staff) provided an overview of the proposal.

**Christian T.** shared that VCTA has concerns with the definition of “utilities,” which VCTA presumes to include communication systems, alarm systems, and other types of low voltage wiring. From an industry perspective, VCTA is unaware what the specific fire hazards would

be. Suggests that cabling and alarm systems be an exception. **Christian T** raised concerns about the subject matter expertise of those officials inspecting low-voltage systems. **Christian T** questions the proponent's floor modification of changing, "When in the Fire Code Official's opinion," to, "When the Fire Code Official deems," and whether it provides any substantive change. This issue can be solved through a revision of the definition.

**Steve S.** shared that AOBA supports the exception for communication systems.

**Christian T.** noted that there is a potential for creating more risk when communication systems are offline during an emergency.

**Perry W.** stated that utility systems are not exempt from having issues that could cause a fire. Cable boxes and fire alarm boxes have been the cause of fires. **Perry W** agreed that addressing the terminology to consider all parties is a good idea.

**Steve S.** reminds the group that there are currently exemptions in the code for low-voltage wiring, so there is precedent for an exemption like what is being discussed in the proposal.

**Andrew M.** stated that there may be a need to revise the proponent's floor modification to not strike the word "Official," because the fire code does not determine nor "deem" anything – it is the Official's decision. Noted VFSB's recommendation for the language stricken in 110.1 regarding Exception 7 and that "electrical wiring" should be left in the section. Encouraged VCTA to reach out to the proponent to create an exception for specific utilities.

## GENERAL STAKEHOLDER WORKGROUP INFORMATION

### First GSW Meeting – 07/29/2025

**Support:** None

**Opposition:** None

**Discussion:**

**Andrew M** – Provides overview of the proposal.

- i. **Jeff Brown** (DHCD staff) – All of these SFPC proposals have been to the SFPC sub-workgroup, so they have been discussed.
  1. **Steve S** – I was at the SFPC sub-workgroup meeting, and I don't have anything to add.
- ii. **Mike O'** – Representing the Propane Association. What's the practical application of the first underlined portion? When, in a fire code official's opinion, there is actual or potential danger, what action is this authorizing them to take?
  1. **Andrew M** – If there's an imminent risk of a fire occurring from a piece of equipment, or the power supply, or an electrical component that wouldn't otherwise be able to be controlled. This can now be controlled through the utilities being provided to the structure.
  2. **Mike O'** – Could the building appliances, equipment, or utilities include the propane tank?

3. **Andrew M** – My guess would be yes.
4. **Mike O'** – I don't recall this being brought up in the earlier committee meeting. I would need to populate this before proceeding, and I would like to defer if possible.
5. **Jeff B** – The proponent is not here; however, if there is opposition, I would encourage meeting with the proponent to talk through that.
6. **Mike O'** – I didn't say, "Opposition." I need to populate this because of the statement that it would impact a propane tank.
7. **Jeff B** – If we must come up with a decision today and we have people who aren't ready to support it, I would be hesitant to call it a consensus.
- iii. **Dennis Hart** (Fairfax County) – Not in favor of, "...when in the fire code official's opinion." It is not great code language, and it leaves a lot up to the determination of that fire official. When would this take effect?
  1. **David Beahm** (Warren County) – That could be solved by taking it back to the first sentence of the original language, "Deemed unsafe or hazardous." As opposed to, "in the opinion [of the Fire Official]."
- iv. **Jeff B** – Sounds like an opportunity for a cleanup to get us closer to consensus, v. Peter B – Representing the VCTA. The VCTA shares the propane industry's concern regarding internet, cable, or alarm system components. Would like to be a part of any subsequent discussion.
- vi. **Jeff B** – We will make sure the proponent is briefed, and we will consider this proposal carried over.
- iv. Carried Over

## **Second GSW Meeting — 10/03/2025**

**Support:** None

**Opposition:** Steve Shapiro, AOBA and VAMA; and Peter Broadbent, VCTA.

**Discussion:**

**Florin Moldovan** (DHCD Staff) provided an overview of the proposal.

- a. **Andrew M** brought up that there had been a prior discussion about updating the definition of "Utilities" within the proposal to address ambiguities or concerns, but no new language had been incorporated yet.
- b. **Florin M** noted that no floor modifications or updates had been received from the proponent since the last discussion.
- c. **Bill P** asked for clarification as to which occupancy groups this proposal would apply.
- d. **Jeff Brown** (DHCD Staff) responded, clarifying that the proposal does not limit its application to any specific occupancy group.

**DHCD Staff Note:** N/A

# FP906.1-24

SFPC: 906.1

**Proponents:** Morgan Hurley, Senez Consulting, Inc., representing Fire Equipment Manufacturers' Association (mhurley@senezco.com)

## 2021 Virginia Statewide Fire Prevention Code

**Revise as follows:**

**906.1 Where required.** Portable fire extinguishers shall be installed in all of the following locations:

1. In Groups A, B, E, F, H, I, M, R-1, ~~R-2~~, 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.~~

~~In Group R-2 occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each dwelling unit is provided with a portable fire extinguisher having a minimum rating of 1-A:10-B:C.~~

2. ~~In Group E occupancies, portable fire extinguishers shall be required only in locations specified in Items 2 through 6 where each classroom is provided with a portable fire extinguisher having a minimum rating of 2-A:20-B:C.~~
3. ~~In storage areas of Group S Occupancies where forklift, powered industrial truck or powered cart operators are the primary occupants, fixed extinguishers, as specified in NFPA 10, shall not be required where in accordance with all of the following:~~

|      |                                                                                                                                                                                                                          |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3.1. | <del>Use of vehicle-mounted extinguishers shall be approved by the fire code official.</del>                                                                                                                             |
| 3.2. | <del>Each vehicle shall be equipped with a 10-pound, 40A:80B:C extinguisher affixed to the vehicle using a mounting bracket approved by the extinguisher manufacturer or the fire code official for vehicular use.</del> |
| 3.3. | <del>Not less than two spare extinguishers of equal or greater rating shall be available on site to replace a discharged extinguisher.</del>                                                                             |
| 3.4. | <del>Vehicle operators shall be trained in the proper operation, use and inspection of extinguishers.</del>                                                                                                              |
| 3.5. | <del>Inspections of vehicle-mounted extinguishers shall be performed daily.</del>                                                                                                                                        |

4. 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.

2. Within 30 feet (9144 mm) distance of travel from commercial cooking equipment and from domestic cooking equipment in Group I-1; I-2, Condition 1; and R-2 college dormitory occupancies.
3. In areas where *flammable* or *combustible liquids* are stored, used or dispensed.
4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section ~~3316.1~~. 3303.6.
5. Where required by the sections indicated in Table 906.1.
6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the *fire code official*.

**Exception:** Portable fire extinguishers are not required at normally unmanned Group U occupancy buildings or structures where a portable fire extinguisher suitable to the hazard of the location is provided on the vehicle of visiting personnel.

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

### Reason Statement:

The International Building Code/International Fire Code included an exception for portable fire extinguishers in A, B and E occupancies equipped throughout with quick response sprinklers through the 2009 edition. This exception was identical to current (2021) VCC/VSFPC 906.1, exception 1.

The exception for A, B and E occupancies equipped throughout with quick response sprinklers was removed from the IBC/IFC beginning with the 2012 editions. However, Virginia has maintained this exception as a state amendment. This proposal seeks to align the VCC/VSFPC requirement for portable fire

extinguishers with that in the IBC/IFC. The code change proposal that removed this exception from the IBC (F94-09/10) stated, in part: *"Fire extinguishers have historically been the first line of defense for small, controllable fires. They are intended to be used for fires of limited size and easily controlled. If a fire is discovered in its early stages the most effective means of protecting life and preventing property loss is to sound an alarm and then to control and/or extinguish the incipient stage fire with a portable fire extinguisher. To simply wait for the fire to grow to size large enough for a sprinkler head to activate is contrary to lessons and guidance from the fire service and fire protection professionals. Since fire extinguishers provide a first line of defense vs. sprinklers, it remains unclear as to the justification for this exception. In that light, the Exception 1 to Section 906.1 should be deleted."*

This code change would also require portable fire extinguishers in R-2 occupancies, which is required by the IBC, but is not required by the VCC (the VCC only requires portable fire extinguishers in R-1 and R-4 residential occupancies.) However, the IBC/IFC have exceptions (exception 1) that allow the extinguishers to be located in dwelling units.

Research conducted on behalf of the Fire Equipment Manufacturer's Association (*"A Review of the Impact of Fire Extinguishers in Reducing the Carbon Footprint of Building Fires"*, dated March 27, 2023) found that 4.5% of residential fires that were not reported to the fire department were extinguished by occupants who used portable fire extinguishers. In industrial occupancies, 38% of fires were suppressed using portable fire extinguishers. These statistics show that portable fire extinguishers can effectively be used to suppress small fires by building occupants. The current VCC/VSFPC 906.1, exception 2 (which allows portable fire extinguishers in I-3 occupancies to be located in locked staff areas) is proposed to be maintained as a new exception 4 to VCC/VSFPC 906.1.

**Cost Impact:** The code change proposal will increase the cost This proposal would have a minor cost increase by requiring portable fire extinguishers in A, B, and E occupancies equipped throughout with quick response sprinklers and R-2 occupancies.



## **FP906.1-24 – Staff Summary**

**Proponent:** Morgan Hurley, Senez Consulting, Inc., representing Fire Equipment Manufacturers' Association

**Brief Description:** Requires portable fire extinguishers in group R-2 occupancies and deletes an existing Virginia amendment which exempts groups A, B and E occupancies from the requirement to provide portable fire extinguishers, if the buildings are equipped throughout with quick response sprinklers.

### **STUDY GROUP OR SUB-WORKGROUP INFORMATION**

The proposal was reviewed and discussed by the Statewide Fire Prevention Code (SFPC) Sub-Workgroup members and other interested stakeholders in attendance at its meeting on September 26, 2025.

#### **SFPC Sub-Workgroup Membership and Representation**

- Gerry Maiatico – Virginia Fire Prevention Association (VFPA)
- Billy Hux – Virginia Department of Fire Programs/State Fire Marshal's Office (VDFP/SFMO)
- Perry Weller – Virginia Fire Services Board (VFSB)
- Jimmy Moss – Virginia Building and Code Officials Association (VBCOA)
- Steven Shapiro – Virginia Apartment Management Association (VAMA), Apartment & Office Building Association of Metropolitan Washington (AOBA)
- Tommy Herbert – Virginia Restaurant Lodging and Travel Association (VRLTA)
- Mike O'Connor – Virginia Propane Gas Association (VAPGA), Virginia Petroleum and Convenience Marketers Association (VPCMA)
- John Armstrong – Dominion Energy
- Todd Spruill – Virginia Fire Chiefs Association (VFCA)

#### **Sub-Workgroup members in attendance – September 26, 2025:**

- Mike O'Connor
- Steve Shapiro
- Perry Weller

#### **Other stakeholders in attendance – September 26, 2025:**

- Greg Cavalli – Policy Analyst, Virginia Department of Fire Programs
- Chris Barfield – University of Virginia, Building Official's Office
- Christian Tucker – Virginia Cable Telecommunications Association (VCTA)
- Ernie Little – Virginia Fire Prevention Association (VFPA)
- Andrew Milliken – Virginia Fire Services Board (VFSB)

## Discussion:

**Florin Moldovan** (DHCD Staff) provided an overview of the proposal including the proposed floor modification shared on the screen.

**Steve S** noted that striking A, B, and E occupancies has been proposed to be stricken for the past 5 code cycles and that the Board of Housing has rejected it every time. AOBA will be speaking again in opposition at the Board of Housing and Community Development meeting.

**Andrew M** stated that the VFSB supports the proposal to address this section but that they disagree on a couple items in the proposal. **Andrew M** further noted that this proposal brings the SFPC in line with the model code, which has had these requirements for many years. VFSB supports bringing additional flexibility to certain occupancies or uses that are not currently in Virginia. Andrew shared that he is not aware of projects that would otherwise not be required to have a fire sprinkler system that would now require one instead of providing portable fire extinguishers. **Andrew M** noted that we have at least 15,000 qualified fire fighters throughout the Commonwealth who are trained to use portable fire extinguishers. They are now rendered helpless in the absence of these portable fire extinguishers where a fire could otherwise be fought.

**Steve S** stated that AOBA's comments are the same for this proponent's companion proposal B906.1.

## GENERAL STAKEHOLDER WORKGROUP INFORMATION

### Second GSW Meeting — 10/03/2025

**Support:** Andrew Milliken, Stafford County Fire Marshal's Office and VFSB Codes and Standards Committee.

**Opposition:** Steve Shapiro, AOBA and VAMA; Dan Willham, Fairfax County and Virginia Building and Code Officials Association (VBCOA); and Shahriar Amiri, Arlington County.

## Discussion:

**Jeff Brown** (DHCD staff) provided an overview of the proposal and the associated floor modification shared on the screen.

**Andrew Milliken** expressed support.

**Steve Shapiro** reiterated comments from the 2nd SFPC SWG meeting.

*i. Comments from 2nd SFPC SWG meeting: **Steve S** noted that striking A, B, and E occupancies has been proposed to be stricken for the past 5 code cycles and that the Board of Housing has rejected it every time. AOBA will be speaking again in opposition at the Board of Housing and Community Development meeting.*

**Dan Willham** noted that the VBCOA building code committee opposes this proposal.

**Shahriar Amiri** stated that this proposal only increases costs without solving a problem.

### DHCD Staff Note:

This proposal and its companion VCC proposal B906.1-24 were reviewed together by stakeholders at the second GSW meeting on October 3, 2025, and both received a Non-Consensus recommendation.

# FP4106.1.3-24

SFPC: 4106.1.3 (New); IFC: SECTION 202 (New)

**Proponents:** Gerry Maiatico, County of Warren & Virginia Fire Prevention Association, representing Virginia Fire Prevention Association (gmaiatico@warrencountyfire.com)

## 2021 Virginia Statewide Fire Prevention Code

Add new text as follows:

**4106.1.3 Mobility** . Mobile food preparation vehicles shall be moveable, easily transported, or relocated without excessive effort. Mobile food preparation vehicles shall not be utilized as permanent structures by removing wheels, surrounded by decks/porches, permanently affixing to *utilities* or placing the mobile food preparation vehicle in such a manner as to prohibit the mobility of the device.

Exception: Mobile food preparation vehicles that have been modified or connected to *utilities* in accordance with the applicable building code.

## 2024 International Fire Code

Add new text as follows:

**New Definition.** *Utilities.* The essential services that enable a building, equipment or an appliance to function effectively.

**Reason Statement:** Chapter 2 of the SFPC defines the MFPV as a “vehicles, covered trailers, carts, and enclosed trailers, **or other moveable devices**”. This provides the intent that a MFPV is intended to be moveable. Localities throughout the Commonwealth have experienced the MFPV being placed in a situation where the vehicle is no longer “movable”. This has been discovered as the wheels being removed, placing the vehicle up on blocks, surrounding the vehicle with decks/porches and event attaching the vehicle to a buildings electrical system or plumbing systems in a permanent in nature arrangement.

This proposal also includes a definition of *utilities*. This mirrors a proposal submitted to the termination and reconnection of a utilities system.

This proposal provides an exception where the mobile food preparation vehicle arrangement and/or connection to utilities has been permitted and inspected in accordance with the applicable building code.

**Cost Impact:** The code change proposal will not increase or decrease the cost No change

## **FP4106.1.3-24 – Staff Summary**

**Proponent:** Gerry Maiatico, County of Warren & Virginia Fire Prevention Association, representing Virginia Fire Prevention Association (VFPA).

**Brief Description:** Adds a new definition of “utilities” and new requirements for Mobile Food Preparation Vehicles with the intent of ensuring they remain mobile and are not utilized as permanent structures.

### **STUDY GROUP OR SUB-WORKGROUP INFORMATION**

The proposal was reviewed and discussed by the Statewide Fire Prevention Code (SFPC) Sub-Workgroup members and other interested stakeholders in attendance at each one of the three SFPC Sub-Workgroup meetings on July 8, 2025, October 1, 2025, and November 21, 2025.

#### **SFPC Sub-Workgroup Membership and Representation**

- Gerry Maiatico – Virginia Fire Prevention Association (VFPA)
- Billy Hux – Virginia Department of Fire Programs/State Fire Marshal’s Office (VDFP/SFMO)
- Perry Weller or Andrew Milliken – Virginia Fire Services Board (VFSB)
- Jimmy Moss – Virginia Building and Code Officials Association (VBCOA)
- Steven Shapiro – Virginia Apartment Management Association, Apartment & Office Building Association of Metropolitan Washington (AOBA/VAMA)
- Tommy Herbert – Virginia Restaurant Lodging and Travel Association (VRLTA)
- Mike O'Connor – Virginia Propane Gas Association, Virginia Petroleum and Convenience Marketers Association (VPCMA)
- John Armstrong – Dominion Energy
- Todd Spruill – Virginia Fire Chiefs Association (VFCA)

#### **Sub-Workgroup members in attendance — July 8, 2025:**

- Mike O'Connor
- Steve Shapiro
- Andrew Milliken
- Tommy Herbert
- Billy Hux
- Gerry Maiatico
- Todd Spruill

#### **Other stakeholders in attendance — July 8, 2025:**

- Chris Barfield – University of Virginia, Building Official’s Office
- Nicholas Bowles – Nottoway County
- Greg Cavalli – Policy Analyst, Virginia Department of Fire Programs

**Discussion:**

**Gerry** – Increasing number of food trucks permanently parked, placed on blocks, skirted, porches added, and connected to utilities of an existing building, and therefore are no longer mobile. At what point do they cease to be a Mobile Food Preparation Vehicle (MFPV) and become a fixed structure under the purview of the Building Official and not the Fire Official for those connections and modifications, making them a fixed structure?

**Mike** – If the vehicle is still licensed as a trailer and movable, does this rule apply?

Concerned about defining propane as a “utility.”

**Gerry** – Language says if it cannot be “easily transported or relocated without excessive effort,” it is no longer an MFPV.

**Florin Moldovan** (DHCD staff) – Distinguishes between integral propane tanks vs. hard-piped connections to large external tanks; the latter may be considered a utility connection.

**Andrew** – Section 319.9 already regulates tanks “attached to the vehicle”; non-attached tanks would be considered a permanent utility.

**Florin M.** – Sounds like there are a few members interested in working on the definition of “utility.” Mike, would you be interested in joining them?

**Mike** – I can’t give a yes or no on that, but I can pass it along to the association and they can determine whether they would like to be represented in that discussion.

**Florin M.** – Is your position that these types of units should not be regulated under this section? Or is your suggestion that there should be clarification so everyone understands where this applies?

**Mike** – My first concern is that defining propane as a utility could be problematic.

**Andrew** – We have other sections in the SFPC that discuss utility shutoffs. Is the suggestion that propane is problematic if it’s not included as a utility? From my perspective, propane—whether it’s any type of tank—meets the threshold of “utility” in a general sense. If we exempt it as not being a utility, we must be cautious.

**Mike** – Reiterates that he is not advocating for propane to be excluded from being considered a utility.

**Florin M.** – Thanks, everyone, for the feedback and conversation. We look forward to any further improvements or modifications to this proposal.

**Sub-Workgroup members attendance — September 26, 2025:**

- Mike O’Connor
- Steve Shapiro
- Perry Weller

**Other stakeholders in attendance — September 26, 2025:**

- Greg Cavalli – Policy Analyst, Virginia Department of Fire Programs
- Chris Barfield – University of Virginia, Building Official’s Office
- Christian Tucker – Virginia Cable Telecommunications Association (VCTA)

- Ernie Little – Virginia Fire Prevention Association (VFPA)
- Andrew Milliken – Virginia Fire Services Board (VFSB)

**Discussion:**

**Florin Moldovan** (DHCD staff) provided an overview of the proposal and shared an email from the proponent regarding the potential use of definitions in the Virginia Construction Code, Appendix G (Flood-Resistant Construction), modified slightly to meet the intent of “mobility”.

**Andrew M.** shared that VFSB has not reviewed the definitions in Appendix G suggested by the proponent.

**Ernie L.** noted that mobile fuel vehicles have been a discussion since the SFPC came about and shared situations where mobile food vehicles are staying in place for multiple months and providing outdoor seating. “Mobile vehicles are morphing.”

**Sub-Workgroup members attendance — November 21, 2025:**

- Billy Hux
- Mike O’Connor
- Scott Pedowitz – AOBA/VAMA, Sitting in for Steven Shapiro
- Andrew Milliken

**Other stakeholders in attendance — November 21, 2025:**

- Chris Barfield – University of Virginia, Building Official’s Office
- Christian Tucker – Virginia Cable Telecommunications Association (VCTA)
- Greg Cavalli – State Fire Marshal’s Office (SFMO), Virginia Department of Fire Programs (VDFP)
- John Miller – Virginia Department of Forestry
- Lee Stoermer – Loudon County Fire Rescue Fire Marshal Office, Virginia Fire Services Board (VFSB), Codes and Standards Workgroup
- Zach Eisenman – Virginia Propane Gas Association (VAPGA)

**Discussion:**

**Florin Moldovan** (DHCD staff) noted that the proposal was on the agenda for the last two SFPC Sub-Workgroup meetings, as well as the General Stakeholder Workgroup meetings where the proposal was carried over for additional potential collaboration amongst stakeholders and invited the group to share any updates or additional information they might have, which has not already been discussed at prior meetings.

**Christian T** emailed Gerry M on a separate proposal asking to exclude “telecommunications” from the proposed “utilities” definition.

**Andrew M** vocalized that VFSB Codes and Standards Committee would like to add “and determined to be a structure” after “utilities” in the exception to avoid a loophole where a building can be provided with power and water and approved by the building official but also not considered to be a structure and would be exempt.

There have been discussions with the proponent but have not seen any changes.

**Christian T** asked for an update on the status of proposal FP601.2-24.

[*DHCD staff Note*: proposal FP601.2-24 includes the same new definition for “Utilities” as proposal FP4106.1.3-24]

**Florin M** remarked that the proposal FP601.2-24 was discussed at the October 3rd General Stakeholder Workgroup meeting and received a recommendation of “Non-Consensus”.

## GENERAL STAKEHOLDER WORKGROUP INFORMATION

### First GSW Meeting — 07/29/2025

**Support:** See “*DHCD Staff Note*” at the end of this summary.

**Opposition:** See “*DHCD Staff Note*” at the end of this summary.

#### Discussion:

- a. **Andrew M** – Provides overview of the proposal.
- b. **Jeff Brown** (DHCD staff) – Some of these mobile vehicles become permanent, and the proponent is attempting to draw the line of when it becomes permanent.
  - i. **Florin M** – For clarity, there is an exception in the last portion of the sentence, but there is a cdpVA formatting issue.
    1. **Mike O’** – Representing the Propane Association. What is the need for the exception?
      - a. **Florin Moldovan** (DHCD staff) – The intent is to exclude those facilities connected to a utility, but that are done so in accordance with the building code. These mobile food preparation vehicles are not covered by the Uniform Statewide Building Code (USBC), but the SFPC covers them. The question arises, “What happens if I do connect this structure that is not regulated by the USBC but is connected to a building that the USBC regulates?” The USBC would require a building permit application, inspections, and approvals for that portion of the work. The primary concern was always that there was no clarity on who regulates what. The portion of the connection between the unit and any utilities or building service would be regulated under the USBC. Everything preceding the exception would not apply because it has already been permitted, inspected, and approved.
  - ii. **Sean Farrell** – Representing himself. Andrew M, did discussions with the VFPA include conversations about whether they are regulated by VDOT? Don’t they have to carry a proper registration?

1. **Andrew M** – No, not necessarily.
  2. **Sean F** – It's not a vehicle?
  3. **Andrew M** – There's nothing in the SFPC that says you have to have a state inspection or registration or anything like that.
  4. **Sean F** – The USBC or the SFPC won't require that, but for it to be a mobile truck, it would need to be regulated by VDOT.
  5. **Perry Weller** (City of Staunton) – Once it's parked, DOT does not care. They don't look at the components inside.
  6. **Sean F** – Suggests the following language: "Food Trucks must be registered by the Virginia Department of Motor Vehicles." Otherwise, they become inoperable vehicles handled by your inoperable vehicle ordinance. Or they become permanent fixtures, and now we're looking at something almost like an industrialized building. Or something akin to that. So instead of trying to address the mobility, maybe we should think about the overarching state authority.
  7. **Andrew M** – I can't speak for Gerry on that, specifically. I wouldn't necessarily agree. This question has come up before in our jurisdiction about whether the definition of a mobile food truck vehicle includes registration as a vehicle. Perhaps making the exception more exclusive to not only connecting to utilities, but also that the building the structure is connected to is also regulated by the applicable building code. We can table this and bring it back.
  8. **Sean F** – We have an example of this in Prince William County. We have data center complexes with a whole city of trailers. Google wanted to bring in a food trailer, so we pushed them down to the Industrialized Building Regulations with DHCD, and Brian Hilderbrand took a look at it and determined that it was a vehicle and wasn't regulated under the IBSR. Our Building Official said that if it is not regulated as an industrialized building, then it needs to be regulated as a motor vehicle. We won't apply the building code if it has a vehicle tag on it and it is on wheels.
  9. **Andrew M** – Asks Sean F to share that with Gerry.
- iii. **Mike O'** – Does this change impact those traditional mobile food trucks that use generators or propane for their equipment?
1. **Andrew M** – Asks for clarification on Mike O's question.
  2. **Mike O'** – Does this impact mobile, DMV-licensed traditional food trucks that use propane or generators?
  3. **Andrew M** – It applies to them, but doesn't change anything with how they are being handled. This is to address the permanency concept.
  4. **Perry W** – Say you parked your truck at a site for over 180 days, and you decide that you don't want to use your 100-



gallon propane cylinder and want to get a 500-gallon tank and set it out there, and then some other regulations may kick in.

5. **Mike O'** – Where does it say that?
  6. **Perry W** – That's what we are trying to address.
  7. **Mike O'** – How?
  8. **Kyle Kratzer** (Fairfax County, VBCOA) – Because it would become permanent. You would now need to disconnect and do more permanent things to detach the unit and move it away, as opposed to a generator that is usually attached to the chassis, where you could just shut everything down and drive away. That's the whole point of this change: it's saying that if you become a more permanent structure, you can't just up and go; it's not really a mobile operation anymore.
- iv. **Sean F** – Going back to the Prince William County example, this particular food trailer had HVAC on the ground, an external propane tank, connected to electric service, but was still a vehicle registered with the DMV and not regulated by the building code. We permitted the disconnects and all of the equipment associated with the vehicle, but the permits were unrelated to the vehicle itself. I'll reach out to Gerry, but how do you define "excessive effort?" What does that mean in terms of enforceability? What's the threshold there that triggers a notice of violation? We are struggling with defining what "permanent" means. In the context of my example, Google was there for four years building a complex of data centers. [The food trucks] weren't permanent, such that they will be there forever or until they are obsolete, but they will be permanent for the time that they are there. Therefore, the DMV applicability is paramount.
  - v. **Jeff B** – We will carry this over and have those with comments work with Gerry on the proposal.

## **Second GSW Meeting — 10/03/2025**

**Support:** Lee Stoermer, Loudoun County Fire Marshals Office.

**Opposition:** Michael Dellinger, Albemarle County, VBCOA Region IV; Andrew Milliken, Stafford County Fire Marshal's Office, VFSB.

### **Discussion:**

- I. **Jeff Brown** (DHCD staff) provided an overview of the proposal.
- II. **Support**
  - a. **Lee S** expressed support.
- III. **Shahriar Amiri** (Arlington County) asked whether the proposal would result in the entire food truck being exempt from utility requirements.
  - a. **Andrew M** responded that the intent is not a blanket exemption, but rather to ensure that any utility connection (e.g., electrical, gas) for a mobile food truck is

made in accordance with the applicable building code.

- b. **Florin Moldovan (DHCD staff)** clarified further that based on discussions at previous SFPC Sub-Workgroup meetings, it appears that the proposal is specifically aimed at addressing mobile food vehicles that are not currently in compliance with the applicable building code.
- c. **Shahriar A** expressed skepticism about exempting food trucks from utility requirements, stating that such an exemption “does not make sense.”
- d. **Andrew M** noted that the proponent is open to changing the proposal’s language to address these concerns and provide greater clarity.

**IV. Opposition**

- a. **Mike D** opposed the proposal in its current form, arguing that it could create conflicts between the building official and the fire official regarding enforcement and compliance.
- b. **Andrew M** suggested that including clarifying language such as, “has been modified to be a structure,” could help resolve some of these conflicts.
- c. **Mike D** agreed that such language would be helpful.

- V. **David Beahm** (Warren County), speaking on behalf of the proponent, asked for the proposal to Carry Over.

**Third GSW Meeting — 01/05/2026**

**Support:** None

**Opposition:** Andrew Milliken, Stafford County Fire Marshal’s Office, VFSB; William “Rick” Hinson – American Council of Engineering Companies (ACEC).

**Discussion:**

- I. **Jeff Brown** (DHCD staff) provided an overview of the proposal.
  - a. **Shahriar A** expressed support but denoted that he has a problem with the exception and its intent.
  - b. **Andrew M** supported the intent but believes that the exception creates a loophole where it is not a mobile food truck but also not a permanent structure.
  - c. **Rick H**, speaking for himself, submitted that as a former building official he would not know how to apply the proposal.
- II. **Support**
  - a. None
- III. **Opposition**
  - a. **Andrew M** and **Rick H** expressed opposition.

**DHCD Staff Note:**

Although several concerns were raised and discussed during the first GSW meeting, no stakeholder in attendance expressed a specific request to go on record as supporting or opposing the proposal.

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**General Stakeholder Workgroup Meeting  
First Meeting Summary**

**Date: July 29, 2025**

**Location: Virginia Housing Center**

**Time: 9:00 AM**

**Attendees:**

**VA Department of Housing and Community Development (DHCD) Staff:**

- **Jeff Brown** - Deputy Director, Division of Building and Fire Regulation
- **Florin Moldovan** – Code and Regulation Specialist, State Building Codes Office
- **Travis Luter** – Code and Regulation Specialist, State Building Codes Office
- **Paul Messplay** – Code and Regulation Specialist, State Building Codes Office
- **Chris Scott** – Code and Regulation Specialist, State Building Codes Office
- **Rajan Engh** – Training and Development Specialist, Virginia Building Code Academy

**Stakeholders:**

- **Andrew Clark** – Home Builders Association of Virginia (HBAV)
- **Andrew Milliken** – Stafford County
- **Corian Carney** – Independent Alliance of the Electrical Industry (IAEI), VA Chapter
- **David Beahm** – Warren County
- **David Sharp** – Fairfax County
- **DeAnthony “DA” Pierce** – Virginia Building and Code Officials Association (VBCOA)
- **Dennis Hart** – Fairfax County
- **Gerry O’Connor** – Eaton
- **Jason Vandever** – North American Insulation Manufacturers Association (NAIMA)
- **Joseph “Tread” Willis** – IAEI VA Chapter, Prince William County
- **Kyle Kratzer** – Fairfax County, VBCOA
- **Matt Mertz** – Fairfax County
- **Mark Price** – City of Martinsville
- **Michelle Dickson** – City of Richmond
- **Mike O’Connor** – Virginia Petroleum and Convenience Marketers Association (VPCMA), Virginia Propane Gas Association (VAPGA)
- **Nicholas Bowles** – Nottoway County
- **Paul Keller** – Turnkey Porch Enclosures
- **Perry Weller** – City of Staunton
- **Peter Broadbent** – Broadband Association of Virginia (VCTA)
- **Richard Gordon** – Hanover County
- **Ron Clements** – Chesterfield County

- **Russel Furr** – City of Alexandria
- **Sandra Escorcia** – City of Richmond
- **Sean Farrell** – Prince William County
- **Steve Shapiro** – Apartment & Office Building Association of Metropolitan Washington (AOBA), Virginia Apartment and Management Association (VAMA)
- **Susan Harold** – City of Richmond

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### **Administrative Proposals (USBC & SFPC)**

#### **1. B105.1-24 – Ron Clements**

- a. Ron C – Provides overview of proposal.
  - i. Sean F – No objection to proposal. Did staff research when and how this language arrived in the code?
    - 1. Florin M – The proposal stands on its own merits and doesn't have any conflicts.
  - ii. David B – Has opposition. Building Official (BO) can be removed for cause, which was put in place to ensure there was a way to remove the BO if there is any issue. You can have an appointment for a 1-year time frame, and then that could be continuous. Right now, the code makes it clear that when you appoint the building official, the "Permanent" nature is so that they are removed from political actions and desires.
  - iii. Andrew M – VFSB supports this.
  - iv. Ron C – VBCOA Admin committee supports.
  - v. David B – Clarifies he was speaking on behalf of himself.
  - vi. Non-consensus.

#### **2. B108.2-24 – Dennis Hart**

- a. Dennis H – Provides overview of the proposal.
  - i. Richard G – In support of change. Localities with a large R-5 housing stock will need to prepare for an increase in permit volume. Hanover will go from 800 to about 3,000 permits per year.
    - 1. Kyle K – Permit increase is temporary, right? Switching over from non-flammable to flammable, there wouldn't be a refrigerant classification change, and therefore, it would still be exempt. Is that correct?
      - a. Dennis H – It would, yes.
      - b. Kyle K – So it's just that initial changeover that will have the increase.
  - ii. Consensus for approval.

#### **3. B115.2-24 – Ron C (Note: This proposal was heard later in the agenda)**



- a. David S – Provides overview of the proposal.
  - i. Ron - By adding “responsible party” to the first sentence, you no longer need all the stricken language.
    - 1. Sean F – No position. Notes that moving toward permissive language does allow for subjective enforcement of the code. One locality may choose to do something while another locality decides to act differently. The first sentence says, “responsible party or permit holder,” – can I do both?
      - a. Ron C – Yes. And we could accept that as a friendly amendment.
  - ii. Jeff B – Based on history, when that question has come up specifically with the Virginia regulations, when we’ve asked the Virginia Code Commission, they would say if it says “or” that also means “and” when there are just two options and not a long list.
- b. Florin M – Asks for clarification on the language to be used - “to the responsible party, or permit holder, or both...”
  - i. Sean F – Yes.
- c. David S – Wants to get to the person responsible for code compliance.
- d. David B – In support.
- e. Andrew C – Not opposed. “Responsible party”... you could rope in any number of people involved in that project. Is there a way to narrow it down to somebody?
  - i. David S – That’s a reference back to 112.1, which states that any person performing work covered by the code has the responsibility to secure the results intended by the code.
  - ii. Andrew C – In that case, someone working on behalf of a bankrupt or out-of-business contractor, or just anybody working on that job, could be considered the responsible party.
  - iii. David S – The intent is not to go after an employee working for a contractor or company. When you have a legal entity, that entity has the status of personhood in the eyes of the law in most instances. It’s not to get at the individual laborer who is hired and working for that contractor.
- f. Jeff B – Asks for any further comments.
- g. Consensus for Approval as Modified.

#### 4. **B115.2(2)-24** – Ron Clements

- a. Ron C – Provides overview of the proposal.
  - i. Steve S – How do you prove receipt on the other end of it?
    - 1. Ron C – It’s already in the SFPC and is already allowed by the Maintenance code.
    - 2. Steve – No objection to it.
  - ii. David B – Representing self. Agrees with the change. Electronic is the way things are going. If it’s an option, it’s an option.

- iii. Sean F – Representing self. Is there a reason we repeated, “the intended recipient”? Recommends a friendly Amendment: In the added text, delete “To the permit holder or responsible party,” so that it just reads, “...by electronic service.”

- 1. Ron C – Supports the floor amendment.

- b. Consensus for Approval as Modified

5. **B118.4-24** – Ron Clements

- a. Ron – Provides overview of the proposal.

- b. Consensus for approval.

6. **B119.5-24** – Ron Clements

- a. Ron C – Provides overview of the proposal.

- i. David B – Supports.

- ii. Steve S – Does this have application to the SFPC?

- 1. Ron C – I initially did not put the proposal in for the SFPC because I saw the homeowner as the main issue. Andrew M reached out to me about it.

- 2. Andrew M. – Yes, interested in including this in the SFPC. If there is consensus, we suggest moving forward with that consensus, and we will submit a separate code change for the SFPC.

- a. Ron C – Unless that would be considered a friendly amendment, which I would accept.

- b. Andrew M – If there’s consensus for that, too, there’s no objection to that.

- c. Jeff B – This might be something we would want to bring to the SFPC sub-workgroup, so it might be best to do that as a separate proposal and run it through the SFPC sub-workgroup and then bring it back to the next General Stakeholder Work Group.

- b. Consensus for Approval – Companion proposal to SFPC may be forthcoming.

7. **PM105.2-24** – Matt Mertz

- a. Matt M – Provides overview of the proposal.

- i. Tread W – Recommends mirroring Ron’s language from proposal B115.2(2)

- ii. Matt M – This language in the proposal is from the SFPC.

- b. Jeff B – Any objections to this proposal?

- i. Michelle D – Asks if we can make all three consistent by modifying the first one?

- ii. Jeff B – That might be something that could be decided today and then developed later.
  - iii. David B – Ron’s language would probably be better.
  - iv. Ron C – The term “electronic service” is the proper legal technology. I don’t know how to validate a mailbox. Fine with consistency between VPMC and SFPC since they are maintenance codes. Wants to leave the building code alone—no objection correlating with the SFPC.
- c. Jeff B – Asks if Matt wants to move forward as-is?
  - i. Matt M – As far as the electronic mailbox being changed to electronic service, that’s fine.
  - ii. Sean F – This language was predicated initially on serving as it pertains to state law - In person to the responsible party, another at the premise, or post at the premise. Is your language consistent with the state law that enables this?
  - iii. Matt M – Probably not taking too big a leap here since it already aligns with the SFPC and, with Ron’s language, would align even more.
- d. Florin M – Asks for clarification on the change.
  - i. Matt M – Where it starts by saying, “Transmitting to a valid electronic mailbox,” that would be shortened to, “...or by electronic service.”
- e. Steve S – Agrees with Ron. Leaving building code as it is and allowing this to mirror the SFPC.
- f. Sean F – The additional sentence there: “Such procedure shall be deemed the equivalent of personal notice.” Is that redundant?
  - i. Matt M – If we take that out, if we’re trying to align codes, that would be some additional work for the fire code.
- g. Sean F – Opposition.
  - i. Florin M – Asks if Sean will work with the proponent in the interest of consensus.
  - ii. Sean F – Yes.
- h. David B – Asks if fire services should look at it also to ensure consistency.
- i. Sean F – Did we run this change through the VBCOA Property Maintenance Committee?
  - i. Matt M – When the VPMC met, this was not available.
  - ii. Perry W – This particular language being proposed has been in the SFPC since at least the 2012 edition of the code.
- j. Carried Over. The proponent will work with those who have comments.

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## SFPC Proposals

### 1. **FP202-24** – Gerry Maiatico

- a. Proponent is absent. Jeff B asks if anyone from VFPA can present.

- i. Andrew M – Provides overview.
  - ii. David B – Supports
- b. Consensus for Approval

2. **FP601.2-24** – Gerry Maiatico

- a. Andrew M – Provides overview of the proposal.
  - i. Jeff B – All of these SFPC proposals have been to the SFPC sub-workgroup, so they have been discussed.
    - 1. Steve S – I was at the SFPC sub-workgroup meeting, and I don't have anything to add.
  - ii. Mike O' – Representing the Propane Association. What's the practical application of the first underlined portion? When, in a fire code official's opinion, there is actual or potential danger, what action is this authorizing them to take?
    - 1. Andrew M – If there's an imminent risk of a fire occurring from a piece of equipment, or the power supply, or an electrical component that wouldn't otherwise be able to be controlled. This can now be controlled through the utilities being provided to the structure.
    - 2. Mike O' – Could the building appliances, equipment, or utilities include the propane tank?
    - 3. Andrew M – My guess would be yes.
    - 4. Mike O' – I don't recall this being brought up in the earlier committee meeting. I would need to populate this before proceeding, and I would like to defer if possible.
    - 5. Jeff B – The proponent is not here; however, if there is opposition, I would encourage meeting with the proponent to talk through that.
    - 6. Mike O' – I didn't say, "Opposition." I need to populate this because of the statement that it would impact a propane tank.
    - 7. Jeff B – If we must come up with a decision today and we have people who aren't ready to support it, I would be hesitant to call it a consensus.
  - iii. Dennis H – Not in favor of, "...when in the fire code official's opinion." It is not great code language, and it leaves a lot up to the determination of that fire official. When would this take effect?
    - 1. David B – That could be solved by taking it back to the first sentence of the original language, "Deemed unsafe or hazardous." As opposed to, "in the opinion [of the Fire Official]."
  - iv. Jeff B – Sounds like an opportunity for a cleanup to get us closer to consensus,
  - v. Peter B – Representing the VCTA. The VCTA shares the propane industry's concern regarding internet, cable, or alarm system components. Would like to be a part of any subsequent discussion.

vi. Jeff B – We will make sure the proponent is briefed, and we will consider this proposal carried over.

b. Carried Over

3. **FP3101.1-24 and B3102.1-24** – Ron Clements (Heard together at the end of the agenda)

- a. Ron C – Provides overview of the proposals. Andrew M brought this to the fire services board, and they have provided their comments. I have not had the opportunity to go through them yet. Asks for comments or concerns from the group? We are on the path to table this so I can address all of Andrew's comments.
- b. Jeff B – Opens the floor for discussion. Appreciates Ron taking on the effort to address this issue.
- c. Ron C – For the building code, you're going to the IFC, not the SFPC. It's the building code that regulates the construction of the tent. The fire prevention code is for operations and maintenance. Chapter 1 of the SFPC says that anything that is construction-related is invalid, but in the SFPC, there are numerous construction provisions. A large part of this exercise was to go through and delete all of the invalid construction provisions, which the fire official can't enforce under the SFPC. Nothing prohibits the building official and fire official from working out an arrangement where the building official wants the fire official, who is getting operations and maintenance permits, also to handle the building code side.
- d. Jeff B – Any other discussion, questions, or comments? We will mark those as carried over if that's okay with you.
- e. Ron – I guess what I'm hearing is that if Andrew and I work out his comments, then everyone else is good.
- f. Carried Over

4. **FP4106.1.3-24** – Gerry Maiatico

- a. Andrew M – Provides overview of the proposal.
- b. Jeff B – Some of these mobile vehicles become permanent, and the proponent is attempting to draw the line of when it becomes permanent.
  - i. Florin M – For clarity, there is an exception in the last portion of the sentence, but there is a cdpVA formatting issue.
    - 1. Mike O' – Representing the Propane Association. What is the need for the exception?
      - a. Florin M – The intent is to exclude those facilities connected to a utility, but that are done so in accordance with the building code. These mobile food preparation vehicles are not covered by the Uniform Statewide Building Code (USBC), but the SFPC covers them. The question arises, "What happens if I do connect this structure that is not regulated by the USBC but is connected to a building that the USBC

regulates?” The USBC would require a building permit application, inspections, and approvals for that portion of the work. The primary concern was always that there was no clarity on who regulates what. The portion of the connection between the unit and any utilities or building service would be regulated under the USBC. Everything preceding the exception would not apply because it has already been permitted, inspected, and approved.

- ii. Sean F – Representing himself. Andrew M, did discussions with the VFPA include conversations about whether they are regulated by VDOT? Don’t they have to carry a proper registration?
  - 1. Andrew M – No, not necessarily.
  - 2. Sean F – It’s not a vehicle?
  - 3. Andrew M – There’s nothing in the SFPC that says you have to have a state inspection or registration or anything like that.
  - 4. Sean F – The USBC or the SFPC won’t require that, but for it to be a mobile truck, it would need to be regulated by VDOT.
  - 5. Perry W – Once it’s parked, DOT does not care. They don’t look at the components inside.
  - 6. Sean F – Suggests the following language: “Food Trucks must be registered by the Virginia Department of Motor Vehicles.” Otherwise, they become inoperable vehicles handled by your inoperable vehicle ordinance. Or they become permanent fixtures, and now we’re looking at something almost like an industrialized building. Or something akin to that. So instead of trying to address the mobility, maybe we should think about the overarching state authority.
  - 7. Andrew M – I can’t speak for Gerry on that, specifically. I wouldn’t necessarily agree. This question has come up before in our jurisdiction about whether the definition of a mobile food truck vehicle includes registration as a vehicle. Perhaps making the exception more exclusive to not only connecting to utilities, but also that the building the structure is connected to is also regulated by the applicable building code. We can table this and bring it back.
  - 8. Sean F – We have an example of this in Prince William County. We have data center complexes with a whole city of trailers. Google wanted to bring in a food trailer, so we pushed them down to the Industrialized Building Regulations with DHCD, and Brian Hilderbrand took a look at it and determined that it was a vehicle and wasn’t regulated under the IBSR. Our Building Official said that if it is not regulated as an industrialized building, then it needs to be regulated as a motor vehicle. We won’t apply the building code if it has a vehicle tag on it and it is on wheels.
  - 9. Andrew M – Asks Sean F to share that with Gerry.

- iii. Mike O' – Does this change impact those traditional mobile food trucks that use generators or propane for their equipment?
  - 1. Andrew M – Asks for clarification on Mike O's question.
  - 2. Mike O' – Does this impact mobile, DMV-licensed traditional food trucks that use propane or generators?
  - 3. Andrew M – It applies to them, but doesn't change anything with how they are being handled. This is to address the permanency concept.
  - 4. Perry W – Say you parked your truck at a site for over 180 days, and you decide that you don't want to use your 100-gallon propane cylinder and want to get a 500-gallon tank and set it out there, and then some other regulations may kick in.
  - 5. Mike O' – Where does it say that?
  - 6. Perry W – That's what we are trying to address.
  - 7. Mike O' – How?
  - 8. Kyle K – Because it would become permanent. You would now need to disconnect and do more permanent things to detach the unit and move it away, as opposed to a generator that is usually attached to the chassis, where you could just shut everything down and drive away. That's the whole point of this change: it's saying that if you become a more permanent structure, you can't just up and go; it's not really a mobile operation anymore.
- iv. Sean F – Going back to the Prince William County example, this particular food trailer had HVAC on the ground, an external propane tank, connected to electric service, but was still a vehicle registered with the DMV and not regulated by the building code. We permitted the disconnects and all of the equipment associated with the vehicle, but the permits were unrelated to the vehicle itself. I'll reach out to Gerry, but how do you define "excessive effort?" What does that mean in terms of enforceability? What's the threshold there that triggers a notice of violation? We are struggling with defining what "permanent" means. In the context of my example, Google was there for four years building a complex of data centers. [The food trucks] weren't permanent, such that they will be there forever or until they are obsolete, but they will be permanent for the time that they are there. Therefore, the DMV applicability is paramount.
- v. Jeff B – We will carry this over and have those with comments work with Gerry on the proposal.

5. **FP3303.1-24** – Ron Clements

- a. Ron C – Provides overview of the proposal along with a floor modification supported by the fire services.
- b. Consensus for Approval as Modified

## **VPMC Proposals**

### **1. PM202-24 – Ron Clements**

- a. Ron C – Provides overview of the proposal.
  - i. David B – Representing self. Unsure how #3 affects #4 or vice versa.
    - 1. Ron C – These are all independent items. This proposal is just putting back words that were inadvertently removed during the previous cycle.
    - 2. David B – Not opposed to it. Disagrees with it but not opposed to it.
  - ii. Jeff B – Asks for further comments in support or opposition.
- b. Consensus for Approval

### **2. PM302.5-24 – Matt Mertz**

- a. Matt M – Provides overview of the proposal.
- b. Steve S – Speaking for self. Supports. Good catch, particularly with grammar.
- c. Dennis H – Representing self. This would apply to structures on the exterior?
  - i. Matt M – I thought about that, too. In the end, I decided to go with a simple change rather than questioning whether this provision should exist where it exists.
- d. Consensus for Approval

### **3. PM303.2-24 – Ron Clements**

- a. Ron C – Provides overview of the proposal.
  - i. Sean F – Wouldn't the applicable building code define these for you? You struck out "Applicable building code" and then put in specific sections.
  - ii. Ron C – The proposal moves "Applicable building code" down into the new sections.
  - iii. Sean F – Thank you.
- b. David B – Supports.
- c. Consensus for Approval

### **4. PM309.1-24 – Matt Mertz**

- a. Matt M – Provides overview of the proposal.
- b. Steve S – Representing himself, supports.
- c. Consensus for Approval

### **5. PM602.2-24 – Honore Tchou (Absent)**



- a. Jeff B – Provides an overview of the proposal along with background information on the Heating and Cooling study group. The study group started developing a draft proposal that will be discussed once it is finalized, to hopefully capture all of the concerns of the proponent. Staff have followed up with the proponent after the first study group meeting.
- b. Steve S – On behalf of AOBA. Against this proposal.
- c. Andrew C – Was there consensus in that study group? If someone is invested in it, instead of tabling it, is it possible to send it back to the study group?
  - i. Florin – We’ve reached out to the proponent and have not heard whether he wants this tabled. The study group or its participants will develop their own proposal separate from this one. The group today can make a recommendation on the proposal as it is presented. Study group members are working on a consensus proposal.
- d. Jeff B – It’s okay for the group to decide on this, and we will update the proponent.
- e. David B – Opposed to proposal.
- f. Dennis H – VPMIA. Not feasible with a two-pipe system in R-2s. Not in favor.
- g. Andrew C – Just as a suggestion. A lot of these proposals have come up during session from constituents and legislators want to be responsive to their constituents and make sure they get a fair hearing. For the sake of not excluding a stakeholder, maybe carry this over.
- h. Jeff B – That’s fair. Is everyone good with that approach since he is a citizen working on his own?
- i. Steve S – There was also discussion in the SG meeting about consistency among codes. Issues with what the VMC, VCC, and VPMC may require. I hope the proposal that comes back addresses those.
- j. Carried Over

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### VCC Proposals

#### 1. **B434-24** – Michael McCabe (absent)

- a. Florin M – We worked with the proponent to some extent to help him put this within the context of the code. Staff are not speaking to the merits or technical aspects of the proposal. Provides overview of the proposal.
  - i. Steve S – Behalf of AOBA. Opposed. This should go through the ICC process.
  - ii. Kyle K – Behalf of self. The number one thing that this proposal could use to make it more palatable is to reduce the amount of code language in the definition. At the very least, it would need some code sections instead of putting so much of that in the definition. This will require considerable effort to clarify the intent.
  - iii. David B – VBCOA building code committee is in opposition. This should go through a full vetting process.

- iv. Ron C – Unsure what this applies to. Would this apply to every building ever built? There's no code language or mandatory language here.
- b. Non-consensus.

2. **B903.2.1.2-24** and **B907.2.1.1-24** – Richard Gordon

- a. Richard G – Asks to discuss B903.2.1.2-24 and B907.2.1.1-24 together as they are companion proposals. Provides overviews of the proposals.
  - i. Dennis H – Question for B907.2.1.1-24: How does the code official determine the average ambient noise when determining compliance?
    - 1. Richard G – Great question. NFPA 72 has a test method, but it doesn't provide much usability here.
  - ii. Steve S – Speaking for self, referencing B903.2.1.2-24. This is a big leap where restaurants that wouldn't previously need sprinklers now need to be sprinklered. Agrees the definition of night club needs work. Opposes this proposal. AOBA has no position.
  - iii. David B – Representing VBCOA's building code committee. A change of use where a restaurant would go from a smaller restaurant to a larger one could be detrimental, and the cost impact would be astronomical. Unsure if there is any justification for this. VBCOA's building code committee is opposed to both.
  - iv. Sean F – Opposed to both. Asks the proponent to come up with data to support the change.
  - v. Jeff B – Do you want to move forward with getting a vote on this?
  - vi. Richard G – If I want to submit something that's totally different version just to address the night club clarification, I can do that separately.
- b. Non-consensus

3. **B1006.3.4-24** – Lyle Solla-Yates

- a. Carried over at the request of the proponent.

4. **B3005.4-24** – Ron Clements

- a. Ron C – Provides overview of the proposal.
- b. David B – VBCOA building code committee is in support of the change.
- c. Consensus for Approval.

5. **B3102.1-24** – Ron Clements

- a. Ron C – Provides overview of the proposal.
- b. Consensus for Approval.

6. **B3301.1-24** – Ron Clements

- a. Ron C – Provides overview of the proposal.
- b. Andrew M – VFSB supports
- c. David B – VBCOA building code committee supports.
- d. Consensus for Approval as Modified

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**VEBC Proposals**

7. **EB504.1.6-24** – Corian Carney

- a. Corian – Provides overview of the proposal.
  - i. Ron C – Not speaking in opposition. Probably need to do a companion proposal in Chapter 1 that gets you out of the existing building code for residential work that says you can do like-for-like replacements.
  - ii. David B – Not opposition. Typically, when we deal with residential, we stay in residential. The existing building code is there for the commercial side but doesn't typically deal with R-5. Doesn't think the section should be removed from the VRC.
  - iii. Corian – Comfortable with keeping it in the residential code.
- b. Kyle K – Would it be better to have a pointer in the residential code to say, "Refer to section 504.1.6 of the Existing Building Code" instead of having the exact requirement in two different texts.
  - i. Ron C – 102.2.2 probably overrides what's in the residential code. You can leave this language in Chapter 5 for the other R-occupancies, but something should be added to 102.2.2 to give you the path to the VRC.
  - ii. David B – Does not disagree with Ron.
- c. Steve S – AOBA is not in support. The proposal says there is no cost impact, but there would be a cost impact, right?
  - i. Corian C – Maybe there would be a cost impact. Most panel boards are built with them installed on the panel board already, so you may not have a choice anyway.
  - ii. Steve S - Opposed to adding this to the Existing Building Code.
- d. Andrew C – HBAV is not in support. Significant cost impact.
- e. Jeff B – Chapter 5 is the repairs chapter and staff's position is that a panel replacement would be an alteration. Should this be in chapter 6 instead of chapter 5?
  - i. Corian C – It really should be in both.
  - ii. Jeff B – Asks Corian if he wants to carry this proposal over to the next meeting or move forward with a vote.
  - iii. Corian C – Carry Over.

- f. Carry Over.

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### **Energy Proposals**

1. **REC-R402.1.2(1)-24** – Eric Lacey

- a. Carried over at the request of the proponent.

2. **REC-R402.1.2(2)-24** – Eric Lacey

- a. Carried over at the request of the proponent.

3. **REC-R402.1.2(3)-24** – Jason Vandever

- a. Jason V – Provides an overview of the proposal.
- b. Jeff B – This was discussed at the Energy Sub-Workgroup meeting, and there was no opposition from those in attendance. Opens the floor for discussion.
- c. Consensus for Approval

4. **REC-R402.4.1.2-24** – Eric Lacey

- a. Carried over at the request of the proponent.

5. **REC-R405.2-24** – Eric Lacey

- a. Carried over at the request of the proponent.

6. **REC-R408.2.9-24** – Eric Lacey

- a. Carried over at the request of the proponent

7. **EC-C402.5.2-24** – D.A. Pierce

- a. D.A. Pierce – Provides overview of the proposal.
  - i. Steve S – Speaking for himself. Aren't there potentially other buildings that could benefit from this that should be included? Perhaps a warehouse space?
    - 1. D.A. Pierce – Yes, that was discussed, but I plan on submitting this just for data centers at this time for expedience and because Virginia is the data center capital of the nation.
- b. David B – The way the second part is written, if there is an office space in this warehouse that is not housing server cabinets, would that space require skylights?

- ii. D.A. Pierce – Yes. A data center can be a use within a mixed-use occupancy. And this would only apply to the data center portion.
- c. Consensus for Approval

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### VRC Proposals

#### 1. **RB301.2.1-24** – Chase McCarthur

- a. Paul Keller – Owner of Turnkey Porch Enclosures. Provides overview of the proposal.
  - i. Steve S – Speaking for himself. Are there other manufacturers who make this product?
  - ii. Paul K – There are.
  - iii. Steve S – So this isn't unique to your product?
  - iv. Paul K – Correct. There are similar products.
  - v. Steve S – Not sure everybody is going to follow the instructions on a label. We are going to have windborne debris all over the place.
  - vi. Paul K – The way we looked at this is that hurricane preparedness is universal. When there's high wind, people are moving things from their pool, securing things, and boarding up windows. This is about a 30-second way to prepare for hurricanes.
- b. D.A. Pierce – Representing self. How is this not different from a sunroom?
  - i. Paul K – A sunroom is a glass structure. These enclosed porch areas have panels that can move and have less fixed glass than a sunroom.
  - ii. D.A. Pierce – There are five categories of sunrooms, and this appears to fit into Category 1. All sunrooms can be built on a deck-style foundation. If it's a raised floor system, the code states that the system needs to be engineered. Would this be more appropriate in the sunroom provisions of the code, particularly under the Category 1 section? As far as engineering is concerned, you don't necessarily need a foundation; however, if you have a Category 4 or 5 sunroom, which requires insulation, there's a minimum requirement of an air barrier underneath the space if you don't have a foundation.
  - iii. Paul K – In practically every application we are doing this, there is not a sealed or closed foundation system underneath.
- c. Kyle K – Not opposed to a change specifically on this subject because I know this is highly debated. Did the 75-mph number strictly come from the other states, or do you have some testing that shows it fails at 75mph?
  - i. Paul K – No. This is the verbiage that NC put in. I don't know who created that mile per hour rating.
  - ii. Steve S – Cat 1 hurricanes start at 76mph, so this falls below this.
  - iii. Paul K – We're trying to differentiate between a random storm and a hurricane.

- iv. Kyle K – Spoke with another manufacturer whose product fails at 60 mph. Is there any testing that talks about where that failure rate is?
- v. Paul K – I don't believe there is, but I think that is the whole reason for the labeling. Instead of being able to say definitively what this product will do, the solution is to take the sashes down once we get above these high winds.
- vi. Kyle K – We're already making an exception that it doesn't meet code. However, we also don't have data that states that it can meet the number we're putting on there (the 75mph figure). Not sure of anywhere else in the code where it puts the responsibility on the owner to prepare for that type of weather. This needs to be addressed; I don't know if this is the solution.
- d. Andrew C – Putting the burden on the homeowner is something they may not be able to control. Would this preclude or put your company or product at a competitive advantage over others in the marketplace? Would your competitors say that they are comfortable with this?
  - i. Paul K – It's not that you'll have a single manufacturer, I'm saying this type of product in this industry is for people who are looking for additional protection on their porch.
- e. D.A. Pierce – A Category 1 sunroom doesn't require fenestration, just for clarification.
- f. Richard G – One other consideration that we've heard is to accept this as a guard. Now we have a structural requirement it has to meet, but we're hearing it's going to blow out at 40mph or 50mph. There are more applicability situations that we need to look at, too.
- g. David B – Opposed as it's written, particularly because of the decal language.
- h. Jeff B – If we go forward with the proposal right now, it would be labeled as non-consensus. You also have the option to carry this proposal over to the next meeting to work on it and bring it back to the next workgroup meeting.
  - i. Paul K – Is the opposition primarily if the label is permanent?
    - 1. D.A. Pierce – My opposition is that this is in the wrong section of the code. This should be in the Category 1 sunroom section.
  - ii. David B – This applies to an item and an action you have to do to that item after the fact. This seems more like a maintenance piece versus a construction piece.
  - iii. Kyle K – My opposition is that only in the event of hurricane-force winds is there cause for doing something about it, when some of these products will fail before then. I'm looking for some testing.
    - 1. Paul K – We have a product that works well and serves a need. We're just trying to find a way to work with everybody to make this product work.
- i. Jeff B – We can mark this as non-consensus, and it will still go to the Board for consideration with a summary of the discussion, or, if you want to get with stakeholders to work on it, we will need to table it now.
  - i. Paul K – Fine going forward as non-consensus.

- j. Non-consensus
- 2. **RB322.3.6-24** – Corian Carney
    - a. Corian C – Provides overview of the proposal.
      - i. Steve S – Representing self. Support.
    - b. Consensus for Approval

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### **Trades Proposals**

- 1. **M403.3.1.1-24** – Dennis Hart
  - a. Dennis – Provides overview of the proposal.
  - b. Richard G – Hanover County supports.
  - c. Steve S – Self supports.
  - d. Consensus for Approval
- 2. **M504.4-24** – Dennis Hart
  - a. Dennis – Provides overview of the proposal.
  - b. Consensus for Approval
- 3. **M506.3.2.5-24** – Dennis Hart
  - a. Dennis H – Provides overview of the proposal.
  - b. Steve S – In support.
  - c. Consensus for Approval
- 4. **M508.2-24** – Dennis Hart
  - a. Dennis H – Provides overview of the proposal.
  - b. Consensus for Approval
- 5. **M607.6.2.2-24** – Dennis Hart
  - a. Dennis H – Provides overview of the proposal.
  - b. Consensus for Approval
- 6. **M1109.2.5-24** – Greg Johnson (absent)
  - a. Dennis H – Not part of Greg’s group but provides an overview of the proposal. VPMIA and VBCOA were developing similar proposals.

- i. Steve S – First line of reason statement says this is on the consent agenda for 2027. If we want to adopt something in the 2027 code, this will be the language.
    - ii. Florin M – This proposal fixes an oversight during the development of the 2021 International Mechanical Code. The proposal that this was included in was a very extensive proposal, and the proponent never intended to add this criterion for Group A1 refrigerant. Since then, he has issued a white paper clarifying his intent.
  - b. Consensus for Approval
- 7. **M-FG404.7-24** – Withdrawn by proponent
- 8. **M-FG407.2-24** – Dennis Hart
  - a. Dennis H – Provides overview of the proposal.
  - b. Consensus for Approval
- 9. **RM-FG2415.7-24** – Dennis Hart
  - a. Dennis H – Provides overview of the proposal.
    - i. David B – Supports.
  - b. Consensus for Approval
- 10. **RE3601.8-24** – Corian Carney, Charles Styles, Joseph Willis
  - a. Corian C – Provides overview of the proposal.
    - i. Andrew C – Is this truly a cleanup, or am I missing something? HBAV members are unclear.
    - ii. Tread W – This isn't really a change; it's an alignment. Current disconnecting means provisions are muddled and confusing, and people don't know how to address them. The 2026 NEC proposal says, "You shall install the service disconnect means outside." This will happen in the 2026 National Electrical Code, and then we will be a code cycle ahead of it. We treat this as a service disconnect, not a servicing disconnect, or emergency disconnect, or meter disconnect, where the location of the grounding electrode system may change, or the location of the main overcurrent device may change. This gives it some consistency across the board, no matter where you are in the Commonwealth. The service disconnect, which has your overcurrent protection and your grounding electrode system established there, is outside for first responders. And there is no confusion about where it is and where it is not.
  - b. Jeff B – To clarify, this is a change from what's in the code now, where you don't have to place your service disconnect on the exterior.



- i. Tread W – That’s correct. You have the servicing disconnect that says, “This shall be the service disconnect.”
  - ii. Corian C – The way it’s written now, you have to have a disconnect outside. It doesn’t have to be a service disconnect, but that’s what everyone is suggesting. So it is a change.
- c. Andrew C – Asks proponents to get together with HBAV members to explain the proposal better.
  - i. Corian C – Agrees to carry over the proposal and work with HBAV.
- d. Carried Over

**11. RE3901.4.2-24 – Tread Willis**

- a. Tread W – Provides overview of the proposal.
  - i. Dennis H – Representing self. As I understand it, it’s not required to have an outlet in an island or peninsula. This would still put the use of extension cords at risk of getting pulled over the countertop because they could choose not to install the receptacle in that island or that peninsula.
  - ii. Tread W – Asks for floor amendment. Get rid of the comma and the “if.”
  - iii. Sean F – It still doesn’t make it mandatory.
  - iv. David B – No, it doesn’t.
- b. Kyle K – Is it your intention to keep the current provisions of 9 square ft and every 18 square ft after that? Or are we back to 1 outlet can work for the entire island?
  - i. Tread W – One outlet can work for the entire island. But it must be installed.
- c. Ron C – As the building official of my locality, I’m going to say this is still optional, the way it’s written. This won’t be enforced uniformly across the state.
- d. Jeff B – This is a substantive change based on statements made; there appear to still be questions as to what is required in the 2024 IRC. We do have time for a couple more meetings.
- e. David B – Verification of the other requirement is going to be critical. Because if not, you are just saying that no island needs an outlet.
- f. Corian C – I’m neutral on this one.
- g. Dennis H – People don’t want the pop-up receptacles. I don’t think you’ll get a consensus if we require the pop-ups altogether.
  - i. Tread W – Pop-ups aren’t the only option. That is an option to achieve compliance, but it’s not the only option.
- h. Jeff B – Do you agree with carrying this one over?
  - i. Tread W – We’ll table and re-work.
- i. Carried Over

**12. RE3902.20-24 – Corian Carney**

- a. Corian C – Provides overview of the proposal.

- i. Andrew C – The cost impact is minimal. To get our members comfortable, they want to see if there's a demonstrated need that this would address in Virginia.
  - ii. Gerry O' – Representing Eaton. Based on national fire fighter association or FEMA data on fires dating back to 2002, which is when AFCI requirements were introduced to bedrooms (and has over time expanded to every space except attics, bathrooms, and garages), if there is a GFCI already on the circuit, this is a \$5-7 add-on to protect the entire circuit.
  - iii. Andrew C – We could find cost data all over the place.
- b. Gerry O' – From a fire perspective, home fires have roughly stayed steady. They might have declined 1-2%. If you base it on the number of homes built in 2000 compared to today, we've almost doubled the number of homes we build in a year.
  - i. Andrew C – In Virginia, that trend is the opposite. Our permit data has gone down significantly. A substantially smaller number of homes are being built each year.
  - ii. Gerry O' – I'm basing it on the number of fires. It's hard to place a true stat number on electrical fires based on electrical wiring versus electrical cooking on a countertop that started a fire.
  - iii. Andrew C – The fire services folks are beginning to amp up how they collect data, specifically for this purpose. We can then really hone in and say, "Are we addressing a perceived problem or do we have data that shows there is an issue?"
  - iv. Gerry O' – I can tell you that after doing studies, I receive a lot of calls and reports from NEMA on unwanted tripping or nuisance tripping. Is it really a nuisance if it's doing its job? It could be an unwanted trip that causes discomfort to reset the breaker. From our perspective, we have an excellent AFCI algorithm programmed into our devices. I want to say 80% of the items that we send a tech out to inspect are due to circuit overload. And any breaker would do it, whether it's AFCI or GFCI. If you overload a 20-amp circuit, it will trip.
- c. Jeff B – Andrew, are you in opposition at this point?
  - i. Andrew C – At this point.
  - ii. Corian C – I'm not sure if there is a world in which we all agree, so we will move forward with it as non-consensus.
- d. Non-consensus

## **General Stakeholder Workgroup Meeting**

### **Second Meeting Summary**

**Date: October 3, 2025**

**Location: 4224 Cox Rd, Glen Allen, VA 23060 - Virginia Housing Center**

**Time: 9:00 AM**

#### **Attendees:**

#### **VA Department of Housing and Community Development (DHCD) Staff:**

- **Jeff Brown** – Deputy Director of Building and Fire Regulation
- **Florin Moldovan** – State Building Codes Office Director
- **Paul Messplay** – Code and Regulation Specialist, State Building Codes Office
- **Chris Scott** – Code and Regulation Specialist, State Building Codes Office
- **Rajan Eng** - Training and Development Specialist, Virginia Building Code Academy
- **Amy Fottrell** – Policy Analyst, Policy and Legislative Services

#### **Stakeholders:**

- **Andrew Clark** – Home Builders Association of Virginia (HBAV)
- **Andrew Grigsby** – Viridian
- **Andrew Milliken** – Stafford County Fire Marshal’s Office, Virginia Fire Services Board (VFSB) Codes and Standards Committee
- **Angela Gue** – Warren County
- **Bob Shippee** – Private Citizen
- **Bryan Holland** – National Electrical Manufacturers Association (NEMA)
- **Chelsea Harnish** – Virginia Energy Efficiency Council (VAEEC)
- **Chris Barfield** – University of Virginia, Building Official’s Office
- **Corian Carney** – York County, Independent Alliance of the Electrical Industry (IAEI) - Virginia Chapter
- **Dan Willham** – Fairfax County, Virginia Building and Code Officials Association (VBCOA)
- **David Beahm** – Warren County, VBCOA
- **David Compton** – City of Virginia Beach
- **Delegate Elizabeth Bennett-Parker** – Virginia House of Delegates 2025, 5th District
- **Dennis Hart** – Virginia Plumbing and Mechanical Inspectors Association (VPMIA), VBCOA PMG Code Committee
- **Doug Banks** – Henrico County
- **Eric Lacey** – Responsible Energy Codes Alliance (RECA)
- **Eric Mays** – Prince William County

- **Gregory Black** – George Mason University
- **Jason Laws** – Chesterfield County, VBCOA
- **Jonathan Sargeant** – Omega Flex
- **Joseph “Tread” Willis** – Prince William County, IAEL - Virginia Chapter
- **Joshua Davis** – State Fire Marshal’s Office
- **Joshua Jones** – Henrico County
- **Kevin Perry** – Warren County
- **Kyle Kratzer** – Fairfax County, VBCOA
- **Lee Stoermer** - Loudoun County Fire Marshals Office
- **Lyle Solla-Yates** – Charlottesville Planning Commission
- **Mark Graver** – City of Waynesboro, Builder, VBCOA Region III
- **Mark Price** – City of Martinsville
- **Mason Trimble** – Virginia Department of Energy (VDEG)
- **Matt Mertz** – Fairfax County
- **Matthew Byers** – Warren County
- **Matthew Robinson** - Spotsylvania County, VFSB
- **Michael Dellinger** – Albemarle County, VBCOA Region IV
- **Michaela Phillips** – Warren County
- **Mike O’Connor** – Virginia Petroleum and Convenience Marketers Association (VPCMA), Virginia Propane Gas Association (VAPGA)
- **Nicholas Bowles** – Halifax County
- **Peter Broadbent** – Virginia Cable Telecommunications Association (VCTA)
- **Richard Gordon** – Hanover County
- **Robby Dawson** – National Fire Protection Association (NFPA)
- **Ron Clements** – Chesterfield County, VBCOA Admin and Existing Building Code Committees
- **Rory Stolzenberg** - Charlottesville Planning Commission
- **Russell Furr** – City of Alexandria Fire Marshal’s Office
- **Ryan Celestino** – City of Newport News, IAEL - Virginia Chapter
- **Samuel Rokowski** - National Fire Protection Association (NFPA)
- **Sarah Thomas** – Virginia Association for Commercial Real Estate (VACRE)
- **Sean Farrell** – Prince William County
- **Shahriar Amiri** – Arlington County
- **Steve Shapiro** – Apartment & Office Building Association of Metropolitan Washington (AOBA), Virginia Apartment and Management Association (VAMA)
- **Susan Stillman** – Sierra Club, Virginia Chapter
- **William Abrahamson** – American Institute of Architects, Virginia Chapter
- **William Penniman** – Sierra Club, Virginia Chapter

## ADMINISTRATIVE PROPOSALS

### B101.2-24 (Withdrawn)

#### B101.2 (1)-24 – Joseph Wages (Non-Consensus)

- I. **Brian Holland** provided an overview of the proposal.
- II. **Support**
  - a. **Bill P** expressed support for the proposal based on the proponent's reason statement.
- III. **Opposition**
  - a. **Steve S** stated that the ICC board correctly kept these provisions in the appendices.
  - b. **Andrew C** noted that this creates a patchwork of enforcement across localities. ICC board deemed it outside of scope.
  - c. **Ron C** stated that the cost impact statement is inadequate. Further, this proposal makes requirements mandatory throughout Virginia and not optional for individual localities. Lastly, addressing a statement made by Brian H in his opening remarks, that this proposal, according to an ICC Appeals Board ruling, meets the scope and intent of the 2021 and 2024 IECC. He notes that only the ICC Board of Directors can make determinations on scope and intent, not the ICC Appeals Board.
  - d. **Shahriar A** expressed technical issues, noting the code doesn't specify how to install an Energy Storage System (ESS), only that one needs to be provided.

### B103.5-24 (Carry Over)

#### B105.2.1-24 – Kyle Kratzer (Non-Consensus)

- I. **Kyle K** provided an overview of the proposal.
- II. **Support**
  - a. **Ron C, Corian C, and Dennis H** expressed support based on the proponent's reason statement.
- III. **Opposition**
  - a. **Mark G** stated that qualifications are crucial for credibility and good stewardship.
    - i. **Eric M**, responding to **Mark G**, cited examples of hires in Prince William County that would violate the current strict provisions but was in support.
    - ii. **Kyle K** explained that the proposed change arose because of a misunderstanding about the intent of the existing section concerning technical assistant qualifications. He further noted that recent high school technical training programs influenced changes to the provision's language and that under the current system, the "three years of experience" requirement was still being imposed even on individuals with a two-year degree, which created a barrier for qualified candidates. **Kyle K** emphasized that the intent here is to allow hiring of candidates who have an equivalent

level of experience or education, not necessarily three years of direct experience. Lastly, he shared that Fairfax County has piloted an internship program where localities help interns gain the necessary “equivalent experience,” and uses a tiered system to develop interns up to “qualified individual” status.

**IV. Discussion**

- a. **David B** suggested a friendly amendment to remove "at least three years of..."
- b. **Andrew C** asked if the intent was to address staffing; **Kyle K** confirmed.
- c. **Ron C** noted that Chesterfield County relies on “any combination of education and experience,” and would have vacancies if the existing provisions were strictly enforced.
- d. **Sean F** expressed a need for correlation between the other regulations.
  - i. **Kyle K** noted that his intent is for correlation to occur and asked to discuss a compromise with opponents during the break.
    - 1. Note: This proposal moved forward as non-consensus due to **Mark G’s** opposition.

**B107.1-24 (Carry Over)**

**B109.1-24 – David Beahm (Consensus for Approval)**

- I. **David B** provided an overview of the proposal.
- II. **Support**
  - a. **Ron C** and **Mark G** expressed support, calling the current requirement an unnecessary burden.
- III. **Opposition**
  - a. No opposition was expressed by the stakeholders who were present at the meeting.
- IV. **Sean F** noted that reversed plans might not account for different setbacks between lots.
- V. **Eric M** expressed concern for complex sites with topography issues that may affect whether a basement would be considered a story above grade but removed opposition after proponent’s clarification that this proposal still requires the approval of the building official.

**B109.2-24 (Carry Over)**

**B109.4-24 (Carry Over)**

**B110.6-24 – David Beahm (Consensus for Approval as Modified)**

- I. **David B** provided an overview of the proposal.
- II. **Support**
  - a. **Ron C** and **Corian C** expressed support.
- III. **Opposition**

- a. **Shahriar A** expressed “mild” opposition and concerns that this proposal allows for unilateral permit extensions and suggested language to require a request be made to the building official for extensions.
  - b. **Mike D** opposed the change, citing complications with expired VDH permits.
- IV. **Discussion** led to a **floor modification** to strike "written" but keep "upon request," which gained consensus.
  - a. **Andrew C** suggested that justification is required in the preceding sentence of the stricken language in the proposal.
    - i. **Corian C** agrees with Andrew’s statement.
  - b. **David B** expressed support for, “upon request,” with, “written,” being stricken.
    - i. **Shahriar A** expressed support for this modification.

**PM105.2-24 – Matt Mertz (Consensus for Approval)**

- I. **Matt M** provided an overview of the proposal.
- II. **Support**
  - a. **Sean F** noted that he worked with the proponent to reach this consensus language.
- III. **Opposition**
  - a. No opposition was expressed by the stakeholders who were present at the meeting.

**FP112.5-24 – Andrew Milliken (Consensus for Approval)**

- I. **Andrew M** provided an overview of the proposal.
- II. **Support**
  - a. **David B, Ron C, and Joshua D** expressed support for the proposal.
- III. **Opposition**
  - a. No opposition was expressed by the stakeholders who were present at the meeting.

**VIRGINIA CONSTRUCTION CODE (VCC) PROPOSALS**

**B406.2.7-24 (Carry Over) & FP1208-24 (Consensus for Approval as Modified) – Ernest Little**

- I. **Andrew M** provided overviews of the proposals on behalf of the proponent and **Jeff B** provided background on the floor modifications presented by the proponent.
  - a. **Sam R** noted that the proposed markings change in the 2026 National Electrical Code (NEC). Recommended the group look at those changes for correlation with this text.
- II. **Support (B406.2.7)**
  - a. **Russel F** expressed support.
- III. **Opposition (B406.2.7)**
  - a. **Mike O'** questioned the necessity of the proposal, asking for incident data and noting it singles out the private sector.

- b. **Andrew M** cited a significant fire in Colorado and the difficulty of extinguishing EV fires.
- c. **Dan W** opposed, feeling NFPA language shouldn't be duplicated in the USBC.
- d. **Brian H** opposed, citing flaws in the proposal and lack of incident data where a disconnect was available. Offered to work on a new modification.
- e. **William A** raised concerns about nuisance hazards and staffing for shutoffs in large developments.

**IV. Discussion (FP1208)**

- a. **Shahriar A** suggested changing "maintained" to "maintained in accordance with the applicable building code."
  - i. **Jeff B** asked if there is any opposition to **Shahriar A's** proposed modification.
  - ii. **Brian H** suggested pointing to NFPA 70B for maintenance standards.
    - 1. **Jeff B** noted that the definition of "Maintained" refers back to the building code that was applicable when the installation took place and would include the applicable standards at the time of construction.
- b. **Florin M** asked for clarification on the language being suggested for a modification by **Shahriar A**.
  - i. **Shahriar A** responded with, "Electrical vehicle charging systems, where provided, shall be maintained in accordance with the applicable building code," for 1208.1 and, in 1208.2, "Where provided, emergency shutoffs shall be maintained in accordance with the applicable building code."
- c. No opposition was expressed by the stakeholders who were present at the meeting.

**B509.1-24 – Andrew Milliken (Consensus for Approval)**

- I. **Andrew M** provided an overview of the proposal.
- II. **Support**
  - a. **Dan W** stated the proposal provides a good pointer that may otherwise be missed.
  - b. **Russel F** expressed support.
- III. **Discussion**
  - a. **Bill P** asked if the proposal would apply to Tesla wall-mount batteries in homes.
  - b. **Andrew M** stated it does not.
  - c. **Andrew C** asked if this would apply to multifamily developments.
  - d. **Andrew M** stated that it would, but that it would require a lot of battery storage to meet the threshold.
- IV. **Opposition**
  - a. No opposition was expressed by the stakeholders who were present at the meeting.

**B906.1-24 (Non-Consensus) and FP906.1-24 (Non-Consensus) – Morgan Hurley**

- I. **Jeff B** provided an overview of the proposal and the associated floor modification shared on the



screen.

II. **Support**

- a. **Andrew M** expressed support.

III. **Opposition**

- a. **Steve S** reiterated comments from the 2<sup>nd</sup> SFPC SWG meeting.
  - i. *Comments from 2<sup>nd</sup> SFPC SWG meeting: **Steve S** noted that striking A, B, and E occupancies has been proposed to be stricken for the past 5 code cycles and that the Board of Housing has rejected it every time. AOBA will be speaking again in opposition at the Board of Housing and Community Development meeting.*
- b. **Dan W** noted that the VBCOA building code committee opposes this proposal.
- c. **Shahriar A** stated that this proposal only increases costs without solving a problem.

**B917.1-24 – Gregg Black (Non-Consensus)**

I. **Gregg B** provided an overview of the proposal.

- a. **Sean F** asked if there is an Emergency Management Coordinator (EMC) at every facility?
  - i. **Gregg B** replied that there is an EMC at every facility as required by Executive Order 41.
- b. **Eric M** asked what happens if the building official disagrees with the EMC, who is the final decision maker?
  - i. **Gregg B** stated the risk analysis would have to be approved by the EMC.
  - ii. **Eric M** further inquired as to who has to approve the risk analysis under the current code?
  - iii. **Gregg B** noted that the current code is silent on who approves it.
  - iv. **Eric M** stated that since the code is silent, this would be under the purview of the building official.
  - v. **Gregg B** replied in the affirmative.
  - vi. **Eric M** asked if the proponent is intentionally usurping the power of the building official and giving it to someone else.
  - vii. **Gregg B** replied in the affirmative, further noting that the building official would have a say about what gets installed, to make sure that it's compliant with NFPA standards, but the risk analysis regarding how the system would be used and what the hazards and threats are to the building, would be within the purview of the EMC. The risk assessment addresses the hazards that the campus would face and how communication happens between campus administration and the occupants of the buildings.

II. **Opposition**

- a. **Dan W** opposed because it increases requirements for the building official, weakens their authority, and places an extra burden on them by having to coordinate with an extra agency.

III. **Support**

- a. **Chris B** expressed support, noting that UVA already coordinates with emergency management personnel for determining where monitors and notification devices should be placed.

**B1006.2.1-24 (Withdrawn) and B1006.2.1(1) (Consensus for Approval) – Daniel Willham**

- I. **Dan W** provided an overview of the proposal.
  - a. **Support**
    - i. **Andrew M** expressed support for B1006.2.1(1).
  - b. **Opposition**
    - i. **Andrew M** expressed opposition for B1006.2.1.
- II. **Dan W** – withdrew B1006.2.1.

**B1006.3.4-24 – Lyle Solla-Yates (Consensus for Approval as Modified)**

- I. **Lyle S** provided an overview of the proposal and presented a floor modification for consideration adding Item 7 to Section 1006.3.4.2, to read:
 

"7. The emergency power illumination requirements in section 1008.3 shall be provided regardless of there being only one means of egress under this section."
- II. **Sean F** asked if this proposal is the product of all of the stakeholders of the Single Exit Stair Study Group and, if so, why they are not listed as a proponent.
  - a. **Jeff B** explained that a consensus proposal did not come out of the Study Group. However, the original proposal was discussed by the Study Group and feedback was provided to the proponent who then revised the proposal to address concerns raised by the study group participants.
- III. **Support**
  - a. **Andrew C**, speaking on behalf of HBAV and the City of Harrisonburg, supported, noting that this proposal encourages redevelopment.
  - b. **Dan W** expressed support.
  - c. **Andrew M** stated support, noting that the reason for support is predicated on the fact that this proposal rejects the single-exit stair design for 5 or more stories, of which the VFSB is strongly opposed. Further, this proposal mandates additional fire protection features beyond what is required for a single-exit three-story design. He further noted that this proposal is consistent with what is required by NFPA 101 Life Safety Code for single-exit stair designs and the proposed provisions in the 2027 edition of the International Building Code. Lastly, this proposal supports utilizing the code development process instead of the legislative process and is intended to encourage redevelopment.
- IV. **Discussion**
  - a. **Mike D** expressed concern about the exemption permitted in the code for those buildings on sites where there is inadequate water pressure for a sprinkler system,

noting his reservations if this exemption applies to these four-story single-exit stair buildings.

- i. **Robby D** asked if the exemption mentioned by **Mike D** is applicable to these buildings, since these buildings exist in a separate section of the code.
- ii. **Andrew M** provided additional detail, noting that the exemption only applies to two-story buildings and this proposal deals with four-story buildings, so the exemption would not be applicable.
- b. **Mark G** asked about adding a story to an existing non-sprinklered building.
  - i. A general discussion occurred among stakeholders about the applicability of the Virginia Existing Building Code (VEBC), noting that one cannot create or expand a non-conforming condition for an existing building.

V. **Opposition**

- a. No formal opposition was stated by the stakeholders present at the meeting.

**B1110.20-24 – Delegate Elizabeth Bennett-Parker (Carry Over)**

- I. **Delegate Bennett-Parker** provided an overview of the proposal.
- II. **Support**
  - a. **Steve S, Bill P, Eric L, Andrew C, Ron C, and Sean F** all expressed strong support.
- III. **Opposition/Clarification**
  - a. **Dan W** noted that VBCOA Building Code Committee wanted further data as to the necessity for this change and further stated that there are no specifications as to what constitutes a “baby changing station” versus an “adult changing station.”
  - b. **Shahriar A** suggested using the term "diaper changing station" from A117.1 for clarity.
  - c. **David B** noted that there is no clear language as to whether you would be required to install a baby changing station if an adult changing station already exists.
- IV. **Delegate Bennett-Parker** agrees to carry over the proposal to work with stakeholders on consensus language.

**B3002.4-24 – Lyle Solla-Yates (Non-Consensus)**

- I. **Lyle S** provided an overview of the proposal and the associated floor modification, explaining that the language from the original proposal is being changed with the floor modification from “with the following” to “with all of the following” for clarity and to ensure all listed requirements must be met.
- II. **Support**
  - a. **Andrew C** expressed support for the proposal but suggested that the proponent should meet with other stakeholders to address any outstanding concerns and possibly improve the proposal further.
  - b. **William A** indicated support for the proposal.
  - c. **Rory S** explained that the proposal targets buildings that typically do not have elevators

due to their high cost. He argued that adopting this proposal could encourage the installation of additional elevators, which would improve both evacuation during emergencies and firefighter access.

III. **Opposition**

- a. **Andrew M** strongly opposed the intent of the proposal.
- b. **Lee S** (speaking on behalf of himself) opposed the proposal, describing the practical difficulties of evacuating patients on backboards down multiple flights of stairs, a process that requires 5-6 people. Lee argued that elevators would allow just 2 people to transport someone, highlighting the safety and efficiency benefits of elevator access in emergencies.

**B3102.1-24 (Withdrawn)**

**B3500-24 - Mark Dreyer (Non-Consensus)**

- I. **Jeff B** provided an overview of the proposal.
- II. **Support**
  - a. No support from stakeholder participants was expressed.
- III. **Opposition**
  - a. **Steve S** noted that this proposal goes beyond what ICC did with regard to ASCE supplement 2, further stating that the cost is enormous, especially considering those buildings constructed in flood hazard areas.
  - b. **Dan W and Andrew C** opposed for the same reasons noted by **Steve S**.

**VIRGINIA EXISTING BUILDING CODE (VEBC) PROPOSALS**

**EB202-24 – Eric Mays (Consensus for Approval as Modified)**

- I. **Eric M** provided an overview of the proposal, including the floor modification shared on the screen, which narrows the scope to only include special occupancies as described in NFPA 70.
- II. **Support**
  - a. **Corian C, Ron C, Shahriar A, Brian H, and Mike D** all supported the modified proposal.
- III. **Opposition**
  - a. No opposition was expressed by the stakeholders who were present at the meeting.

**EB601.5-24 – Dennis Hart (Carry Over)**

- I. **Dennis H** provided an overview of the proposal and expressed his intent to carry over the proposal but was interested in receiving feedback from the stakeholders.
- II. **Support**
  - a. **Mike D, Jonathan S, and Andrew M** expressed support.

III. **Opposition**

- a. **Ron C** expressed opposition, noting that these provisions cannot be enforced uniformly across the state. The purpose of the VEBC is not to be a retrofit code.

**EB601.6-24 – Delegate Elizabeth Bennett-Parker (Carry Over)**

I. **Delegate Bennett-Parker** provided an overview of the proposal.

II. **Discussion**

- a. **Dan W** asked if this would need to be provided for all level 1 alterations as a trigger but only level 2 alterations in bathrooms as a trigger?
  - i. **Delegate Bennett-Parker** stated the intent is for both a level 1 or level 2 alteration to a restroom.
- b. **Florin M** asked if that should be considered a floor modification to read, “for a level 1 or level 2 alteration that includes renovations or alterations to a restroom, a baby and toddler diaper changing station...”
- c. **Shahriar A** recommended deleting level 1 or level 2 as there is no longer a level 3 alteration. **Jeff B** restated the modification to read, “for alterations that include renovations or alterations to a restroom, ....”
- d. **Shahriar A** supported this change.

III. **Support**

- a. **Eric L, Bill P, and Tread W**, all representing themselves, expressed support.

IV. **Opposition**

- a. **Ron C** stated that VBCOA’s VEBC committee opposes this proposal because level 1 alterations could include small repair work, such as replacing a light fixture or a floor tile, and these types of alterations would now have to meet this new requirement.

**VIRGINIA PROPERTY MAINTENANCE CODE (VPMC) PROPOSALS**

**PM602.2(1)-24 – Honore Tchou (Non-Consensus)**

*Note: The original proposal designation number for this proposal was PM602.2-24*

I. **Jeff B** provided an overview of the proposal on behalf of the proponent.

II. **Support**

- a. No support was expressed by stakeholders present at the meeting.

III. **Opposition**

- a. **Shahriar A, Steve S, Andrew C, and Dennis H** expressed opposition to this proposal in favor of proposal PM602.2(2)-24.

**PM602.2(2)-24 – Gregg Fields, Earl Weaver, Delegate Elizabeth Bennett-Parker (Consensus for Approval as Modified)**

I. **Jeff B** provided an overview of the proposal on behalf of the proponents.

II. **Support**

- a. **Dennis H, Andrew C, Steve S** expressed support for this proposal over the alternative proposal - PM602.2(1)-24.

III. **Discussion:**

- a. **Florin M** provided additional background, noting the proposal stemmed from the Study Group formed to address legislative concerns.
- b. **Eric M** recommended using permissive language "may also enforce" rather than mandatory "shall".
- c. **Jeff B** reiterated that there were not going to be any more study group meetings and the proponents were not in attendance, so he does not have the authority to speak on their behalf and make an amendment. If there is opposition, then it will go down as non-consensus and it will be noted that VBCOA Region III is against it.
- d. **Mark G** speaking on behalf of VBCOA Region III, was initially opposed but removed opposition after further discussion.
- e. **Dan W** suggested language changes and referencing specific section numbers in Section 104.1.
- f. **Florin M** clarified that staff helped draft the proposal and did not include reference sections for ease of correlation with future code cycles.
- g. **Bill P** not speaking in opposition or support, argued heating and cooling are health and safety issues and that there are people who die if they don't have access to air conditioning or heating.

IV. **Opposition**

- a. No opposition was expressed by the stakeholders who were present at the meeting.

## **STATEWIDE FIRE PREVENTION CODE (SFPC) PROPOSALS**

### **FP405.5-24 – Delegate Elizabeth Bennett- Parker (Consensus for Approval as Modified)**

- I. **Delegate Bennett-Parker** provided an overview of the proposal.

- II. **Jeff B** provided an overview of the floor modification.

III. **Support**

- a. **Russel F** expressed support.
- b. **Andrew M** noted that the Virginia Fire Services Board (VFSB) did not support the original proposal and had not yet formally reviewed the amendment, but he worked with Delegate Bennett-Parker to develop the modified language, and he supports its adoption.
- c. **Steve S** asked about the notification timeline in NFPA 72.
  - i. **Andrew M** responded that only notification before and after is required.
  - ii. **Steve S**, upon clarification, indicated support for the proposal.

IV. **Opposition**

- a. No opposition was expressed by the stakeholders who were present at the meeting.

#### **FP601.2-24 – Gerry Maiatico (Non-Consensus)**

- I. **Florin M** provided an overview of the proposal.
- II. **Andrew M** brought up that there had been a prior discussion about updating the definition of “Utilities” within the proposal to address ambiguities or concerns, but no new language had been incorporated yet.
  - a. **Florin M** noted that no floor modifications or updates had been received from the proponent since the last discussion.
- III. **Support**
  - a. No support was expressed by the stakeholders who were present at the meeting.
- IV. **Opposition**
  - a. **Steve S** opposed. Initially supported with the carve out for telecommunication devices.
  - b. **Peter Broadbent** expressed strong opposition, describing the proposal as the “biggest public safety hazard.” He further emphasized deep frustration that, despite repeated requests, no answers or collaboration from the proponents had been provided over the past two months. Lastly, stakeholders from the telecommunications sector have safety and operational concerns that remain unaddressed.
  - c. **Bill P** asked for clarification as to which occupancy groups this proposal would apply.
    - i. **Jeff B** responded, clarifying that the proposal does not limit its application to any specific occupancy group.

#### **FP807.2-24 – Andrew Milliken (Consensus for Approval)**

- I. **Andrew M** provided an overview of the proposal.
- II. **Support**
  - a. **Russell F** expressed support.
- III. **Opposition**
  - a. No opposition was expressed by the stakeholders who were present at the meeting.

#### **FP901.6.3-24 – Andrew Milliken (Consensus for Approval)**

- I. **Andrew M** provided an overview of the proposal.
- II. **Support**
  - a. **Russel F** and **Steve S** expressed support.
- III. **Opposition**
  - a. No opposition was expressed by the stakeholders who were present at the meeting.

#### **FP3101.1-24 (Withdrawn)**

#### **FP4101.9-24 – Andrew Milliken (Consensus for Approval)**

- I. **Andrew M** provided an overview of the proposal.
- II. **Support**
  - a. **Russell F** and **Lee S** expressed support.
- III. **Opposition**
  - a. No opposition was expressed by the stakeholders who were present at the meeting.

**FP4106.1.3-24 – Gerry Maiatico (Carry Over)**

- I. **Jeff B** provided an overview of the proposal.
- II. **Support**
  - a. **Lee S** expressed support.
- III. **Shahriar A** asked whether the proposal would result in the entire food truck being exempt from utility requirements.
  - a. **Andrew M** responded that the intent is not a blanket exemption, but rather to ensure that any utility connection (e.g., electrical, gas) for a mobile food truck is made in accordance with the applicable building code.
  - b. **Florin M** clarified further that based on discussions at previous SFPC Sub-Workgroup meetings, it appears that the proposal is specifically aimed at addressing mobile food vehicles that are not currently in compliance with the applicable building code.
  - c. **Shahriar A** expressed skepticism about exempting food trucks from utility requirements, stating that such an exemption “does not make sense.”
  - d. **Andrew M** noted that the proponent is open to changing the proposal’s language to address these concerns and provide greater clarity.
- IV. **Opposition**
  - a. **Mike D** opposed the proposal in its current form, arguing that it could create conflicts between the building official and the fire official regarding enforcement and compliance.
  - b. **Andrew M** suggested that including clarifying language such as, “has been modified to be a structure,” could help resolve some of these conflicts.
  - c. **Mike D** agreed that such language would be helpful.
- V. **David B**, speaking on behalf of the proponent, asked for the proposal to Carry Over.

**FP5001.7-24 – Andrew Milliken (Consensus for Approval)**

- I. **Andrew M** provided an overview of the proposal noting that the VFSB codes and standards committee supports the proposal.
- II. **Opposition**
  - a. No opposition was expressed by the stakeholders who were present at the meeting.

**FP6112-24 – Lee Stoermer (Carry Over)**

- I. **Lee S** provided an overview of the proposal that included a floor modification of the original proposal.



- a. **Steve S** asked for clarification on what “IROL” stands for in Section 6112.4 of the floor modification and what its function is.
  - b. **Lee S** responded that IROL is a third-party online system for recording compliance and inspection data.
  - c. **Steve S** asked if the use of such a system is a mandate under the proposal.
  - d. **Lee S** replied that it is not a mandate, just an option that other jurisdictions are already using.
- II. **Shahriar A** pointed out that although the section title references “vendor,” many of the detailed requirements seem to be placed on the customer, leading to potential confusion over responsibility.
  - a. **Lee S** responded that the proposal is geared toward notification to the vendors.
- III. **Ron C** raised the concern that IROL is a private, proprietary company and questioned the appropriateness of referencing a specific company or product within the state code.
  - a. **Lee S** indicated willingness to remove the reference to IROL if necessary.
- IV. **Jeff B** asked for clarification if the proponent is still working on potential changes with the gas association and the intent was to carry over this proposal but would like to get some additional feedback. The proponent verified that that is the intent.
- V. **Mike O’** speaking on behalf of the VAPGA, read a response from the national organization. “The proposal sounds reasonable based upon the circumstance, none of these items would be considered out of OSHA, NFPA, IFC or insurance provider norms. The items in conflict with the other regulations are as follows: 6112.6 and 6112.6.1. The use of atmospheric monitoring, and potential leak conditions regulated by 29 CFR (Title 29 of the Code of Federal Regulations) and NFPA 470 are areas outside of the scope and capabilities of propane marketers and something the propane industry relies on the fire department to supply. The recommendation is that the requirements focus on early notification and engagement with emergency responders as opposed to an obligation of air quality monitoring that is outside the capabilities of non-emergency personnel.”
- VI. **Shahriar A** asked whether the requirements in the proposal apply to portable LP gas tanks.
  - a. **Lee S** clarified that the proposal applies only to underground and above-ground storage tanks, not portable LP tanks.
- VII. **Shahriar A** questioned who is going to notify the customers of these requirements in Sections 6112.1 and 6112.3.
  - a. **Andrew M** responded that the requirements are for the vendor’s documents of the customer not a requirement of the customer.
  - b. **Eric M** clarified that the title of the section limits requirements to the vendor.
- VIII. **Jeff B** again asked for clarification from the proponent if they would like to carry over the proposal and the proponent indicated that was the plan.

## ENERGY CONSERVATION CODE PROPOSALS

### EC-C402.1.6-24 – Bill Penniman (Non-Consensus)

- I. **Bill P** provided an overview of this proposal.
- II. **Support**
  - a. **Eric L** pointed out that the provisions in question are 2006 IECC provisions, allowing roof and wall insulation levels to be reduced by half in certain occupancies and that skylights lose 2.6 times more heat than walls or roofs, making reduced insulation problematic. He further noted that the appendix would reintroduce distinctions between metal-framed and non-metal-framed windows, distinctions that are not present elsewhere in the current code. These added distinctions would create confusion and enforcement problems for code officials. Lastly, he recommended approving the proposal as written to avoid these complications and maintain clarity and consistency in the code.
  - b. **Chelsea H** expressed support based on **Eric L's** comments.
- III. **Opposition**
  - a. **Brian H** stated that NEMA prefers the national consensus process and argued that this should be handled at the national level where subject matter experts from across the country can provide insight.
  - b. **Steve S** opposed, noting that the General Assembly directive referenced by the proponent was to "consider" comparable standards, not necessarily adopt them verbatim.
  - c. **Mark G** warned that if these provisions are removed, it could lead to excessive insulation requirements being applied to buildings that were never intended to be properly heated (such as utility or storage buildings). He further emphasized the importance of including specific carve-outs or exemptions for certain building types, like utilities, to avoid imposing unnecessary or impractical insulation standards on them.
  - d. **David B** stated opposition based on **Steve S'** comments.

#### **EC-C403.7.4.1-24 – Tread Willis (Carry Over)**

#### **EC-C405.17-24 (Non-Consensus) and REC-R404.5(1)-24 (Non-Consensus) – Joseph Wages**

- I. **Brian H** provided an overview of the proposal on behalf of the proponent.
- II. **Support**
  - a. **Bill P** expressed support.
- III. **Opposition**
  - a. **Steve S** opposed, stating it goes beyond the "minimum code" and should be in appendices.
  - b. **Ron C** opposed, questioning if it's within the state code's scope and citing an inadequate cost impact statement.
  - c. **Andrew C** strongly opposed, citing unstudied impacts on utilities, land planning, and development costs.
  - d. **Mike O'** opposed, noting federal EV tax incentives have been repealed.

- e. **Andrew M** opposed, raising safety concerns for parking garages, particularly with regard to ventilation and adequate sprinkler systems.
  - f. **Shahriar A** opposed, noting safety concerns about EV fires and fumes.
- IV. **Brian H** responded to opposition by stating that other states have successfully implemented similar requirements and that guidance exists to avoid the raised concerns. **Brian** further moved to have companion proposal REC-R404.5(1)-24 go forward as non-consensus, as it deals with the same topics but on the residential side.

#### **EC-C405.17(1)-24 - Bill Penniman (Carry Over)**

#### **EC-1301-24 (Carry Over)**

#### **REC-R402.1.2-24 (Carry Over)**

#### **REC-R402.1.2(1)-24 (Carry Over)**

#### **REC-R402.1.2(2)-24 (Carry Over)**

#### **REC-R402.1.2(4)-24 (Carry Over)**

#### **REC-R402.4.1.2-24 (Carry Over)**

#### **REC-R402.4.1.2(1)-24 (Carry Over)**

#### **REC-R403.14-24 (Carry Over)**

#### **REC-R404.5-24 (Carry Over)**

#### **REC-R404.6-24 – Bill Penniman (Non-Consensus)**

- I. **Bill P** provided an overview of the proposal.
  - a. **Andrew C** asked for clarification about Section 404.6.5, specifically what is meant by a “permanently affixed object on site.”
    - i. **Bill P** responded that the intent is for the reserved area to be free from obstructions like chimneys or anything that would shade the area where solar panels are to be installed.
  - b. **Andrew C** asked if the provision would require developers to cut down trees that shade the roof or otherwise "obstruct" solar readiness.
    - i. **Bill P** clarified that the proposal would not require trees to be cut down and expressed willingness to further modify the language to clarify intent.
  - c. **Andrew C** voiced opposition: As written, the proposal could impose additional upfront costs on homeowners for a feature they may never use, while future owners could easily add solar readiness features during resale if desired. He does not see the benefit in mandating this for every home and believes it should be left to the homeowner’s discretion.
    - i. **Bill P** responded that if no roof area is reserved for solar panels at construction, the option for future homeowners to install solar is lost, emphasizing the importance of thinking ahead for future needs.

#### **II. Support**

- a. **Brian H** strongly supported the proposal, arguing that over the next decade, three systems - onsite renewable energy, energy storage, and electrified transportation - will become as fundamental in homes as circuits and branch feeders. Urged the group to be forward-looking and anticipate future trends in code development.

III. **Opposition**

- a. **Tread W** felt the provisions should remain in the appendix as an option rather than being mandatory.
- b. **Mark G** representing himself, believes solar readiness is best left to the free market. Noted some owners may simply not want roof-mounted systems due to concerns (e.g., fear of roof leaks).
- c. **Matthew R** representing himself, opposed, arguing that the proposal would create more requirements at plan review and inspection, possibly incurring costs that may not provide real benefit in the long run.
- d. **David B** opposed for the reasons already mentioned by other opponents.

**REC-R404.7-24 – Bill Penniman (Non-Consensus)**

I. **Bill P** provided an overview of the proposal.

- a. **Shahriar A** stated that the proposal is unenforceable in its current form. Appreciated the intent but emphasized that the language “needs work” to be practically implemented.
- b. **Mark G** expressed uncertainty about how to determine the correct electrical service size for a building when accounting for all the proposed provisions.
  - 1. **Brian H** responded that all the relevant components have minimum ampacity ratings specified. Building services can be sized according to these published requirements.

II. **Support**

- a. **Brian H** expressed support for the proposal. Cited the need to mitigate the risk of house fires caused by improperly installed or unpermitted electrical equipment, suggesting that forward-thinking code requirements can improve safety.

III. **Opposition**

- a. **Steve S** opposed, stating that the proposal goes beyond the minimum requirements of the code and should remain as an optional provision in the appendices.
- b. **Tread W** opposed, echoing the reasons given by other opponents.
- c. **Andrew C** and **David B** expressed opposition.
- d. **Matthew R** representing himself, opposed, arguing that the proposal would impose greater burdens on plan reviewers and inspectors, increasing complexity and possibly cost for stakeholders.

**REC-R405.2-24 Carry Over**

**REC-R405.2(1)-24 – Bill Penniman (Non-Consensus)**

- I. **Bill P** provides an overview of the proposal.
  - a. **Dan W** asked what difference it makes if you use BTUs (energy units) or dollars (cost) to calculate this ratio.
    - i. **Bill P** explained that if you base the calculation on dollars, you are subject to the volatility of changing energy prices.
    - ii. **Dan W** countered that in practice, you would use the same cost rates for both your actual design and the code's reference design, so the calculation should remain correlated.
    - iii. **Bill P** reiterated that using BTUs means the analysis is based on energy consumption alone, avoiding the complications of fluctuating prices. Using dollars introduces a multiplier—the energy price—that can swing widely and unpredictably.
  - b. **Shahriar A** asked for clarification: “What is the standard reference design?”
    - i. **Bill P** answered that the standard reference design is the minimum requirements of the code.
- II. **Support**
  - a. No support was expressed by the stakeholders at the meeting.
- III. **Opposition**
  - a. **Mike O'** asked for justification of the cost impact statement, noting that the proponent's reason statement addresses the future re-enforcement of RGGI (Regional Greenhouse Gas Initiative), which, anecdotally, has increased the cost of utilities.
    - i. **Bill P** replied that costs are coming down because the energy mix is shifting toward solar, wind, and nuclear, which are becoming cheaper over time. RGGI will influence the supply of these alternate forms of energy.
- IV. **Andrew C** asked for clarification on whether it is the builder's choice to follow the simulated performance path for compliance, or if it is being mandated.
  - a. **Bill P** responded that it is the builder's choice.

#### **REC-R408.2.9-24 (Carry Over)**

### **TRADES PROPOSALS**

#### **M1103.1-24 – Dennis Hart (Consensus)**

- I. **Dennis H** provided an overview of the proposal.
  - a. **Support**
    - i. **Mark G** expressed support.
  - b. **Opposition**
    - i. No opposition was expressed by the stakeholders who were present at the meeting.

#### **M-FG310.2-24 (Consensus for Approval) and RM-FG2411.2 (Consensus for Approval) – Dennis Hart**

- I. **Dennis H** provided an overview of M-FG310.2-24 and companion residential proposal RM-FG2411.2-24.
  - a. **Support**
    - i. **Tread W** expressed support for both proposals.
    - ii. **Jonathan S** noted his favor of sunseting the non-arc resistant CSST and supported both proposals.
    - iii. **Andrew M** supported both proposals noting that in Maryland this product is not even able to be sold.
    - iv. **Jonathan S** and **Mike D** stated support for both proposals.
  - b. **Mark G** asked why this product would still be manufactured.
    - i. **Jonathan S** noted that if CSST is bonded correctly, it is safe. He further noted that his company sells this product in Canada where it's required to be bonded.
      1. **Mark G** asked if Jonathan S foresees manufacturing this product, and if so, how long this product will be in production.
  - c. **Jonathan S** noted that in competitive markets where this product is allowed, it will be sold since it is cheaper to manufacture.
  - d. **Opposition**
    - i. No opposition was expressed by stakeholders present at the meeting.

#### **RE3601.8-24 – Corian Carney (Carry Over)**

- I. **Tread W** provided an overview of the proposal.
- II. **Support**
  - a. **Brian H** expressed support.
- III. **Andrew C** asked the proponent if he could table the proposal to give Andrew time to review the proposal with HBAV membership.
  - a. **Tread W** agreed.

#### **RE3705.6-24 – Tread Willis (Consensus for Approval)**

- I. **Tread W** provided an overview of the proposal.
- II. **Support**
  - a. **Brian H** expressed support.
- III. **Opposition**
  - a. No opposition was expressed by stakeholders present at the meeting.

#### **RE3901.4.2-24 – Tread Willis, Eric Mays (Non-Consensus)**

- I. **Eric M** provided an overview of the proposal, including historical background with regard to how the provisions regarding island and peninsular countertop receptacles became code.
  - a. **Andrew C** asked if, based on the background narrative presented by the proponent, there is another proposal coming forward for consideration that aims to address the

concerns with appliances falling off of the counter and causing injury.

- i. **Eric M** stated that an alternate proposal would be reverting back to the 2018 language, which worked for 85 million people.
  - ii. **Andrew C** asked if carry over is possible to discuss with HBAV membership.
  - iii. **Eric M** expressed interest in having this proposal be non-consensus so that he can work with **Andrew C** and HBAV on a separate proposal.
- b. **Kyle K** representing himself, pointed out that this change doesn't solve the problems and dangers associated with receptacles installed at the end of the island, noting that you can still install the receptacle at the end of the island, on top of the countertop, and the cord could still be hanging over.
- i. **Tread W** reaffirmed that this proposal seeks to mitigate the problem, not solve the problem.
- c. **Dennis H** noted that the feedback he received is that this proposal essentially requires a pop-up receptacle installed in the countertop, which creates a situation where spills and debris can get into the assembly.
- d. **Brian H** stated that every solution that has been developed at the national level has created an unintended worse consequence and that he does not believe there is a good answer to this problem. He suggested going with the design that worked for 30 years.

### **Industrialized Building Safety Regulations Proposal**

#### **IB260-24 – DHCD Staff (Consensus for Approval)**

- I. **Jeff B** provided an overview of the proposal.
  - a. **Steve S** recommended changing the cost impact to “decrease cost”.
  - b. **Jeff B** noted that staff will make that change.
- II. **Support**
  - a. **Dan W** and **Steve S** (representing himself) expressed support.





## **General Stakeholder Workgroup Meeting**

### **Final Meeting Summary Day 1**

**Date: January 5, 2026**

**Location: 4224 Cox Rd, Glen Allen, VA 23060 - Virginia Housing Center**

**Time: 9:00 AM**

#### **Attendees:**

##### **VA Department of Housing and Community Development (DHCD) Staff:**

- **Jeff Brown** – Deputy Director of Building and Fire Regulation
- **Florin Moldovan** – State Building Codes Office Director
- **Chris Scott** – Code and Regulation Specialist, State Building Codes Office
- **Brian Hilderbrand** – Construction Regulation Administrator
- **Chad Lambert** - Code and Regulation Specialist, State Building Codes Office
- **Thomas King** - Code and Regulation Specialist, State Building Codes Office
- **Travis Luter** – Code and Regulation Specialist, State Building Codes Office
- **Rajan Eng** - Training and Development Specialist, Virginia Building Code Academy
- **Stephen Reynolds** - Training and Development Specialist, Virginia Building Code Academy
- **Joseph Dennie** – Policy Analyst, Policy and Legislative Services

#### **Stakeholders:**

- **Abigail Thompson** – Gentry Locke
- **Andrew Clark** – Home Builders Association of Virginia (HBAV)
- **Andrew Milliken** – Stafford County Fire Marshal’s Office, Virginia Fire Services Board (VFSB) Codes and Standards Committee
- **Bob Shippee** – Sierra Club
- **Chris Barfield** – University of Virginia, Building Official’s Office
- **Corian Carney** – York County, Independent Alliance of the Electrical Industry (IAEI) - Virginia Chapter
- **Dan Willham** – Fairfax County, Virginia Building and Code Officials Association (VBCOA)
- **David Sharp** – Fairfax County
- **DeAnthony “D.A.” Pierce** – VBCOA Energy Committee
- **Dennis Hart** – Virginia Plumbing and Mechanical Inspectors Association (VPMIA), VBCOA PMG Code Committee
- **Donny Groh** – National Elevator Industry Educational Program (NEIEP)
- **Doug Banks** – Henrico County
- **Dwayne Smith** - Virginia Department of General Services

- **Eric Lacey** – Responsible Energy Codes Alliance (RECA)
- **Gerry O'Connor** – Eaton
- **Greg Cavalli** – Virginia Department of Fire Programs (VDFP)
- **James Walls** - Cast Iron Soil Pipe Institute (CISPI)
- **Jason Laws** – Chesterfield County, VBCOA
- **Jason Vandever** – North American Insulation Manufacturers Association (NAIMA)
- **Jonathan Sargeant** – Omega Flex
- **Joseph Wages Jr.** – National Electrical Manufacturers Association (NEMA)
- **Joseph “Tread” Willis** – Prince William County, IAEl - Virginia Chapter
- **Joshua Jones** – Henrico County
- **Justin Koscher** – Polyisocyanurate Insulation Manufacturer’s Association (PIMA)
- **Kara Alley** – Home Builders Association of Virginia (HBAV)
- **Katelyn Jordan** – Virginia Farm Bureau
- **Kyle Kratzer** – Fairfax County, Vice President of VBCOA
- **Lee Stoermer** - Loudoun County Fire Marshals Office
- **Mark Graver** – City of Waynesboro, VBCOA Region III
- **Matthew Robinson** - Spotsylvania County, VFSB
- **Michael Dellinger** – Albemarle County, VBCOA Region IV
- **Michele Throckmorton** – City of Chesapeake
- **Mike O'Connor** – Virginia Petroleum and Convenience Marketers Association (VPCMA), Virginia Propane Gas Association (VAPGA)
- **Peter Broadbent** – Virginia Cable Telecommunications Association (VCTA)
- **Paul Messplay** – Hanover County
- **Richard Moore** – Henrico County
- **Ricky Davis** - Rockingham County
- **Ron Clements** – Chesterfield County, VBCOA Admin and Existing Building Code Committees
- **Russell Furr** – City of Alexandria Fire Marshal’s Office
- **Ryan Celestino** – City of Newport News, IAEl - Virginia Chapter
- **Shahriar Amiri** – Arlington County
- **Steve Shapiro** – Apartment & Office Building Association of Metropolitan Washington (AOBA), Virginia Apartment and Management Association (VAMA)
- **Sydney Roberts** – Southeast Energy Efficiency Alliance (SEEA)
- **Syris Spinks** – City of Chesapeake
- **Tony Gardner** – Cast Iron Soil Pipe Institute (CISPI)
- **William “Rick” Hinson** – American Council of Engineering Companies (ACEC)

## **VIRGINIA PROPERTY MAINTENANCE CODE (VPMC) PROPOSALS**

### **PM104.4-24 – DHCD Staff (Consensus for Approval)**

- I. **Jeff Brown** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Shahriar A and Paul M** expressed support
- IV. **Opposition**
  - a. None

### **PM106.8-24 – Michelle Throckmorton (Consensus for Approval)**

- I. **Michelle T** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Steve S** highlighted that this proposal came from the Unsafe Structures Study Group and he is in support.
- IV. **Opposition**
  - a. None

### **PM107.5-24 – Eric Mays (Consensus for Approval)**

- I. **Florin M** provided an overview of the proposal.
- II. **Discussion**
  - a. **Shahriar A** expressed that he has concerns that due process could be compromised by computer software.
- III. **Opposition**
  - a. None

### **PM606.1-24 – Shahriar Amiri (Consensus for Approval)**

- I. **Shahriar A** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Steve S** speaking for himself, and **Dan W** expressed support.
- IV. **Opposition**
  - a. None

## STATEWIDE FIRE PREVENTION CODE (SFPC) PROPOSALS

### FP105.3.1-24 - DHCD Staff (Consensus for Approval)

- I. **Jeff B** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Dan W** and **Andrew M** expressed support.
- IV. **Opposition**
  - a. None

### FP107.11-24 – Greg Cavalli (Non-Consensus)

- I. **Greg C** provided an overview of the proposal.
- II. **Discussion**
  - a. **Andrew C** asked if this was the same proposal that came up in the last cycle.
  - b. **Greg C** answered that it was not.
  - c. **Andrew C** noted that the Reason Statement states that joint recommendations between the Board of Housing and Community Development (Board) and the Virginia Fire Services Board are to be included in a report that has not been made public. **Andrew C** asked if this proposal is similar to proposals or recommendations in the report.
  - d. **Greg C** responded that this proposal does not represent a joint recommendation under the report. The Virginia Fire Services Board approved of all their recommendations, but they have not reached consensus with the Virginia Board of Housing and Community Development.
  - e. **Andrew C** reiterated that his concern is that this proposal doesn't reflect what joint recommendations could come from the two boards.
  - f. **Andrew M** asserted that if the boards have objections to this proposal, they can discuss it at the board meeting, and it would seem more appropriate to show that there is consensus among the stakeholders than non-consensus among the stakeholders because of potential board opposition.
- III. **Support**
  - a. **Andrew M** expressed support.
- IV. **Opposition**
  - a. **Andrew C** expressed opposition.

#### **FP107.12-24 Greg Cavalli (Non-Consensus as Modified)**

- I. **Jeff B** announced that there was a floor modification to this proposal, which was shared on the screen.  
**Greg C** provided an overview of the proposal and the associated floor modification.
- II. **Discussion**
  - a. **Steve S** asked what Consumer Price Index was used.
  - b. **Greg C** clarified that proposal FP107.11-24 increased existing fees, and this proposal introduces new fees based on the Consumer Price Index (CPI) going back to 2009.
  - c. **Steve S** explained that the concern is the number of new fees and their associated costs. **Steve S** questioned the justification of the costs of new fees.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Steve S** expressed opposition.
  - b. **Andrew C** expressed opposition for the same reason as opposition to proposal FP107.11-24.

**Florin M** clarified for stakeholders that what was in cdpVA and the agenda at the time of the meeting were the proposals, as submitted, and did not reflect any floor modification text shown during the meeting. Floor modifications introduced during the meeting and shared on the screen are intended to highlight changes to the original proposal, in legislative format, and not changes to the model code or the existing regulation. Following the conclusion of the meeting, all floor modified proposals will be updated in cdpVA to show the final proposal.

#### **FP107.12.1-24 – Greg Cavalli (Non-Consensus)**

- I. **Gregg C** provided an overview of the proposal.
- II. **Discussion**
  - a. **Shahriar A** declared that it makes sense to adjust fees because business costs increase.
  - b. **Steve S** expressed that the determination of fees was now being taken out of the hands of the stakeholders and will only be decided by the Board of Housing.
  - c. **Shahriar A** responded that localities are allowed to increase permit fees without a consensus process so fees for the State Fire Marshal's Office to perform inspections should be treated the same way.
  - d. **Andrew C** questioned what the Consumer Price Index has to do with the cost for government services.
  - e. **Mark G** declared that he feels this proposal adds an administrative burden to state government and was in opposition.
- III. **Support**
  - a. **Andrew M** and **Shahriar A** expressed support.

- IV. **Opposition**
  - a. **Steve S, Andrew C, and Mark G** expressed opposition.

**FP112.1-24 - Eric Mays (Consensus for Approval)**

- I. **Florin M** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Dan W** and **Andrew M** expressed support.
- IV. **Opposition**
  - a. None

**FP112.5(1)-24 – DHCD Staff on behalf of the Technical Review Board (TRB) (Consensus for Approval)**

- I. **Travis L** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Ron C, Dan W, and Andrew M** expressed support.
- IV. **Opposition**
  - a. None

**FP307.2-24 – John Miller (Consensus for Approval)**

- I. **Jeff B** announced that there was a floor modification to this proposal, which was shared on the screen.  
**Andrew M** provided an overview of the proposal and the associated floor modification and indicated that the VFSB feels that this is a good change.
- II. **Opposition**
  - a. None

**FP501.5-24 – Andrew Millikin (Consensus for Approval)**

- I. **Andrew M** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Matthew R** and **Russel F** expressed support.
- IV. **Opposition**

- a. None

#### **FP904.2.2.1-24 – Lee Stoermer (Consensus for Approval as Modified)**

- I. **Jeff B** announced that there was a floor modification to this proposal, which was shared on the screen.  
**Lee S** provided an overview of the proposal.
- II. **Discussion**
  - a. **Shahriar A** asked why only Type I hoods are addressed and not all other fire suppression systems in a building.
  - b. **Lee S** replied that not having the plans on site for Type I hoods is an issue because inspectors are finding cooking equipment is not matching the fire suppression set up. Equipment in commercial kitchens gets rearranged by cleaning crews, etc., whereas a sprinkler system does not get changed around.
  - c. **Rick H** asked how the phrase “shall be available” is enforceable because you can’t cite them for not being available.
  - d. **Lee S** replied that the second part of the proposal requires a plan if changes are made.
  - e. **Dan W** agreed that the term “available” lacks definition and weakens the enforcement position.
  - f. **Shahriar A** suggested eliminating the first sentence and making the second sentence the main body.
  - g. **Steve S** pointed out that old buildings are not going to have approved plans on site.
  - h. **Shahriar A** commented that if cooking equipment has been moved around and there are no approved plans showing it, then the fire marshal can cite it. They don’t need the original approved plans on site to do that.
  - i. **Lee S** agreed to modify the proposal based on Shahriar A’s recommendation.
  - j. **Jeff B** announced that the first sentence will be struck through and will be part of the floor modification.
  - k. **Rick B** proposed requiring an approved layout plan for the kitchen, mounted on a wall, like an emergency exit, so approved plans on site would not be required.
- III. **Support**
  - a. **Steve S** and **Shahriar A** expressed support.
- IV. **Opposition**
  - a. None

#### **FP1208(1)-24 – Andrew Milliken (Consensus for Approval)**

- I. **Andrew Milliken** provided an overview of the proposal.  
**Jeff B** clarified for the stakeholders that this proposal is like another proposal that was deemed Consensus for Approval at a previous meeting. When two or more similar

proposals reach Consensus for Approval, DHCD staff will flag those for the Board with the suggestion that only one gets approved so as not to cause a conflict in the regulations.

II. **Discussion**

- a. **Shahriar A** questioned the necessity of the exception as this could mean that the exception must be included in every section that involves one- and two-family dwellings
- b. **Andrew M** responded that the exception is intentional because the Statewide Fire Prevention Code is not routinely applied to one- and two-family dwellings because the routine inspection is exempt. However, there is no general assumption that the Statewide Fire Prevention Code does not apply to single family dwellings.

III. **Support**

- b. **Matthew R, Russell F, and Tread Willis** expressed support.

IV. **Opposition**

- a. None

**FP4106.1.3-24 – Gerry Maiatico (Non-Consensus)**

- I. **Jeff B** provided an overview of the proposal.

II. **Discussion**

- a. **Shahriar A** expressed support but denoted that he has a problem with the exception and its intent.
- b. **Andrew M** supported the intent but believes that the exception creates a loophole where it is not a mobile food truck but also not a permanent structure.
- c. **Rick H**, speaking for himself, submitted that as a former building official he would not know how to apply the proposal.

III. **Support**

- a. None

IV. **Opposition**

- a. **Andrew M** and **Rick H** expressed opposition.

**FP6112-24 – Lee Stoermer (Consensus for Approval as Modified)**

- I. **Jeff B** announced that there was a floor modification to this proposal, which was shared on the screen.

**Lee S** provided an overview of the proposal and the floor modification.

**Florin M** alerted the stakeholders that DHCD staff did not have the opportunity to thoroughly review the floor modification prior to the meeting for potential errors, typos, and conflicts with existing regulations because of timing. **Florin M** encouraged the stakeholders to take some time to read through the floor modification before opening the proposal up for discussion.



**Lee S** highlighted the changes in the modification from the original proposal at the request of **Steve S**.

**II. Discussion**

- a. **Shahriar A** brought up Section 6112.4.1 Unsafe conditions (new text) in the proposal and posed that he did not understand how to interpret the word “suspicion”.
- b. **Andrew M** pointed out that he believed the intent is to confirm a leak with some type of measuring device and not rely on sense of smell.

**III. Support**

- a. **Mike O, Andrew M, Russell F, and Shahriar A** expressed support

**IV. Opposition**

- a. None

## **TRADES PROPOSALS**

### **E2701.1.1-24 – Eric Mays (Non-Consensus)**

- I. Tread Willis** provided an overview of the proposal.

**II. Discussion**

- a. **Shahriar A** indicated that he is a part of inner jurisdictional meetings that have had a lot of discussion regarding this proposal.
- b. **Cory C** noted that National Fire Protection Association (NFPA) has done research that has shown that having receptacles serving island and peninsula countertops and work surfaces is either as unsafe or more unsafe than not having them. NFPA has added the option to not have receptacles serving these countertops and work surfaces.
- c. **Gerry O** brought up that there have been approximately 10,000 recorded emergency room cases since the early 90’s.
- d. **Tread W** added that this change is to the National Electrical Code and would include R-2 and R-3 dwelling units.
- e. **Dan W** stated that having cords on the counters that can drape off whether there are receptacles on the side or not, there is going to be a tradeoff either way because people will just use extension cords.
- f. **Gerry O** remarked that kitchen appliances are required to have a cord that is 24 inches or less, which is why the two-foot and four-foot rule for receptacle locations on kitchen countertops exist. So, these codes are designed to be aligned with the standards for these appliances.
- g. **Kyle K** commented that this proposal still does not prevent a receptacle from being installed on the countertop at the edge of an island where a cord could hang over the side.

- III. **Support**
  - a. **Shahriar A** expressed support.
- IV. **Opposition**
  - a. **Cory C, Ryan C, Gerry O,** and **Kyle K** expressed opposition.

#### **E2701.1.1(1)-24 – Andrew Clark (Non-Consensus)**

- I. **Andrew C** provided an overview of the proposal.
- II. **Discussion**
  - a. **Cory C** believed that there was a misunderstanding why GFCI protection was added in basements. This was added based on the type of floor finish that is often found in residential basements.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Cory C** and **Paul M** expressed opposition.

#### **RE3601.8-24 – Cory Carney (Non-Consensus)**

- I. **Cory C** provided an overview of the proposal.
- II. **Discussion**
  - a. **Ryan C** spoke in support as a current inspector; the options are often troublesome for the contractors as well as other inspectors.
  - b. **Gerry O** concurred, noting that the 2023 National Electrical Code (NEC) language was burdensome to the installer and the home builder.
  - c. **Andrew C** brought up an issue expressed by builders – not having the option of installing the service disconnect inside the dwelling unit; and noted that he is trying to understand what “within sight of the dwelling unit” means.
  - d. **Cory C** responded that you are not allowed to have only an interior disconnect. As far as removing the ability to disconnect it from the interior, it must be disconnected on the outside, whether you call it an emergency disconnect or a service disconnect, this makes no difference. It still must be disconnected from the exterior. The easier option is to just install the service disconnect outside. Now you can put your panel board anywhere in that house that you want.
  - e. **Gerry O** added once you take the main breaker and put it on the outside, a main breaker panel board is no longer required. What you're doing is moving the main breaker from inside or in a main panel board, putting it on the outside, and then feeding the panel board inside at any location. It doesn't have to be within a certain distance of entering the building.
  - f. **Andrew C** asked for clarity if the Board will hear feedback from stakeholders between now and their May meeting.

- g. **Jeff B** stated that proposals will go in front of the Board for consideration regardless of consensus or non-consensus. If the position of a stakeholder on any given proposal changes between now and then, they could submit a public comment for the Board's consideration or speak in front of the Board during the public comment portion of the meeting.

III. **Support**

- a. **Ryan C, Gerry O, and Joseph W** expressed support.

IV. **Opposition**

- a. **Andrew Clark** expressed opposition.

**RE3702.14-24 – Kyle Kratzer (Consensus for Approval)**

- I. **Kyle K** provided an overview of the proposal.

II. **Opposition**

- a. None

**RE3901.4.2(1)-24 Andrew Clark (Non-Consensus)**

- I. **Andrew C** provided an overview of the proposal.

**Jeff B** reiterated to the stakeholders that this proposal is like another proposal (E2701.1.1-24) already heard. When there are similar proposals, regardless of whether it is Consensus for Approval or Non-Consensus, DHCD staff will flag those for the Board.

II. **Discussion**

- a. **Shahriar A** proclaimed that homeowners aren't going to get permits to install future receptacles and they will just use extension cords. Anything is better than the unedited current code.

III. **Support**

- a. **Shahriar A** expressed support

IV. **Opposition**

- a. **Cory C** expressed opposition

**M507.1-24 Dennis Hart (Consensus for Approval)**

- I. **Dennis H** provided an overview of the proposal.

II. **Opposition**

- a. None

**M1103.1(1)-24 Dennis Hart (Consensus for Approval)**

- I. **Dennis H** provided an overview of the proposal.

II. **Discussion**

- a. None
- III. **Support**
  - a. **Steve S** expressed support.
- IV. **Opposition**
  - a. None

#### **M1109.3.2-24 Thomas Deary (Non-Consensus)**

- I. **Florin M** provided an overview of the proposal.
- II. **Discussion**
  - a. **Dennis H** stated that requiring ventilation and drainage for shafts that are not otherwise required will introduce inconsistent requirements that are not tied to a demonstrable increase in risk. The proposal maintains the internal level of safety while applying the code only where the risk justifies additional control.
  - b. **Steve S** noted that this is going to decrease construction costs because we will no longer have to ventilate pipe shafts that aren't required to be ventilated.
  - c. **Shahriar A** questioned why the proposal was needed because a single-family dwelling will not exceed the maximum limit on refrigeration so a shaft would not be required anyway.
  - d. **Florin M** clarified the proposal was not intended to apply to single-family dwellings. It is intended to apply to a dwelling in a commercial building where you might only have a single dwelling unit in a mixed-use occupancy. In this situation, the designer would have a choice to run uninterrupted piping with no joints through a shaft that doesn't have to meet the requirements of a shaft.
  - e. **Steve S** added that the third paragraph of the reason statement explains that you don't have to ventilate the shaft if the shaft isn't required.
  - f. **Shahriar A** countered that the code does not impose requirements on non-required equipment in Chapter 1 of the Virginia Construction Code (VCC).
- III. **Support**
  - a. **Dennis H** and **Steve S** expressed support.
- IV. **Opposition**
  - a. **Shahriar A** expressed opposition.

#### **M15-24 Thomas Deary (Non-Consensus)**

- I. **Florin M** provided an overview of the proposal.
- II. **Discussion**
  - a. **Steve S** asked if these editions of the standard are what is in the 2024 International Mechanical Code (IMC).
  - b. **Dennis H** answered that the 2024 editions have not been adopted in the 2027 IMC and they will be the 2022 editions.
  - c. **Steve S** was against putting in a standard that has not yet been recognized by the

IMC.

III. **Support**

- a. None

IV. **Opposition**

- a. **Steve S** expressed opposition.

**RM-FG2442.3-24 Kyle Kratzer (Consensus for Approval)**

I. **Kyle K** provided an overview of the proposal.

II. **Discussion**

- a. None

III. **Support**

- a. **Shahriar A** and **Dennis H** expressed support.

IV. **Opposition**

- a. None

**P306.2.5-24 James Walls (Non-Consensus as Modified)**

I. **James W** provided an overview of the proposal.

II. **Discussion**

- a. **Steve S** shared concern over the language, “Trench width shall be controlled to not exceed...”.
- b. **James W** responded that the language was taken from ASTM D2321 and “controlled” means the trench width as the minimum width to withstand the side wall.
- c. **Steve S** proposed to remove the word “control”, both instances in the second sentence.
- d. **James W** agreed to the modification.
- e. **Florin M** asked if the residential occupancies 75 feet in the exception refers to the height of the building or floor height above grade. **Michael D** noted that he had similar questions.
- f. **James W** responded that he was fine with adding “above grade” as a floor modification.
- g. **Dennis H** stated that they were not aware of widespread failures of plastic piping.
- h. **Shahriar A** questioned where the 16-inches and 12-inches come from and why the exception only applies to residential occupancies.
- i. **Mark G** commented that picking out sections out of a standard could leave out the nuance that goes along with it.

III. **Support**

- a. None

IV. **Opposition**

- a. **Dennis H**, **Shahriar A**, and **Mark G** expressed opposition.

### **P306.3.1-24 James Walls (Non-Consensus)**

- I. **James W** provided an overview of the proposal.
- II. **Discussion**
  - a. **Dennis H** had the same comments as proposal P306.2.5-24. Also, the added costs were a concern of the PMG committee, specifically the added costs associated with third-party testing.
  - b. **Steve S** seconded that concern.
  - c. **Dan W** commented that the Engineer of Record language is not specific as to who that would be.
  - d. **Ron C** brought up that there are certain installations in Virginia that do not require an engineer, and testing can be submitted by a contractor.
  - e. **Michael D** reiterated his comments for proposal P306.2.5-24 regarding grade plane, which also applies to this proposal.
  - f. **Shahriar A** remarked that when the code sets certain standards for different types of materials, you follow the standard. It is not the place of the code to add additional requirements because of the type of material.
  - g. **Rick H** explained that engineers are not going to seal documents just because someone wants a seal. Engineers are going to have to be involved on many levels, otherwise they cannot legally seal it, and that adds serious cost.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Dennis H, Steve S, Shahriar A, and Rick H** expressed opposition.

### **RP2903.10.1-24 Kyle Kratzer (Consensus for Approval)**

- I. **Kyle K** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Shahriar A** and **Dan W** expressed support
- IV. **Opposition**
  - a. None

## ENERGY CONSERVATION PROPOSALS

### EC-1301-24 William Penniman (Non-Consensus)

- I. **Bob S** provided an overview of the proposal.
- II. **Discussion**
  - a. **Eric L** pointed out that this proposal attempts to address a lot of the other things that are attempted in other later proposals on the agenda. What this proposal does is start Virginia on the path of catching up with the rest of the International Energy Conservation Code (IECC) which is several iterations behind.
  - b. **Sydney R** commented that SEEA has worked with the Pacific Northwest National Lab to do independent analysis of the impact of adopting the 2024 IECC on home buyers in Virginia and the payback is very short.
  - c. **Steve S** raised the concern that this proposal is getting rid of all the amendments that the Board has adopted trying to balance energy efficiency and affordability.
  - d. **Andrew C** stated that we have reached the point of diminishing returns by balancing energy efficiency with cost of living.
- III. **Support**
  - a. **Eric L, Sydney R, Justin K, and Jason V** expressed support
- IV. **Opposition**
  - a. **Steve S, Andrew C, Dennis H** representing himself, **Rick H** representing himself, and **Tread Willis** representing himself, expressed opposition.

### EC-C402.1.6(1)-24 William Penniman (Consensus for Approval)

- I. **Bob S** provided an overview of the proposal.
- II. **Discussion**
  - a. **Eric L** remarked that applying Appendix CD to F, S, and U buildings is comparable to the 2006 edition of the IECC which cuts roof insulation and wall insulation by 50%, 70% more heat loss through windows, and 2.6 times more heat loss through skylights. This proposal limits this approach to buildings that are not intended to be heated for human occupancy.
  - b. **Shahriar A** commented that Virginia has a bad habit of going back and amending things that the rest of the country has gotten rid of for decades and is in support of the previous proposal (EC1301-24).
  - c. **Andrew C** brought attention to the fact that this proposal does not apply to residential buildings.
- III. **Support**
  - a. **Eric L, Justin K, Jason V, and Sydney R** expressed support.
- IV. **Opposition**
  - a. None

#### **EC-C403.7.4.1-24 Tread Willis (Consensus for Approval as Modified)**

- I. **Tread W** provided an overview of the proposal which included a floor modification.
- II. **Discussion**
  - a. **Rick H** asked if this proposal lowers costs.
  - b. **Tread W** replied that it does.
  - c. **Bob S** asked for clarification on what the exception does.
  - d. **Tread W** replied that this applies to two over two units with no interior common space.
- III. **Support**
  - a. **Rick H** expressed support.
- IV. **Opposition**
  - a. None

#### **EC-C405.15-24 Steve Shapiro (Non-Consensus)**

- I. **Steve S** provided an overview of the proposal.
- II. **Discussion**
  - a. **Bob S** commented that there is a lot of room for exceptions and flexibility and does not see the need for the deletions.
  - b. **Joseph W** contributed that the section was shown to be cost effective by Pacific Northwest National Lab analysis.
- III. **Support**
  - a. **Rick H, Cory C, and Andrew C** expressed support.
- IV. **Opposition**
  - a. **Bob S and Joseph W** expressed opposition.

#### **EC-C405.17(1)-24 William Penniman (Non-Consensus)**

- I. **Bob S** provided an overview of the proposal.
- II. **Discussion**
  - a. **Sydney R** pointed out that the cost of electric vehicle infrastructure is less during new construction than doing it as a retrofit. It's about 400% less. It's also to supply equipment for multi-family buildings where residents may not have the power or authority to install equipment for themselves.
  - b. **Steve S** reiterated that a work group be formed to study all the issues around electric vehicle charging.
  - c. **Andrew C** raised the issue that electric vehicle infrastructure not only impacts the cost of a building but also land development for developers.
- III. **Support**
  - a. **Eric L, Sydney R, and Joseph W** expressed support.



IV. **Opposition**

- a. **Steve S, Andrew C, Rick H, Cory C, and D.A. Pierce** expressed opposition.

**EC-C409-24 William Abrahamson (Non-Consensus)**

I. **Florin M** provided an overview of the proposal.

II. **Discussion**

- a. **Jason V** added that Phius has been shown to save money.
- b. **Bob S** contributed that passive houses have lower energy bills and is a great option to add.
- c. **Steve S** noted that it is a proprietary system with a reference standard that may not comply with ICC requirements for reference standards.
- d. **D.A. Pierce**, representing himself, stated that during the Energy Sub-Workgroup it was discussed that there is no fair way to get to this option for compliance.

III. **Support**

- a. **Jason V, Bob S, and Paul M** expressed support.

IV. **Opposition**

- a. **Steve S, Dennis H** representing himself, **D.A. Pierce** representing himself, and **Shahriar A** expressed opposition.

**REC-R402.1.2-24 D.A. Pierce (Non-Consensus as Modified)**

I. **D.A. Pierce** provided an overview of the proposal.

**Jeff B** announced that there was a floor modification to this proposal, which was shared on the screen.

II. **Discussion**

- a. **Justin K** spoke in support of the floor modification and raised the concern that the existing requirement for R-13+1 does not provide enough exterior continuous insulation to avoid condensation issues in a wall cavity. Related to the cost of construction, he noted that using continuous insulation offers builders the opportunity to optimize their design, whether it be using continuous insulation that can also function as the air and water barrier, using that continuous insulation to offset the need for wood sheathing, or employing other wall bracing techniques. He acknowledged that the proposal would increase the cost of construction but offered that there are ways to address the increase. He further noted that, from a consumer standpoint, the proposal is cost effective for Virginia climate zones.
- b. **Eric L** commented that the current wall insulation requirements have been in place since the 2012 code cycle. Single family home permits in Virginia since the 2012 code cycle are around a quarter million. Meaning that many homes have been built to a standard that is well behind the model codes and will cost more to heat and cool. Wall insulation is also unlikely to be upgraded at any point during home's useful life.
- c. **Rick H** responded that this increases costs and that nobody has died due to homes

having less stringent insulation requirements than the current model codes.

- d. **Mark G** added that this would have a huge impact on the cost of a home because it would force builders to use 2x6 construction.
- e. **D.A Pierce**, speaking for himself, acknowledges that the proposal would increase the cost of construction, but the cost of energy would decrease over the life of the house.

III. **Support**

- a. **Justin K, Dennis H, Jason V, Eric L, Cory C, and Sydney R** expressed support.

IV. **Opposition**

- a. **Rick H, Mark G, and Andrew C** expressed opposition.

**REC-R402.1.2(1)-24 Eric Lacey (Non-Consensus)**

I. **Eric L** provided an overview of the proposal.

II. **Discussion**

- a. **Sydney R** commented that builders are already doing it and know how to do it so there is no reason not to continue.
- b. **Cory C**, speaking for York County, lamented that he has granted a lot of modifications to use R-49 ceiling insulation and would like to see that requirement return as it does in the 2024 International Residential Code (IRC).
- c. **Michael D**, speaking for Albemarle County, echoed Cory C's statement.
- d. **Andrew C** confirmed that he is aware of a lot of localities doing code modifications to go back to R-49 insulation.
- e. **Rick H**, representing himself, also confirmed that a lot of building officials in his area are writing code modifications.
- f. **Kyle K**, representing himself, claimed that he would like to see an increase in wall insulation and a reduction in ceiling insulation.
- g. **Shahriar A** appreciated the thought of coming to a compromise but believed that Virginia cannot keep doing the same thing repeatedly.

III. **Support**

- a. **Sydney R, Bob S, Jason V, and Shahriar A** expressed support.

IV. **Opposition**

- a. **Cory C, Michael D, Andrew C, Rick H, and Kyle K** expressed opposition.

**REC-R402.1.2(2)-24 Eric Lacey (Non-Consensus)**

I. **Eric L** provided an overview of the proposal.

II. **Discussion**

- a. **Bob S** commented that upfront costs exist, but the payback is quick and is a huge net positive.
- b. **Justin K** raised the concern that Virginia is several code cycles behind the current model codes, and these changes are real savings to homeowners. **Justin K** also expressed that

it is not realistic to believe that homeowners have the power to influence insulation requirements when purchasing a new home because those decisions are made well in advance of the buyer taking possession of the home and it is disingenuous to suggest that home buyers can just go out and buy efficiency.

- c. **Sydney R** pointed out that the payback period is only nine years.
- d. **Jason V** stated that a better building envelope makes the house more comfortable which could allow an owner to adjust the thermostat to a degree or two.
- e. **Andrew C** reiterated his stance that the upfront costs of homeownership outweigh energy efficiency cost increases that payoff in the future. Market demand is surging at price points that these proposals collectively are making infeasible to build.
- f. **Kyle K** representing himself, expressed support for proposal REC-R402.1.2-24 as opposed to this proposal because of where Virginia is regarding construction prices.

III. **Support**

- a. **Bob S, Justin K, Sydney R, and Jason V** expressed support.

IV. **Opposition**

- a. **Andrew C, Mark G, Kyle K, and Rick H** expressed opposition.

**REC-R402.1.2(4)-24 William Penniman (Non-Consensus)**

- I. **Bob S** declared that this proposal is very similar to the last proposal and did not see a need for discussion because the talking points would be the same.

**Jeff B** announced that if everyone wants to stand on their previous comments, this proposal will be marked as Non-Consensus.

**REC-R402.1.3-24 Andrew Clark (Withdrawn)**

**REC-R402.4.1.2-24 Eric Lacey (Non-Consensus)**

- I. **Eric L** provided an overview of the proposal.

II. **Discussion**

- a. **Sydney R** stressed that for the durability advantages to a tighter building envelope as insulation is increased, there also needs to be an increase in air tightness to keep the humid air out of building cavities. This is a risk mitigation measure for home builders.
- b. **Steve S** stated that he has been collaborating with **Eric L** on some things that might be able to be worked out. He noted that he will continue to work with **Eric L** prior to the Board meeting and remove their opposition if they are able to work out the issues.  
**Andrew C** echoed **Steve S's** comments.
- c. **D.A. Pierce** inquired if the proponent was open to adding an allowance for four air changes per hour for climate zones three through five for single- and two-family dwellings as an exception.
- d. **Mark G** commented that rarely are blower door test results below three air changes, and

to achieve that would require a significant number of callbacks to contractors to discover where the source of the leak is coming from.

III. **Support**

- a. **Bob S, Sydney R, and D.A. Pierce** expressed support.

IV. **Opposition**

- a. **Steve S, Andrew C, Mark G, and Rick H** expressed opposition.

**REC-R402.4.1.2(1)-24 William Penniman (Non-Consensus)**

- I. **Bob S** provided that this proposal was similar to proposal REC-R402.4.1.2 and there was no need to discuss.

II. **Opposition**

- a. **Andrew C** and **Steve S** expressed opposition.

**REC-R403.14-24 William Penniman (Non-Consensus)**

- I. **Bob S** provided an overview of the proposal.

II. **Discussion**

- a. **Steve S** emphasized that the code should not be legislating what people do in their bedrooms.
- b. **Andrew C** agreed that a ceiling fan should be a consumer choice.
- c. **Cory C** explained that the NEC does not require an overhead box to be installed in a bedroom. If a box is installed then it should be a ceiling fan rated box, but it is still not required equipment.
- d. **Michael D** added that this would increase costs.
- e. **Tread W**, speaking for himself, opined that the volume of lighting is more important than air flow.

III. **Support**

- a. None

IV. **Opposition**

- a. **Steve S, Andrew C, Michael D, Rick H, and Tread W** expressed opposition.

**REC-R404.1-24 Andrew Clark (Non-Consensus)**

- I. **Andrew C** provided an overview of the proposal.

II. **Discussion**

- a. **Bob S** pointed out that this proposal seems to be a reduction with no offsetting tradeoff.
- b. **Joseph W** remarked that this section already has four exceptions.
- c. **Sydney R** brought up that this proposal was discussed at the Energy Sub-Workgroup meeting and there were no strong reasons or good examples of why this would be necessary and that it would probably be more expensive to buy less efficient bulbs.

III. **Support**

- a. None

IV. **Opposition**

- a. **Bob S, Joseph W, and Sydney R** expressed opposition.

**REC-R404.2-24 Andrew Clark (Non-Consensus)**

I. **Andrew C** provided an overview of the proposal.

II. **Discussion**

- a. **Steve S** supported the proposal in the name of individual choice.
- b. **Cory C** explained that energy savings are negligible.
- c. **Bob S** declared that he did not see any justification for further eroding the standards.

III. **Support**

- a. **Steve S, Cory C, Ryan C, and Rick H** expressed support

IV. **Opposition**

- a. **Bob S and Joseph W** expressed opposition.

**REC-R404.5-24 William Penniman (Non-Consensus)**

I. **Bob S** provided an overview of the proposal.

II. **Discussion**

- a. **Sydney R** mentioned that several municipalities are starting to incorporate this into their local ordinances, so it makes sense to have a statewide code for consistency.
- b. **Steve S** reminded the group that the codes are supposed to be the minimum codes to protect health, safety, and welfare and now we are going to tell everybody they must supply electric vehicle spaces and equipment. **Steve S** also added that electric vehicle language is in Appendix RE, and the whole purpose of the appendices is for people to adopt them if they want and not make the appendices part of the code.

III. **Support**

- a. **Sydney R and Joseph W** expressed support.

IV. **Opposition**

- a. **Steve S, Rick H, Cory C, Tread W, and Andrew C** expressed opposition.

**REC-R405.2-24 Eric Lacey (Non-Consensus)**

I. **Eric L** provided an overview of the proposal.

II. **Discussion**

- a. **D.A. Pierce** acknowledged that it is less stringent with the limits that were offered up by the proponent, but most builders do not build to software simulation. VBCOA was opposed to any tradeoffs or allowances based on equipment efficiencies written in the code.

III. **Support**

- a. **Bob S, Jason V, and Sydney R** expressed support.

IV. **Opposition**

- a. **D.A. Pierce** and **Rick H** expressed opposition.

**REC-R405.2(2)-24 Eric Lacey (Non-Consensus)**

I. **Eric L** provided an overview of the proposal.

II. **Discussion**

- a. **Jason V** stated that it is shortsighted to trade off building equipment such as mechanical or lighting for a building component that will last forever.
- b. **Justin K**, referring to some of his earlier comments, indicated that this is getting into that consumer protection, delivering something to the owners that they may have very little control over; therefor he supports the modest efficiency this proposal is after.
- c. **Sydney R** explained that the importance of a backstop cannot be overstated and supports having a performance path that allows flexibility.
- d. **D.A. Pierce** opposed any modifications to the software simulated path of compliance and wanted to leave in place any flexibility that exists.
- e. **Eric L** clarified that the performance path uses Virginia's prescriptive baseline as its foundation, so if we don't modify this, then we are allowing the Virginia prescriptive path to weaken the software model. This proposal is trying to bring the software modeling back up to an equivalent level to an unamended 2024 IECC and not something less than code.

III. **Support**

- a. **Jason V, Justin K, and Sydney R** expressed support.

IV. **Opposition**

- a. **D.A. Pierce** expressed opposition.

**REC-R408.2.9-24 Eric Lacey (Non-Consensus)**

I. **Eric L** provided an overview of the proposal.

II. **Discussion**

- a. **D.A. Pierce** remarked that equipment can change but the thermal envelope remains the same and should not be reduced.

III. **Support**

- a. **D.A. Pierce** and **Jason V** expressed support.

IV. **Opposition**

- a. **Andrew C** expressed opposition.

**VIRGINIA CERTIFICATION STANDARDS (VCS) AND VIRGINIA AMUSEMENT DEVICE  
REGULATIONS (VADR) PROPOSALS**

**CS10-24 – DHCD Staff (Consensus for Approval)**

- I. **Florin M** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Steve S** and **Andrew C** expressed support.
- IV. **Opposition**
  - a. None

**CS51-24 – DHCD Staff on behalf of the Building Code Academy Advisory Committee (BCAAC)  
(Consensus for Approval)**

- I. **David S** provided an overview of the proposal.
- II. **Discussion**
  - a. **Tread W** declared that four more hours per year on average is a small ask to ensure that we are doing the minimum requirements to ensure that we have a safe place to live, work, and play for everybody here in Virginia.
  - b. **Dennis H** added that it is easier than ever to get continuing education hours with different online education, webinars, etc.
  - c. **Kyle K** noted that anybody who is here today and tomorrow almost satisfies the two-year requirement for their continuing education.
- III. **Support**
  - a. **Tread W, Cory C, Dennis H, Andrew M, Ryan C, Kyle K, and Rick H** expressed support.
- IV. **Opposition**
  - a. None

**AD40-24 – DHCD Staff on behalf of the Amusement Device Technical Advisory Committee (ADTAC)  
(Consensus for Approval)**

- I. **Jeff B** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Ryan C** and **Rick H** expressed support.
- IV. **Opposition**

- a. None

**AD40(1)-24 – Victoria Baselice (Withdrawn)**

**AD75-24 – Cory Carney (Consensus for Approval)**

- I. **Cory C** provided an overview of the proposal.
- II. **Discussion**
  - a. **Florin M** alerted the stakeholders that ADTAC had been added as a co-proponent but the agenda that was sent out did not reflect that.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. None



## **General Stakeholder Workgroup Meeting**

### **Final Meeting Summary Day 2**

**Date: January 6, 2026**

**Location: 4224 Cox Rd, Glen Allen, VA 23060 - Virginia Housing Center**

**Time: 9:00 AM**

#### **Attendees:**

##### **VA Department of Housing and Community Development (DHCD) Staff:**

- **Jeff Brown** – Deputy Director of Building and Fire Regulation
- **Florin Moldovan** – State Building Codes Office Director
- **Chris Scott** – Code and Regulation Specialist, State Building Codes Office
- **Brian Hilderbrand** – Construction Regulation Administrator
- **Chad Lambert** - Code and Regulation Specialist, State Building Codes Office
- **Thomas King** - Code and Regulation Specialist, State Building Codes Office
- **Travis Luter** – Code and Regulation Specialist, State Building Codes Office
- **Rajan Eng** - Training and Development Specialist, Virginia Building Code Academy
- **Stephen Reynolds** - Training and Development Specialist, Virginia Building Code Academy
- **Joseph Dennie** - Policy Analyst, Policy and Legislative Services
- **Kenrick Cameron** - Policy Analyst, Policy and Legislative Services

#### **Stakeholders:**

- **Alyssa Brown** – Changing Tables
- **Andrew Clark** – Home Builders Association of Virginia (HBAV)
- **Andrew Milliken** – Stafford County Fire Marshal’s Office, Virginia Fire Services Board (VFSB) Codes and Standards Committee
- **Angela Navarro** – Virginia League of Conservative Voters
- **Chris Barfield** – University of Virginia, Building Official’s Office
- **Chris Reynolds** – Atlantic Builders
- **Chris Sampl** - Fairfax County, Office of the Fire Marshal
- **Dan Boyle** - Hemphiciency
- **Dan Willham** – Fairfax County, Virginia Building and Code Officials Association (VBCOA)
- **David Beahm** – Warren County, VBCOA
- **David Sharp** – Fairfax County
- **Delegate Elizabeth Bennett-Parker** – Virginia House of Delegates 2025, 5th District
- **Delegate Paul Milde** - Virginia House of Delegates 2025, 64th District

- **Dennis Hart** – Virginia Plumbing and Mechanical Inspectors Association (VPMIA), VBCOA PMG Code Committee
- **Doug Banks** – Henrico County
- **Duru Meric** - Amazon
- **Francie Mitchell** – Children’s Assistive Technology Services (CATS)
- **Gregg Black** – George Mason University
- **Gregg Fields** – City of Alexandria
- **Heather Wasnick** - Amazon
- **James Walls** - Cast Iron Soil Pipe Institute (CISPI)
- **Jared Hoernig** – Virginia Emergency Management Association
- **Jason Laws** – Chesterfield County, VBCOA
- **Jen Hackney** – Changing Tables
- **Joseph Wages Jr.** – National Electrical Manufacturers Association (NEMA)
- **Joshua Jones** – Henrico County
- **Kara Alley** – Home Builders Association of Virginia (HBAV)
- **Kelsey Wright** - Virginia House of Delegates 2025, 5th District
- **Kyle Kratzer** – Fairfax County, Vice President of VBCOA
- **Maggie Davison** – Virginia Distributed Solar Alliance
- **Mark Graver** – City of Waynesboro, VBCOA Region III
- **Mark Price** – City of Martinsville
- **Matthew Robinson** - Spotsylvania County, VFSB
- **Michael Dellinger** – Albemarle County, VBCOA Region IV
- **Mike O’Connor** – Virginia Petroleum and Convenience Marketers Association (VPCMA), Virginia Propane Gas Association (VAPGA)
- **Monica Thrower** – Changing Spaces Campaign
- **Nicholas Bowles** – Halifax County
- **Paul Messplay** – Hanover County
- **Ricky Davis** - Rockingham County
- **Richard Hankins** – Partnership for Smarter Growth
- **Ron Clements** – Chesterfield County, VBCOA Admin and Existing Building Code Committees
- **Russell Furr** – City of Alexandria Fire Marshal’s Office
- **Sarah Thomas** – Virginia Association for Commercial Real Estate (VACRE)
- **Scott McStacy** – Seed to Structure
- **Shahriar Amiri** – Arlington County
- **Sonal Shah** – Northern Virginia Bird Alliance
- **Steve Shapiro** – Apartment & Office Building Association of Metropolitan Washington (AOBA), Virginia Apartment and Management Association (VAMA)
- **Sydney Roberts** – Southeast Energy Efficiency Alliance (SEEA)
- **Tom Blackburn** – Northern Virginia Bird Alliance

- **Tony Gardner** – Cast Iron Soil Pipe Institute (CISPI)
- **Trieste Lockwood** – Permit Power
- **William “Rick” Hinson** – American Council of Engineering Companies (ACEC)

## **Virginia Construction Code (VCC) PROPOSALS**

### **B101.2(2)-24 – Angela Navarro (Non-Consensus)**

- I. **Angela N** provided an overview of the proposal.
- II. **Discussion**
  - a. **Sydney R** expressed that decisions regarding electric vehicle ready infrastructure are typically made before there is a buyer for a home. The buyer will be facing a much higher cost to install equipment after the home is built. One point that was discussed yesterday was the system’s impact. Including this in the code is important and initiates the conversation with the utility company. If the impact is unsurpassable with the utilities, then you get a pass.
  - b. **Steve S** reiterated that a work group should be formed to study all the issues around electric vehicle charging. Until such time when the workgroup is stood up, they are in opposition.
  - c. **Andrew C** highlighted that the cost drivers of electric vehicle ready infrastructure occur in the land development process. Utilities gold plate infrastructure requirements to accommodate new subdivisions or new multi-family buildings that are going to be equipped with electric vehicle charging stations. That is the opposite of what a lot of localities are trying to promote, which is walkable, denser communities, and smaller lot subdivisions that have less of an infrastructure impact and less of an impact on the natural environment around it. He suggested that the focus should be on trying to figure out how to get utilities to right size their infrastructure requirements, so from a construction and land development perspective, we can incorporate these changes with minimal impact to the consumer and builder.
  - d. **Ron C** questioned whether electric vehicle charging stations in a parking lot are within the scope of the uniform statewide building code.
  - e. **Rick H** expressed concern with dealing with fire from electric vehicles and how increasing costs affect affordable housing.
  - f. **Mark G** stated that the electric vehicle appendix has specific provisions that leave the owner out of the decision-making process. There are a lot of design decisions that go into putting in electric vehicle infrastructure and the appendix makes those

decisions for you. **Mark G** believed that a code that narrows things down to only one pathway is not a good code.

- g. **Angela N** brought up that utility companies can proactively plan for infrastructure to support a new community that might have higher load because of future electric vehicles. **Angela N** agreed with **Andrew C** that there needs to be communication with the State Corporation Commission around the question of whether the utilities are gold plating infrastructure.
- h. **Chris R** seconded **Rick H's** concerns with affordability.
- i. **Rick H** stated that he doesn't want to have to pay for something that he will never use and that the code is intended to create safety at the lowest cost.
- j. **Shahriar A** chimed in that at some point Virginia needs to move forward with this to some degree.

III. **Support**

- a. **Sydney R** and **Joseph W** expressed support

IV. **Opposition**

- a. **Steve S, Andrew C, Ron C, Rick H, Mark G, and Chris R** expressed opposition.

**B103.5-24 – David Beahm (Non-Consensus)**

- I. **David B** provided an overview of the proposal.

II. **Discussion**

- a. **Michael D** stated that keeping the section untouched is necessary.
- b. **Ron C** agreed with **Michael D** and felt it takes away his ability to work with the agencies involved in functional design. **Ron C** also believed that there may be a legal conflict as state law requires them to coordinate with the health department for sewage disposal systems before issuing permits.
- c. **Doug B**, speaking for himself, voiced that the proposal appears to allow the beginning of construction without having the proper sanitary facilities.

III. **Support**

- a. None

IV. **Opposition**

- a. **Michael D, Ron C, and Doug B** expressed opposition.

**B103.7-24 – DHCD Staff (Consensus for Approval)**

- I. **Jeff B** provided an overview of the proposal.

II. **Discussion**

- a. None

III. **Support**

- a. **Michael D** expressed support.

IV. **Opposition**

- a. None

#### **B105.2-24 – DHCD Staff (Consensus for Approval)**

- I. **Jeff B** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Ron C** expressed support.
- IV. **Opposition**
  - a. None

#### **B107.1-24 – David Beahm (Non-Consensus)**

- I. **David B** provided an overview of the proposal.
- II. **Discussion**
  - a. **Andrew C** asked if the provision comes out of state law.
  - b. **David B** responded that it does.
  - c. **Andrew C** questioned if building code can get ahead of state law.
  - d. **Jeff B** replied that if a proposal goes to the Board that conflicts with state law, the proposal will be sent to the attorney general for them to weigh in and advise the Board if there is a potential conflict.
  - e. **Ron C** added that this proposal would require a bill since the code section specifically calls out the state law that this comes from.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Ron C, Michael D, Dan W, and Shahriar A** expressed opposition.

#### **B109.2-24 – David Beahm (Non-Consensus)**

- I. **David B** provided an overview of the proposal.
- II. **Discussion**
  - a. **Steve S**, speaking for himself, highlighted the following concerns for new one- and two- family dwellings:
    - i. Section 109.2 Exception 1 - Eliminating the requirement for the elevation of the lowest floor from a Site Plan because this information is necessary in a special flood hazard area.
    - ii. Section 109.4 Exception – Eliminating the requirement to review the plans.
    - iii. Section 109.5 Exception – Same reason as Section 109.4 exception.
    - iv. Section 113.7.2 Exception – RDP as an approved third-party inspector.
    - v. Section 116.1 Exception 3 – Certificate of occupancy issued at the time of

permit issuance.

- b. **Andrew M** pointed out that new Exception 2 in Section 109.2 uses the word “generally, and in the new exception in Section 109.4 a Class A contractor cannot be a design professional because the Class A contractor is not an individual and cannot stamp and sign drawings. **Andrew M** questioned what date do you put on the Certificate of Occupancy under new Exception 3 in Section 116.1. Is it the date when the permit is issued before the inspections are done, or after the final inspections have been approved?
- c. **Ron C** indicated that VBCOA Admin Committee is also in opposition based on all the reasons already stated by others.

III. **Support**

- a. None

IV. **Opposition**

- a. **Steve S, Shahriar A, Michael D, Andrew M, and Ron C** expressed opposition.

**B109.3.1-24 Duru Meric (Non-Consensus)**

- I. **Duru M** provided an overview of the proposal and the associated floor modification.

II. **Discussion**

- a. **Ron C** questioned what happens when a Registered Design Professional (RDP) is not involved. There are several building types that Virginia allows to be designed without an RDP being involved. **Ron C** did not see the value in this proposal as it adds more confusion and probably adds more time than it saves.
- b. **Duru M** responded that not having deferred submittal language is causing confusion on the authority having jurisdiction’s (AHJ) side and the architect’s side as to when those submittals should be submitted. The industry standard is to have them submitted by the general contractor or the licensed professionals preparing them, not by the Architect of Record (AOR) or the Structural Engineer of Record (SEOR).
- c. **Shahriar A** conceded that this is a real issue because of ambiguity and what is acceptable to submit to one jurisdiction should be good enough for all the others. However, **Shahriar A**, speaking for himself, was opposed to the term, “are not limited to”, in the proposal.

III. **Support**

- a. None

IV. **Opposition**

- a. **Ron C, Shahriar A, and Michael D** expressed opposition.

**B109.4-24 – Delegate Paul Milde (Non-Consensus)**

- I. **Delegate Paul M** provided an overview of the proposal.

**Jeff B** noted that a Study Group on Expediting Permits and Certificates of Occupancy was convened during this code development cycle. The group’s discussions and feedback directly

informed the development of this proposal.

## II. Discussion

- a. **Chris R** voiced to the group to consider assigning timelines, not just for the benefit of the builder but also the consumer.
- b. **Andrew M**, representing himself, believed that the proposal provides reasonable improvements to processes and notifications.
- c. **Ron C** expressed mild opposition to the current version of the proposal. VBCOA Admin Committee had additional concerns with the original version of the proposal, and thanked **Delegate Milde** for being open to their input. **Ron C** noted that after careful consideration they still have some concerns over how the role of the third-party process would work, whether adequate reviews could be handled by third-party for everything that is required to be reviewed, as well as some concerns with the timeframes.
- d. **Michael D** stated opposition except for third-party reviews. The time frames in the proposal are unrealistic for small one-man shops. This is fine if a project is on a public water sewer system, but they cannot dictate to the applicant that they have to have concurrent Virginia Department of Health or a Virginia Department of Transportation approval.
- e. **Rick H** agreed with **Michael D** and added that fixed timelines will not fix the problem. There is a time problem.
- f. **Shahriar A** reminded the group that yesterday there was non-consensus for raising fees for state fire marshal services. Those fees are going to provide additional staffing levels to do it faster. This proposal is an unfunded mandate. Code officials have an ethical responsibility not to just rubber stamp for the sake of meeting a timeline.
- g. **Mark G** declared that he is a small shop and he is the only one doing plan reviews. If he goes on vacation, he could be in violation of this proposal.
- h. **Dan W** had concerns over the “other structures” deadline because his locality gets really big projects at a time and being required to meet a timeline mandated by law is troubling.
- i. **Gregg F** disagreed with the Cost Impact statement that the proposal would not increase or decrease cost. Cost will either be increased by increased staff to meet the timelines, or the cost of third-party review. **Gregg F** also highlighted that it is much easier to change things on paper than out in the field. If things get missed in plan review and require tearing out stuff in the field, that will be costly as well.
- j. **Delegate Paul M** countered that the costs can be passed down to the applicants, so he was not convinced that it is an affordability issue. The term “within a reasonable time” is not a fair way to approach permits and creating predictability is a fair thing to do to your customers. If the timelines are the issue, he is open to discussing what they should be. Creating predictability creates more affordability.
- k. **David B** pointed out that they are not allowed to increase fees arbitrarily to pass costs along. Fees must be approved, and most jurisdictions are not going to

increase fees.

- I. **Mark G** asserted that in order to determine a correct timeline, the nature of applications coming in waves needs to be factored in. There could be a quiet period and then a very busy period where these timelines can't be met. Small departments would need to have a part-time staff member to help when needed.

III. **Support**

- a. **Chris R, Andrew M, and Andrew C** expressed support.

IV. **Opposition**

- a. **Ron C, Michael D, Rick H, Shahriar A, Mark G, Dan W, Gregg F, and David B** expressed opposition.

**B109.4(1)-24 – Anthony Smith (Non-Consensus)**

- I. **Maggie D** provided an overview of the proposal.

II. **Discussion**

- a. **Ron C** expressed that this proposal prohibits plan review of solar installations. These could be huge installations with significant electrical and fire safety impacts on buildings. Effectively, the contractor will be able to self-certify their own code compliance. This really sets a dangerous precedent and what justifies this over other types of equipment?
- b. **Dan W** added that this proposal would allow any system to be put on an existing roof without any kind of structural evaluation to see if the existing roof can hold the new load.
- c. **Maggie D** countered that they are submitting a stamped structural letter, racking plan, and electrical plans. What they are finding is there are different interpretations of what existing building code needs to be applied. These are not permanent fixtures. **Maggie D** further explained that what they are seeking is consistency across localities and questioned if the people reviewing these projects have the qualifications to understand what they are looking at.
- d. **Shahriar A** highlighted that the proposal does not require a structural drawing sealed and signed by an RDP. The RDP required in the exception could be an electrical engineer that has nothing to do with a structural evaluation. The other things to worry about are fire fighter access to the roof and for access for maintenance of the equipment.
- e. **Michael D** contributed that class A contractors in his area that install solar equipment have no clue what firefighter access is. Giving them carte blanche is a bad idea.
- f. **Andrew M** suggested concern over using the term "rooftop electrical equipment". If the proponent is talking about photovoltaic (PV) equipment, then call it that.

III. **Support**

- a. **Trieste L** expressed support.

IV. **Opposition**



- a. **Ron C, Rick H, Dan W, Shahriar A, Andrew M, Kyle K, Michael D, and Andrew M** expressed opposition.

#### **B113.6-24 – Andrew Clark (Non-Consensus)**

- I. **Andrew C** provided an overview of the proposal.
- II. **Discussion**
  - a. **Shahriar A** commented that this is how the code should be administered.
  - b. **Kyle K** explained that he advocates to the students in his Virginia Building Code Academy classes to include code sections on their inspection results and plan reviews.
  - c. **Andrew M**, speaking for himself, notes that this has been a fire code requirement for a long time.
  - d. **Dave S** noted that this is a much-needed change and echoed **Kyle K** in that this is what is taught in Core.
  - e. **Michael D** objected to the Cost Impact statement that the proposal will decrease the cost because it will cost his jurisdiction a lot of money to include code sections with the code language because the current software they use cannot do that.
  - f. **Andrew M** commented that the proposal is just calling for a reference to a code section not the code section language verbatim.
  - g. **Andrew C** agreed with **Andrew M** that that was the intent.
  - h. **Michael D** stated that he does not like the idea of adding the code section number because that opens it up to an appeal if the wrong code section is cited. **Michael D** also highlighted that citing code sections is going to slow down inspections and increase cost.
  - i. **Andrew C** countered that it should save time and money by not having to go back and forth communicating with the builder.
  - j. **Shahriar A** called out that it is the code enforcers' duty and responsibility to cite the code they are enforcing.
  - k. **Ricky D** emphasized that small localities have combination inspectors and must deal with many different types of inspections on a job. It would slow them down to have to stop and look everything up. Many builders and homeowners do not even have code books, so they won't understand the code sections anyway.
  - l. **Andrew C** believed that giving a builder some more information will give them something to focus on which will result in less back and forth and may result in less re-inspections.
  - m. **Mark G** echoed **Ricky D's** comments and added that a lot of contractors do not want to know the code sections, they just want to be told what to do.
  - n. **Matthew R**, speaking for himself, reminded the group that any document that code enforcers put forth is a legal document and they are not fully executing their job if they are not stating the code.
- III. **Support**

- a. **Shahriar A, Kyle K, Steve S, Andrew M** representing himself, **Dave S, Rick H, Chris B,** and **Ron C** expressed support.

IV. **Opposition**

- a. **Michael D, Ricky D, David B, Gregg F,** and **Mark G** expressed opposition.

**B113.7-24 – Andrew Clark (Non-Consensus)**

I. **Andrew C** provided an overview of the proposal.

II. **Discussion**

- a. **Trieste L** conveyed that the intent is to streamline third party inspection processes for rooftop-mounted photovoltaic (PV) systems.
- b. **Shahriar A** questioned why there is a carve out for PV systems. Shahriar A also brought up that building officials cannot issue a code violation based on a photograph that someone else provides.
- c. **Andrew M**, speaking for himself, asked the proponent to clarify the intent, explaining that as written, the proposal appears to mandate the acceptance of third-party inspection reports (which could include videos or photos) if the jurisdiction does not allow photographs or videos as part of the inspection by the locality. He noted that the concept floated around before is, if the jurisdiction cannot meet the timeline for the inspection, then they must allow third party inspections, but the proposal does not say that.
- d. **Trieste L** explained that the intent was that if the building department offers remote inspection, then you would need to have a third-party policy. She agreed that it could benefit from rewording.
- e. **Andrew M** shared concern that photographs and videos are not tests and inspections.
- f. **David B** expressed opposition to the language requiring three working days for third-party applications.
- g. **Mark G** clarified that a photograph and a videotape do not constitute a report.
- h. **Michael D** voiced concern over the proposal taking away the building official's ability to approve third party inspection agencies and what the minimum requirements they must meet. **Michael D** also had concerns over licensure as a Registered Design Professional (RDP), being a qualifying criterion for a third-party inspector as there are plenty of RDPs who know nothing about building code.

III. **Support**

- a. None

IV. **Opposition**

- a. **Shahriar A, Ron C, Andrew M, David B, Mark G,** and **Michael D** expressed opposition.

**B119.5(1)-24 – Eric Mays (Consensus for Approval)**

I. **Florin M** provided an overview of the proposal.

II. **Discussion**

- a. None

III. **Support**

- a. **Steve S** representing himself, **Shahriar A**, **Dan W**, **Dennis H** representing himself, **Michael D**, and **Gregg F** expressed support.

IV. **Opposition**

- a. None

**B202-24 – Allison Cook (Consensus for Approval as Modified)**

- I. **Ron C** provided an overview of the proposal.

II. **Discussion**

- a. **Dan W** introduced a friendly amendment to change the “dead end” definition to “dead end corridor”.
- b. **Ron C** confirmed that **Allison C** was in support of the change.

III. **Support**

- a. **Steve S**, **Shahriar A**, **Kyle K**, and **Andrew M** expressed support.

IV. **Opposition**

- a. None

**B302.1-24 – Kenny Hackworth (Consensus for Approval)**

- I. **Florin M** provided an overview of the proposal.

II. **Discussion**

- a. **Dan W** commented that he doesn’t think the changes to Section 302.1 are necessary.
- b. **Florin M** replied that this was done just for correlation.
- c. **Dan W** noted that exceptions to other occupancies are not delineated in this list.
- d. **Shahriar A** proposed a friendly amendment.
- e. **Florin M** mentioned that DHCD Staff could have put the revisions in the base document but left it as a proposal since it was already submitted. Item 2 was added for correlation for what was already in Item 6 and Item 8. **Florin M** asked for confirmation of what the floor modification is.
- f. **Shahriar A** responded to take out “State Regulated Care Facilities (SRCFs)” wherever they appear.
- g. **Florin M** suggested not having changes to Section 302.1.
- h. **Shahriar A** removed his friendly amendment.
- i. **Dan W** proposed to not add “313 for State Regulated Care Facilities (SRCFs)” under B.
- j. **Jeff B** asked the group if they were okay with supporting the proposal as is and stated that it might be better to clean up later.

- III. **Support**
  - a. **Dan W** and **Andrew M** expressed support.
- IV. **Opposition**
  - a. None

**B406.2.7-24 – Ernie Little (Consensus for Approval)**

- I. **Andrew M** provided an overview of the proposal.
- II. **Discussion**
  - a. **Mark G** asked if the 2026 National Electrical Code (NEC) will have these provisions in it, particularly signage.
  - b. **Andrew M** replied that the proposal is close to what is in the NEC but did not remember if signage requirements are in the 2026 NEC.
  - c. **Mark G** indicated that it is important to make sure that the proposal is not conflicting with the NEC.
  - d. **Andrew M** noted that this proposal has more flexibility, particularly the language requiring the emergency disconnect to be within sight of the equipment which gives the option to identify which charging stations are controlled by which emergency disconnects.
- III. **Support**
  - a. **Michael D, Russell Furr, Chris Sampl, and Matthew R** expressed support.
- IV. **Opposition**
  - a. None

**B406.2.7(1)-24 – Andrew Milliken (Consensus for Approval)**

- I. **Andrew M** provided an overview of the proposal.
- II. **Discussion**
  - a. **David B** asked if the referenced UL 2750 and NFPA 88A standards are already incorporated into ICC.
  - b. **Andrew M** responded that he did not believe that they are incorporated into ICC as standards.
  - c. **Doug B** asked how this will look in the future with existing parking garages where electric vehicle charging stations get installed.
  - d. **Andrew M** responded that you would start with the Existing Building Code and then must comply with the current standards of the Virginia Construction Code (VCC).
  - e. **Mark G** asked how many vehicle fires referenced in **Andrew M's** introduction of the proposal were in sprinklered buildings.
  - f. **Andrew M** replied that he did not know, but more parking garages are now incorporating sprinklers. The ICC recently lowered the threshold for when sprinklers are required due to changing materials in cars from mostly metal to more plastics and foams.

- g. **Shahriar A** notified the group that ICC had an ad hoc committee to deal with energy storage unit mobility devices, and we will probably see some changes appear in Chapter 12 of the 2027 International Fire Code (IFC).
- III. **Support**
  - a. **Steve S, Matthew R, and Shahriar A** expressed support
- IV. **Opposition**
  - a. None

#### **B407.4.1.1-24 – Eric Mays (Consensus for Approval)**

- I. **Florin M** provided an overview of the proposal.
- II. **Discussion**
  - a. **Dan W** stated that the model code has progressed far past where the Virginia amendment was and it is much better to bring in the model code language.
- III. **Support**
  - a. **Dan W** and **Andrew M** expressed support
- IV. **Opposition**
  - a. None

#### **B706.3-24 – Shahriar Amiri (Non-Consensus)**

- I. **Shahriar A** provided an overview of the proposal.
- II. **Discussion**
  - a. **Dan W** argued that the proposal conflicts with existing provisions for fire walls which can allow the use of Fire Retardant Treated (FRT) lumber.
  - b. **Shahriar A** countered that UL or Warnock Hersey have not tested any assemblies using FRT, so you cannot just use FRT to build a fire wall.
  - c. **Andrew M** expressed that the proposal basically deletes the section and doesn't add anything.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Dan W** and **Andrew M** expressed opposition.

#### **B907.5.2.1.2-24 – Richard Gordon (Non-Consensus)**

- I. **Paul M** provided an overview of the proposal.
- II. **Discussion**
  - a. **Steve S** asked how much per square foot this proposal would increase cost.
  - b. **Paul M** replied that he did have that information.

- c. **Andrew M** summarized his understanding to be that a switch would be integrated with the building operation system to shut down the ambient noise.
  - d. **Gregg Black** asked how this system is going to tie into sound systems that are brought into A occupancies as part of the traveling shows and are not permanently built into the building.
  - e. **Shahriar A** suggested that the visible alarms requirement in the code section are the solution.
  - f. **Andrew M** contributed that he does not believe the intent was to apply the requirements to temporary arrangements and configurations. An argument can be made that the average ambient noise is not going to be greater than 105 dBA for most events, and the ambient noise will only be greater than 105 dBA occasionally which would negate this requirement from kicking in.
  - g. **Michael D** commented that this system would reduce the voice emergency response volume.
- III. **Support**
- a. **Dan W** and **Andrew M** expressed support.
- IV. **Opposition**
- a. **David B** expressed opposition.

#### **B917.1.1-24 – Gregg Black (Non-Consensus)**

- I. **Gregg B** provided an overview of the proposal which is a variation of proposal B917.1, which was heard during the October General Stakeholder Workgroup Meeting.
- II. **Discussion**
  - a. **Jared H** stated that this proposal connects the code official with a campus subject matter expert.
  - b. **Chris B** noted that the University of Virginia is already doing this.
  - c. **Dan W** expressed that this is not something building officials should be regulating.
- III. **Support**
  - a. **Jared H, Chris B, and Andrew M** representing himself, expressed support.
- IV. **Opposition**
  - a. **Dan W** expressed opposition.

#### **B918.1-24 – Matthew Bonifant (Non-Consensus as Modified)**

- I. **Chris Sampl**, on behalf of the proponent, provided an overview of the proposal and the associated floor modification. **Florin M** brought awareness to the group that DHCD staff has not had an opportunity to thoroughly review the floor modification due to the timing of submittal, and invited stakeholders to review the floor modification thoroughly.
- II. **Discussion**

- a. **Gregg F** expressed relief that the proposal shifts the acceptance testing responsibility from the locality to the owner.
- b. **Dan W** drew attention to the fact that his locality has done building code modifications to allow wireless communication systems.
- c. **Steve S** explained that the prior code split the responsibility between the owner and the locality. Now the responsibility is all on the owner and it is a huge cost that includes fees and maintenance tests.
- d. **Chris Sampl** pointed to Exception 6 of Section 918.1 and clarified that the intent is for all jurisdictions to opt out if they don't want to have in-building communication requirements.
- e. **Ron C** indicated that jurisdictions requiring these systems are doing so outside of the requirements of the current code, and that Exception 6, as modified, is not doing what is being claimed it is doing. **Ron C** elaborated the way the proposal is currently written does not get the locality out of a requirement.

III. **Support**

- a. **Andrew M, Russell F, Gregg F, Dan W, and Shahriar A** expressed support.

IV. **Opposition**

- a. **Steve S** and **Ron C** expressed opposition.

**B918.2-24 – Matthew Bonifant (Non-Consensus as Modified)**

- I. **Chris Sampl**, on behalf of the proponent, provided an overview of the proposal and the associated floor modification. **Florin M** brought awareness to the group that DHCD staff has not had an opportunity to thoroughly review the floor modification due to the timing of submittal, and invited stakeholders to review the floor modification thoroughly.
- II. **Discussion**
  - a. **Doug B** asked how this proposal differs from the present requirement for non-required equipment.
  - b. **Andrew M** explained that the difference between this proposal and the previous proposal is that this proposal establishes if a building owner chooses to provide non-required equipment, the acceptance testing of that equipment is now not the responsibility of the locality.
  - c. **Chris Sampl** added that the proposal provides an avenue for wireless emergency communication without having to get a code modification. The majority of the country already allows wireless communication.
  - d. **Steve S** remarked that if the system is voluntary then there is no opposition.
  - e. **Ron C** indicated that voluntary systems are already allowed in the code and there is no need for code sections all over the code covering maintenance and testing requirements for voluntary systems.
  - f. **Andrew M** countered that the code as currently written does not simply allow voluntary emergency communications without adding responsibility to both the owner and the locality. This takes responsibility off the locality since it is voluntary.

- g. **Ron C** stipulated that if the locality is not providing equipment, you're exempt from this section. Electively installing it, does not undo Exception 6.
  - h. **Shahriar A** questioned why this section is different from anything else that is voluntary as addressed in Chapter 1. If you provide stairs that are not required, they still must meet certain safety criteria.
  - i. **Gregg F** mentioned that it is hard to grasp a voluntary code requirement where the voluntary requirement is not an exception to a mandatory requirement.
- III. **Support**
- a. **Andrew M, Chris Sampl, and Steve S** expressed support.
- IV. **Opposition**
- a. **Ron C** and **Gregg F** expressed opposition.

#### **B1006.3.4(1)-24 – Andrew Clark (Non-Consensus)**

- I. **Andrew C** provided an overview of the proposal.
- Jeff B** announced to the stakeholders that this proposal is similar to proposal B1006.3.4-24, which was already heard at a previous General Stakeholder Meeting. When there are similar proposals, regardless of whether it is Consensus for Approval or Non-Consensus, DHCD staff will flag those for the Board.
- II. **Discussion**
- a. **Andrew M** asked if the proposal was submitted by the Home Builders Association.
  - b. **Andrew C** confirmed that it was.
  - c. **Richard H** stated that single stair reform is a valuable tool to solve our affordable housing issue. There was a study done in Minnesota that found that an eight-story single stair building with 6,000 square feet per floor had a lower fire risk than an eight-story building that has two staircases.
  - d. **Dan W** expressed opposition and recommended relying on what has been approved at the national level and with the study group that Virginia put together. The additional provisions that this proposal provides do not appear to be equivalent to providing compensation for the additional height and occupant load for a single exit.
  - e. **Andrew M** expressed frustration that what is in this proposal was not included in the discussions that were had, and provided thirteen specific reasons why this proposal is not good for Virginia.
    - 1. Section 1006.2.1 is for exits from rooms or spaces on a floor, not exits from a floor. The addition of item four is shown as essentially not appropriate for that section.
    - 2. Section 1006.2.1 item four only applies to six story buildings and not four and five story buildings and skips all the new requirements in Section 1006.3.4 and Table 1006.3.4(1).
    - 3. Proposed Section 1006.3.4(6) would allow single exit stairs in buildings more than six stories, if they are not high rise, which doesn't match the scope indicated in the Reason Statement.



4. Proposed Section 1006.3.4 Item 6.1 allows up to six dwelling units per floor if the floor area is 3000 square feet or less, which seems to conflict with the limitations proposed in Table 1006.3.1 which limits single exit stair buildings to a maximum of four units per floor.
  5. Proposed Section 1006.3.4 Item 6.2 has an exception that eliminates any added construction type benefit to this section that it's intended to provide, since an R-2 over six stories already must be of a Type I or Type IV construction per Section 504.4.
  6. Proposed Section 1006.3.4 Item 6.10 does not make any sense as written, and is also probably not accurate for the doors into stairs serving four more stories, since the stair enclosure is required in two hours, not one hour, this proposal has at least two, if not three, sets of new requirements for single exit stairs that seem to overlap and conflict and would be extremely confusing as proposed.
  7. Proposed Table 1006.3.4 Item 1, Note a, would now apply to four, five, and six story buildings, but Section 1031 reference for emergency escape and rescue openings only applies to buildings of one to three stories.
  8. Proposed Table 1006.3.4 Item 1, Note d, seems to indicate that four and five story single exit stair buildings do not have to comply with Section 1006.3.4.2.
  9. Proposed title to Section 1006.3.4.2 indicates that it is only applicable to six-story buildings. So, it sounds like it's not in ten, four, five or seven story buildings.
  10. Proposed Section 1006.3.4.2 Item 4 would only apply to four stories but would not apply to the fifth and sixth floor.
  11. The Reason Statement says this proposal incorporates the same safety measures and design standard safeguards developed and supported by the fire service and other stakeholders, but the proposal does not apply them equivalently as compared to the consensus proposal.
  12. The Reason Statement indicates that the proposal provides an equivalent level of safety but provides no basis as to how it is in any way equivalent to the current or even the consensus proposal.
  13. The Reason Statement further indicates that this proposal adds additional protection beyond those in the consensus proposal that are appropriate for six story construction and ensures an equal or greater level of occupant safety through strengthened fire-resistance, detection, and egress requirements, but again, doesn't specifically indicate where those are located or how they are accomplished in this proposal.
- f. **Andrew C** questioned what requirements are needed to add the two additional stories from the four-story proposal that would satisfy fire services.

### III. **Support**

- a. **Richard H** expressed support.

IV. **Opposition**

- a. **Dan W, Russel F, and Andrew M** expressed opposition.

**B1110.4-24 – Monika Thrower (Non-Consensus)**

I. **Monika T** provided an overview of the proposal.

II. **Discussion**

- a. **Steve S** asked if there were other organizations that promulgate a standard other than IAPMO Z1390 related to adult changing tables.
- b. **Shahriar A** responded that this is an ANSI standard.
- c. **Dan W** stated that he serves on the Egress Committee for ICC and there was a proposal to add that in.
- d. **Dennis H** added that the standard was approved at the second committee action hearing on a proposal for the 2027 code.
- e. **Rick H** verified for clarification that adult changing stations are already in the 2024 IBC and that this proposal is adding more locations where they would be required.
- f. **Mark G** asked the group if everyone was aware of what a “state park visitor center” is as stated in Item 6 and if the term needs to be defined.
- g. **Jeff B** pointed out that the Items 4, 5, and 6 don’t have a limitation on the number of fixtures, so these would apply to every state park visitor centers not just based on use group.
- h. **Kyle K** inquired about directional signage in Section 1110.4.5 and what was the intent.
- i. **Monika T** answered that they are looking for an actual sign like what you see for restrooms or elevators.
- j. **Shahriar A** offered the example of three banks of toilets and two of them do not have adult changing stations, then you put directional signage to lead you to the toilet that has the adult changing station.
- k. **Alyssa B** stated that when she uses the bathroom, there is signage saying that there are handicapped accessible stalls and there is also signage in family rooms.
- l. **David B** suggested that proposed Section 1110.4.6 solves the signage issue.
- m. **Mike O** alerted the group that he is a member of the Statewide Directional Signing Committee that regulates Virginia’s blue highway signs. This proposal would require bathroom signage on those signs which are limited to 12 numbers or letters per panel.
- n. **Alyssa B** warned that anyone could become disabled at any time and how would you feel if you could no longer go into public because of the cost of signage.
- o. **Monika T** mentioned that not every disability is the same. Monika T and her son can be totally secluded if she does not have somewhere to go to change her son who is totally dependent on her.
- p. **Delegate Elizabeth B-P** claimed that this issue is important for inclusivity, accessibility and dignity, and courage.

- q. **Mike O** expressed this proposal has not been heard by the workgroups and that there has been no outreach to outside industries.
  - r. **Shahriar A** responded to Mike O's comment that these discussions take place at the ICC level and the A117.1 committee has been working on this for a long time.
  - s. **Paul M** mentioned that this proposal has nothing to do with Mike O's comment regarding VDOT signage.
- III. **Support**
- a. **Shahriar A, Michael D, Delegate Elizabeth B-P, Dan W, and Paul M** expressed support.
- IV. **Opposition**
- a. **Mike O** expressed opposition.

#### **B1110.20-24 – Delegate Elizabeth Bennett-Parker (Consensus for Approval as Modified)**

- I. **Delegate Elizabeth B-P** provided an overview of the proposal.
- II. **Discussion**
  - a. **Gregg F** commented that the proponent worked closely with the VBCOA Building Code Committee and the proposal helps maintain sanitary conditions, reduces the risk of spreading disease and pathogens.
  - b. **Dan W** added that he is on the VBCOA Building Code Committee and worked with the proponent. The committee provided a lot of comments to the proponent and it appears that most of the comments were addressed.
  - c. **Matthew R** remarked that adequate facilities have always been a challenge for parents
  - d. **Trieste L** echoed the other commentators, that supporting sanitary efforts in public is very practical.
- III. **Support**
  - a. **Gregg F, Matthew R, and Trieste L** expressed support.
- IV. **Opposition**
  - a. None

#### **B1210.1.1-24 – Tanya Pettus (Non-Consensus)**

- I. **Jeff B** provided an overview of the proposal.
- II. **Discussion**
  - a. **Steve S** recommended that this proposal should be introduced at the national level first and questioned where the ten-pound requirement comes from.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Steve S** and **Dan W** expressed opposition.

#### **B2403.6-24 – William Penniman (Non-Consensus)**

- I. **Tom B** provided an overview of the proposal.
- II. **Discussion**
  - a. **Sonal S** advised that as availability and awareness increases for these products, the cost will be driven down.
  - b. **Steve S** commented that these requirements are beyond the intent of the code to provide the minimum for health, safety, and welfare. The costs are also enormous. Also, it is not known if the reference standard being proposed has been reviewed to see if it meets the ICC requirements for reference standards.
  - c. **Dan W** agreed with **Steve S** that this proposal is outside of the scope of the VCC.
  - d. **Andrew C** alerted the group that the lead time to get some of these products is eight to ten months.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Steve S, Dan W, Andrew C, Rick H, and Paul M** expressed opposition.

#### **B3104.1.1-24 – Mekonnen Gebresillasie (Non-Consensus)**

- I. **Kyle K** provided an overview of the proposal.
- II. **Discussion**
  - a. **Dan W** commented that AASHTO is a structural standard that does not have any safety criteria related to pedestrian bridges, and that this is the wrong section of the code to try to bring in AASHTO.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Dan W** and **Doug B** expressed opposition.

#### **B3105.2-24 – Mekonnen Gebresillasie (Non-Consensus)**

- I. **Kyle K** provided an overview of the proposal.
- II. **Discussion**
  - a. **Dan W**, representing VBCOA, explained that canopies are different from awnings. Awnings are part of the building façade, hence the non-combustible frame requirement. Canopies are not required to be connected to a building at all, so there is no reason for canopies to be held to the same frame requirements of awnings.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Dan W** expressed opposition.

#### **B3500(1)-24 – Rick Hinson (Consensus for Approval as Modified)**

- I. **Rick H** provided an overview of the proposal and requested a floor modification – update to E329-25a edition instead of E329-21.
- II. **Discussion**
  - a. **Dan W** asked what the “A” stands for in E329-25A.
  - b. **Rick H** responded that it does not stand for “Appendix”. The new edition requires certification for special inspection agencies and that is who will be impacted. He did not anticipate an impact on a jurisdiction’s costs.
  - c. **David B** asked if Rick H was trying to get ahead of the competition with this proposal.
  - d. **Rick H** stated that some of the competition is already ahead.
- III. **Support**
  - a. **Shahriar A, Michael D, and Paul M** expressed support.
- IV. **Opposition**
  - a. None

#### **VIRGINIA EXISTING BUILDING CODE (VEBC) PROPOSALS**

#### **EB102.2-24 – Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Paul M** and **Shahriar A** expressed support.
- IV. **Opposition**
  - a. None

#### **EB102.2.2-24 – Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Andrew M** and **Shahriar A** expressed support.
- IV. **Opposition**
  - a. None

**EB103.9-24 – Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Shahriar A** and **Paul M** expressed support.
- IV. **Opposition**
  - a. None

**EB202(1)-24 – Allison Cook (Consensus for Approval as Modified)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. **Florin M** announced that **Steve S** spoke with the proponent and wanted to introduce a floor modification to replace the word “Either” with “Any”.
- III. **Support**
  - a. **Paul M, Michael D,** and **Shahriar A** expressed support.
- IV. **Opposition**
  - a. None

**EB307-24 Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Paul M, Michael D,** and **Dan W** expressed support
- IV. **Opposition**
  - a. None

**EB401.1-24 Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. **David B** asked if this proposal was a companion to proposal EB102.2-24.
  - b. **Ron C** responded that it was.
- III. **Support**
  - a. **Shahriar A, Paul M, Michael D,** and **Dan W** expressed support.
- IV. **Opposition**
  - a. None

**EB403.1-24 Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Paul M** and **Michael D** expressed support.
- IV. **Opposition**
  - a. None

**EB506.2-24 Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Dennis H** and **Michael D** expressed support.
- IV. **Opposition**
  - a. None

**EB602.3.4-24 Allison Cook (Withdrawn)**

**EB702.2-24 Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. **Florin M** asked for clarification if the intent was to address alterations or additions that convert existing buildings into building types within the scope of Chapter 4 of the VCC, as well as alterations that create building features within the scope of Chapter 4 of the VCC.
  - b. **Ron C** confirmed that that was the intent and provided examples of a high rise being a building type, and a legitimate stage being a feature, both within the scope of Chapter 4 of the VCC.
- III. **Support**
  - a. **Shahriar A**, **Andrew M**, and **Michael D** expressed support.
- IV. **Opposition**
  - a. None

**EB706.2-24 Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.

- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Andrew M** and **Paul M** expressed support.
- IV. **Opposition**
  - a. None

#### **EB801.2-24 Allison Cook (Consensus for Approval)**

- I. **Shahriar A** provided an overview of the proposal.
- II. **Discussion**
  - a. **Ron C** added that this proposal may or may not apply to high rise buildings.
- III. **Support**
  - a. **Gregg F** and **Shahriar A** expressed support.
- IV. **Opposition**
  - a. None

#### **EB801.3-24 Allison Cook (Non-Consensus)**

- I. **Ron C** provided an overview of the proposal.
- II. **Discussion**
  - a. **Dan W** asked for clarification that the proposal allows the addition of one story without requiring a fire service access elevator.
  - b. **Shahriar A** commented that this was correct.
  - c. **Andrew M** voiced concern over the second exception because if an owner is willing to spend the money to increase the number of stories to a building, then the new work should incorporate all the protections that would be necessary. Andrew M added the example of adding one story with an occupied roof where the roof area is not considered a story.
  - d. **Shahriar A** countered that adding a fire service access elevator to a high rise building that does not already have one is very expensive. Adding a fire service access elevator does not just involve altering an elevator shaft, but also potentially shear walls. Currently, the code does not require adding a fire service access elevator if the number of stories increase in an existing high-rise building. This proposal adds that requirement if more than one story is added.
  - e. **Matthew R** brought up that the example being given is changing the building from office use to a residential use which is a change of occupancy.
  - f. **Ron C** reminded the group that this proposal does not exempt any vertical additions from the requirements in Chapter 7 of the VEBC.
  - g. **Doug B** cited Section 601.1 and indicated that a non-conformity cannot be created.
  - h. **Shahriar A** answered that if the existing building is conforming to the building code under which it was built and the new addition applies to the current code, then you are not



extending a non-conformity.

III. **Support**

- a. **Gregg F** and **Shahriar A** expressed support.

IV. **Opposition**

- a. **Andrew M, Matthew R,** and **Doug B** expressed opposition.

**EB805.2.1.1-24 Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.

II. **Opposition**

- a. None

**EB901.1-24 Allison Cook (Consensus for Approval)**

- I. **Ron C** provided an overview of the proposal.

II. **Discussion**

- a. None

III. **Support**

- a. **Paul M** expressed support.

IV. **Opposition**

- a. None

**VIRGINIA RESIDENTIAL CODE (VRC) PROPOSALS**

**RB311-24 – Kyle Kratzer (Consensus for Approval as Modified)**

- I. **Kyle K** provided an overview of the proposal.

II. **Discussion**

- a. **Dan W** asked why “habitable” was chosen instead of “occupiable”.
- b. **Kyle K** replied that occupiable space does not pose the same fire hazards as a habitable space because the amount of time, presumably, spent in the space is greater for habitable spaces. The word “habitable” is defined in the International Residential Code (IRC). The word “occupiable” is not.
- c. **Kyle K** offered a floor modification to remove the Virginia amendment and add “and detached accessory structures with habitable space” in the 2024 IRC section.
- d. **Dan W** reasoned that “habitable” should be removed and replaced with “occupiable” because a detached accessory structure could be a workshop that you don’t live in.
- e. **Andrew M** agreed with **Dan W’s** reasoning.

- f. **Kyle K** clarified that the intent was not to capture a situation like a detached garage with a large storage room above it. It was to capture an office with a bathroom as an example. What we are trying to avoid here is egress through the garage from a habitable space.
- III. **Support**
  - a. **Paul M** and **David B** expressed support.
- IV. **Opposition**
  - a. None

#### **RB314.3-24 – Kyle Kratzer (Consensus for Approval)**

- I. **Kyle K** provided an overview of the proposal.
- II. **Discussion**
  - a. None
- III. **Support**
  - a. **Andrew M** expressed support.
- IV. **Opposition**
  - a. None

#### **RB318.7.6-24 – Andrew Clark (Consensus for Approval)**

- I. **Andrew C** provided an overview of the proposal.
- II. **Discussion**
  - a. **David B** asked if the proposal is trying to remove a landing with two steps or less, even if the door swings out over it.
  - b. **Dan W** asked if exceptions three and four are new because they are not underlined.
  - c. **Andrew C** verified that the strikeouts are what is coming through the next code cycle.
  - d. **Kyle K** asked how Virginia amendments that are already approved in the 2021 VRC will get affected by this change.
  - e. **Florin M** explained that exceptions one, three, and four will come into the 2024 VRC unmodified because they are new and not modified by Virginia. If Andrew C's proposal gets approved, exception two would be overridden by the existing amendment. So, we would carry forward the existing amendment to comport with the size of the riser.
  - f. **David B** expressed opposition because the proposal takes out the exterior landing for all exterior doors.
  - g. **Kyle K** points out that the main egress door must have a landing, but all the other doors can have two risers directly out of the door. That's already been in the code since 2012.
  - h. **Joshua J** proclaimed that Section R311.3.2 in the 2012 Virginia Residential Code

says that a landing is not required where a stairway of two or fewer risers is located on the exterior side of the door.

- i. **David B** withdrew his opposition and reiterated that he just wants landings at a minimum to be at the required egress.
- III. **Opposition**
- a. None

#### **RB324.7-24 – William Penniman (Non-Consensus)**

- I. **Sonal S** provided an overview of the proposal which is the residential companion to proposal B2403.6-24.
- II. **Discussion**
  - a. **Steve S** proclaimed that he had the same opposition as proposal B2403.6-24.
- III. **Support**
  - a. None
- IV. **Opposition**
  - a. **Steve S** expressed opposition.

#### **RB339-24 – Scott McStacy (Consensus for Approval)**

- I. **Scott M** provided an overview of the proposal.
- II. **Discussion**
  - a. **Doug B** asked if the intent is to get the material into the code or is the intent for there to be an informative appendix much in the same way as straw bale construction.
  - b. **Scott M** responded that the intent was to get it anywhere in the code as there are a half dozen houses about to use this material and the code lacks guidance for the inspectors.
  - c. **David B** asked if this was a non-structural wall infill.
  - d. **Scott M** verified that the material is not meant to carry weight and be structural like concrete. The product does get hard but can be applied many ways such as cast like plaster, placed like blocks in between studs, or it can be sprayed into a wall cavity with a backing board.
  - e. **Mark G** asked what kind of weight it has.
  - f. **Scott M** expounded that the material is about 25% of the weight of concrete. A block two feet long, one foot in height, and one foot in width, weighs approximately eight to nine pounds.
  - g. **Kyle K** asked what challenges has the industry faced.
  - h. **Scott M** answered that the only way to get it approved in Virginia is through the alternative methods or materials section in the code.
  - i. **Mark G** asked if the material is compatible with metal conduit within a cavity.
  - j. **Scott M** replied that it is and the life span is 200 years.
  - k. **Gregg F** asked if this appendix is already in the 2024 IRC and if the material is

proprietary.

- l. **Scott M** responded that the provisions are in Appendix BL in the 2024 IRC and that it is not proprietary.
  - m. **Andrew C** asked how many homes have used this material nationally or internationally.
  - n. **Scott M** surmised that there are hundreds and are mainly in Minnesota and California.
  - o. **Joshua J** asked how the code sections line up if Appendix BL is adopted into the 2024 VRC.
  - p. **Dan W** asked if the proposal would get the appendix into the VRC as an appendix or would the contents of the appendix get into the code as regular code language in the VRC.
  - q. **Florin M** clarified that the provisions would still be housed under the appendix in the 2024 VRC, but they would become part of the code, and it would work exactly like the current tiny house provisions.
- III. **Support**
- a. **Dan B, Gregg F, David B, Paul M, and Mark G** expressed support.
- IV. **Opposition**
- a. None

#### **RB408.4-24 – Dean Bragg (Non-Consensus)**

- I. **Florin M** provided that the proposal does not show any changes to the code and DHCD staff were not able to reach the proponent for clarification.
- II. **Opposition**
  - a. **Dennis H** representing himself, and **Kyle K** expressed opposition.

## **Tab 5**

### **Statewide Fire Prevention Code (SFPC) Sub-Workgroup Meeting Summaries**

| <b>Meeting</b>                                         | <b>Page<br/>Number</b> |
|--------------------------------------------------------|------------------------|
| July 8, 2025, SFPC Sub-Workgroup Meeting Summary       | Tab 5 –<br>Page 1      |
| September 26, 2025, SFPC Sub-Workgroup Meeting Summary | Tab 5 –<br>Page 9      |
| November 21, 2025, SFPC Sub-Workgroup Meeting Summary  | Tab 5 –<br>Page 17     |



**SFPC Sub-Workgroup  
First Meeting Summary  
Date: July 8, 2025  
Location: Tuckahoe Library  
Time: 10:00 AM – 1:07 PM**

**Attendees:**

**VA Department of Housing and Community Development (DHCD) Staff:**

- **Florin Moldovan** – Code and Regulation Specialist, State Building Codes Office
- **Paul Messplay** – Code and Regulation Specialist, State Building Codes Office
- **Chris Scott** – Code and Regulation Specialist, State Building Codes Office

**Sub-Workgroup Group Members:**

- **Mike O'Connor** – Virginia Propane Gas Association, Virginia Petroleum & Convenience Marketers Association
- **Steve Shapiro** – Apartment & Office Building Association of Metropolitan Washington, Virginia Apartment and Management Association
- **Andrew Milliken** – Filling in for Perry Weller, Virginia Fire Services Board
- **Tommy Herbert** – Virginia Restaurant, Lodging & Travel Association
- **Chris Barfield** – University of Virginia, Building Official's Office
- **Billy Hux** – State Fire Marshal's Office
- **Gerry Maياتico** – Virginia Fire Prevention Association
- **Todd Spruill** – Virginia Fire Chiefs Association

**Interested Parties:**

- **Nicholas Bowles** – Nottoway County
- **Greg Cavalli** – Policy Analyst, Virginia Department of Fire Programs

**Purpose**

The Statewide Fire Prevention Code Sub-workgroup (SFPC SWG) evaluates proposed amendments to the SFPC and applicable regulations, reconciles model-code language with Virginia-specific amendments, and seeks consensus before deliberations by the General Stakeholder Workgroup. Members represent fire services, building officials, industry associations, building owners, and local jurisdictions, ensuring that public safety objectives, enforceability, and field practicality are all considered.

## **Background**

Florin provided an overview of the code development process, the background and development of the base documents, and examples of the types of changes shown in the base documents. Specific examples of changes to the SFPC were provided.

## **Discussion**

### Proposal B105.1-24 (Appointment of Building Official)

- Florin – Gives an overview and background of the proposal.  
Andrew – (Notes that the Virginia Fire Service’s Board (VFSB) has not reviewed the item yet and that he is not speaking on the VFSB’s behalf.) Personally, I think it is a better approach than setting a fixed term.  
Florin – Reiterates that no concerns have been raised; may even be “some positives.” No further comments.

### Proposal FP202-24 (Mobile Food Preparation on Boats/Watercraft)

- Florin – Turns the floor over to proponent Gerry.
- Gerry – This Virginia Fire Prevention Association (VFPA) proposal is aimed at boats and watercraft where mobile food preparation activities take place. This has become prevalent on bodies of water, such as Lake Ana and Smith Mountain Lake. Clarifies that boats and watercraft used for food service must meet mobile food preparation vehicle provisions.
- Steve – Boats are a subset of watercraft, right?
- Gerry – Yes; Cites statements and questions he has received, “I’m not a boat because I have no motor,” and “If I’m being towed, am I a trailer?”
- Florin – As I understand this, the change enables the code official to apply existing mobile food preparation vehicle requirements to these vessels.
- Andrew – Supports.
- Billy – State Fire Marshal’s Office also supports; they receive similar calls.
- Todd – Virginia Fire Chiefs Association supports as well.

### Proposal FP601.2-24 (Authority to Disconnect Utilities)

- Florin – Turns the floor over to proponent Gerry.
- Gerry – This proposal attempts to address local concerns in Warren County and was sent through the VFSB for consideration. The proposal provides explicit authority for



fire officials to order the disconnecting of utility services (primarily electrical) to a building, equipment, or portion thereof. Modeled after International Fire Code (IFC) Chapter 1 language that is amended out in Virginia. Adds parallel language to Statewide Fire Prevention Code (SFPC) Chapters 1 & 6.

- Florin – Notes that this proposal aligns the SFPC with the model code; notes the Virginia Property Maintenance Code (VPMC) already grants similar power, but not every locality enforces VPMC.
- Steve – Struggles with the newly defined word “utilities” and the qualifier “essential.” Wonders about solar power and whether that fits into the understanding of “utilities.”
- Gerry – Considered listing each service but feared omitting one, open to edits.
- Andrew – VFSB has discussed this topic generally but has not reviewed the specifics of the proposal. Suggests deleting “essential,” restoring “electric wiring,” and using “including but not limited to” followed by a list of applicable equipment and appliances. “If it’s not an essential service, then it’s not a utility.”
- Gerry – Agrees that if it’s not an essential service, then it’s not a utility.
- Florin – Proposal will appear as-is at the July 29 General Stakeholder Workgroup meeting; floor modifications can be submitted ahead of time. Encourages Gerry and Andrew to reach consensus and send a red-line Word file to staff.

#### Proposal FP3101.1-24 (Temporary Special Event Structures)

- Florin – Provides an overview of the proposal.
- Steve – Notes a typo after “this chapter” in Section 3103.7; also suggests replacing “performance” with “results” in Section 3103.7.1.
- Gerry – Questions deletion of the sentence in Section 3103.5 that defines “temporary,” and why “temporary special event structures” (TSES) is removed from the chapter title but left in scoping language.
- Andrew – Explains the proponent’s position: fire code would no longer regulate TSES; the building code would.
- Gerry – Worried about losing maintenance language once permits are issued.
- Florin – Directs Gerry to Section 3103.7 for maintenance requirements.
- Andrew – Thanks the proponent for outlining the sections and providing background information. Considering the amount of work involved, he may have underestimated the effort. Although it may fall under the Virginia Construction Code (VCC), it is not part of it. It would be more helpful to specify the exact VCC section addressing the issue rather than just saying “it’s construction so the VCC handles it.” The scope

might include it, but the VCC may not explicitly reference it. He requests to table the issue until the next meeting for review and wants “temporary” defined in Section 3103.5, somewhere else, or removed from the chapter.

Florin clarifies that the proposal is anticipated to be on the agenda for the July 29 GSW meeting, unless the proponent requests it to be tabled. Members are encouraged to continue to review the proposal and reach out to the proponent ahead of the GSW meeting with any suggestions for modifications.

#### Proposal B3102.1-24 (Companion to FP3101.1-24)

- Florin – Provides an overview of the proposal - included on the agenda for context.
- Andrew – Disagrees with removing the provisions related to construction documents from 3103.2.
- Florin – Provides an overview of the order of precedence set forth in Chapter 1 of the VCC. Section 109 provides the building official the ability to require detailed construction documents based on the specific of a given project. It appears the proponent proposes to delete the construction documents provisions from Section 3103.2 of the IFC/SFPC on the premise that Section 109 of the VCC takes precedence.
- Andrew – Agrees permit authority lies in VCC and that there is no code-language conflict; however, he sees Section 3103.2 of the SFPC as providing additional specificity for construction documents required for tents. Losing the tent-specific list may remove clarity. Recommends maintaining these tent-specific items and adding the label provisions in a new section.
- Florin – Acknowledges Andrew’s point of view and surmises that perhaps he and the proponent view Section 109 of the VCC and the VCC order of precedence differently.

#### Proposal FP3303.1-24 (Fire-Safety Plans During Construction)

- Florin – Provides an overview of the proposal.
- Andrew – VFSB supports requiring a plan but wants clear triggers: “when required by the fire code official or when a fire watch is required in accordance with Section 3305.5.”
- Florin – Asks Andrew for clarification as to whether the language is related to fire watch or additional thresholds beyond that.

- Andrew – That’s the recommendation for the threshold, to keep it as minimum as possible and still allowing, “Where required by the Fire [Code] Official,” because certain jurisdictions may have specific requirements, but at least there would be a minimum across the board as to when a plan is required instead of leaving it entirely up in the air; same request for companion Proposal B3301.1-24.
- Florin – If you were to change, “Where required by the Fire Code Official, or where needed for a fire watch in accordance with Section 3305.5,” you would be supportive of the proposal?
- Andrew – That’s right.

#### Proposal B3301.1-24 (Companion to FP3303.1-24)

- Andrew – Requests a review of the companion proposal and asks if feedback is requested.
- Florin – We are looking for feedback on whatever you have to offer.
- Andrew – We have not looked at this specifically, but we have the same feedback that we’ve had before. When we are deleting sections or, in this case, deleting the IFC entirely, there should be some explanation as to where that is located in the VCC. The scoping in 3301.1 deletes the entire reference to the IFC, so there are a lot of construction provisions in the IFC that, if they are removed from the SFPC, are no longer enforceable. You would only have the VCC as specifically amended. In the SFPC, we’ve removed construction language from Chapter 33, for example, standpipes. If we remove the IFC reference in the VCC, then that section about when you need to provide standpipes is not connected. That would specifically need to be said in the VCC as an amendment.
- Florin – Is your concern that if you remove the reference to the IFC from this section and if you are operating under the purview of the SFPC, “the applicable building code” as referenced in the SFPC would no longer include Chapter 33 and all of the subsequent provisions from the IFC?
- Andrew – Yes. There are other sections in the VCC in Chapter 33 that address, for example, fire extinguishers, means of egress, sprinklers, etc., which the proponent does not intend to delete. Are these intended to remain?
- Florin – The proponent is suggesting that those sections referenced in the IFC are operational and maintenance provisions and, under the purview of the USBC, there’s no authority to enforce operational or maintenance provisions in the IFC. Therefore, in the proponent’s opinion, those should be removed from the IFC

because those should already be covered under the SFPC as operation and maintenance provisions. That's what I understand his reasoning to be.

- Andrew – Suggests the proponent provide more clarity in the reason statement as to whether all or only some of the IFC Ch. 33 provisions are being removed; expresses similar concern for the Virginia Existing Building Code (VEBC) correlations. There are many provisions regarding fire safety during construction in the VCC that would remain.

#### Proposal FP4106.1.3 (“No-Longer-Mobile” Food Vehicles)

- Florin – Recaps the move of former Section 319 of the SFPC and IFC to 2024 IFC Section 4106.
- Gerry – Increasing number of food trucks permanently parked, placed on blocks, skirted, porches added, and connected to utilities of an existing building, and therefore are no longer mobile. At what point do they cease to be a Mobile Food Preparation Vehicle (MFPV) and become a fixed structure under the purview of the Building Official and not the Fire Official for those connections and modifications, making them a fixed structure?
- Mike – If the vehicle is still licensed as a trailer and movable, does this rule apply? Concerned about defining propane as a “utility.”
- Gerry – Language says if it cannot be “easily transported or relocated without excessive effort,” it is no longer an MFPV.
- Florin – Distinguishes between integral propane tanks vs. hard-piped connections to large external tanks; the latter may be considered a utility connection.
- Andrew – Section 319.9 already regulates tanks “attached to the vehicle”; non-attached tanks would be considered a permanent utility.
- Florin – Sounds like there are a few members interested in working on the definition of “utility.” Mike, would you be interested in joining them?
- Mike – I can't give a yes or no on that, but I can pass it along to the association and they can determine whether they would like to be represented in that discussion.
- Florin – Is your position that these types of units should not be regulated under this section? Or is your suggestion that there should be clarification so everyone understands where this applies?
- Mike – My first concern is that defining propane as a utility could be problematic.
- Andrew – We have other sections in the SFPC that discuss utility shutoffs. Is the suggestion that propane is problematic if it's not included as a utility? From my

perspective, propane—whether it’s any type of tank—meets the threshold of “utility” in a general sense. If we exempt it as not being a utility, we must be cautious.

- Mike – Reiterates that he is not advocating for propane to be excluded from being considered a utility.
- Florin – Thanks, everyone, for the feedback and conversation. We look forward to any further improvements or modifications to this proposal.

#### Assignments and Next Steps

- The group will continue to work and collaborate on proposals.
- Staff will draft the summary, and once it’s available, will share it with the group and post it online.
- Staff will review the list that Andrew sent, which recommends changes to the base document. Staff plan to use a spreadsheet similar to previous cycles, which will show what is in the base document, the recommended edits, and what the group agrees on, as applicable. The goal once these items have been discussed is to reach consensus. Staff can then draft a proposal on behalf of the Sub-workgroup for consideration during the general workgroup meetings.
- Staff will send a placeholder calendar invite for the group’s next meeting

Meeting adjourned at 1:07 p.m.



## **Statewide Fire Prevention Code (SFPC) Sub-Workgroup Meeting**

**September 26, 2025**

**10:00 AM**

Location: 4224 Cox Rd, Glen Allen, VA 23060 - **Virginia Housing Center**

### **Attendees:**

#### **VA Department of Housing and Community Development (DHCD) Staff:**

- **Jeff Brown** – Deputy Director of Building and Fire Regulation
- **Florin Moldovan** – State Building Codes Office Director
- **Paul Messplay** – Code and Regulation Specialist, State Building Codes Office
- **Travis Luter** - Code and Regulation Specialist, State Building Codes Office
- **Chris Scott** – Code and Regulation Specialist, State Building Codes Office

#### **Sub-Workgroup Members:**

- **Mike O'Connor** – Virginia Propane Gas Association (VAPGA), Virginia Petroleum & Convenience Marketers Association (VPCMA)
- **Steve Shapiro** – Apartment & Office Building Association of Metropolitan Washington (AOBA), Virginia Apartment and Management Association (VAMA)
- **Perry Weller** - Virginia Fire Services Board (VFSB)

#### **Interested Parties:**

- **Greg Cavalli** – Policy Analyst, Virginia Department of Fire Programs
- **Chris Barfield** – University of Virginia, Building Official's Office
- **Christian Tucker** – Virginia Cable Telecommunications Association (VCTA)
- **Ernie Little** – Virginia Fire Prevention Association (VFPA)
- **Andrew Milliken** – Virginia Fire Services Board (VFSB)

## **SFPC Base Document Update**

**Florin** provided an update on the SFPC base document, expressing gratitude to Andrew M. and the VFSB for their assistance in reviewing and updating the document.

## **Proposal Discussions**

**FP6112-24** – Lee Stoermer. Moved to the beginning of the agenda at the request of Mike O’Connor.

**Florin** provided an overview of the proposal.

**Mike O’** spoke with the proponent ahead of the meeting and disseminated the proposal to members of the Petroleum Gas Association. **Mike O’** will be meeting with the proponent in the subsequent week to further discuss the proposal.

**Florin** encouraged other interested parties to participate in the meeting to share their insights, as well.

**FP112.5-24** – Andrew Milliken

**Andrew M.** provided an overview of the proposal.

No further discussion from the group occurred.

**FP405.5-24** – Delegate Elizabeth Bennet-Parker

**Florin M.** provided an overview of the proposal.

**Andrew M.** raised concerns about occupant notification and instructions during the 14-day period testing window. VFSB expressed significant concerns about occupants ignoring the alarms during that time. The UK requires a Personal Emergency Evacuation Plan (PEEP) for those with special needs. This might be something of interest to the proponent. This proposal may have come about due to fire alarm servicing companies not adequately notifying building occupants.

**Florin M.** asked if **Andrew M.** would be interested in meeting with the proponent to learn more about the intent of the proposal, offered to connect him with the proponent if interested, and noted that staff would also be interested in being part of the conversation, if possible.

**Andrew M.** is interested in meeting with the proponent and expressed the intent of reaching out to further discuss the proposal.



#### **FP601.2-24 – Gerry Maiatico**

**Florin M.** provided an overview of the proposal.

**Christian T.** shared that VCTA has concerns with the definition of “utilities,” which VCTA presumes to include communication systems, alarm systems, and other types of low voltage wiring. From an industry perspective, VCTA is unaware what the specific fire hazards would be. Suggests that cabling and alarm systems be an exception.

**Christian T** raised concerns about the subject matter expertise of those officials inspecting low-voltage systems. **Christian T** questions the proponent’s floor modification of changing, “When in the Fire Code Official’s opinion,” to, “When the Fire Code Official deems,” and whether it provides any substantive change. This issue can be solved through a revision of the definition.

**Steve S.** shared that AOBA supports the exception for communication systems.

**Christian T.** noted that there is a potential for creating more risk when communication systems are offline during an emergency.

**Perry W.** stated that utility systems are not exempt from having issues that could cause a fire. Cable boxes and fire alarm boxes have been the cause of fires. **Perry W** agreed that addressing the terminology to consider all parties is a good idea.

**Steve S.** reminds the group that there are currently exemptions in the code for low-voltage wiring, so there is precedent for an exemption like what is being discussed in the proposal.

**Andrew M.** stated that there may be a need to revise the proponent’s floor modification to not strike the word “Official,” because the fire code does not determine nor “deem” anything – it is the Official’s decision. Noted VFSB’s recommendation for the language stricken in 110.1 regarding Exception 7 and that “electrical wiring” should be left in the section. Encouraged VCTA to reach out to the proponent to create an exception for specific utilities.

#### **FP807.2-24 – Andrew Milliken**

**Andrew M.** provided an overview of the proposal.

**Florin M.** asked the proponent if he intentionally used “doorways” instead of “doors.” If there is an opening that could be considered an exit access doorway, how would this apply?

**Andrew M.** The reason for using “exit access doorways” is because it’s a defined term. Does not believe there is a functional difference or technical issue because it is a defined term.

**Steve S.** noted uncertainty about how you would take the measurement of 50% of the surface area of something that does not have a surface.

**Florin M** clarifies that the definition of exit access doorways is “a door or an access point.” If it is an access point, then it’s not a door.

**Chris B.** asks if correlation needs to be made between “doors” in Sections 807.2 and 807.3 and “doorways” in Exception 5 Section 807.2.

**Andrew M.** notes that 807.3 and the beginning of 807.2 address all doors. This exception is with regard to exit access doorways.

#### **FP901.6.3-24 – Andrew Milliken**

**Andrew M.** provided an overview of the proposal.

**Steve S.** asked what the Library of Virginia’s retention schedule calls for with respect to this documentation.

**Andrew M.** does not believe that the Library of Virginia retention policy applies to this, since it’s a document that is retained by the owner of the property.

**Steve S.** inquired whether these documents would be required to be kept for a government building and, if they are, would the Library of Virginia retention policy apply.

**Andrew M.** stated that if this documentation becomes a government document, then the Library of Virginia retention policy would apply.

**Perry W.** noted that most documents are retained for 5-15 years and that this proposal would not create a conflict.

**Florin M.** shared the analogy of the Virginia Construction Code requiring construction documents to be kept on site for the inspector to reference. This proposal appears to require the owner to keep the records of system inspections, tests and maintenance onsite for reference as needed.

**Andrew M.** agreed with Florin’s statement.

**Christian T.** asked if “approved location” is a defined term and if there is a process for getting that approval?

**Andrew M.** “Approved” is a defined term. Noted that the language is intended to have a lot of flexibility to allow for electronic records, paper records, and other types of records.

**Perry W.** clarified that the Library of Virginia requires a 3-year retention period from the last action on that document.

**Florin M.** qualified that the Library of Virginia retention policy is regarding the retention of documents associated with government buildings.

#### **FP906.1-24 – Morgan Hurley**

**Florin M.** provided an overview of the proposal including the proposed floor modification shared on the screen.

**Steve S.** noted that striking A, B, and E occupancies has been proposed to be stricken for the past 5 code cycles and that the Board of Housing has rejected it every time. AOBA will be speaking again in opposition at the Board of Housing and Community Development meeting.

**Andrew M.** stated that the VFSB supports the proposal to address this section but that they disagree on a couple items in the proposal. **Andrew M** further noted that this proposal brings the SFPC in line with the model code, which has had these requirements for many years. VFSB supports bringing additional flexibility to certain occupancies or uses that are not currently in Virginia. Andrew shared that he is not aware of projects that would otherwise not be required to have a fire sprinkler system that would now require one instead of providing portable fire extinguishers. **Andrew M.** noted that we have at least 15,000 qualified fire fighters throughout the Commonwealth who are trained to use portable fire extinguishers. They are now rendered helpless in the absence of these portable fire extinguishers where a fire could otherwise be fought.

**Steve S.** stated that AOBA's comments are the same for this proponent's companion proposal B906.1.

#### **FP1208-24 – Ernie Little**

**Ernie L.** provided an overview of the proposal including the proposed floor modification shared on the screen.

**Steve S.** asked what the building code requires for distances to an emergency shut off.

**Ernie L.** responded that the requirements are no less than 20 ft and no more than 100 ft, which is the same requirement that exists for self-service stations.

**Florin M.** shared the proponent's companion proposal for the Virginia Construction Code.

**Andrew M.** noted that VFSB supports this proposal and that this proposal stands on its own, regardless of the outcome of the companion proposal. Andrew also noted that Item #4 in the proposal is intended to be a part of Item #3, which was confirmed by **Ernie L.**

#### **FP4101.9-24 – Andrew Milliken**

**Andrew M.** provided an overview of the proposal.

**Steve S.** asked for clarification on where the 10 ft measurement is taken.

**Andrew M.** clarified that his proposal revises this section so that it only applies to tents and membrane structures, not buildings.

**Steve S.** asked if the measurement is taken from the nearest edge.

**Andrew M.** stated, “Yes.”

**Steve S.** asked which definition of combustible materials 4104.3 is referring to.

**Andrew M.** noted that the definition to be used would be the common definition since “combustible” is not defined in the SFPC.

**Ernie L.** noted that “combustible” is not defined in any of the codes except for the Mechanical Code.

**Florin M.** shared that the Virginia Mechanical Code defines “combustible material” as any material that is not defined as “noncombustible.”

*NOTE: Further staff review revealed that the VMC defines “Noncombustible materials” as: “Materials that, when tested in accordance with [ASTM E136](#), have not fewer than three of four specimens tested meeting all of the following criteria:*

- 1. The recorded temperature of the surface and interior thermocouples shall not at any time during the test rise more than 54°F (30°C) above the furnace temperature at the beginning of the test.*
- 2. There shall not be flaming from the specimen after the first 30 seconds.*
  - 1. The recorded temperature of the surface and interior thermocouples shall not at any time during the test rise more than 54°F (30°C) above the furnace temperature at the beginning of the test.*
  - 2. There shall not be flaming from the specimen after the first 30 seconds.*
  - 3. If the weight loss of the specimen during testing exceeds 50 percent, the recorded temperature of the surface and interior thermocouples shall not at any time during the test rise above the furnace air temperature at the beginning of the test, and there shall not be flaming of the specimen.*

#### **FP4106.1.3-24 – Gerry Maiatico**

**Florin M.** provided an overview of the proposal and shared an email from the proponent regarding the potential use of definitions in the Virginia Construction Code, Appendix G (Flood-Resistant Construction), modified slightly to meet the intent of “mobility”.

**Andrew M.** shared that VFSB has not reviewed the definitions in Appendix G suggested by the proponent.

**Ernie L.** noted that mobile fuel vehicles have been a discussion since the SFPC came about and shared situations where mobile food vehicles are staying in place for multiple months and providing outdoor seating. “Mobile vehicles are morphing.”

#### **FP5001.7-24 – Andrew M.**

**Andrew M.** provided an overview of the proposal.

No further discussion by the group occurred.

**Assignments and Next Steps**

- Ron Clements' tent-related proposals FP3101.1-24 and B3102.1-24 have been withdrawn by the proponent from the next General Stakeholder Workgroup meeting.
- Staff are considering extending the deadline for proposal submission from October 10<sup>th</sup> to a later date in October to give stakeholders ample opportunity to review the information and collaborate towards reaching consensus on as many proposals as possible.

**Next Meeting Date:**

**Florin M.** noted that a third SFPC SWG meeting may be necessary depending on the outcomes of the General Stakeholder Workgroup meeting on October 3<sup>rd</sup> and whether additional SFPC proposals will be submitted. Staff will follow up with more information once available.

***Meeting adjourned at 11:53 AM***



**Statewide Fire Prevention Code (SFPC) Sub-Workgroup  
Third Meeting Summary  
Date: November 21, 2025  
Location: 4224 Cox Rd, Glen Allen, VA 23060 - Virginia Housing Center  
Time: 10:00 AM**

**Attendees:**

**VA Department of Housing and Community Development (DHCD) Staff:**

- **Jeff Brown** – Deputy Director of Building and Fire Regulation
- **Florin Moldovan** – State Building Codes Office Director
- **Chris Scott** – Code and Regulation Specialist, State Building Codes Office

**Sub-Workgroup Members:**

- **Billy Hux** – State Fire Marshal’s Office (SFMO), Virginia Department of Fire Programs (VD FP)
- **Mike O’Connor** – Virginia Propane Gas Association (VAPGA), Virginia Petroleum & Convenience Marketers Association (VPCMA)
- **Scott Pedowitz** - Apartment & Office Building Association of Metropolitan Washington (AOBA), Virginia Apartment and Management Association (VAMA), Sitting in for Steven Shapiro

**Interested Parties:**

- **Andrew Milliken** – Virginia Fire Services Board (VFSB), Codes and Standards Workgroup
- **Chris Barfield** – University of Virginia, Building Official’s Office
- **Christian Tucker** – Virginia Cable Telecommunications Association (VCTA)
- **Greg Cavalli** – State Fire Marshal’s Office (SFMO), Virginia Department of Fire Programs (VD FP)
- **John Miller** – Virginia Department of Forestry
- **Lee Stoermer** – Loudon County Fire Rescue Fire Marshal Office, Virginia Fire Services Board (VFSB), Codes and Standards Workgroup
- **Zach Eisenman** – Virginia Propane Gas Association (VAPGA)

**Purpose**

The Statewide Fire Prevention Code Sub-Workgroup (SFPC SWG) convened as part of Virginia’s 2024 code development cycle to review and discuss proposed changes to the state’s fire prevention code provisions. The meeting brought together a diverse group of stakeholders—including state agency staff, Fire Services members, advocacy groups, code

officials, industry representatives, and citizens—to collaboratively examine fire-related code change proposals prior to deliberations by the General Stakeholder Workgroup (GSW) and consideration by the Board of Housing and Community Development (Board).

### **Proposal Discussions**

#### **FP105.3.1-24 - DHCD Staff**

**Florin M** provided an overview of the proposal which no longer requires localities to notify DHCD of employment of new technical assistants. In addition, the word "termination" is changed to "separation" to be more inclusive of any situation where the employee leaves the locality, including resignation, termination, or retirement.

No further discussion from the group occurred.

#### **FP107.11-24 - Greg Cavalli and Billy Hux** representing the Virginia Department of Fire Programs

**Greg C** provided an overview of the proposal which increases the SFMO permit fees for explosives, blasting agents, theatrical flame effects, fireworks, and annual compliance inspection fees.

**Mike O** asked DHCD staff for clarification if the Board instructed proposals not to increase costs on consumers.

**Florin M** commented that the code development process is open to anyone who wants to submit code change proposals and staff cannot prevent anyone from submitting what they believe to be beneficial for them, the Commonwealth as a whole, or otherwise. Each proposal is required to be provided with a Cost Impact statement indicating whether the proposal increases cost, decreases cost, or has a neutral impact. Ultimately the Board is going to make their own decisions. Further, he encouraged those in attendance to provide feedback to the proponents, as applicable.

**Jeff B** added that at one of the earlier meetings DHCD staff did mention that there were executive orders from the current administration to reduce regulatory requirements and costs and that there is a heightened focus on that to increase affordability. However, part of the regulatory reduction considers things that are necessary for health, safety, and welfare.



**Mike O** asked **Greg C** if the department had done any research and reached out to other stakeholder groups that might be impacted.

**Greg C** responded that no specific industries have been contacted but the research they have done was for a report that was mandated by the General Assembly.

**Billy H** clarified that their department is not 100 percent funded by the general fund. Mandated inspections such as dorms, hospitals and nursing homes are covered by the general fund, but the rest of the fire code inspections do not and there is a deficit in funding these inspections.

**Mike O** asked if the report could be shared with the group.

**Greg C** read the following statement from the Preface of the report in question:

“Virginia’s adopted budget (2025 Va. Acts Ch. 725) directed the Department of Fire Programs in cooperation with the State Fire Marshals Office, Virginia Fire Services Board, the Department of Housing and Community Development, and the Board of Housing and Community Development to conduct an assessment of the fees charged by the State Fire Marshals Office to conduct safety inspections. The assessment shall include a review of existing inspection fees, the number of inspections conducted by fee category, the cost of conducting each inspection, and the total revenue from each fee category to determine whether there is a need to adjust the fees based on the market cost of conducting inspections.”

**Mike O** asked DHCD staff if “moving on” to the next proposal meant that there was consensus for the proposal.

**Florin M** clarified for the group that official votes are not taken in the Sub-Workgroup meetings, but if anyone wishes to speak in opposition, or support, or wants to provide additional feedback to the proponent, that this is the forum to do so. **Florin M** emphasized the importance of attending the General Stakeholder Workgroup meeting and encouraged everyone to attend as that is when a recommendation from the stakeholders to the Board will be assigned for each proposal.

#### **FP107.12-24 – Greg Cavalli and Billy Hux** representing the Virginia Department of Fire Programs

**Greg C** provided an overview of the proposal which adds SFMO inspection fees for general fire code inspections, re-inspections, the retail sale of 1.4G Virginia Permissible Fireworks, and mobile food preparation vehicles.

**Scott P** expressed concerns with Item 8 “General fire code inspection” and Item 9 “Re-inspection”.

**Mike O** asked for clarification that the fee proposed for a general fire code inspection is a new fee.

**Greg C** responded that there are currently no fees for general fire code inspections. The VDFP had discussions with the Board and came to a consensus to narrow the definition of what general fire code inspections would incur a fee, and that information will be in a forthcoming report.

**Billy H** added that the number of general fire code inspections and re-inspections is approximately 1000 a year based on the previous fiscal year. The majority of those inspections are requested by a commercial occupancy for insurance purposes or some type of accreditation. The fee was based off the average of various fire marshal office fees throughout the state but did not include offices in northern Virginia.

**Mike O** asked for clarification that general fire code inspections are requested and not outreach on the part of the department.

**Greg C** read the new definition of *general fire code inspection* included in the forthcoming report:

“The category of general fire code inspections for the purposes of this recommendation would encompass any statewide fire prevention code inspection that is requested or conducted from a commercial occupancy where the state fire marshal is the authority having jurisdiction. The general fire code inspections that would be charged fees under this recommendation do not fall under General Assembly mandated inspections. Rather the fee would be charged for inspections only requested for commercial occupancy either by a business owner or a valid complaint.”

**Mike O** asked for clarification that this only applies to requested inspections and valid complaints.

**Greg C** confirmed that that is correct.

**Andrew M** asked if the report had been published.

**Greg C** explained that the report has not been published but will be presented to the VFSB on December 2nd. **Greg C** was prepared to answer any questions about the

research that was done to compile the report but stressed that the report cannot be shared because it has not yet been approved.

**FP107.12.1-24 - Greg Cavalli and Billy Hux** representing the Virginia Department of Fire Programs

**Greg C** provided an overview of the proposal which creates a new market-based fee adjustment process where the State Fire Marshall shall submit a report detailing inspection numbers to the Board prior to the start of each code development cycle.

**Mike O** questioned if this proposal makes the increase in the cost of the first two proposals necessary.

**Greg C** countered that the department came up with several options as directed by the General Assembly and the options are being presented as individual proposals so the Board can decide which plan makes the most sense.

**Scott P** was opposed and preferred that the fee structure remain part of the stakeholder process.

**Florin M** clarified for the group that changes to the proposals in cdpVA can no longer be made. However, floor modifications are allowed to be introduced during the General Stakeholder Workgroup meeting. To streamline discussions during the meeting, proponents are strongly encouraged to provide staff with a document showing the changes between the proposal in cdpVA and the version they would like to be considered as a floor modification, a few days ahead of the meeting. DHCD staff will work with proponents to put the changes in the correct format to show the differences between the original proposal and the revised proposal.

**FP112.1-24 - Eric Mays**

**Florin M** provided an overview of the proposal which intends to clarify the requirements pertaining to the timely filing of an appeal as it relates to the payment of appeal application fees.

No further discussion from the group occurred.

#### **FP112.5(1)-24 – DHCD Staff on behalf of the State Building Code Technical Review Board (TRB)**

**Florin M** provided an overview of the proposal which pairs language with the Virginia Construction Code and the Virginia Property Maintenance Code for who can appeal to the Local Board of Fire Prevention Code Appeals (LBFPCA).

No further discussion from the group occurred.

#### **FP307.2-24 John Miller, representing Virginia Department of Forestry**

**John M** provided an overview of the proposal which deletes the word “silvicultural” which is not a defined term and to not create another layer of oversight on a process that is already extensively regulated.

**Andrew M** noted that the VFSB Codes and Standards Committee supports the intent of the proposal but believes that an exception should be created for silvicultural burns instead of removing the word “silvicultural”. This section could be applied to other situations such as land clearing operations that wouldn’t fall under that category and prescribed burn regulation requirements are not mandatory.

**John M** indicated that he was fine with that approach and will collaborate offline with **Andrew M** in crafting the language for the suggested exception.

#### **FP501.5-24 — Andrew Milliken**

**Andrew M** provided an overview of the proposal which requires the Fire Code Official to approve the installation of fire service features mandated in Chapter 5 prior to the occupancy of any portion of a building, structure, or premises.

No further discussion from the group occurred.

#### **FP904.2.2.1-24 – Lee Stoermer**

**Lee S** provided an overview of the proposal which requires a copy of approved fire suppression plans to be available at all times the commercial hood and/or cooking appliances located under the hood are in operation.

**Andrew M** commented that the VFSB Codes and Standards Committee discussed the proposal and had two recommendations. Relocate to Section 904.13.5

“Operations and maintenance” and clarify that the requirements in the proposal speak to the owner or operator of the hood and not the hood itself.

**Scott P** expressed concern that this creates a violation if the plans aren’t on site but could be accessed.

#### **FP1208(1)-24 – Andrew Milliken**

**Andrew M** provided an overview of the proposal which builds on the proposal FP1208-24, which was recommended as “Consensus” at the October 3rd General Stakeholder Workgroup meeting, by providing additional clarifications and electrical power disconnect information.

**Scott P** not addressing the substance of the proposal, brought up that similar proposals dealing with electric vehicle charging were discussed at the last Energy Sub-Workgroup Meeting (held on November 14<sup>th</sup>) and there was preference to set up a workgroup to align all things dealing with electrical charging. The feeling from the Energy Sub-Workgroup meeting was that those proposals would become categorized as “Non-Consensus” at the conclusion of the next General Stakeholder Workgroup meeting.

**Andrew M** would be supportive of a workgroup if electric vehicle charging stations were not mandated everywhere. If they are mandated, there should be protection in place for them. He would like to see consensus on something like this, if possible, rather than grouping them with a larger item.

#### **FP4106.1.3-24 – Gerry Maiatico**

**Florin M** noted that the proposal was on the agenda for the last two SFPC Sub-Workgroup meetings, as well as the General Stakeholder Workgroup meetings where the proposal was carried over for additional potential collaboration amongst stakeholders and invited the group to share any updates or additional information they might have, which has not already been discussed at prior meetings.

**Christian T** emailed **Gerry M** on a separate proposal asking to exclude “telecommunications” from the proposed “utilities” definition.

**Andrew M** vocalized that VFSB Codes and Standards Committee would like to add “and determined to be a structure” after “utilities” in the exception to avoid a

loophole where a building can be provided with power and water and approved by the building official but also not considered to be a structure and would be exempt.

There have been discussions with the proponent but have not seen any changes.

**Christian T** asked for an update on the status of proposal FP601.2-24.

**Florin M** remarked that the proposal FP601.2-24 was discussed at the October 3rd General Stakeholder Workgroup meeting and received a recommendation of “Non-Consensus”.

#### **FP6112-24 – Lee Stoermer**

**Lee S** provided an overview of the proposal which introduces a new section for LP gas vendor requirements.

**Zach E** weighed in that there are a few clarifications that he will work on with **Lee S**, offline.

**Andrew M** noted that VFSB Codes and Standards Committee supported this proposal but would like to see a more refined definition of what a “marketer” is.

#### **Assignments and Next Steps:**

**Florin M** noted that staff will develop a summary of the meeting and will distribute it to the group once completed. Members of the Sub-Workgroup were encouraged to meet and continue discussions in furtherance of consensus building. Further, **Florin M** stated that staff are available to attend offline meetings and discussions if available and if requested by the members. Lastly, **Florin M** asked any proponents seeking to add floor modifications to notify staff no later than a few days before the final General Stakeholder Workgroup meeting so there would be time to prepare potential documentation.

**Florin M** expressed appreciation to the group for their time and efforts throughout the process and for their dedication towards improving Virginia’s codes and encouraged everyone to attend the General Stakeholder Workgroup meetings on December 11-12, 2025.

## Tab 6

### Public Comments

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**In The Matter Of:**  
*BOARD OF HOUSING AND COMMUNITY DEVELOPMENT  
PUBLIC HEARING*

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*Transcript of Proceedings  
July 14, 2025*

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*ORTEGA INTERNATIONAL REPORTING  
6933 Commons Plaza, Suite 119  
Chesterfield, VA 23832  
(202) 681-5140*



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1 VIRGINIA:

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4 BOARD OF HOUSING AND COMMUNITY DEVELOPMENT

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7 PUBLIC HEARING

8  
9  
10 Monday, July 14, 2025

11  
12 10:00 a.m.

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15 When heard at:

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18 Virginia Housing Center

19 4224 Cox Road

20 Glen Allen, Virginia

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23  
24 Reported by:  
25 JUAN ORTEGA, CCR

1 A P P E A R A N C E S:

2

3 MEMBERS PRESENT:

4 Louie Berbert, Chair

5 Sylvia Bryant

6 Cindy Davis (Remote)

7 Bill Garrett

8 Roger Jones

9 Mark Trostle (Remote)

10 Keith Johnson

11 Maggie Beale

12 Lynne Goldberg (Remote)

13 Jenna Goodman

14 Tammy Neale

15 Hank Osleger

16 J.M. Snell

17 Scott Stosser (Remote)

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1 A P P E A R A N C E S: (Cont'd)

2  
3 DEPARTMENT OF HOUSING AND COMMUNITY  
4 DEVELOPMENT (DHCD) STAFF:

5 Lyndsi Austin, Associate Director

6 Justin Bell, Attorney General

7 Trisha Lindsey, Policy and Legislative  
8 Services Director

9 Andrew Malloy, Sr. Policy Analyst

10 Florin Moldovan, Code and Regulation  
11 Specialist

12 Sandra Powell, Senior Deputy of Community  
13 Development and Housing

14 Sulaiman Safi, Board Coordinator

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1                   P R O C E E D I N G S

2       July 14, 2025

3

4                   CHAIR BERBERT: All right. Good  
5 morning, everybody. I'm going to call  
6 the public hearing to order.

7                   My name is Louie Berbert, and I  
8 currently serve as the chair of the  
9 Board of Housing and Community  
10 Development.

11                  Today, the Board is going to hold  
12 a public hearing to receive comments  
13 prior to the proposed regulations.  
14 I'd like to welcome all the board  
15 members of the Housing Community and  
16 Development as well as the Virginia  
17 Fire Services Board that are here  
18 today.

19                  Thank you for attending.

20                  Before we get started, I'd like  
21 to take a moment to let the board  
22 members introduce themselves. So  
23 we'll just go around and I will start  
24 with Mr. Snell.

25                  MR. SNELL: I'm J.M. Snell.

1                   P R O C E E D I N G S

2                   I'm from Harrisonburg, Virginia,  
3                   and I serve in two capacities, the  
4                   Board of Housing and the Board of  
5                   Housing representative on the Fire  
6                   Services Board.

7                   MS. NEALE: Good morning.

8                   My name is Tammy Neale and I'm  
9                   the CEO of Virginia Housing, and  
10                  welcome to our facility today.

11                  MR. GARRETT: My name is  
12                  Bill Garrett. I'm here in Richmond  
13                  and I'm a homebuilder by trade and  
14                  still fairly new to the board.

15                  MS. BEAL: I'm Maggie Beal.

16                  I'm interim director for  
17                  Department of Housing and Community  
18                  Development.

19                  CHAIR BERBERT: Louie Berbert  
20                  again, and I'm from Virginia Beach.

21                  And thank you guys for being  
22                  here.

23                  MR. JONES: I'm Roger Jones.

24                  I'm from Manassas, Virginia. And  
25                  happy to be here. Thanks.

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2 MR. HUX: Good morning. Billy  
3 Hux, State Fire Marshal.

4 MR. SYKES: Good morning.

5 Steven Sykes. I work for the  
6 Virginia Fire Services Board. Served  
7 in the City of Fairfax as the building  
8 official and fire marshal.

9 MR. JOHNSON: Keith Johnson here  
10 representing the Virginia Fire  
11 Service.

12 MR. OSLEGER: Hank Osleger, I'm  
13 from Fredericksburg, Virginia, where  
14 I'm a custom homebuilder.

15 MS. BRYANT: Sylvia Bryant, and  
16 I'm from Norfolk and I represent  
17 several contractors.

18 MR. DAVIS: Joshua Davis with the  
19 State Fire Marshal's Office.

20 MS. GOODMAN: Jenna Goodman with  
21 Virginia Building Code Revisions.

22 MR. MILLER: John Miller, I'm  
23 chief of fire emergency responses with  
24 the Department of Forestry and a  
25 member of the fire service.



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2                   MR. MAIATICO: Gerry Maiatico, I  
3                   serve as an assistant chief and fire  
4                   code official for Warren County,  
5                   Virginia. And I'm on the Fire  
6                   Services Board.

7                   CHAIR BERBERT: I think we have a  
8                   couple of folks online as well if you  
9                   can introduce yourselves.

10                  MR. TROSTLE: Mark Trostle here  
11                  from Northern Virginia.  
12                  Unfortunately, I'm traveling today  
13                  across the Delmarva Peninsula.

14                  MS. DAVIS: Good morning. I'm  
15                  Cindy Davis from Henrico County.  
16                  Retired.

17                  MR. STOSSER: I'll go next.  
18                  Scott Stosser from Blacksburg,  
19                  Virginia. I'm a local builder there,  
20                  and developer. I'm in Florida today.

21                  MS. GOLDBERG: Lynne Goldberg,  
22                  I'm in Alexandria, Virginia. And I  
23                  work for a concession company on the  
24                  board.

25                  MR. BURKE: Don Burke, Northern

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2           Virginia, Alexandria. Longtime  
3           resident of the state.

4                   CHAIR BERBERT: All right. Thank  
5           you. I think that's all of our board  
6           members today.

7                   Before we get started, I'd like  
8           to explain how the hearing will be  
9           conducted. Anyone wishing to speak  
10          should sign up in the registration  
11          table near the door or enter their  
12          name on the chat online.

13                  Comments offered by previous  
14          speakers need not be repeated. A  
15          speaker may establish a point simply  
16          by referring to the earlier statement  
17          that expresses their position. We do  
18          have a time limit of two minutes, so  
19          please be respectful of that.

20                  If you hear a chime go off, your  
21          time has expired and I will remind you  
22          if I need to. We welcome the  
23          submission of written statements as  
24          well. The board will review all  
25          written materials that are submitted.

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2 If you have written statements today,  
3 please submit them to staff.

4 We will receive public comment in  
5 this order. First, we're going to go  
6 through the Virginia Statewide Fire  
7 Prevention Code. Then we'll move on  
8 to the Uniform Statewide Building  
9 Code. Third, the Virginia Amusement  
10 Device Regulations. Fourth, the  
11 Virginia Industrialized Building and  
12 Safety Regulations. And we'll  
13 conclude with the Virginia  
14 Certification Standards and the  
15 Virginia Manufactured Home Safety  
16 Regulations.

17 For each regulation, we're going  
18 to start with those who are  
19 participating in the room, and I will  
20 now open the public hearing and ask  
21 Mr. Sawyer to call the first speaker.

22 MR. SAWYER: Yes, sir, Mr. Chair.

23 Anybody in the room wish to speak  
24 on the Statewide Fire Prevention Code?

25 All right, Mr. Chair. Nobody in

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the room, so we'll turn to online. So I believe -- so speaking on the Statewide Fire Prevention Code first. I see Mr. Ross Shearer.

Mr. Shearer, if you'd like to speak -- provide comment.

MR. SHEARER: Oh, I didn't think I'd be starting off. But here it goes.

I'm Ross Shearer. I live in Vienna where I've been for 40 years. The board is charged with serving the public through a broad range of instruments that include the construction standards of the Uniform Statewide Building Code. The code's existence signifies that Virginia -- Virginians recognize that the concept of a free market to deliver suitable housing for Virginians cannot be relied on.

To restrain the inevitable drift from quality construction, a regulatory framework is necessary with

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specific components benefitting us both collectively as well as individually as members of the community and as users of housing.

The USBC promotes safe, affordable housing for Virginia, thus stabilizing neighborhoods and promoting trust in the construction industry. It should continue its progress of adopting improvements. Please recognize in the spirit of probity that the commons we all live within shares both national and global consequences.

The oceans, the atmosphere, the many features of planet Earth that support us are tragically threatened in a significant part by inadequately restrained market pressures. Virginians expect the Commonwealth to complete its recent progress by fully adopting the current International Code Council's model including the residential energy efficiency and the

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2           fire protection portion.

3           Thank you.

4           MR. SAWYER: Thank you.

5           Would anybody else online wish to  
6           speak on the Statewide Fire Prevention  
7           Code?

8           CHAIR BERBERT: In the comments  
9           section, I see Kimberly Dyke-Harsley.  
10          On the Statewide Fire Prevention Code.  
11          You may begin.

12          MS. DYKE-HARSLEY: Pardon me.  
13          I'll be waiting for the building  
14          code -- Statewide Building Code.  
15          Thank you.

16          CHAIR BERBERT: All right. Thank  
17          you, Kimberly.

18          MR. SAWYER: All right.

19          Mr. Chair, we are going to the  
20          Uniform Statewide Building Code now.  
21          We have first signed up -- okay. So  
22          virtual online, we have  
23          Mr. Steve Shapiro followed by Glen  
24          Besa, and then Mr. Don Burke.

25          Yes, ma'am. And Ms.

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2           Dyke-Harsley.

3                   But, Steve Shapiro, if you'd like  
4           to go first.

5                   MR. SHAPIRO: Thank you. Good  
6           morning.

7                   My name is Steve Shapiro, and I  
8           represent the Apartment and Office  
9           Building Association and the Virginia  
10          Apartment Management Association.  
11          We've been longtime participants in  
12          the code development process and I'm  
13          currently participating on the  
14          heating/cooling study group and the  
15          State Fire Prevention Code Energy  
16          Sub-work groups.

17                  I'd like to recognize the  
18          outstanding work that the DHDC staff  
19          does in support of the code process  
20          both at the meetings as well as  
21          between the meetings. We are  
22          fortunate to have such a dedicated,  
23          knowledgeable staff to work with.

24                  Lastly, I want to encourage the  
25          Board to keep on track so that the

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2 2024 codes will become effective in  
3 October of 2027 at the latest.

4 The International Code Council,  
5 ICC, is currently developing 2027 I  
6 codes which should be available in  
7 late 2026. So we don't want to see  
8 Virginia falling further behind the  
9 most recent available codes.

10 Thank you for your time today.

11 CHAIR BERBERT: Thank you.

12 MR. SAWYER: Up next, we have  
13 Mr. Glen Besa, followed by Mr. Don  
14 Burke, and then Ms. Dyke-Harsley.

15 Mr. Besa, if you'd like to  
16 provide comment.

17 MR. BESA: Yes, my name is  
18 Glen Besa. I live in Chesterfield  
19 County. I'm speaking as a private  
20 citizen. Housing affordability is on  
21 people's minds these days. I think  
22 both of our gubernatorial candidates  
23 have addressed this issue. It's  
24 important to recognize that  
25 affordability includes not just the



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cost of housing, but also taxes, insurance, and utilities, specifically, energy. The rising cost of energy.

Energy efficiency is critical in reducing energy costs to homeowners and apartment owners. And also reducing energy pollution and climate impacts. I'm very concerned about climate impacts. And I think it's -- I think we need to recognize that today's higher energy prices, you know, are reflected in the ability for people to actually afford housing.

And so, I think it's critically important that this -- this board adopts Virginia's Building Code to fully comply with the 2024 IECC. That's really critical that we do that. We're falling behind. There's no good reason to be doing that particularly if you are concerned with housing affordability.

Thank you so much for your time

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today.

MR. SAWYER: Thank you, Mr. Besa.

Next up we have Mr. Don Burke,  
followed by Kimberly Dyke-Harsley, and  
then Mr. Bill Penniman.

MR. BURKE: Yes, thank you. As I  
mentioned earlier, I'm a longtime  
resident of Virginia up in Alexandria.  
And I'm also responding as a private  
citizen.

Virginia's building codes are the  
land that time forgot. We remain  
stuck at 2009 residential energy  
efficiency levels for walls and air  
leakage infiltration, key measures  
that save energy and money, improve  
comfort and resiliency, and reduce  
pollution. While the 2021 IECC  
significantly boosted an ample of  
efficiency, Virginia decided to leave  
walls and air leakage behind.

As for the current 2024 IECC  
standard, the DOE determined that it  
saves homeowners money, energy, and

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reduces pollution compared to the 2018 IECC. Virginia's Building Code should fully comply with the IECC by removing past weakening amendments and strengthening efficiency codes beyond the 2024 IECC, especially since these structural efficiencies last the lifetime of the building.

For example, Appendix CCG and RK regarding making building ready for EV charging should be made mandatory. Despite what is heard in the mainstream media, EV adoption continues to grow and will eventually become the predominant mode of powering our vehicles. Almost certainly within the time span of the buildings being built now.

Improving energy efficiency is more crucial than ever due to high energy prices and the need to reduce climate impacts. Virginia law requires the building code to follow national standards for energy

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conservation and HV2227 from the 2021 legislative session requires consideration of adopting efficiency standards at least as stringent as the latest IECC.

Builder consent or opposition is not a relevant factor. How much longer will Virginia be lost in time by ignoring the law, model building codes, and global trends all of which will benefit homeowners and the residents of Virginia now and in the future through lower cost, less energy, and less pollution?

Thank you.

CHAIR BERBERT: All right. Thank you, Mr. Burke.

MR. SAWYER: Next up, we have Ms. Kimberly Dyke-Harsley followed by Mr. Bill Penniman. And if anybody would like to speak on the USBC and is online, please put your name on the chat.

MS. DYKE-HARSLEY: Greetings. My

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name is Kimberly Dyke-Harsley. I'm here today for the public hearing referencing Code of Virginia Title 36 for housing, Section 36-98, where it says, "The building code shall supersede those codes and regulations of the counties and municipalities, other political subdivisions, and state agencies."

So I look at Title 6 of the Virginia Administrative Code for Agency 15. Chapter 40 Section 1160c, as in Charlie, says, "Heat shall be equally distributed in all rooms so that a temperature no less than 65 degrees is maintained."

"Air-conditioning for mechanical ventilation systems -- pardon me -- such as electric fans shall be provided when the temperature exceeds 85 degrees." I even think it's against the law where your pet can't be outside in such extreme heat or cold temperatures. What more for

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humans?

6-15-45870 says, "Well-ventilated and when the temperature exceeds 85 degrees, mechanical air circulation shall be provided."

So I would like you as a board to ensure that, I don't know if I need to reach out to Department of General Services as the enforcer of this code for these men and women behind these walls, they have to have circulated air in this extreme heat and extreme cold.

Unfortunately, the bill that was pushed -- brought to delegacy made it to the governor's desk and I do understand that Governor Youngkin had to look at the appropriated money. And a study needs to be done. But I mean, how long do we need to study the effects of extreme heat and extreme cold on human beings?

One legislator made a reference to the military and how they were

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expected to endure. That's true.  
They don't have COPD, heart illness,  
high blood pressure, asthma, and  
certainly they have insurance to cover  
those things. So that really wasn't  
appropriate or in alignment with what  
our bill was hoping to push for sale  
conditions.

CHAIR BERBERT: Thank you, Ms.  
Dyke-Harsley. Your time has expired.

MS. DYKE-HARSLEY: Oh, I'm so  
sorry. Thank you. You all have a  
great day.

CHAIR BERBERT: You, too. Thank  
you.

MR. SAWYER: Next up, we have  
Mr. Bill Penniman.

MR. PENNIMAN: Good morning. I'm  
William Penniman. I'm a member of the  
Energy Sub-work group in which I'm a  
volunteer representative of the  
Virginia chapter. The Sierra Club.  
This is the third building code cycle  
in which I've actively participated.

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Just a few brief points. First, maximizing energy efficiency in new dwellings is a smart and necessary investment for Virginia and its residents and it will be increasingly important as energy costs and global temperatures rise, and as power outages threaten people in homes that are poorly insulated.

As with the IECC -- as with each IECC update since 2009, the U.S. Department of Energy has documented that fully implementing the 2024 IECC will save residents money every year during their occupancy whether new or -- whether initial or later occupants, even after considering the incremental costs of mortgages attributable to compliance.

A full IECC compliance will also reduce air pollution, improve indoor comfort, reduce the need for utilities to raise rates, and increase resiliency during periods of outages.



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Unfortunately, Virginia has failed to fully comply with the IECC for well over a decade. It is vital that the Board remove all past weakening amendments. The most significant ones in the case of residential has to do with residential walls and insulation and air infiltration which have been behind the IECC standards since 2012.

These efficiency standards are especially important because they restrict air and temperature movement through a building's envelope. And because they're structural, they will last for the life of the building benefitting everyone, not just the initial owners. The IECC has reaffirmed the value and practicality of these standards for wall insulation and infiltration in five updates from 2012 to 2024. It even strengthened the wall insulation standard beyond 2012 levels and 2021.

The 2024 IECC actually lowers

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2 construction costs compared to the  
3 2021 IECC by offering builders more  
4 flexibility to implement alternative  
5 combinations of efficient measures.  
6 However, that greater flexibility is  
7 predicated on full adoption of the  
8 IECC -- IECC's prescribed standards,  
9 not on continued use of outdated  
10 standards adding --

11 CHAIR BERBERT: Thank you,  
12 Mr. Penniman.

13 MR. PENNIMAN: -- make matters  
14 worse, not better. Thank you.

15 CHAIR BERBERT: Thank you.

16 MR. SAWYER: Before we go on to  
17 the next one, is there anybody else in  
18 the room who would like to speak on  
19 the Uniform Statewide Building Code?

20 MR. JONES: I would. I believe  
21 the energy code has gotten to be too  
22 complicated and difficult --

23 MR. SAWYER: Real quick. Could  
24 you please state your name?

25 MR. JONES: Oh, my name is Joshua

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Jones. I'm with Henrico Building Inspections.

MR. SAWYER: Thank you.

MR. JONES: I believe the energy code has gotten too difficult to build and too difficult to implement and too difficult to inspect. The additional energy efficiency options have been an extreme challenge for builders and inspectors to keep up with. They require additional planning at the front end of the construction cycle that they're not necessarily able to fully make decisions on right away.

People may be in gear about whether they want to do a traditional crawl space, for example. That's something that people go back and forth making that kind of change. If they are planning on having the fully enclosed building envelope option, they would have to make a change that they may not be able to fully implement.

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2 And it looks like that's going to  
3 get more complicated in the 2024 IECC.  
4 They have gone to a table R408.2.  
5 They have given a full checklist of  
6 points that we've been trying to get a  
7 head start on and it's getting to be  
8 extremely difficult. I think that's  
9 pushing people away from able to just  
10 follow a checklist and meet something  
11 that's energy efficient and it is  
12 going to require more expensive  
13 options as far as additional programs  
14 that they have to buy, additional  
15 contracting services they have to go  
16 to.

17 And that's my issue with it. I  
18 think that the energy efficiency  
19 options are something that should go.  
20 That's it.

21 CHAIR BERBERT: Thank you.

22 MR. SAWYER: I believe that  
23 concludes for the comment on the  
24 Uniform Building Code.

25 Does anybody online wish to

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provide comment on the Virginia  
Amusement Device Regulations?

Anybody wish to provide comment  
on the Industrialized Building Safety  
Regulations?

Anybody online wish to provide  
comment on the Virginia Certification  
Standards?

Anybody wish to provide comment  
on the Virginia Manufactured Home  
Safety Regulations?

Before I give it back to  
Mr. Chair, does anybody else online or  
in the room wish to provide comment on  
any of the six regulations we're  
discussing today?

Mr. Chair, I don't believe we  
have anybody else that wishes to  
provide comment.

CHAIR BERBERT: All right.

Since we have no further comment,  
we will go ahead and conclude the  
public hearing. All comments will be  
taken under advisement by the Board.

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2           I would like to reemphasize that any  
3           written statements received will be  
4           considered by the Board as well.

5           Thank you, everyone, for the  
6           information and participating today.

7           MR. SAWYER: And we are  
8           adjourned?

9           CHAIR BERBERT: Oh, yes. Sorry.  
10          We are adjourned from the hearing.

11  
12          NOTE: This concludes the July  
13          14, 2025, meeting of the Virginia  
14          Board of Housing and Community  
15          Development Public Hearing.

16  
17          (Hearing concluded at 10:25 a.m.)  
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25

## C E R T I F I C A T E

STATE OF VIRGINIA )

: ss.

COUNTY OF RICHMOND )

I, JUAN ORTEGA, a Notary Public  
within and for the State of Virginia,  
do hereby certify:

THAT SAID PROCEEDINGS is a  
transcript of the Board of Housing and  
Community Development Public Hearing,  
when held on July 14, 2025, at 10:00  
a.m. in Glen Allen, Virginia.

I further certify this is a true  
and accurate transcript to the best of  
my ability to hear and understand the  
proceedings and other incidents of the  
hearing herein as set down to the best  
of my ability.

IN WITNESS WHEREOF, I have hereunto  
set my hand this 28th day of July,  
2025.



JUAN ORTEGA, CCR

| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | commons (1) 12:13<br>Commonwealth (1) 12:21<br>Community (5) 5:9,15; 6:17;12:5;29:14<br>company (1) 8:23<br>compared (2) 18:2; 25:2<br>complete (1) 12:22<br>compliance (2) 23:20, 21<br>complicated (2) 25:22;27:3<br>comply (3) 16:19; 18:4;24:3<br>components (1) 12:2<br>concept (1) 11:19<br>concerned (2) 16:10, 23<br>concession (1) 8:23<br>conclude (2) 10:13; 28:23<br>concluded (1) 29:17<br>concludes (2) 27:23; 29:12<br>conditions (1) 22:9<br>conducted (1) 9:9<br>consent (1) 19:7<br>consequences (1) 12:15<br>conservation (1) 19:2<br>consideration (1) 19:4<br>considered (1) 29:4<br>considering (1) 23:18<br>construction (5) 11:16, 24;12:9;25:2;26:13<br>continue (1) 12:10<br>continued (1) 25:9<br>continues (1) 18:15<br>contracting (1) 27:15<br>contractors (1) 7:17<br>COPD (1) 22:3<br>cost (3) 16:2,4;19:14<br>costs (4) 16:7;23:7, 19;25:2<br>Council (1) 15:4<br>Council's (1) 12:24<br>counties (1) 20:8<br>County (3) 8:4,15; 15:19<br>couple (1) 8:8<br>cover (1) 22:5<br>crawl (1) 26:18<br>critical (2) 16:6,20<br>critically (1) 16:16<br>crucial (1) 18:21<br>current (2) 12:23; 17:23<br>currently (3) 5:8; 14:13;15:5<br>custom (1) 7:14<br>cycle (2) 22:24;26:13 | D |
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## Moldovan, Florin (DHCD)

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**From:** Matthew H. Gifford <MGifford@vbgov.com>  
**Sent:** Tuesday, June 24, 2025 1:46 PM  
**To:** Publiccomment\_codedevelopment (DHCD)  
**Subject:** 2024 Virginia Statewide Fire Prevention Code Public Comment

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

To whom it may concern,

I would like to request a change for the upcoming 2024 Virginia Statewide Fire Prevention Code. Section **102.10 Conflicting provisions**, found in the International Fire Code, should be retained in future versions of the VSFPC. This is the means by which municipalities, who have adopted Appendix B, can enforce **B104.2 Area Separation**. The 2021 IFC Commentary explains:

B104.2 Area separation. Portions of buildings that are separated by fire walls without openings, constructed in accordance with the International Building Code, are allowed to be considered as separate fire-flow calculation areas.

•To reduce the amount of fire flow required, fire walls without openings can be constructed to create separate fire-flow calculation areas. Fire barriers or fire partitions cannot be used to create separate fire-flow calculation areas. It should be noted that IBC Section 706 regulates the construction of fire walls and would generally allow properly protected openings in them (see IBC Section 706.8). However, consistent with Section 102.10 of the code, this section would super-cede the IBC fire wall opening provisions since this section is a specific prohibition on any openings in fire walls that are used to reduce the fire-flow calculation area.

Without 102.10, the Fire Code Official cannot use B104.2. I feel this is a critical section and should not be removed in any future code revisions.

Thank you,

**Matt Gifford**  
FIRE DEPARTMENT  
Assistant Fire Marshal

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April 6, 2026

Dear Members of the Board of Housing and Community Development,

I am writing on behalf of the Virginia Building and Code Officials Association (VBCOA) to express our strong support for the Board's ongoing code adoption process and to commend your continued commitment to ensuring a safe, resilient, and sustainable built environment across the Commonwealth.

The development and adoption of building and fire codes is a fundamental responsibility that directly impacts the health, safety, and welfare of our communities. Your deliberate and transparent approach, grounded in stakeholder input and technical expertise, ensures that Virginia's codes remain both effective and practical in their application.

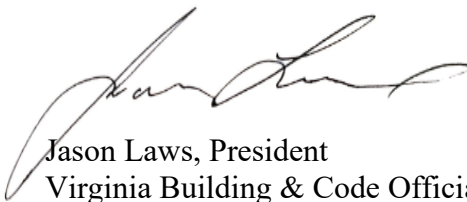
We particularly appreciate the Board's continued engagement with local officials, industry professionals, and community stakeholders throughout this process. This collaborative effort strengthens the final code provisions and promotes consistency in enforcement across jurisdictions, ultimately benefiting citizens, businesses, and code officials alike.

As the built environment continues to evolve in response to emerging technologies, innovative construction methods, and increasing environmental challenges, your leadership is critical in striking the appropriate balance between safety, affordability, and innovation. Your work not only protects lives and property but also supports economic development and long-term community resilience across the Commonwealth.

VBCOA fully supports all consensus proposals as presented, as well as most non-consensus proposals. We respectfully request the Board's careful consideration of proposals B105.2.1-24 and REC-R402.1.2-24 as you finalize your decisions as VBCOA is in full support of both.

Thank you for your dedication, professionalism, and continued service to the Commonwealth of Virginia.

Respectfully,



Jason Laws, President  
Virginia Building & Code Officials Association