Virginia Board of Housing and Community Development

STATEWIDE FIRE PREVENTION CODE DEVELOPMENT COMMITTEE

2024 CODE CHANGE CYCLE – BOOK 3

December 7, 2026

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Opening Statement

TAB 1 – Consideration of Proposed Regulations for the Virginia Statewide Fire Prevention Code

TAB 2 – Informational Document Showing Editorial Corrections and Correlations to the Virginia Statewide Fire Prevention Code

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Virginia Department of Housing and Community Development

2024 Statewide Fire Prevention Code – Proposed Regulation Draft

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.

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.

13VAC5-52-50. 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 or fire official's 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~~.

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.

13VAC5-52-70. 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
OPERATIONAL PERMIT REQUIREMENTS (to be filled in by local jurisdiction)

Description	**Permit Required (yes or no)**	**Permit Fee**	**Inspection Fee**
Aerosol products. An operational permit is required to manufacture, store, or handle an aggregate quantity of Level 2 or Level 3 aerosol products in excess of 500 pounds (227 kg) net weight.			
Amusement buildings. An operational permit is required to operate a special amusement building.			
Aviation facilities. An operational permit is required to use a Group H or Group S occupancy for aircraft servicing or repair and aircraft fuel-servicing vehicles. Additional permits required by other sections of this code include hot work, hazardous materials, and flammable or combustible finishes.			
Carnivals and fairs. An operational permit is required to conduct a carnival or fair.			
Cellulose nitrate film. An operational permit is required to store, handle, or use cellulose nitrate film in a Group A occupancy.			
Combustible dust-producing operations. An operational permit is required to operate a grain elevator, flour starch mill, feed mill, or a plant pulverizing aluminum, coal, cocoa, magnesium, spices, or sugar or other operations producing combustible dusts as defined in Chapter 2.			

Combustible fibers. An operational permit is required for the storage and handling of combustible fibers in quantities greater than 100 cubic feet (2.8 m^3). Exception: An operational permit is not required for agricultural storage.				
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. 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			
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^3.				
Covered and open mall buildings. An operational permit is required for: 1. The placement of retail fixtures and displays, concession equipment, displays of highly combustible goods, and similar items in the mall. 2. The display of liquid-fired or gas-fired equipment in the mall. 3. The use of open-flame or flame-producing equipment in the mall.				

Cryogenic fluids. An operational permit is required to produce, store, transport onsite, use, handle, or dispense cryogenic fluids in excess of the amounts listed in this table. 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			
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.					

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. 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.			
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.			
Fire hydrants and valves. An operational permit is required to use or operate fire hydrants or valves intended for fire suppression purposes that are installed on water systems and accessible to a fire apparatus access road that is open to or generally used by the public. Exception: An operational permit is not required for authorized employees of the water company that supplies the system or the fire department to use or operate fire hydrants or valves.			
Flammable and combustible liquids. An operational permit is required: 1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall neither apply to the offsite transportation in pipelines regulated by the U.S. Department of Transportation (DOTn) nor to piping systems. 2. To store, handle, or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following:			
2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the fire official, would cause an unsafe condition. 2.2. The storage or use of paints, oils, varnishes, or similar flammable mixtures when such liquids are stored for maintenance, painting, or similar purposes for a period of not more than 30 days.			

3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil-burning equipment. 4. To remove Class I or Class II liquids from an underground storage tank used for fueling motor vehicles by any means other than the approved, stationary onsite pumps normally used for dispensing purposes. 5. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries, and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed, or used. 6. To install, alter, remove, abandon, place temporarily out of service (for more than 90 days), or otherwise dispose of an underground, protected aboveground, or aboveground flammable or combustible liquid tank. 7. To change the type of contents stored in a flammable or combustible liquid tank to a material that poses a greater hazard than that for which the tank was designed and constructed. 8. To manufacture, process, blend, or refine flammable or combustible liquids.				
Floor finishing. An operational permit is required for floor finishing or surfacing operations exceeding 350 square feet (33 m^2) using Class I or Class II liquids.				
Fruit and crop ripening. An operational permit is required to operate a fruit- ripening or crop-ripening facility or conduct a fruit-ripening process using ethylene gas.				
Fumigation, thermal, and insecticidal fogging. An operational permit is required to operate a business of fumigation, thermal, or insecticidal fogging and to maintain a room, vault, or chamber in which a toxic or flammable fumigant is used.				
Hazardous materials. An operational permit is required to store, transport 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**			
Combustible liquids	See flammable and combustible liquids			
Corrosive materials				
Gases	See compressed gases			

Liquids	55 gallons			
Solids	1000 pounds			
Explosive materials	See explosives			
Flammable materials				
Gases	See compressed gases			
Liquids	See flammable and combustible liquids			
Solids	100 pounds			
Highly toxic materials				
Gases	See compressed gases			
Liquids	Any amount			
Solids	Any amount			
Oxidizing materials				
Gases	See compressed gases			
Liquids				
Class 4	Any amount			
Class 3	1 gallon [a]			
Class 2	10 gallons			
Class 1	55 gallons			
Solids				
Class 4	Any amount			
Class 3	10 pounds [b]			
Class 2	100 pounds			
Class 1	500 pounds			
Organic peroxides				
Liquids				
Class I	Any amount			
Class II	Any amount			
Class III	1 gallon			
Class IV	2 gallons			

Class V	No permit required			
Solids				
Class I	Any amount			
Class II	Any amount			
Class III	10 pounds			
Class IV	20 pounds			
Class V	No permit required			
Pyrophoric materials				
Gases	See compressed gases			
Liquids	Any amount			
Solids	Any amount			
Toxic materials				
Gases	See compressed gases			
Liquids	10 gallons			
Solids	100 pounds			
Unstable (reactive) materials				
Liquids				
Class 4	Any amount			
Class 3	Any amount			
Class 2	5 gallons			
Class 1	10 gallons			
Solids				
Class 4	Any amount			
Class 3	Any amount			
Class 2	50 pounds			
Class 1	100 pounds			
Water reactive materials				
Liquids				
Class 3	Any amount			

Class 2	5 gallons			
Class 1	55 gallons			
Solids				
Class 3	Any amount			
Class 2	50 pounds			
Class 1	500 pounds			
For SI: 1 gallon = 3.785 L, 1 pound = 0.454 kg. 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. 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.				
~~HPM facilities. An operational permit is required to store, handle, or use hazardous production materials.~~				
High piled storage. An operational permit is required to use a building or portion thereof as a high-piled storage area exceeding 500 square feet (46 m^2).				
Hot work operations. An operational permit is required for hot work, including: 1. Public exhibitions and demonstrations where hot work is conducted. 2. Use of portable hot work equipment inside a structure. Exception: Work that is conducted under a construction permit. 3. Fixed-site hot work equipment such as welding booths. 4. Hot work conducted within a hazardous fire area. 5. Application of roof coverings with the use of an open-flame device. 6. When approved, the fire official shall issue a permit to carry out a Hot Work Program. This program allows approved personnel to regulate their facility's hot work operations. The approved personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in this chapter. These permits shall be issued only to their employees or to hot work operations under their supervision.				
<u>HPM facilities. An operational permit is required to store, handle, or use hazardous production materials.</u>				

Industrial additive manufacturing: An operational permit is required to conduct additive manufacturing operations regulated by Section ~~320.3~~ 319.3.			
Industrial ovens. An operational permit is required for operation of industrial ovens regulated by Chapter 30.			
~~Lumber yards and woodworking plants. An operational permit is required for the storage or processing of lumber exceeding 100,000 board feet (8,333 ft^3) (236 m^3).~~			
Liquid-fueled or gas-fueled vehicles or equipment in assembly buildings. An operational permit is required to display, operate or demonstrate liquid-fueled or gas-fueled vehicles or equipment in assembly buildings.			
Lithium battery storage. An operational permit is required for the storage of lithium-ion and lithium metal batteries in accordance with Section 320.2.			
Lumber yards and woodworking plants. An operational permit is required for the storage or processing of lumber exceeding 100,000 board feet (8333 ft^3) (236 m^3).			
LP-gas. An operational permit is required for: 1. Storage and use of LP-gas. Exception: An operational permit is not required for individual containers with a 500-gallon (1893 L) water capacity or less or multiple container systems having an aggregate quantity not exceeding 500 gallons (1893 L), serving occupancies in Group R-3. 2. Operation of cargo tankers that transport LP-gas.			
Magnesium. An operational permit is required to melt, cast, heat treat, or grind more than 10 pounds (4.54 kg) of magnesium.			
Miscellaneous combustible storage. An operational permit is required to store in any building or upon any premises in excess of 2,500 cubic feet (71 m^3) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork, or similar combustible material.			
Mobile food preparation vehicles. A permit is required for mobile food preparation vehicles equipped with appliances that produce smoke or grease laden vapors. 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. 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.			
Private fire hydrants. An operational permit is required for the removal from service, use, or operation of private fire hydrants. Exception: An operational permit is not required for private industry with trained maintenance personnel, private fire brigade, or fire departments to maintain, test, and use private hydrants.			
Pyrotechnic special effects material. An operational permit is required for use and handling of pyrotechnic special effects material.			
Pyroxylin plastics. An operational permit is required for storage or handling of more than 25 pounds (11 kg) of cellulose nitrate (pyroxylin) plastics and for the assembly or manufacture of articles involving pyroxylin plastics.			
Refrigeration equipment. An operational permit is required to operate a mechanical refrigeration unit or system regulated by Chapter 6.			
Repair garages and service stations. An operational permit is required for operation of repair garages and automotive, marine and fleet service stations.			
Rooftop heliports. An operational permit is required for the operation of a rooftop heliport.			
~~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.~~			
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.			
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.			
Storage of scrap tires and tire byproducts. An operational permit is required to establish, conduct, or maintain storage of scrap tires and tire byproducts that exceeds 2,500 cubic feet (71 m^3) of total volume of scrap tires and for indoor storage of tires and tire byproducts.			
Temporary 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. Exceptions: 1. Tents used exclusively for recreational camping purposes. 2. Tents and air-supported structures that cover an area of 900 square feet (84 m^2) or less, including all connecting areas or spaces with a common means of egress or entrance and with an occupant load of 50 or 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^3).			

D. 107.3 Application for permit.

Application for a permit shall be made on forms prescribed by the fire official.

E. 107.4 Issuance of permits.

Before a permit is issued, the fire official shall make such inspections or tests as are necessary to 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~~ $675 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~~ $81 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~~ $122 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~~ $338 first magazine, plus ~~$150~~ $203 per each additional magazine on the same site.
2. Use of explosives and blasting agents, nonfixed site, six-month permit ~~$250~~ $338 per site, plus inspection fees.
3. Use of explosives and blasting agents, fixed site, 12-month permit ~~$250~~ $338 per site.
4. Sale of explosives and blasting agents, 12-month permit ~~$250~~ $338 per site.
5. Manufacture explosives (unrestricted), blasting agents, and fireworks, 12-month permit ~~$250~~ $338 per site.
6. Manufacture explosives (restricted), 12-month permit ~~$20~~ $27 per site.
7. Fireworks display in or on state-owned property ~~$300~~ $405 plus inspection fees.
8. Pyrotechnics or proximate audience displays in or on state-owned property ~~$300~~ $405 plus inspection fees.
9. Flame effects in or on state-owned property ~~$300~~ $405 plus inspection fees.
10. Flame effects incidental to a permitted pyrotechnics display ~~$150~~ $203 (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~~ $473 for occupant load of 100 or less.
   1.2. ~~$450~~ $608 for occupant load of 101 to 200.
   1.3. ~~$500~~ $675 for occupant load of 201 to 300.
   1.4. ~~$500~~ $675 plus ~~$50~~ $68 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~~ $203 for 3500 square feet or less.
   2.2. ~~$200~~ $270 for greater than 3500 square feet up to 7000 square feet.
   2.3. ~~$250~~ $338 for greater than 7000 square feet up to 10,000 square feet.
   2.4. ~~$250~~ $338 plus ~~$50~~ $68 for each additional 3000 square feet where square footage exceeds 10,000.

3. Assembly areas that are part of private college dormitories.
   3.1. ~~$50~~ $68 for 10,000 square feet or less provided the assembly area is within or attached to a dormitory building.
   3.2. ~~$100~~ $135 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~~ $135 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~~ $203 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~~ $405 for 1 to 50 beds.
   4.2. ~~$400~~ $540 for 51 to 100 beds.
   4.3. ~~$500~~ $675 for 101 to 150 beds.
   4.4. ~~$600~~ $810 for 151 to 200 beds.
   4.5. ~~$600~~ $810 plus ~~$100~~ $135 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~~ $68 for 1 to 8.
      5.1.2. ~~$75~~ $101 for 9 to 20.
      5.1.3. ~~$100~~ $135 for 21 to 50.
      5.1.4. ~~$200~~ $270 for 51 to 100.
      5.1.5. ~~$300~~ $405 for 101 to 150.
      5.1.6. ~~$400~~ $540 for 151 to 200.
      5.1.7. ~~$500~~ $675 for 201 or more.
      Exception: Annual compliance inspection fees for any building or group of buildings on the same site may not exceed $2500.
   5.2 ~~Family Day Homes~~ Home-based Child Care Facilities licensed by the Department of Education based on licensed capac~~ity a~~s follows:
      5.2.1~~. $5~~0 $68 for 1 to 8.
      5.2.2~~. $75~~ $101 for 9 to 20.
      5.2.3~~. $10~~0 $135 for 21 to 50.
      5.2.4~~. $20~~0 $270 for 51 to 100.
      5.2.5~~. $30~~0 $405 for 101 to 150.
      5.2.6~~. $40~~0 $540 for 151 to 200.
      5.2.7. $500 $675 for 201 or more.
      Exception: Annual compliance inspection fees for any building or group 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~~ $69 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~~ $68. 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~~ $135. 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~~ $203.
   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~~ $203. 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~~ $405. 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~~ $608.
8. General fire code inspection: any statewide fire prevention code inspection that is requested in a commercial occupancy where the State Fire Marshal is the authority having jurisdiction. $250.
9. Mobile food preparation vehicle: $150.

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.

13VAC5-52-90. 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.

13VAC5-52-120. 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. Fees may be levied by the local governing body in order to defray the cost of such appeals.

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~~ Any person aggrieved by the local enforcing agency's application of the SFPC or the ~~fire official's~~ refusal to grant modification ~~under Section 106.5~~ 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. 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. Reaffirmation of a prior code decision does not constitute a new application of code subject to appeal.

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.

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 Section 202 of the IFC 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.

Counterfeit lighter. Any lighter designed in a way that infringes on the intellectual property rights of any citizen of the United States or any entity that is protected by any federal or state intellectual property law.

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.

Lighter. Any electrical or mechanical device that operates using any type of fuel, including butane or another liquid fuel, and is typically used to light a cigarette, cigar, or pipe.

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.

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.

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.

Unsafe lighter. A disposable or refillable lighter used for cigarettes, cigars, or pipes that does not comply with ASTM F400, or a lighter used for utilities, grills, or fireplaces, or a lightning rod or gas match that does not comply with ASTM F2201.

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

B. Change the following definitions in Section 202 of the IFC 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~~ Any 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, or electrical requirements in a special occupancy described in Section 708.1 of the VEBC 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.
3. A change of use.

   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 (CSPC) 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, 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.

~~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, 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.~~ B. 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^3) 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^2w where tested in accordance~~

~~with ASTM E1354 at an incident heat flux of 50 kW/m^{2}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.~~ 4. 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 the applicable building code.

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.

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.

~~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 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 (Remainder of Section remains) 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.

~~I.~~ 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.

3. Add Section 314.6 (and exceptions) to read:

   314.6 Counterfeit lighters. The offering or sale to the public of *unsafe lighters* or *counterfeit lighters*, whether conducted on a wholesale or retail basis, shall be prohibited.

   Exceptions:

   1. The storage of *unsafe lighters* or *counterfeit lighters* in a warehouse or distribution center shall not be prohibited if such warehouse or distribution center is closed to the public and does not distribute or sell such lighters to the public.

2. The interstate transportation of *unsafe lighters* or *counterfeit lighters* through the Commonwealth shall not be prohibited.

~~J.~~ 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 NPFA 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~~ A 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. Add Section 404.1.1 to read:
   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.
2. 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.~~ 3. 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 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.

3. Add Section 501.5 to read:

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.

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~~,~~:

1. Change title of Section 510 to read:

Maintenance of In-Building Emergency Communication Equipment:

~~Change Sections 510.1 through 510.3 and delete~~ 2. Delete Sections ~~510.4~~ 510.3.1 through 510.6, including 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 Operation.~~ 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). 604.2 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.

~~6.~~ 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."

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.~~ 23. 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.~~ 23. 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~~ , 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.

~~701.7 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.~~

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).

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~~:

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~~ The following changes shall be made to Section 807 ~~and Exceptions 1 and 2 in Section 807.2 to read:~~.

1. Change the title of Section 807 to read:

Section 807 Decorative Materials and Artificial Decorative Vegetation in Buildings.

2. Change the first paragraph of Section 807.2 (second paragraph remains), Exceptions 1 and 2 (exceptions 3 and 4 remain), and add Exception 5 to Section 807.2 to read:

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% of the specific door, wall or ceiling area to which such materials are attached.

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.

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.

3. Change the first sentence of Section 807.3 (second sentence remains) to read:

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.

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,~~ 808.3 and 808.4 ~~, and 808.5~~ 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^2 when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m^2 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^2 when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m^2 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. 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.

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 and add Section 904.14.5.1.1 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.
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.
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 m2) 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.~~ 4. 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.~~ 9. 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~~ Section 907.4.2.3 ~~and 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. Change the last sentence of Section 907.4.2.5 (remainder of section remains) to read: Protective covers shall not reduce the required means of egress width.

14. 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.~~ 15. 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.~~ 16. 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.~~ 17. 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.~~ 18. Delete Sections 907.5.2.2.5 through 907.6.2.

~~18.~~ 19. 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.~~ 20. Delete Sections 907.6.3.1 through 907.6.4.2.

~~20.~~ 21. 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.~~ 22. Delete Sections 907.7 through 907.7.2.

~~22~~. 23. Change Section 907.8.2 (exception remains) and add Section 907.8.2.1 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.~~

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.

~~23.~~ 24. 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.~~ 25. 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. 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.~~ 27. 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. ~~909.22.6 Components bypassing weekly test.~~

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

    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.~~

~~1010.1.9.4~~ 1010.2.3 Bolt locks. Manually operated flush bolts or surface bolts approved in accordance with the applicable building code shall be maintained.

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.

~~1010.1.9.7~~ 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.

1010.2.13 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.~~

~~1010.2~~ 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.

1010.4 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^2) 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.~~ Emergency supplemental hardware. 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.

~~0~~ 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.

13VAC5-52-240. 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 Sections 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 $ft^3/min/ft^2$ (5.1 $L/sec/m^2$) 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, and 1207.11.9 ~~, and 1207.11.10~~ 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~~ 1207.11.9 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.

F. Add Section 1208 to read:

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-family 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 stations. 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 TELEPHONE NUMBER: _____

FACILITY ADDRESS: _____

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 ~~dusthandling~~ 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^3) 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 <u>(exceptions remain)</u> 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 <u>(items 1 through 3 remain)</u>, 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.~~ 3. 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 (exception 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.~~ 5. 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.~~ 6. Delete Section ~~2404.3.3.1~~ 2404.5.3.1.

~~8.~~ 7. 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.~~ 8. 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.~~ 9. Change Section 2~~404.3.3.5~~ 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.~~ 10. Delete Section ~~2404.3.3.6~~ 2404.5.3.6.

~~13.~~ 11. 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.~~ 12. 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.~~ 13. 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.~~ 14. 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.~~ 15. 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.~~ 16. 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.~~ 17. 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.~~ 18. 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.~~ 19. 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.~~ 20. 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.~~ 21. Delete Section ~~2404.7.5~~ 2404.9.5.

~~26.~~ 22. 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.~~ 23. 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.~~ 24. 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.~~ 25. 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.~~ 26. 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.~~ 27. 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.~~ 28. 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.~~ 29. 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.~~ 30. 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.~~ 31. 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.~~ 32. Delete Section ~~2404.8.1.2~~ 2404.10.1.2.

~~37.~~ 33. 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.~~ 34. 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.~~ 35. 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^2) 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^2) 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^2) 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.~~ 1. 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.~~ 5. 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.~~ 6. 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.~~ 7. 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.~~ 1. 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^3). Rooms shall have air circulation to ensure even distribution of ethylene gas and shall be free from sparks, open flames, or other ignition sources.

13VAC5-52-320. 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. Add~~ 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 ~~add~~ 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. Change~~ 2. 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~~ planning 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.

13VAC5-52-350. 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^2) 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 ~~3105.3~~ add Section 3105.2.1 to read:
   3105.2 Approval. Temporary stage canopies in excess of 400 square feet (37 m^2) 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~~ 3105.5.5 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,[g] or Lot Lines of Adjoining Property that Can be Built on		Minimum Separation between LP-Gas Containers[b, c] (feet)
	Mounded or underground LP-gas containers[a] (feet)	Aboveground LP-gas containers[b] (feet)	
Less than 125[c,d]	10	5[e]	None
125 to 250	10	10	None
251 to 500	10	10	3
501 to 2,000	10	25[e,f]	3
2,001 to 30,000	50	50	5
30,001 to 70,000	50	75	(0.25 of sum of diameters of adjacent LP-gas containers)
70,001 to 90,000	50	100	
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 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 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 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 three 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% of its perimeter. The 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 from pressure relief devices shall not terminate in or beneath buildings and shall be located not less than five feet horizontally from building openings below the 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 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.

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 <u>exception 2 to</u> 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^2), 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^2) 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.

A. Make the following changes to Chapter 33:

1. Change ~~Section~~ Sections 3303.1 and 3303.3.1 to read:

3303.1 Program development and maintenance. 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 construction operations begin. Any changes to the plan shall be submitted for approval.

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.~~

2. 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. Change Section 3312.1 to read:~~

~~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.

13VAC5-52-430. 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), and 3803.2.2 (exception 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^3) for health-hazard gases per the applicable building code, and 500 cubic feet (14.15 m^3) 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.~~

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^2) of floor area, with not more than four gallons per 100 square feet (15L/9.3m^2) 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^2) 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% on the 4th through 6th floors of the building, and by 50% 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.

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 <u>system</u> 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% 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% 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% or less, shall be maintained in accordance with Chapter 9 and the applicable building code.

13VAC5-52-460. ~~Reserved~~ IFC Chapter 41 Temporary Heating and Cooking Operation.

A. Change Section 4101.2 to read:

4101.2 Permits. 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					
LP-Gas container capacity (water gallons)	Minimum separation between LP-gas containers and buildings, public ways,[g] or lot lines of adjoining property that can be built on	Minimum separation between LP-gas containers[b, c] (feet)	LP-Gas container capacity (water gallons)	Mounded or underground LP-gas containers[a] (feet)	Aboveground LP-gas containers[b] (feet)
	Less than 125[c,d]	10		5[e]	None
125 to 250	10	10	None		
251 to 500	10	10	3		
501 to 2,000	10	25[e,f]	3		
2,001 to 30,000	50	50	5		
30,001 to 70,000	50	75	(0.25 of sum of diameters of adjacent LP-gas containers)		
70,001 to 90,000	50	100			
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 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% 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. Add Section 4101.9.1 to read:

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.

D. Make the following changes to Section 4104, Portable Fuel-Fired Cooking Appliances.

1. Change Section 4104.1 to read:

4104.1 Portable fuel-fired cooking appliances. Portable fuel-fired cooking appliances shall be permitted to be used in accordance with this section.

2. Change Section 4104.3 to read:

4104.3 Indoor cooking. Portable fuel-fired cooking appliances 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.

3. Change Section 4104.4 to read:

4104.4 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.

4. Change Sections 4104.5 and 4104.5.1 to read:

4104.5 Separation of cooking tents. Tents 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^2) 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^2).
2. Each grouping of tents shall have a fire break clearance of at least 12 feet (3658 mm).

5. 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. (3048 mm).

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 NPFA 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 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 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.

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^3) for health hazard gases, and 500 cubic feet (14 m^3) 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^2) of floor area, with not more than four gallons per 100 square feet (15 L/9.3 m^2) 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^2) 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.~~ 3. 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.~~ 4. 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.~~ 5. Delete Sections 5003.2.2.1 and 5003.2.2.2.

~~7.~~ 6. 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.~~ 7. 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.~~ 8. 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.~~ 9. 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.~~ 10. 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.~~ 11. 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 (item 3 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~~ 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.~~ 12. 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.~~ 13. 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.

14. 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.~~ 15. 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.~~ 16. Delete Table 5003.8.3.2.

~~18.~~ 17. 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.~~ 18. Delete Section 5003.8.3.4.

~~20.~~ 19. 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.~~ 20. 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.~~ 21. 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.~~ 22. 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.~~ 23. 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.~~ 24. 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.~~ 25. 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 displayed within a single outdoor control area of a Group M occupancy shall not exceed the amounts set forth in Table 5003.11.1.~~

~~28.~~ 26. 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~~ 5003.11.1.1.1 through ~~5003.11.3.10~~ 5003.11.1.1.10.

~~29.~~ 27. 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.~~ 28. Change the first sentence of Section ~~5003.11.3.2~~ 5003.11.1.1.2 (second sentence remains) to read:

~~5003.11.3.2 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.~~ 29. 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.~~ 30. 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.

31. 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.

32. 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.

33. Delete Section 5003.13.3.

34. 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 <u>(exception to Section 5005.1.9 remains)</u> 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.~~ 8. 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.~~ 9. 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.~~ 10. 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.~~ 11. 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.~~ 12. 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.~~ 13. 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.~~ 14. 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.~~ 15. 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.~~ 16. 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.~~ 17. 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 (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~~, 5104.4.1, 5104.4.3, 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.~~ Q. 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_2) 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_2) 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 Sections 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 5605.6.4 (the first sentence remains) 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~~ 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 Blast (shot) Record				
Block 1 General Information				
1	Blast date:	Blast Number:	Blast Time:	Permit Number:
2	Blast location by address including city, county or town:			
3	Blast location by GPS coordinates: □ check box if unknown			
4	Name of Permit Holder:			
5	Name of Blaster in charge (print):			
6	Signature of Blaster in charge:			
7	Certification Number of Blaster in charge:			
Block 2 General Environmental Conditions				
1	Weather (Clear? Cloudy? Overcast?)	Wind direction and speed @_____mph	Temperature F° / C°	

2	Topography (Flat? Hilly? Mountainous?)	Distance from blast site to nearest inhabited building:	Distance from nearest inhabited building determined by: □ GPS coordinates □ Measurement □ Estimated
3	Use of nearest inhabited building (Dwelling? Business? Apartment Building? School?)	Direction from blast site to nearest inhabited building:	Direction from blast site to nearest inhabited building determined by: □ GPS instrument □ Compass □ Estimated
Additional Blaster notations on environmental conditions:			

Block 3
Shot Layout and Precautions Taken (N/A = Not Applicable)

1	Number of holes	Diameter of hole or holes	Depth of hole or holes
2	Were any holes decked? □ Yes □ No	How many holes were decked? □ N/A	How many decks per hole? □ N/A
		(If applicable, indicate on any attached shot pattern drawing which holes were decked and the number of decks for the holes.)	
3	Shot pattern □ Check this box if only single hole.	Depth of sub-drilling	Drilling angle
4	Burden	Spacing of holes	Water height
5	Stemming height	Material used for stemming	Check box for flyrock precautions taken □ Mats □ Overburden □ None taken
Additional Blaster notations on shot layout and precautions:			

Block 4
Seismic Control Measures (N/A = Not Applicable)

1	Was scaled distance formula used? □ Yes □ No	Indicate which scaled distance equation was used. □ N/A □ $W(lb)=\{D(ft)/50\}^2$ □ $W(lb)=\{D(ft)/55\}^2$ □ $W(lb)=\{D(ft)/65\}^2$	Maximum allowable charge weight per 8 ms based on scaled distance. □ N/A
2	Was seismograph used? □ Yes □ No	Seismograph manufacturer and model number: □ N/A	Seismograph serial number: □ N/A Seismograph's last calibration date. □ N/A
3	Distance and direction seismograph from blast site □ N/A	Distance determined by: □ N/A □ GPS coordinates □ Estimated □ Measurement	
4	Seismograph □ N/A Geophone Minimum Frequency _____Hz Seismograph Microphone Minimum Frequency _____Hz	Seismograph recordings: □ N/A Transverse _____in/s ____ Hz Vertical _____in/s ____ Hz Longitudinal _____in/s ____ Hz Acoustic _____dB ____ Hz	
5	Seismograph trigger level □ N/A _____ in/s _____dB		
Additional Blaster notations on seismic control measures:			
Block 5 Quantity and Product			
1	Maximum allowable charge weight per 8 ms interval □ Delay not used _____ lbs	Initiation (Check) □ Electric □ Non-electric □ Electronic	
2	Maximum number of holes/decks per 8 ms interval □ Delay not used _____ lbs		
3	Maximum weight or sticks of explosive per hole	Firing device manufacturer and model: □ N/A	

	_____ lbs			
	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 to 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[a]		Minimum Secured Diameter of Site		Vertical Mortars[b]		Angled Mortars[c] 1/3 offset		Mortars to Special Hazards[d]	
in.	mm	ft	m	ft	m	ft	m	ft	m
<3	<76	300	92	150	46	100	31	300	92
3	76	600	183	300	92	200	61	600	183
4	102	800	244	400	122	266	81	800	244
5	127	1000	305	500	152	334	102	1000	305
6	152	1200	366	600	183	400	122	1200	366
7	178	1400	427	700	213	467	142	1400	427

8	203	1600	488	800	244	534	163	1600	488
10	254	2000	610	1000	305	667	203	2000	610
12	305	2400	732	1200	366	800	244	2400	732
>12	Requires the approval of the fire official								

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

    ~~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.~~

34. Change item 3 of Section 5704.2.13.1.2 (remainder of section, including items 1 and 2 remains) to read:

    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 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:
    ~~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 <u>(exception remains)</u> 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~~.

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:

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^3) shall be separated into piles each not larger than 1,000 cubic feet (28 m^3).

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. Change Sections 5904.2 and 5905.1 by replacing the reference to "Table 5003.1.1(1)" with a reference to “Section 5003.1.1”.

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^3) 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^3) shall be separated into piles not larger than 1,000 cubic feet (28 m^3) 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^3) (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^3) 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.

~~I.~~ 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.

~~C.~~ 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.

~~D.~~ 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.

~~E.~~ 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. 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".

~~F.~~ J. ~~Change Sections~~ Delete exception 2 to item 1 of Section 6004.2.2.5~~,~~ and change item 2 of Section 6004.2.2.6~~, and 6004.2.2.8~~ to read:

~~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.~~

~~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.

K. 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.~~ L. 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.~~ M. 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~~ 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.

J. Add Section 6112 to read:

Section 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 dispensers. "Marketer" means and includes 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 (gallonage) 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 5.0% 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.

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 ~~6304.1.2~~ 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^3) 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 I 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 and 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^2) 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 a reference to "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.

13VAC5-52-630. 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.~~ B. 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 a reference to "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^3) shall be maintained separated into piles, each not larger than 500

cubic feet (14 m^3) 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 ~~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~~ by replacing the reference to "Table 5003.1.1(1)" with "Section 5003.1.1".

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
ASTM F 400-20	Standard Consumer Safety Specifications for Lighters
ASTM F 2201-20	Standard Consumer Safety Specifications for Utility Lighters
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
ASTM F 400-20, Standard Consumer Safety Specification for Lighters
ASTM F 2201-20, Standard Consumer Safety Specification for Utility Lighters

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):
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):
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-10 50 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 289-23, Standard Method of Fire Test for Individual Fuel Packages
NFPA 303-21, Fire Protection Standard for Marinas and Boatyards
NFPA ~~495-18~~ 495-23, Explosives Materials Code
NFPA 701-23, Standard Methods of Fire Tests for Flame Propogation of Textiles and Films
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

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Editorial Corrections and Correlations for 2024 Proposed Regulation

Statewide Fire Prevention Code (SFPC)

- *Correlation with HB 258 (2026 Regular Session) which updates terminology related to early childhood care and education in the Code of Virginia. Revised Section 107.11, item 5.2, to read:*

  5.2 ~~Family Day Homes~~ Home-based child care facilities licensed by the Department of Education based on licensed capacity as follows:

- *Correlation with HB 2642 (2025 Regular Session) which amends the Statewide Fire Prevention Code Act to prohibit the sale or offering of counterfeit and unsafe lighters.*
  - *Added definition for "Counterfeit lighter" to Chapter 2:*

    Counterfeit lighter. Any lighter designed in a way that infringes on the intellectual property rights of any citizen of the United States or any entity that is protected by any federal or state intellectual property law.

  - *Added definition for "Lighter" to Chapter 2*

    Lighter. Any electrical or mechanical device that operates using any type of fuel, including butane or another liquid fuel, and is typically used to light a cigarette, cigar, or pipe.

  - *Added definition for "Unsafe lighter" to Chapter 2*

    Unsafe lighter. A disposable or refillable lighter used for cigarettes, cigars, or pipes that does not comply with ASTM F400, or a lighter used for utilities, grills, or fireplaces, or a lightning rod or gas match that does not comply with ASTM F2201.

  - *Added Section 314.6 to the SFPC to read:*

    314.6 Counterfeit lighters. The offering or sale to the public of unsafe lighters or counterfeit lighters, whether conducted on a wholesale or retail basis, shall be prohibited.

    Exceptions:

    1. The storage of unsafe lighters or counterfeit lighters in a warehouse or distribution center shall not be prohibited if such warehouse or distribution center is closed to the public and does not distribute or sell such lighters to the public.
    2. The interstate transportation of unsafe lighters or counterfeit lighters through the Commonwealth shall not be prohibited.

- *Revised definition for "Change of occupancy" for correlation with the USBC revised definition (code change proposals EB202-24 and EB202(1)-24), to read:*

  Change of occupancy. ~~Either~~ Any 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, or electrical requirements in a special occupancy described in Section 708.1 of the VEBC 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.
  3. A change of use.

- *Section 304, Item 6: Last sentence in the Base Document was incomplete. Added "the applicable building code" at the end of the sentence, 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 the applicable building code.

- *Section 403.4.3.4, Exception: Replaced "An" with "A", to read:*

  Exception: ~~An employee~~ A 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.

- *Sections 608.7 and 608.8: Replaced "remails" with "remains" in the charging statement, to read:*

  Change the last sentence of Section 608.7 (remainder of section remains) to read:
  Change the last sentence of Section 608.8 (remainder of section remains) to read:

- *Revised title of Section 1032.2.2 to read "Emergency supplemental hardware.", for consistency with Section 1010.2.8 of the 2021 VCC (Section 1010.2.7 of the 2024 VCC).*

- *Chapter 23, Subsection J, Charging Statement 12: Replaced "231108.9.1" with the correct section number, "2311.8.9.1", to read:*

Change Sections 2311.8.9, 2311.8.9.1 (items 1 through 3 remain), and 2311.8.9.2 to read:

- *Chapter 32, Subsection E, Charging Statement 2: Underlined "to", to read:*

  Change exception 2 to Section 3208.2.2 to read:

- *Chapter 59, Subsection E: Deleted the words ", and change" from the charging statement, to read:*

  Change Sections 5904.2 and 5905.1 by replacing the reference to "Table 5003.1.1(1)" with a reference to "Section 5003.1.1".

- *Revised Section 6303.1.5 per the charging statement (changes incorrectly shown in the Base Document):*

  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.~~

- *Minor editorial changes throughout to comport with the Virginia's Regulation Information System Style Manual.*