# Statewide Fire Prevention Code (SFPC) Sub-Workgroup Meeting

### September 26, 2025

#### 10:00 AM

Location: 4224 Cox Rd, Glen Allen, VA 23060 - Virginia Housing Center

### **AGENDA**

- 1) Welcome
- 2) Introductions
- 3) Discussion
  - 2024 SFPC Base Document Update
  - Code Change Proposals For October 3<sup>rd</sup> Workgroup Meeting
    - o FP112.5-24
    - o FP405.5-24
    - o FP601.2-24\*
    - o FP807.2-24
    - o FP901.6.3-24
    - o FP906.1-24
      - B906.1-24
    - o FP1208-24
    - o FP4101.9-24
    - o FP4106.1.3-24\*
    - o FP5001.7-24
    - o FP6112-24
  - Indicates Code Change Proposal Carried Over From July 29<sup>th</sup> Workgroup Meeting
- 4) Assignments and Next Steps
- 5) Next Meeting Date

FP112.5-24

SFPC: 112.5

Proponents: Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

# 2021 Virginia Statewide Fire Prevention Code

#### Revise as follows:

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

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

**Reason Statement:** This proposal is a companion change to proposal B119.5 which has received consensus for approval. The new language provided here for the SFPC is identical to proposal B119.5 for the Virginia Construction Code and the Virginia Property Maintenance Code which closes a potential loop hole regarding the time limit for appeals. See the reason statement in proposal B119.5 for more details.

Cost Impact: The code change proposal will not increase or decrease the cost

This is an administrative change that does not impact cost.

### FP405.5-24

SFPC: 405.5

Proponents: Elizabeth Bennett-Parker, representing Virginia House of Delegates District 5 (delebennett-parker@house.virginia.gov)

# 2021 Virginia Statewide Fire Prevention Code

#### Revise as follows:

**405.5 Time.** Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of fire.

#### **Exceptions:**

- 1. In severe climates, the *fire code official* shall have the authority to modify the emergency evacuation drill termination points and frequency.
- 2. In Groups I-1, I-2, I-3 and R-4, where staff-only emergency evacuation drills are conducted after visiting hours or where care recipients are expected to be asleep, a coded announcement shall be an acceptable alternative to audible alarms.
- 3. Prior notification of emergency evacuation drills shall be given by building management to tenants in Group R-2 occupancies no less than 3 days and no more than 14 days in advance of any scheduled fire drill.

**Reason Statement:** This proposal ensures that building management provides tenants with advance notice (between 3 and 14 days) of planned emergency evacuation drills. Advance notification is critical for residents with disabilities, including those with autism and related sensory sensitivities, who may experience distress or disorientation from loud alarms and unexpected disruptions. Clear notice helps tenants prepare appropriately, promotes equitable participation in safety procedures, and supports the overall effectiveness of emergency preparedness.

Cost Impact: The code change proposal will not increase or decrease the cost

The proposal provides a very minor additional requirement for when building management must notify tenants, as they already often do in this circumstance and are required to do in other circumstances. It will not lead to cost changes.

### FP601.2-24

IFC: 601.2; SFPC: 110.1; IFC: SECTION 202 (New)

**Proponents:** Gerry Maiatico, County of Warren & Virginia Fire Prevention Association, representing Virginia Fire Prevention Association (gmaiatico@warrencountyfire.com); Austin Cucciardo, Warren County Dept of Fire and Rescue Services, representing Virginia Fire Prevention Association (acucciardo@warrencountyfire.com)

### 2024 International Fire Code

#### Revise as follows:

**601.2 Hazard abatement.** Operations or conditions deemed unsafe or hazardous by the *fire code official* shall be abated. Equipment, appliances, materials and systems that are modified or damaged and constitute an electrical shock or fire hazard shall not be used. When in the fire code official's opinion, there is actual or potential danger to the occupants or extreme risk of fire to the property due to the improper installation, use and/or maintenance of equipment, appliances, or the building *utilities* and violations of this code have been found, the fire code official may order the *utilities* service to be disconnected or terminated to the affected equipment, appliance, building or portions thereof. Abatement of hazards, repairs or reconnection of *utilities* to the affected equipment, appliance, building or portions thereof shall be done in accordance with the applicable building code.

## 2021 Virginia Statewide Fire Prevention Code

#### Revise as follows:

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

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

### 2024 International Fire Code

#### Add new text as follows:

New Definition. Utilities. The essential services that enable a building, equipment or an appliance to function effectively.

#### **Reason Statement:**

Section 110.1 (7) of the SFPC provides language to render a unsafe condition due to hazardous conditions arising from defective or improperly used or installed electrical wiring, equipment, or appliances. There are no immediate actions outside of section "601.2 Hazard Abatement" and "601.2.1 Correction of Unsafe Condition" that provides provisions for immediate safety actions such as securing and/or terminating power or other essential services to the equipment, appliance, building or portions thereof. Only the language "shall not be used".

This proposal will afford the Fire Code Official to cause for the immediate termination and/or disconnection of a buildings utilities for the effected equipment, appliance, building or portions thereof.

This proposal defines "utilities" while amending the unsafe structure 110.1 (7) to include all the buildings utilities and not limited this provision to electrical in nature.

Similar language is included in section 111.1 if the IFC, which is deleted and replaced with VA Chapter 1. This proposal also ensures that all corrective actions and/or reconnection of the utilities is done so in accordance with the applicable building code.

**Cost Impact:** The code change proposal will not increase or decrease the cost No impact forseen

FP807.2-24

SFPC: 807.2, 807.3

Proponents: Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

# 2021 Virginia Statewide Fire Prevention Code

#### Revise as follows:

**807.2 Combustible decorative materials.** In Groups A, B, E, I, M and R-1 and in dormitories in Group R-2, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from <u>doors</u>, walls or ceilings shall comply with Section 807.3 and shall not exceed 10 percent of the specific <u>door</u>, wall or ceiling area to which such materials are attached.

Fixed or movable walls and partitions, paneling, wall pads and crash pads applied structurally or for decoration, acoustical correction, surface insulation or other purposes shall be considered to be *interior finish*, shall comply with Section 803 and shall not be considered *decorative materials* or furnishings.

#### **Exceptions:**

- 1. In auditoriums in Group A, the permissible amount of curtains, draperies, fabric hangings, and similar combustible decorative materials suspended from walls or ceilings shall not exceed 75 percent of the aggregate wall area where the *building* is equipped throughout with an *approved* automatic sprinkler system in accordance with the applicable NFPA 13 standard and where the material is installed in accordance with the *applicable building code*.
- 2. In Group R-2 dormitories, within sleeping units and dwelling units, the permissible amount of curtains, draperies, fabric hangings, and similar decorative materials suspended from walls or ceilings shall not exceed 50 percent of the aggregate wall areas where the *building* is equipped throughout with an *approved* automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.
- 3. In Group B and M occupancies, the amount of combustible fabric partitions suspended from the ceiling and not supported by the floor shall comply with Section 807.3 and shall not be limited.
- 4. The 10-percent limit shall not apply to curtains, draperies, fabric hangings and similar combustible decorative materials used as window coverings.
- 5. In occupancies equipped throughout with an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard, combustible decorative materials on exit access doorways shall not exceed 50% of the surface area of the door and shall not obstruct the door operation.

**807.3 Acceptance criteria and reports.** Where required to exhibit improved fire performance, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from <u>doors</u>, walls or ceilings shall be tested by an *approved* agency and meet the flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701 or exhibit a maximum rate of heat release of 100 kW when tested in accordance with NFPA 289, using the 20 kW ignition source. Reports of test results shall be prepared in accordance with the test method used and furnished to the *fire code official* upon request.

**Reason Statement:** This proposal is to provide clarification regarding the limits of combustible decorative materials on doors. It makes it clear that combustible decorative materials on doors are subject to the same regulations and limitations applied to walls and ceilings. It also provides a new exception for exit access doors that is consistent with the existing exception in SFPC 807.4 allowing up to 50% of a door to be covered with combustible artificial decorative vegetation when the facility is provided with an approved fire sprinkler system.

Cost Impact: The code change proposal will not increase or decrease the cost

This proposal is a clarification that doors are included in the requirements for combustible decorative materials on walls and does not increase costs.

FP901.6.3-24

SFPC: 901.6.3

Proponents: Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

# 2021 Virginia Statewide Fire Prevention Code

#### Revise as follows:

**901.6.3 Records.** Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained. Records shall be maintained on the premises or other *approved* location for not less than 3 years, or a different period of time where specified in this code or referenced standards. Records shall be made available for inspection by the *fire code official*, and a copy of the records shall be provided to the *fire code official* on request.

**Reason Statement:** The proposed change is restore language from the model code that was removed from the SFPC in the 2015 edition. The change clarifies the minimum duration that records are to be retained and that they are to be made available to the Fire Official upon request. The added language is identical to the language outlined in section 110.3 of the 2024 International Fire Code.

Cost Impact: The code change proposal will not increase or decrease the cost

The proposal addresses how existing records are to be retained and made available to the Fire Official so there is no cost impact.

FP906.1-24

SFPC: 906.1

Proponents: Morgan Hurley, Senez Consulting, Inc., representing Fire Equipment Manufacturers' Association (mhurley@senezco.com)

# 2021 Virginia Statewide Fire Prevention Code

#### Revise as follows:

**906.1 Where required.** Portable fire extinguishers shall be installed in all of the following locations:

1. In Groups A, B, E, F, H, I, M, R-1, R-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.
- 4. In Group I-3 occupancies, portable fire extinguishers shall be permitted to be located at staff locations, and the access to such extinguishers shall be permitted to be locked.
- 2. Within 30 feet (9144 mm) distance of travel from commercial cooking equipment and from domestic cooking equipment in Group I-1; I-2, Condition 1; and R-2 college dormitory occupancies.
- 3. In areas where flammable or combustible liquids are stored, used or dispensed.
- 4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 3316.1.
- 5. Where required by the sections indicated in Table 906.1.
- 6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the *fire code official*.

**Exception:** Portable fire extinguishers are not required at normally unmanned Group U occupancy buildings or structures where a portable fire extinguisher suitable to the hazard of the location is provided on the vehicle of visiting personnel.

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

#### **Reason Statement:**

The International Building Code/International Fire Code included an exception for portable fire extinguishers in A, B and E occupancies equipped throughout with quick response sprinklers through the 2009 edition. This exception was identical to current (2021) VCC/VSFPC 906.1, exception 1.

The exception for A, B and E occupancies equipped throughout with quick response sprinklers was removed from the IBC/IFC beginning with the 2012 editions. However, Virginia has maintained this exception as a state amendment. This proposal seeks to align the VCC/VSFPC requirement for portable fire extinguishers with that in the IBC/IFC. The code change proposal that removed this exception from the IBC (F94-09/10) stated, in part: "Fire extinguishers have historically been the first line of defense for small, controllable fires. They are intended to be used for fires of limited size and easily controlled. If a fire is discovered in its early stages the most effective means of protecting life and preventing property loss is to sound an alarm and then to control and/or extinguish the incipient stage fire with a portable fire extinguisher. To simply wait for the fire to grow to size large enough for a sprinkler head to activate is contrary to lessons and guidance from the fire service and fire protection professionals. Since fire extinguishers provide a first line of defense vs. sprinklers, it remains unclear as to the justification for this exception. In that light, the Exception 1 to Section 906.1 should be deleted."

This code change would also require portable fire extinguishers in R-2 occupancies, which is required by the IBC, but is not required by the VCC (the VCC only requires portable fire extinguishers in R-1 and R-4 residential occupancies.) However, the IBC/IFC have exceptions (exception 1) that allow the extinguishers to be located in dwelling units.

Research conducted on behalf of the Fire Equipment Manufacturer's Association ("A Review of the Impact of Fire Extinguishers in Reducing the Carbon Footprint of Building Fires", dated March 27. 2023) found that 4.5% of residential fires that were not reported to the fire department were extinguished by

occupants who used portable fire extinguishers. In industrial occupancies, 38% of fires were suppressed using portable fire extinguishers. These statistics show that portable fire extinguishers can effectively be used to suppress small fires by building occupants. The current VCC/VSFPC 906.1, exception 2 (which allows portable fire extinguishers in I-3 occupancies to be located in locked staff areas) is proposed to be maintained as a new exception 4 to VCC/VSFPC 906.1.

Cost Impact: The code change proposal will increase the cost

This proposal would have a minor cost increase by requiring portable fire extinguishers in A, B, and E occupancies equipped throughout with quick response sprinklers and R-2 occupancies.

B906.1-24

VCC: [F] 906.1

Proponents: Morgan Hurley, Senez Consulting, Inc., representing Fire Equipment Manufacturers' Association (mhurley@senezco.com)

# 2021 Virginia Construction Code

Revise as follows:

[F] 906.1 Where required. Portable fire extinguishers shall be installed in all of the following locations:

1. In Groups A, B, E, F, H, I, M, R-1, R-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.
- 4. In Group I-3 occupancies, portable fire extinguishers shall be permitted to be located at staff locations, and the access to such extinguishers shall be permitted to be locked.
- 2. Within 30 feet (9144 mm) distance of travel from commercial cooking equipment and from domestic cooking equipment in Group I-1; I-2, Condition 1; and R-2 college *dormitory* occupancies.
- 3. In areas where flammable or *combustible liquids* are stored, used or dispensed.
- 4. On each floor of structures under construction, except Group R-3 occupancies, in accordance with Section 3315.1 of the International Fire Code.
- 5. Where required by the International Fire Code sections indicated in Table 906.1.
- 6. Special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms, where required by the fire code official.

**Exception:** Portable fire extinguishers are not required at normally unmanned Group U occupancy buildings or structures where a portable fire extinguisher suitable to the hazard of the location is provided on the vehicle of visiting personnel.

#### Reason Statement:

The International Building Code/International Fire Code included an exception for portable fire extinguishers in A, B and E occupancies equipped throughout with quick response sprinklers through the 2009 edition. This exception was identical to current (2021) VCC/VSFPC 906.1, exception 1.

The exception for A, B and E occupancies equipped throughout with quick response sprinklers was removed from the IBC/IFC beginning with the 2012 editions. However, Virginia has maintained this exception as a state amendment. This proposal seeks to align the VCC/VSFPC requirement for portable fire extinguishers with that in the IBC/IFC. The code change proposal that removed this exception from the IBC (F94-09/10) stated, in part: "Fire extinguishers have historically been the first line of defense for small, controllable fires. They are intended to be used for fires of limited size and easily controlled. If a fire is discovered in its early stages the most effective means of protecting life and preventing property loss is to sound an alarm and then to control and/or extinguish the incipient stage fire with a portable fire extinguisher. To simply wait for the fire to grow to size large enough for a sprinkler head to activate is contrary to lessons and guidance from the fire service and fire protection professionals. Since fire extinguishers provide a first line of defense vs. sprinklers, it remains unclear as to the justification for this exception. In that light, the Exception 1 to Section 906.1 should be deleted."

This code change would also require portable fire extinguishers in R-2 occupancies, which is required by the IBC, but is not required by the VCC (the VCC only requires portable fire extinguishers in R-1 and R-4 residential occupancies.) However, the IBC/IFC have exceptions (exception 1) that allow the extinguishers to be located in dwelling units.

Research conducted on behalf of the Fire Equipment Manufacturer's Association ("A Review of the Impact of Fire Extinguishers in

Reducing the Carbon Footprint of Building Fires", dated March 27. 2023) found that 4.5% of residential fires that were not reported to the fire department were extinguished by occupants who used portable fire extinguishers. In industrial occupancies, 38% of fires were suppressed using portable fire extinguishers. These statistics show that portable fire extinguishers can effectively be used to suppress small fires by building occupants. The current VCC/VSFPC 906.1, exception 2 (which allows portable fire extinguishers in I-3 occupancies to be located in locked staff areas) is proposed to be maintained as a new exception 4 to VCC/VSFPC 906.1.

Cost Impact: The code change proposal will increase the cost

This proposal would have a minor cost increase by requiring portable fire extinguishers in A, B, and E occupancies equipped throughout with quick response sprinklers and R-2 occupancies.

### FP1208-24

SFPC: 1208 (New), 1208.1 (New), 1208.2 (New), 1208.3 (New), 1208.4 (New)

Proponents: Ernest Little, Retired Prince William County Department of Fire and Rescue, representing Myself (prwmfm4@aol.com)

# 2021 Virginia Statewide Fire Prevention Code

Add new text as follows:

# 1208 Electric Vehicle Charging Stations

1208.1 General. Where provided emergency shutoffs shall be provided or required by the applicable building code shall be maintained.

**1208.2** Emergency Shutoff. Where provided emergency shutoffs shall be provided as required by the applicable building code shall be maintained.

1208.3 Impact Protection. Electric vehicle charging stations shall be protected against physical damage, in an approved manner, and be maintained in accordance with Section 312 where charging stations are located in areas near parking areas, multiple charging stations, or other areas where there is a potential for vehicle impacts.

1208.4 Emergency Procedures. Approved emergency procedures shall be maintained on a sign at an approved and conspicuous location of the charging station(s). The sign shall read:IN CASE OF EMERGENCY

- 1. IF POSSIBLE, DISABLE THE VEHICLE TO PREFENT MOVEMENT
- 2. USE THE ELECTRIC VEHICLE EMERGENCY SHUT OFF
- 3. REPORT THE INCIDENT TO THE FIRE DEPARTMENT
- 4. FIRE DEPARTMENT PHONE NUMBER:
- 5. FACILITY ADDRESS:

#### **Reason Statement:**

The Virginia Construction (VCC) and Virginia Statewide Fire Prevention Code (SFPC) lack an emergency disconnecting requirement similar to that required by NFPA 30A at motor fuel dispensing facilities. Charging stations supplying DC power to electric vehicles (EVs) are available to the general public along major highways and have becomemoreavailable inpublic parking public parking

lots, and workplaceparkinglots. Whenanemergency occurs at one of these EV charging stations, first responders need a quick means to disconnect power inorder to mitigate the emergency safely. The proposed amendments are intended to correct a previously unknown existing hazard. The proposed amendments intendtooffer the publicabene fitth at would less en are cognized (known) hazard or ameliorate a continuing dangerous condition or situation.

The 2024 International Fire Code references the National Fire Protection Association (NFPA) 2023 National Electrical Code (NEC) which had a tentative interim amendment (TIA) regarding vehicle impact protection and emergency shutoffs. This TIA was considered by the National Fire Protection Association in development of the 2026 NEC) and emergency disconnects for electric vehicle charging stations were added to the code requirements. The 2026 NEC will be published in October of 2025. The impact protection provision of the amendments brings an existing requirement of the NEC for electrical equipment exposed to vehicle impact into the VCC to make the requirement easier to access for installers of electric vehicle charging equipment.

Currently, shutdowncontrols are required for both refueling stations and DC charging stations; however, access to these shutdowns is quite different and create unnecessary and potentially lethal intervention hazard delays for first responders who are called to address emergencies at DC charging stations.

#### Concerns:

- (1) First responders, who respond to emergencies at DC Charging stations do so in an electrical energy environment that can exceed normal household voltages. These first responders are not trained, nor equipped, to operate in electrical hazard areas without a shut off or lock out device being available.
- (2) First responders do not have tools capable of ensuring that the DC energy hazard has been controlled.UnlikeAChazards,wheretoolshavebeenmadeavailabletofirstresponders that allow them to gather some information about the energy status of electrical equipment, there are very few tools available to first responders for ascertaining DC energy status.
- (3) While not required at EV charging stations, some vendors are installing emergency shut offs and they are being installed in locations that are not safe or readily accessible for first responders. Some are being installed at the actual charging device location rather than at a safe location away from the hazard area. While well intended, the installation of these devices requires first responders to work in the hazard area to operate them. NFPA 30A requires that the e-stop be located at least 20 feet away from the hazard.
- (4) EV Charging station electrical shut offs are not labelled and are not readily accessible and Energy disconnects (per code) are allowed to be in locked cabinets which are often not labeled. This creates confusion and frustration for first responders attempting to address the electrical hazards present. Since emergency shut offs have been present at refueling stations since 1984, first responders look for emergency shut offs where they have seen at refueling stations.

#### Cost Impact: The code change proposal will increase the cost

There will be cost associated with the installation of impact protection, disconnecting means, and the required materials. The cost could be offset by the reduction in damaged components due to vehicle impact and the possible injury to first responders due to exposure to live electrical components in mitigating events associated with malfunction or misuse of electric vehicle charging equipment.

### FP4101.9-24

IFC: 4101.9, 4101.9.1 (New), 4104.1, 4104.3, 4104.4, 4104.5, 4104.5.1

Proponents: Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

### 2024 International Fire Code

4101.9 Cooking operations. Portable cooking equipment using combustible oils or solids shall comply with all of the following:

- 1. A noncombustible lid shall be immediately available. The lid shall be of sufficient size to cover the cooking well completely.
- 2. Equipment shall be placed on a noncombustible surface.
- 3. A portable fire extinguisher for protection appropriate to the cooking media shall be provided at a location *approved* by the *fire* code official.

#### Add new text as follows:

4101.9.1 Separation From Tents or Structures. Cooking appliances or devices that produce sparks or grease-laden vapors or flying embers (firebrands) shall not be used within 10 feet (3048 mm) of a tent or structure.

#### Exceptions:

- 1. Designated cooking tents not occupied by the public when approved by the fire code official.
- 2. <u>Tents or structures where cooking appliances are protected with an automatic fire-extinguishing systemin accordance with the applicable building code.</u>

#### Revise as follows:

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

**4104.3 Indoor cooking.** Portable fuel-fired cooking appliances <u>used indoors shall not be used indoors.</u> Portable fuel-fired cooking <u>appliances in tents and membrane structuresshall not be located within 10 feet (3048 mm) of exits or combustible materials.</u> <u>Exception: Cooking operations in accordance with section 4104.6.</u>

4104.4 Gooking operations Venting. Gooking that produces sparks or grease laden vapors shall not be performed within 10 feet (3048 mm) of a tent or membrane structure except where the following conditions are met:

- 1. Cooking devices shall be isolated from the public.
- 2. Cooking devices shall be maintained and used according to the manufacturer's instructions.

Exception: Designated cooking tents with an automatic sprinkler system installed in accordance with Section 903.3.1.1-

Gas, liquid, and solid fuel-burning equipment designed to be vented shall be vented to the outside air as specified by the applicable building code and shall be approved. Such vents shall be equipped with approved spark arresters where required. Where vents or flues are used, all portions of the tent or membrane structure shall be not less than 12 inches (305 mm) from the flue or vent.

**4104.5 Separation of cooking tents.** *Tents* with sidewalls or drops where cooking is performed shall be separated from other noncooking tents or membrane structures by not less than 10 feet (3048 mm).

**Exception:** Small tents limited to 100 square feet (9.3 m<sup>2</sup>) that are accessory to the cooking operations of the cooking tent and are not occupied by the public.

4104.5.1 Groups of cooking tents.. Cooking tents shall be permitted to be placed side by side where the following conditions are met:

-

- 1. The area of the cooking tents has a maximum area of 700 square feet (65 m<sup>2</sup>).
- 2. Each grouping of tents shall have a fire break clearance of at least 12 feet (3658 mm).
- 3. A fire access aisle separating rows of cooking tents has a minimum width of 16 feet (4877 mm) clear-

#### Reason Statement:

The purpose of this proposal is to revise six sections of the new Chapter 41 in the 2024 International Fire Code to improve the implementation and transition to this chapter for Virginia.

Section 4101.9 is provided for context and no changes are proposed.

Section 4101.9.1 is proposed as a new section that restores the content from section 3106.5.1 and 3107.12.6 from the current 2021 Virginia Statewide Fire Prevention Code. This proposal does reduce the required separation distance from 20ft to 10ft for consistency with similar requirements in section 4104 but keeps the exceptions consistent with those in the current 2021 Virginia Statewide Fire Prevention Code. This section is proposed to be located in 4101.9 since it applies to cooking operations beyond just those regulated by section 4104.

Section 4104.1 is revised to simplify the scope of this section and avoid confusion arising from interpreting the phrase, "shall be permitted to be used in all occupancies" as permission to use any portable fuel-fired cooking appliances inside of all occupancies. As noted below, section 4104 provides no requirements for carbon monoxide detection or ventilation making the indoor use of most portable fuel-fired cooking appliances particularly hazardous and dangerous for occupants.

Section 4104.3 is revised to restore the language to the context that it was derived from in section 3107.12.3 of the 2021 Virginia Statewide Fire Prevention Code which only applies to tents and membrane structures. The proposal also emphasizes that the use of portable fuel-fired cooking appliances are prohibited inside of buildings. Similar to how using portable generators or other portable fuel-fire equipment inside buildings is hazardous to occupants, permitting the use of a portable fuel-fired grills, turkey fryers, or other fuel-fire cooking appliances inside of a building is dangerous and should not be suggested as acceptable by this section. This change is particularly important for section 4104 since there are no additional requirements to ensure proper ventilation and protections for carbon monoxide detection for the indoor use of portable fuel-fire cooking appliances. The proposal also includes a new exception highlighting acceptable indoor cooking arrangements when authorized by 4104.6 (approved arrangements for warming of food, cooking demonstrations or similar operations that use solid flammables, butane, or other similar devices that do not pose an ignition hazard).

Section 4104.4 is replaced by the language in section 3107.12.2 of the 2021 Virginia Statewide Fire Prevention Code which has been deleted for portable appliances in the 2024 International Fire Code. Since the original content of 4104.4 will now be addressed by 4101.9.1, the original language is deleted and this section has been selected as the location to restore the important language regarding the appropriate arrangement of ventilation where required for portable fuel-fired cooking appliances.

Section 4104.5 and 4104.5.1 are proposed to replace the current Virginia amendment to provide the added flexibility for cooking tents as provided in the 2024 International Fire Code. This additional flexibility is important for arrangements such as fairs or events where tents are often in rows or are grouped together. The proposal keeps the Virginia amendment language to allow this section to apply to all cooking tents - with our without sides or drops. It also does not include item 3 from 4104.5.1 which would create a conflict with section 503 for the minimum width of fire access routes. Fire apparatus access routes for tents are already regulated by 3103.7.1 and section 503.

Cost Impact: The code change proposal will not increase or decrease the cost

The proposal restores current 2021 Virginia Statewide Fire Prevention Code language in the transition to a new Chapter and does not impact cost.

FP4106.1.3-24

SFPC: 4106.1.3 (New); IFC: SECTION 202 (New)

**Proponents:** Gerry Maiatico, County of Warren & Virginia Fire Prevention Association, representing Virginia Fire Prevention Association (gmaiatico@warrencountyfire.com)

## 2021 Virginia Statewide Fire Prevention Code

Add new text as follows:

4106.1.3 Mobile food preparation vehicles shall be moveable, easily transported, or relocated without excessive effort. Mobile food preparation vehicles shall not be utilized as permanent structures by removing wheels, surrounded by decks/porches, permanently affixing to utilities or placing the mobile food preparation vehicle in such a manner as to prohibit the mobility of the device. Exception:

Mobile food preparation vehicles that have been modified or connected to utilities in accordance with the applicable building code.

### 2024 International Fire Code

Add new text as follows:

New Definition. Utilities. The essential services that enable a building, equipment or an appliance to function effectively.

#### **Reason Statement:**

Chapter 2 of the SFPC defines the MFPV as a "vehicles, covered trailers, carts, and enclosed trailers, **or other moveable devices"**. This provides the intent that a MFPV is intended to be moveable. Localities throughout the Commonwealth have experienced the MFPV being placed in a situation where the vehicle is no longer "movable". This has been discovered as the wheels being removed, placing the vehicle up on blocks, surrounding the vehicle with decks/porches and event attaching the vehicle to a buildings electrical system or plumbing systems in a permanent in nature arrangement.

This proposal also includes a definition of *utilities*. This mirrors a proposal submitted to the termination and reconnection of a utilities system.

This proposal provides an exception where the mobile food preparation vehicle arrangement and/or connection to utilities has been permitted and inspected in accordance with the applicable building code.

Cost Impact: The code change proposal will not increase or decrease the cost

No change

### FP5001.7-24

SFPC: 5001.7, 5001.7.1, 5001.7.2, 5001.7.3, 5001.7.4, 5001.7.5, 5001.7.6, 5001.7.7, 5001.7.8, 5001.7.9, 5001.7.10, 5001.7.11, 3803.2.2

Proponents: Andrew Milliken, representing Stafford County Fire Marshal's Office (amilliken@staffordcountyva.gov)

# 2021 Virginia Statewide Fire Prevention Code

Delete without substitution:

5001.7 Operational requirements for Group B teaching and research laboratories. Teaching and research laboratories in Group B educational occupancies above the 12th grade utilizing Section 428 of the USBC, Part I, Construction, or Section 306.1 of the USBC, Part II, Existing Buildings, shall comply with this section and other applicable requirements of this code. In the case of conflicts between the requirements of Section 428 of the USBC, Part I, Construction, or Section 306.1 of the USBC, Part II, Existing Buildings, and provisions of this code other than those set out in this section, Section 428 of the USBC, Part I, Construction, or Section 306.1 of the USBC, Part II, Existing Buildings, as applicable, shall govern.

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

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

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

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

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

**5001.7.6 Maintenance of storage, dispensing, use, and handling requirements.** Storage, dispensing, use, and handling requirements in the *USBC*, Part I, Construction, or the *USBC*, Part II, Existing Buildings, shall be maintained. Operational requirements not affecting the manner of construction shall comply with this chapter and Chapters 51 through 67, as applicable.

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

5001.7.8 Container size. The maximum container size for all hazardous materials shall be 5.3 gallons (20 L) for liquids, 50 pounds (23 kg) for solids, 100 cubic feet (2.8. m<sup>3</sup>) for health hazard gases and 500 cubic feet (14 m<sup>3</sup>) for all other gases.

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

5001.7.9 Density. Quantities of Classes I, II, and IIIA combustible or flammable liquids in storage and use within control areas or laboratory suites shall not exceed 8 gallons per 100 square feet (30 L/9.3 m<sup>2</sup>) of floor area, with not more than 4 gallons per 100 square feet (15 L/9.3 m<sup>2</sup>) being in use. Quantities of Class I flammable liquids in storage and use shall not exceed 4 gallons per 100 square feet (15 L/9.3 m<sup>2</sup>) of floor area with not more than 2 gallons (7.5 L) being in use. The maximum in use in open systems is limited to 10 percent of these quantities. Densities shall be reduced by 25 percent on the 4th floor through 6th floor levels above grade plane of the building

and 50 percent above the 6th floor level. The density is to be reduced to 50 percent of these values for *buildings* that are not protected throughout with an *approved* automatic fire sprinkler system. Regardless of the density, the maximum allowable quantity per control area or *laboratory suite* shall not be exceeded.

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

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

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

5001.7.11 Restricted materials in use. Use of pyrophories and Class 4 oxidizers prohibited in existing buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the USBC, Part I, Construction, shall be allowed within a control area at 25 percent of the limits for buildings equipped throughout with an automatic sprinkler system, with no additional increases allowed, provided that such materials are used in accordance with all of the following:

- 1. Use shall be within an *approved* chemical fume hood listed in accordance with UL 1805, or in an inert atmosphere glove box in accordance with NFPA 45, Section 7.11, or other *approved* equipment designed for the specific hazard of the material.
- 2. Combustible materials shall be kept at least 2 feet (610 mm) away from the work area, except for those items directly related to the research.
- 3. A portable fire extinguisher appropriate for the specific material shall be provided within 20 feet (6096 mm) of the use in accordance with Section 906.

#### Revise as follows:

**3803.2.2 Density.** Quantities of Class I<u>. Class II and Class IIIA combustible or flammable liquids</u> in storage and use shall not exceed 8 gallons (30 L) per 100 square feet (9.29 m<sup>2</sup>) of floor area. Densities shall area, with not more than four gallons per 100 square feet (15L/9.3m<sup>2</sup>) being in use. Quantities of Class I flammable liquids in storage and use shall not exceed four gallons per 100 square feet (15L/9.3m<sup>2</sup>) of floor area with not more than two gallons (7.5L) being in use. The maximum in use in open systems is limited to 10% of these quantities. Densities shall be reduced by 25 percent on the 4th through 6th floors of the building, and by 50 percent above the 6th floor. The density is to be reduced to 50% of these values for buildings that are not equipped with an approved automatic fire sprinkler system. Regardless of the density, the *maximum allowable quantity per control area* or *laboratory suite* in accordance with this chapter, shall not be exceeded.

**Exception:** Designated hazardous waste collection areas or rooms within a *laboratory suite* or *control area* are not limited, but such materials shall not exceed the maximum allowable quantity per *laboratory suite* or *control area*.

#### **Reason Statement:**

This proposal removes duplicated code sections from SFPC 5001.7 that are now in Chapter 38. The requirements in this section were added for the 2015 SFPC as an early adoption of regulations for high education laboratories prior to Chapter 38 existing in the code. Since Chapter 38 is now part of the SFPC, these sections are no longer needed and could create confusion as they duplicate requirements from Chapter 38. An item by item list is provided below to illustrate where the requirement remains in Chapter 38. The

language from 5001.7.9 is proposed to be relocated to 3803.2.2.

5001.7 - 3801 and Chapter 1 (administrative)

5001.7.1 - 3803.1.1

5001.7.2 - 3803.1.2

5001.7.3 - 3803.1.3

5001.7.4 - 3803.1.4

5001.7.5 - 3803.1.5

5001.7.6 - 3801.2 and 3803.2

5001.7.7 - 3803.1.6

5001.7.8 - 3803.2.1

5001.7.9 - Language proposed to be relocated to 3803.2.2

5001.7.10 - 3805.2.1

5001.7.11 - 3805.2.2

Cost Impact: The code change proposal will not increase or decrease the cost

This change is administrative and will not impact cost.

### FP6112-24

SFPC: 6112 (New), 6112.1 (New), 6112.2 (New), 6112.3 (New), 6112.4 (New), 6112.4.1 (New), 6112.4.2 (New), 6112.4.3 (New), 6112.5 (New), 6112.6 (New), 6112.6.1 (New), 6112.7 (New), 6112.8 (New)

Proponents: Lee Stoermer, representing Loudoun County Fire Rescue Fire Mashal Office (lee.stoermer@loudoun.gov)

# 2021 Virginia Statewide Fire Prevention Code

Add new text as follows:

# 6112 LP Gas Vendor Requirements

**6112.1** Emergency Notifications Required. All reports of an odor or leak shall be documented and maintained within the customer's record, and shall be available for review by the Fire Official upon request. This record should include at a minimum the date, time, caller's name, address of suspected leak, phone number, and a description of the problem/complaint along with resolution. Records shall be maintained for the life of the LP-gas container.

6112.2 Notification of flaring operations. Any flaring operations that are being conducted at a location other than at the LP-gas vendor's facility, shall be approved by the Fire Code Official prior to the flaring operation.

6112.3 Customer Records. Individual records for each customer shall be maintained by the LP-gas vendor for the life of the customer's LP-gas container of any fixed site LPG tank. If a customer transfers LP-gas service to another vendor, customer records shall be transferred upon request to the new LP-gas vendor. This shall apply to all ASME aboveground LP-gas storage containers and ASME underground or mounded LP-gas storage containers. Records shall be maintained as hard copy or electronically. Records shall be available for review by the Fire Official upon request. \*\*Customer files shall, at a minimum, include container data plate information, installation date, inspection records, maintenance records, testing records, and transfer history.

6112.4 Notification for Impaired or Out-of-Service LP-gas Containers. Within 7 days of becoming aware of an impaired or out-of-service LPG container, the LPG Company shall notify the Fire Official in writing or through IROL if available in that jurisdiction.

Information shall include physical location (address) of the LPG container, type of LPG container

(aboveground, underground, or mounded), size (gallonage) of LPG container, description of problem, testing records, and current volume (%) reading at time of discovery.

6112.4.1 LP-Gas Operational Status Verification. Where damage is noted to a container and/or appurtenances during inspection, further operations shall be stopped until operational status is confirmed. Emergency conditions (odor or leak) shall be reported using notifications as listed in 6112.1.

6112.4.2 Identification of Out-of-Service LP-Gas Containers. LP-gas containers that are impaired or out-of-service shall be clearly identified at the fill connection(s) by using out-of-service tags and/or a lock out/tag out system with hazard/danger tag; a copy of the out-of-service tag shall be provided to the customer, and a copy of the out-of-service tag shall be placed in the customer's file.

6112.4.3 Returning an LP-gas Container to service. Any repairs shall be completed as per the applicable Building Code. When returning an out-of-service container to normal operation, the operational status shall be approved by no less than two (2) qualified personnel that agree the service is completed properly. Out of Service tags shall be removed from the LP-gas container and all repair/maintenance performed shall be documented and provided to the customer; documentation shall be completed within the customer's file after the LP-gas container is returned to normal operational status. Copies of these documents shall be forwarded to the Fire Official.

6112.5 Cathodic Testing. Cathodic testing shall follow NFPA 58 Liquified Petroleum Gas Code. Records of cathodic protection testing

shall be maintained by the LP-gas vendor and be available for review by the Fire Official upon request.

6112.6 Atmospheric Monitoring Requirements.. Anytime an LP gas vendor is investigating a gas odor or gas leak emergency involving an underground LP-gas container or an aboveground LP-gas container, atmospheric monitoring(metering) devices shall be utilized to ensure a safe working environment and for identifying a safe area for workers, emergency service personnel, and the community.

6112.6.1 Atmospheric Monitoring. Combustible gas instruments ("CGI's") shall be used to help pinpoint the source of a leak, however, an atmospheric monitoring device capable of identifying the following shall also be utilized: Oxygen (%), Hydrogen Sulfide (PPM), Carbon Monoxide (PPM), and Lower Explosive Limit (LEL) of LPG (%).

<u>6112.7</u> <u>Container pressure and leak testing.</u> Following any empty LP-gas condition, no more than 5% of the tank's volume shall be filled until required leak and pressure testing is complete, per NFPA 58.

6112.8 LP-gas vendor identification labels.. LP-gas vendor information shall be attached to the container, on the dome assembly or other conspicuous location. This information shall contain the vendor's name and a 24-hour emergency contact number. Identification labels shall be readily visible.

#### Reason Statement:

Reason statement:

2024 Virginia Statewide Fire Prevention Code

Chapter 61 Section 12 addition

On February 16<sup>th</sup>, 2024, in Loudoun County, Virginia, an explosion occurred as the result of a leak from a 500-gallon underground Liquified Petroleum Gas (LPG) storage tank. This explosion injured ten (10) first responders and resulted in the death of Firefighter Trevor Brown, from the Sterling Volunteer Fire Company (SVFC).

During the investigation it was identified that an LPG provider (retailer, vendor, distributor, maintenance/service provider, etc.) could become complacent with their knowledge of Fire Code requirements, to include tracking inspection, maintenance, and repair records, testing documents, and appropriately identifying an out-of-service or impaired LPG system

An independent, multijurisdictional committee completed an after-action report of this incident to identify respective education, training, and response recommendations to reduce the risk of similar types of events occurring in the future. A separate Fire Prevention Code Investigation was conducted that identified perceived gaps in existing Fire Codes, which should also be addressed to reduce associated risk to members of the community, members of the LPG industry, and first responders.

The new fire code sections presented here highlight issues identified during those investigations and are intended to reduce risk, strengthen requirements, and provide additional enforcement tools to support overall safety. While most LPG providers are already following these procedures, failure to consistently follow Fire Code requirements could result in another catastrophic explosion, injuries, or death.

These additions support a culture of safety and transparency which requires LPG providers to maintain appropriate service records and provide accurate information and documentation to customers; these actions allow access to vital information that can be shared with first responders in an emergency, and to the Fire Code Official when needed. While additional documentation may be required, respective effort and personnel costs associated with time or labor should be minimal. LPG providers should already be routinely utilizing leak detection equipment, so no additional costs should be expected; the multi-gas atmospheric monitoring requirements can be fulfilled by requesting assistance from fire and rescue resources if an LPG provider does not have access to multi-gas atmospheric monitoring equipment.

In closing, these recommendations support the promise that was made to the family of Firefighter Trevor Brown (SVFC) to identify why the explosion occurred, and to take the steps necessary to help reduce the likelihood of similar events from occurring in the future so that his

loss was not in vain.

Cost Impact: The code change proposal will not increase or decrease the cost

Costs associated with these code section changes should be minimal, if any, as these are items that vendors should already be performing if currently properly following NFPA 58 standards.

#### **Attached Files**

• Silver Rldge afteraction report doc link.pdf https://va.cdpaccess.com/proposal/1365/1953/files/download/937/

• LP Gas SFPC 2024 changes.pdf

https://va.cdpaccess.com/proposal/1365/1953/files/download/934/