

AGENDA

DHCD WORKGROUP TWO (WG2) MEETING 2015 Code Change Cycle

April 6, 2016 at 9:30 a.m.

Virginia Housing Center

1. Submitted Proposals

Virginia Construction Code	Page Number
CB-202 Ambulatory Health Care Facility.	3
CB-304.1.1 Day support and day treatment facilities.	4
CB-307.1 High-hazard Group H.	5
CB-901.3 Modifications.	8
CB-905.2(1) Installation standard.	9
CB-905.2(2) Installation standard.	10
Statewide Fire Prevention Code	Page Number
F-403.5 Group E occupancies.	12
F-505.3 Address usage.	13
F-703.4 Testing.	14
F-901.6.1 Standards.	16
F-1030.1 General.	17
Virginia Maintenance Code	Page Number
M-101.1 VMC Rewrite	19
Virginia Rehabilitation Code	Page Number
R-102.2 Scope.	49
R-301.1.2 Work area compliance method.	51
R-903.1 Existing shafts and vertical openings.	52
R-1012.7.2 Stairways.	53
DHCD Staff Base Documents for USBC and SFPC	
Available in cdpVA	--

(Agenda continued on next page)

Virginia Department of Fire Programs Fire Data	Page Number
Informational Only	54

2. Additional Discussion

3. Adjournment

CB-202 cdpVA-15

Proponent : Ronald Clements, Jr (clementsro@chesterfield.gov)

2012 Virginia Construction Code

SECTION 202 DEFINITIONS

AMBULATORY HEALTH CARE FACILITY.

Buildings or portions thereof used to provide *medical care* on less than a 24-hour basis that are licensed by the Virginia Department of Health as outpatient surgical hospitals.

CLINIC, OUTPATIENT.

Buildings or portions thereof used to provide *medical care* on less than a 24-hour basis ~~to persons who~~ that are not rendered *incapable of self-preservation* licensed by the ~~services provided.~~
Virginia Department of Health as outpatient surgical hospitals.

Reason: The IBC was amended to address medical care facilities that care for patients for less than 24 hours as group B occupancies. A distinction was made between facilities that render the patients incapable of self-preservation (Ambulatory Health Care Facility) and those where patients are not rendered incapable of self-preservation (Outpatient Clinic). Though both defined types of facilities are group B occupancies, ambulatory health care facilities require additional fire safety features. The two definitions are intended to be companion definitions in the IBC with the distinction being whether or not patients are rendered incapable of self-preservation. As part of the 2012 USBC code update the definition of ambulatory care facility was changed to: *Ambulatory Health Care Facility . Buildings or portions thereof that are licensed by the Virginia Department of Health as outpatient surgical hospitals.*

Based on review of the USBC code change proposals, the intent of the change from the IBC distinction was to prevent classification of dental and doctor's offices as ambulatory health care facilities. For example, under the IBC if an oral surgeon puts one patient at a time under sedation on the second floor of a 2 story office building then the building must be sprinklered.

The problem caused was the definition of outpatient clinic was not changed to have the same distinction so the definitions are no longer companions and have different distinctions. One is based on the type of licensed issued and the other is based on self-preservation capability. This code change will coordinate the two definitions based on the Virginia distinction based on VHD licensure.

Cost Impact: There is no cost impact this is making two related definitions consistent.

Workgroup 2:

Workgroup 2 Reason:

CB-202 cdpVA-15

CB-304.1.1 cdpVA-15

Proponent : William King, Representing DBHDS Ad-Hoc Group
(william.king@alexandriava.gov)

2012 Virginia Construction Code

304.1.1 Day support and day treatment facilities Day support and day treatment facilities licensed by Virginia Department of Behavioral Health & Development Services shall be classified as Group B occupancy when the following conditions are satisfied:

1. Participants who may require physical assistance from staff to respond to an emergency situation shall be located on the *level of exit discharge*.

Any change in elevation within the *exit access* on the *level of exit discharge* shall be made by means of a *ramp* or *sloped walkway*.

Reason: This proposal was created by a work-group including representatives from the Virginia Department of Behavioral Health & Development Services (DBHDS) to address concerns on classification that have arisen with the location of licensed Day Support and Day Treatment facilities. These facilities provide treatment for individuals within the community as opposed to larger centralized locations. This distributed network of facilities were established to make these resources more readily available to those that require them.

The attached .pdfs contain information on the use of the Day Support and Day Treatment facilities per their licensing and the checklist used by DBHDS for site visits.

Cost Impact: This proposal will not increase the cost of construction.

Workgroup 2:

Workgroup 2 Reason:

CB-304.1.1 cdpVA-15

CB-307.1 cdpVA-15

[F] 307.1

Proponent : William Dodson, Jr., DMD (wyzj001@gmail.com), representing the craft distillery industry

Co-Proponent: Ron Clements (ClementsRo@chesterfield.gov), representing Chesterfield County

2015 International Building Code

[F] 307.1 High-hazard Group H. High-hazard Group H occupancy includes, among others, the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed in *control areas* complying with Section 414, based on the maximum allowable quantity limits for *control areas* set forth in Tables 307.1(1) and 307.1(2). Hazardous occupancies are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this section, the requirements of Section 415 and the *International Fire Code*. Hazardous materials stored, or used on top of roofs or canopies, shall be classified as outdoor storage or use and shall comply with the *International Fire Code*.

[F] 307.1.1 Uses other than Group H. An occupancy that stores, uses or handles hazardous materials as described in one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the International Fire Code.
2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the International Fire Code.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers constructed in accordance with Section 707 or 1-hour horizontal assemblies constructed in accordance with Section 711, or both.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.

7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterruptable power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and ventilation is provided in accordance with the International Mechanical Code.
10. Corrosive personal or household products in their original packaging used in retail display.
11. Commonly used corrosive building materials.
12. Buildings and structures occupied for aerosol storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the International Fire Code.
13. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with Section 414.2.5.
14. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the International Fire Code.
15. The storage of distilled spirits and wines in wooden barrels and casks. Distillation, blending, bottling, and other hazardous materials storage or processing, shall be in separate control areas complying with Section 414.2.

(Changes to Table 307.1 as shown below to add new footnote "r")

MATERIAL	USE-OPEN SYSTEMS^b	
	Solid pounds (cubic feet)	Liquid gallons (pounds)
Flammable liquid, combination (IA, IB, IC)	NA	30 ^{d, h, r}

r. The tabular value for distilled spirit distillation and blending rooms is 120 gallons.

Reason: Craft distillery operations in the State of Virginia are still hindered even after passage of

the recent Virginia Bill allowing distilleries on farms. The 'allowance' on farmland does not also grant distilleries 'ag by right' status and therefore the distilleries are still held to 'high hazard' building and fire codes. These codes state a maximum of 4 rooms with a maximum allowable capacity of 120 gallons per room of spirits per facility, and a maximum of 30gals open on the floor at any time for processing. This is the equivalent of 2 barrels of spirits per room, each room with a minimum 1hr firewall and door. The door alone is over \$1000. This is not economically feasible for a profitable operation. There are some exceptions.

Exception 1, the capacity can be expanded to 240 gallons per room if a sprinkler system is installed. Again, there is not usually access to high pressure public water on a farm, therefore the code requires a 400,000 (?) gallon reservoir tank, a special type of expensive pressure pump, and an expensive high reliability generator to install a sprinkler system. Again, this is not economically feasible and is not seen elsewhere in the industry outside of Virginia.

Exception 2, code allows for storage of up to 1500 gallons in containers over 1.3 gallon containers if the product is ready for sale. Since Distillers often trade/sell casks to other distilleries, this exception is applied to wood barrels (i.e. 5 to 55gal) to get 'aging' space by craft distillers. Still, 1500 gallons is not enough to operate a profitable distillery and is not the method seen elsewhere in the country.

In some distilleries, this is not a problem. They do not need barrels to store or age their product (i.e. Rum, Vodka, Gin). These can be produced under the 120gal/240gal requirements and immediately bottled. Bottled spirits in containers less than 1.3 gallons are exempt from code. There does not seem to be a problem processing clear spirits. But clear spirits are not the history of Virginia, the father of Bourbon and Moonshine was invented here in Virginia, along the James River. The first truly American whiskey was born in Virginia when Corn (Indian Maise) was added to British Ale and then distilled. The history of of American Bourbon, the spirit that is quickly becoming a world phenomenon was born here. So why then can't we make it here? Why can't we birth craft distilleries in the land where it started? Cost. The only economical method is to find an older building that can meet a 4 hour fire code and that has sprinklers. New building construction seems cost prohibitive for this application as the aging process can take 1 to 18 years with around half the product being lost to the 'angels share'.

Solutions to allow distilleries to operate on farms?

1. Allow for ag by right for distilleries for all parts of the operation except for the distillation process. Most of the industry will agree that the distillation part of the process needs to be controlled. If controlled, allow exception to 120 gals in the control area instead of the current 30 gals.
2. Allow for barrel storage to be exempt under the Virginia Construction Code, as it is already allowed under the Virginia Statewide Fire Prevention Code section 5001.1 exception #10. This would again keep the distillation part of the process controlled. This might be further specified that the barrels not be stored in the processing (distillation) room.
3. Expanding the 120gal/240gal per room and 30gals open rules would also allow for ease of operation, possibly to 120 gals in the processing room with 120 gals allowed open for processing (instead of 30 gallons) and allow the other 3 control rooms to expand to 480 gals/room to allow for improved blending of batches. Again allowing for barrels to be exempt when stored in a room other than the processing room.

Cost Impact: This code change will reduce the cost of construction for small craft distilleries by raising the thresholds that require fire rated construction to create control areas and the threshold that requires sprinkler system installation.

Workgroup 2:

Workgroup 2 Reason:

CB-901.3 cdpVA-15

Proponent : William Andrews (william.andrews@richmondgov.com)

2015 International Building Code

901.3 Modifications. Persons shall not remove or modify any *fire protection system* installed or maintained under the provisions of this code or the *International Fire Code* without approval by the *building official*. The building official shall notify the local fire official when approving installing, disabling, or removing a fire protection system.

Reason: Fire officials are responsible for applying the fire code on maintenance and periodic testing of the fire protection systems, plus local fire officials coordinate emergency responses to sites (including state). Local fire officials need to learn when a building official approve installing, disabling or removing fire alarms, sprinkler system, and other fire protection systems (including for renovation or demolition). The building official is the best source for properly authorizing substantial changes to fire protection systems, thus to notify local fire official. If code leaves responsibility on contractor and property owners, often their getting permits from the building official consider comply with code, resulting in fire official not notified. State and local building officials need to keep local fire official updated when approving substantial changes of fire protection systems within that fire official's emergency response area.

Cost Impact: No cost impact for construction. Minimal time and effort by building official's office to communicate information to the fire official.

Workgroup 2 Recommendation: None

Workgroup 2 Reason:

Workgroup 1 Recommendation: Pending

Workgroup 1 Reason: Needs work. Proponent to come back with revised language based on workgroup feedback.

CB-901.3 cdpVA-15

CB-905.2(1) cdpVA-15

Proponent : William Andrews (william.andrews@richmondgov.com)

2015 International Building Code

[F] 905.2 Installation standard. Standpipe systems shall be installed in accordance with this section and NFPA 14. Pressure reducing valve settings shall be as approved by the local fire official. Fire department connections for standpipe systems shall be in accordance with Section 912.

Reason: NFPA 14 requires pressure reducing valves where discharge pressure over 175 psi (typically on lower levels in high rise building). Fire hose is harder to handle with high pressure, and standpipe discharges using pressure reducing valves often in narrow and turning spaces of stairwells. Fire official should have say in standpipe discharge pressure which firefighters use.

Cost Impact: No cost impact on construction. Minimal added labor to learn and set pressure reducing valves per local fire official.

Workgroup 1 Recommendation: Consensus for Disapproval

Workgroup 1 Reason: No support from workgroup.

Workgroup 2:

Workgroup 2 Reason:

CB-905.2(1) cdpVA-15

CB-905.2(2) cdpVA-15

Proponent : Timothy Anderson (tma@chesasprink.com)

2012 Virginia Construction Code

[F] 905.2 Installation standard.

Standpipe systems shall be installed in accordance with this section and NFPA 14.

- **Exception:** ~~A Manual wet standpipe shall be permitted. The residual pressure of 100 psi for 2¹/₂ inch hose connection and 65 psi for 1¹/₂ inch hose connection is not required in~~ buildings equipped throughout with an automatic sprinkler system in accordance with Section [903.3.1.1](#) or [903.3.1.2](#) ~~and where the highest floor level is not more than 150 feet (45 720 mm) above the lowest level of fire department vehicle access.~~

SECTION [Add Section # Here] [Add Title Here]

Add new standard(s) as follows: 2015 IBC section 905.2, 903.3.1.1 & 903.3.1.2. 2010 NFPA-14 7.7.2, 7.7.3, 7.7.4 & A7.10.1.2

Reason: In 1996 the VCC adopted the amendment to allow the automatic supply of standpipe systems to be omitted from buildings under 150' which are equipped throughout with an automatic sprinkler system. This proposed amendment would allow the automatic supply for standpipe systems to be omitted in any building below 150' and equipped throughout with an automatic sprinkler system. This will allow the elimination of the need for pressure regulating, restricting or reducing hose valves or control valves providing an uninterrupted supply to the responders from the local fire department pumper trucks. The 150' limitation is the height where any local pumper truck should be capable of supplying the standpipe demand. The reason I did not include a 150' limitation is because NFPA 14 requires that the standpipe demand for a manual system be calculated back to the local pumper truck and the elevation that it can overcome is dependent on a significant number of variables which NFPA 14 requires to be considered in the calculation. These variables, pumper truck rating, water flow and pressure at the fire hydrant, elevation of the pumper truck and the design and number of standpipes in the system have a significant impact on the actual height that can be achieved.

Cost Impact: There are two cost impacts. The first would be that since the automatic water supply would only need to meet the demand of the automatic sprinkler system an automatic fire pump could be reduced in size or eliminated. The second would be that pressure discharge from a required automatic fire pump could be reduced which could in turn reduce or eliminate the need for pressure regulating hose valves and/or control valves. The reduction or elimination of an automatic fire pump would also reduce the cost of the electrical system and/or service

Workgroup 2:

Workgroup 2 Reason:

F-403.5 cdpVA-15

Proponent : William Andrews (william.andrews@richmondgov.com)

2015 International Fire Code

403.5 Group E occupancies. An *approved* fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. Group E occupancies shall comply with Sections 403.5.1 through 403.5.3. The fire official may regulate where more than five occupants under the age of 2 1/2 years old may occupy in parts of building not protected by an approved automatic sprinkler system.

Reason: Code considers children under the age of 2 1/2 years old to need assistance to escape. Some schools are having children under the age of 2 1/2 years old, who are children of the school's students or staff, in that school with their parent. Parts of older schools with such very young children lack the sprinkler systems of newer schools. The building code allows such very young children in existing schools. The fire official needs authority to regulate so these very young children who need assistance to escape are located where fast escape easily arranged. The building code requires a child daycare to limit these very young children to rooms with an exit directly to an exterior for quick egress, or have sprinkler protection. Code allows up to five children under 2 1/2 years old in many facilities, as a few adults can evacuate those youngsters. This change does not empower the fire official to require building feature changes, such as installing an exit or sprinklers where not existing. The code requires school to have a fire safety and evacuation plan which is approved by the fire official. This change clarifies fire official's authority to regulate where over five children under 2 1/2 years old may occupy within unsprinklered areas of older schools.

Cost Impact: No impact on cost of construction, nor require cost to modify building features. Merely regulates activities inside school.

Workgroup 1 Recommendation: Consensus for Disapproval

Workgroup 1 Reason: No support. Would fall under a change of use (I-4). Also, too far reaching and may extend beyond this scenario.

Workgroup 2:

Workgroup 2 Reason:

F-403.5 cdpVA-15

F-505.3 cdpVA-15

F-505.3 (New)

Proponent : William Andrews (william.andrews@richmondgov.com)

2015 International Fire Code

505.3 Address usage Only an officially approved address shall be used to identify that site. Exception: Mailing address may be to a post office box, and to another approved address.

Reason: Using different addresses confuses records and in an emergency can have serious consequences. Some sites may have the main and some alternate approved addresses. This change intends to stop use of addresses other than as approved, which confuse on accurately locating site. Beyond merely posting a correct address number, customers should not post other addresses, nor use different addresses which result in confusion on site location. Exception allows mail to post office box, or to another approved address.

Records such as Certificate of Occupancy from building official, enhanced 911 for land line phone locations, and underground storage tanks are examples of need for proper address.

Cost Impact: No cost impact on construction. Customers using unofficial addresses may incur cost to change letterhead, web site data, and some records.

Workgroup 1 Recommendation: Consensus for Disapproval

Workgroup 1 Reason: No support. Not a code issue.

Workgroup 2:

Workgroup 2 Reason:

F-505.3 cdpVA-15

F-703.4 cdpVA-15

F-703.4

Proponent : Justin Biller, Representing Self (jbbiller@carilionclinic.org)

2012 Virginia Statewide Fire Prevention Code

703.4 Testing.

~~Horizontal and vertical sliding and rolling fire~~ Fire doors shall be inspected and functionally tested in accordance with NFPA 80 annually to confirm proper operation and full closure. Before testing, a visual inspection shall be performed to identify any damaged or missing parts that can create a hazard during testing or affect operation or resetting. A written record shall be maintained and be available to the *fire code official*.

Reason: In particular, Health Care Facilities in Virginia are facing enforcement of this requirement as part of ongoing licensure/funding through State enforcement of NFPA 101, *Life Safety Code*, so it is also important that these requirements are consistent with local fire prevention code enforcement as well throughout the Commonwealth. The 2012 ICC Fire Code Commentary implies that inspection is occurring in accordance with NFPA 80 and specific additional points of inspection are highlighted in section 703.2.2 and 703.2.3 in line with specific NFPA 80 requirements.

"Openings in fire-resistance-rated assemblies must be protected to prevent the passage of fire. After opening protectives are installed and approved, they may become damaged, corroded or otherwise less effective than required. This section specifically requires that all opening protectives required by the IBC be maintained in compliance with NFPA 80 so that they can perform their intended function, which is to prevent the passage of smoke, fire or combustion products through openings in fire-resistance-rated walls, ceilings and shafts during a fire emergency. Sections 703.2.2 and 703.2.3 indicate specific points of inspection and enforcement regarding these doors. ..."

The revised language in section 703.4 clarifies that the intent of 703.2 was for all fire doors (including swinging doors with fire door or builders hardware as designated by NFPA 80) to be inspected/tested in accordance with the provisions of NFPA 80. Prior to the 2007 edition of NFPA 80, the standard only required that fire doors and windows be inspected frequently. Requiring inspections "frequently" is not an enforceable provision. Building owners, fire door inspectors, and AHJs were unable to determine the intended frequency of the inspections. This language allowed for many fire doors to go un-inspected for too long, which risked their integrity and ability to properly protect the opening. For the 2007 edition of NFPA 80, the language was revised as part of new Chapter 5 and the required frequency for inspection of fire doors and windows was set at annually, and the assumption is that this has been enforced within the Commonwealth since the adoption of the 2009 Statewide Fire Prevention Code. Additional language is also provided to clarify the need for a visual inspection of the opening protective to be part of the functional testing required by this section, as prescribed in NFPA 80.

Cost Impact: This change is for clarification of requirements only with no impact to the cost of construction or ongoing operations and maintenance.

Workgroup 1 Recommendation: Pending

Workgroup 1 Reason: NFPA should remain. 2nd (added) sentence adds unnecessary language. Robby Dawson to reach out and work with proponent.

Workgroup 2:

Workgroup 2 Reason:

F-703.4 cdpVA-15

F-901.6.1 cdpVA-15

Proponent : William Andrews (william.andrews@richmondgov.com)

2015 International Fire Code

901.6.1 Standards. *Fire protection systems* shall be inspected, tested and maintained in accordance with the referenced standards *listed* in Table 901.6.1. Standpipe pressure reducing valves with adjustable setting shall be at pressure approved by fire official, as part of five year flow test.

Reason: NFPA 14 requires pressure reducing valves where discharge pressure over 175 psi (typically on lower levels in high rise building). Fire hose is harder to handle with high pressure, and standpipe discharges using pressure reducing valves often in narrow and turning spaces of stairwells. Fire official should have say in standpipe discharge pressure which firefighters use. NFPA 25 requires flow test standpipe discharges every five years, so easy time for adjustable pressure reducing valves to test at pressure per fire official.

Cost Impact: No construction cost impact. Minimal labor to learn pressure approved by local fire official and maybe adjust settings on existing devices when perform code required 5-year flow test.

Workgroup 1 Recommendation: Consensus for Disapproval

Workgroup 1 Reason: More of a local issue. No support.

Workgroup 2:

Workgroup 2 Reason:

F-901.6.1 cdpVA-15

F-1030 cdpVA-15

Proponent : William Andrews, Representing City of Richmond, Fire Marshal's office (william.andrews@richmondgov.com)

2015 International Fire Code

SECTION 1030 EMERGENCY ESCAPE AND RESCUE

1030 Windows

[BE] 1030.1 General. ~~In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue openings~~ Existing windows in Group R-2 occupancies in accordance with Tables 1006.3.2(1) and 1006.3.2(2) and Group R-3 occupancies. ~~Basements~~ basements and sleeping rooms below the fourth story above *grade plane* shall have ~~at least one exterior~~ be maintained to operate as installed, and serve as an emergency escape and rescue opening ~~in accordance with this section where designated by the fire official.~~ Existing windows above the third floor, or where inappropriate for occupants to open enough to get out may be arranged to open only a few inches, for emergency access to fresh air if trapped by fire. Where basements contain one or more sleeping rooms originally so arranged, ~~emergency escape and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such~~ such openings shall ~~open directly into a public way or to a yard or court that opens~~ allow escape to a public way.

Exceptions:

1. ~~Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.~~
2. ~~Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior exit balcony that opens to a public way.~~
3. ~~Basements without habitable spaces and having not more than 200 square feet (18.6 m²) in floor area shall not be required to have emergency escape and rescue openings.~~

[BE] 1030.2.1 Minimum dimensions. The minimum net clear opening height dimension ~~shall~~ should be 24 inches (610 mm). The minimum net clear opening width dimension ~~shall~~ should be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

[BE] 1030.3 Maximum height ~~Height from floor.~~ Height from floor. The fire official may order arrangements to allow escape from ~~Emergency~~ emergency escape and rescue openings shall have with the bottom of the clear opening ~~not~~ greater than 44 inches (1118 mm) measured from the interior floor or the exterior egress surface.

[BE] 1030.5 Window wells. An emergency escape and rescue opening with a finished sill height below the adjacent ground level shall be ~~provided with a window well~~

in accordance with Sections 1030.5.1 and 1030.5.2 maintained as approved by the building official.

~~**[BE] 1030.5.1 Minimum size.** The minimum horizontal area of the window well shall be 9 square feet (0.84 m²), with a minimum dimension of 36 inches (914 mm). The area of the window well shall allow the *emergency escape and rescue opening* to be fully opened.~~

~~**[BE] 1030.5.2 Ladders or steps.** Window wells with a vertical depth of more than 44 inches (1118 mm) shall be equipped with an *approved* permanently affixed ladder or steps. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the window well. The ladder or steps shall not encroach into the required dimensions of the window well by more than 6 inches (152 mm). The ladder or steps shall not be obstructed by the *emergency escape and rescue opening*. Ladders or steps required by this section are exempt from the *stairway* requirements of Section 1011.~~

Reason: The Virginia fire code cannot require more than the building code, thus wordage which requires physical features in addition to such is void within Virginia's Fire Prevention Code. Beyond use group R-2 and R-3, fire officials need authority to require good maintenance of windows originally installed able to open, and designate existing windows as as emergency escape, or access fresh air where escape unsafe. Section 1031.7 inadequately addresses this since in many cases the fire official has no records on which windows or openings are "required *emergency escape and rescue openings*" in effect at time of construction (many years ago).

Cost Impact: No impact on construction cost, since fire code only on maintenance of built features.

Workgroup 2:

Workgroup 2 Reason:

Workgroup 1 Recommendation: Consensus for Disapproval

Workgroup 1 Reason: No support. Contains retrofit requirements.

F-1030 cdpVA-15

M-101.1 cdpVA-15

Proponent : VMC Rewrite Committee

2012 Virginia Maintenance Code

101.1 VMC Rewrite - (see attached)

Reason: As requested by the Board of Housing and Community Development, DHCD staff undertook a review of the Virginia Maintenance Code (VMC) to remove unenforceable construction provisions printed within the code. Current codes work from having to rely upon administrative provisions in Chapter 1 to supersede provisions in the International Codes, which are incorporated into the state regulations, but different than, or outside of the scope of, or in conflict with provisions of Chapter 1. DHCD established a committee of stakeholders involved in and affected by the VMC to collaborate on and review the draft rewrites. This VMC rewrite represents consensus among those involved. The changes are essentially editorial as they are just removing the unenforceable provisions from the International Property Maintenance Code (IPMC) and rewording administrative provisions in the IPMC to be consistent with the Chapter 1 language. It was noted that if client groups wanted to make substantive changes to the VMC, those would be submitted separately through Virginia's code change process.

Cost Impact: The proposal does not increase costs associated with the code as the changes are primarily editorial in nature.

M-101.1 cdpVA-15

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
STATE BUILDING CODES OFFICE

2015 VIRGINIA MAINTENANCE CODE
DRAFT #4 – July 2015
(includes changes from all sub-workgroup meetings)

CHAPTER 1
ADMINISTRATION

SECTION 101
GENERAL

101.1 Short title. The Virginia Uniform Statewide Building Code, Part III, Maintenance, may be cited as the “Virginia Maintenance Code,” or as the “VMC.”

101.2 Incorporation by reference. Chapters 2 - 8 of the ~~2012~~ 2015 International Property Maintenance Code, published by the International Code Council, Inc., are adopted and incorporated by reference to be an enforceable part of the VMC. The term “IPMC” means the ~~2012~~ 2015 International Property Maintenance Code, published by the International Code Council, Inc. Any codes and standards referenced in the IPMC are also considered to be part of the incorporation by reference, except that such codes and standards are used only to the prescribed extent of each such reference.

101.3 Numbering system. A dual numbering system is used in the VMC to correlate the numbering system of the Virginia Administrative Code with the numbering system of the IPMC. IPMC numbering system designations are provided in the catchlines of the Virginia Administrative Code sections and cross references between sections or chapters of the Virginia Maintenance Code use only the IPMC numbering system designations. The term “chapter” is used in the context of the numbering system of the IPMC and may mean a chapter in the VMC, a chapter in the IPMC or a chapter in a referenced code or standard, depending on the context of the use of the term. The term “chapter” is not used to designate a chapter of the Virginia Administrative Code, unless clearly indicated.

101.4 Arrangement of code provisions. The VMC is comprised of the combination of (i) the provisions of Chapter 1, Administration, which are established herein, (ii) Chapters 2 - 8 of the IPMC, which are incorporated by reference in Section 101.2, and (iii) the changes to the text of the incorporated chapters of the IPMC which are specifically identified. The terminology “changes to the text of the incorporated chapters of the IPMC which are specifically identified” shall also be referred to as the “state amendments to the IPMC.” Such state amendments to the IPMC are set out using corresponding chapter and section numbers of the IPMC numbering system. ~~In addition, since Chapter 1 of the IPMC is not incorporated as part of the VMC, any reference to a provision of Chapter 1 of the IPMC in the provisions of Chapters 2 – 8 of the IPMC is generally invalid. However, where the purpose of such a reference would clearly correspond to a provision of Chapter 1 established herein, then the~~

~~reference may be construed to be a valid reference to such corresponding Chapter 1 provision.~~

101.5 Use of terminology and notes. The term “this code,” or “the code,” where used in the provisions of Chapter 1, in Chapters 2 - 8 of the IPMC, or in the state amendments to the IPMC, means the VMC, unless the context clearly indicates otherwise. The term “this code,” or “the code,” where used in a code or standard referenced in the IPMC, means that code or standard, unless the context clearly indicates otherwise. The term “USBC” where used in this code means the VCC unless the context clearly indicates otherwise. In addition, the use of notes in Chapter 1 is to provide information only and shall not be construed as changing the meaning of any code provision. Notes in the IPMC, in the codes and standards referenced in the IPMC, and in the state amendments to the IPMC, may modify the content of a related provision and shall be considered to be a valid part of the provision, unless the context clearly indicates otherwise.

101.6 Order of precedence. The provisions of this code shall be used as follows:

1. The provisions of Chapter 1 of this code supersede any provisions of Chapters 2 – 8 of the IPMC that address the same subject matter and impose differing requirements.
2. The provisions of Chapter 1 of this code supersede any provisions of the codes and standards referenced in the IPMC that address the same subject matter and impose differing requirements.
3. The state amendments to the IPMC supersede any provisions of Chapters 2 – 8 of the IPMC that address the same subject matter and impose differing requirements.
4. The state amendments to the IPMC supersede any provisions of the codes and standards referenced in the IPMC that address the same subject matter and impose differing requirements.
5. The provisions of Chapters 2 - 8 of the IPMC supersede any provisions of the codes and standards referenced in the IPMC that address the same subject matter and impose differing requirements.

101.7 Administrative provisions. The provisions of Chapter 1 establish administrative requirements, which include but are not

Comment [x3]: All references to Chapter 1 in the IPMC are deleted or changed so that there are no correlation issues; therefore, this administrative provision is no longer needed.

Comment [x1]: Updating the edition number.

Comment [x2]: Updating the edition number.

limited to provisions relating to the scope of the code, enforcement, fees, permits, inspections and disputes. Any provisions of Chapters 2-8 of the IPMC or any provisions of the codes and standards referenced in the IPMC which address the same subject matter to a lesser or greater extent are deleted and replaced by the provisions of Chapter 1. Further, any administrative requirements contained in the state amendments to the IPMC shall be given the same precedence as the provisions of Chapter 1. Notwithstanding the above, where administrative requirements of Chapters 2-8 of the IPMC or of the codes and standards referenced in the IPMC are specifically identified as valid administrative requirements in Chapter 1 of this code or in the state amendments to the IPMC, then such requirements are not deleted and replaced.

Note: The purpose of this provision is to eliminate overlap, conflicts and duplication by providing a single standard for administrative, procedural and enforcement requirements of this code.

101.8 101.7 Definitions. The definitions of terms used in this code are contained in Chapter 2 along with specific provisions addressing the use of definitions. Terms may be defined in other chapters or provisions of the code and such definitions are also valid.

Note: The order of precedence outlined in Section 101.6 may be determinative in establishing how to apply the definitions in the IPMC and in the referenced codes and standards.

SECTION 102 PURPOSE AND SCOPE

102.1 Purpose. In accordance with Section 36-103 of the Code of Virginia, the Virginia Board of Housing and Community Development may adopt and promulgate as part of the Virginia Uniform Statewide Building Code, building regulations that facilitate the maintenance, rehabilitation, development and reuse of existing buildings at the least possible cost to ensure the protection of the public health, safety and welfare. Further, in accordance with Section 36-99 of the Code of Virginia, the purpose of this code is to protect the health, safety and welfare of the residents of the Commonwealth of Virginia, provided that buildings and structures should be permitted to be maintained at the least possible cost consistent with recognized standards of health, safety, energy conservation and water conservation, including provisions necessary to prevent overcrowding, rodent or insect infestation, and garbage accumulation; and barrier-free provisions for the physically handicapped and aged.

102.2 Scope. In accordance with Section 36-98 of the Code of Virginia, the VMC shall supersede the building codes and regulations of the counties, municipalities and other political subdivisions and state agencies.

102.3 Exemptions. This code shall not regulate those buildings and structures specifically exempt from the VCC, except that existing industrialized buildings and manufactured homes shall not be exempt from this code.

SECTION 103 APPLICATION OF CODE

103.1 General. This code prescribes regulations for the maintenance of all existing buildings and structures and associated equipment, including regulations for unsafe buildings and structures.

103.2 Maintenance requirements. Buildings and structures. Required or provided building, electrical, plumbing, mechanical, fire protection and other components and systems shall be maintained and kept in good repair in accordance with the requirements of this code and when applicable in accordance with the USBC under which such building or structure was constructed. No provision of this code shall require alterations to be made to an existing building or structure or to equipment unless conditions are present which meet the definition of an unsafe structure or a structure unfit for human occupancy.

103.2.1 Maintenance of nonrequired components and systems. Nonrequired components and systems may be discontinued in use provided that no hazard results from such discontinuance of use.

103.2.1 103.2.2 Maintenance of nonrequired fire protection systems. Nonrequired fire protection systems shall be maintained to function as originally installed. If any such systems are to be reduced in function or discontinued, approval shall be obtained from the building official in accordance with Section 103.8.1 of the VCC.

103.3 Continued approval. Notwithstanding any provision of this code to the contrary, alterations shall not be required to be made to existing buildings or structures which are occupied in accordance with a certificate of occupancy issued under any edition of the USBC.

103.4 Rental Inspections. In accordance with Section 36-105.1:1 of the Code of Virginia, these provisions are applicable to rental inspection programs. For purposes of this section:

“Dwelling unit” means a building or structure or part thereof that is used for a home or residence by one or more persons who maintain a household.

“Owner” means the person shown on the current real estate assessment books or current real estate assessment records.

“Residential rental dwelling unit” means a dwelling unit that is leased or rented to one or more tenants. However, a dwelling unit occupied in part by the owner thereof shall not be construed to be a residential rental dwelling unit unless a tenant occupies a part of the dwelling unit that has its own cooking and sleeping areas, and a bathroom, unless otherwise provided in the zoning ordinance by the local governing body.

The local governing body may adopt an ordinance to inspect residential rental dwelling units for compliance with this code and to promote safe, decent and sanitary housing for its citizens, in accordance with the following:

1. Except as provided for in subdivision 3 of this subsection, the dwelling units shall be located in a rental inspection district established by the local governing body in accordance with this section; and
2. The rental inspection district is based upon a finding by the local governing body that (i) there is a need to protect the public health, safety and welfare of the occupants of dwelling units inside the designated rental inspection district; (ii) the residential rental dwelling units within the designated rental inspection district are either (a) blighted or

Comment [x7]: Changes recommended by VBCOA to clarify the application of the code to required and nonrequired components.

Comment [x4]: There is no need to differentiate between administrative provisions and technical provisions or to resolve conflicts as the text of the IPMC has been review and modified to be within the scope of the VMC.

Comment [x5]: Renumbering.

Comment [x6]: This note is no longer necessary due to the correlation of the provisions of the IPMC and the administrative provisions of the VMC.

in the process of deteriorating or (b) the residential rental dwelling units are in the need of inspection by the building department to prevent deterioration, taking into account the number, age and condition of residential dwelling rental units inside the proposed rental inspection district; and (iii) the inspection of residential rental dwelling units inside the proposed rental inspection district is necessary to maintain safe, decent and sanitary living conditions for tenants and other residents living in the proposed rental inspection district. Nothing in this section shall be construed to authorize one or more locality-wide rental inspection districts and a local governing body shall limit the boundaries of the proposed rental inspection districts to such areas of the locality that meet the criteria set out in this subsection; or

3. An individual residential rental dwelling unit outside of a designated rental inspection district is made subject to the rental inspection ordinance based upon a separate finding for each individual dwelling unit by the local governing body that (i) there is a need to protect the public health, welfare and safety of the occupants of that individual dwelling unit; (ii) the individual dwelling unit is either (a) blighted or (b) in the process of deteriorating; or (iii) there is evidence of violations of this code that affect the safe, decent and sanitary living conditions for tenants living in such individual dwelling unit.

For purposes of this section, the local governing body may designate a local government agency other than the building department to perform all or part of the duties contained in the enforcement authority granted to the building department by this section.

Before adopting a rental inspection ordinance and establishing a rental inspection district or an amendment to either, the governing body of the locality shall hold a public hearing on the proposed ordinance. Notice of the hearing shall be published once a week for two successive weeks in a newspaper published or having general circulation in the locality.

Upon adoption by the local governing body of a rental inspection ordinance, the building department shall make reasonable efforts to notify owners of residential rental dwelling units in the designated rental inspection district, or their designated managing agents, and to any individual dwelling units subject to the rental inspection ordinance, not located in a rental inspection district, of the adoption of such ordinance, and provide information and an explanation of the rental inspection ordinance and the responsibilities of the owner thereunder.

The rental inspection ordinance may include a provision that requires the owners of dwelling units in a rental inspection district to notify the building department in writing if the dwelling unit of the owner is used for residential rental purposes. The building department may develop a form for such purposes. The rental inspection ordinance shall not include a registration requirement or a fee of any kind associated with the written notification pursuant to this subdivision. A rental inspection ordinance may not require that the written notification from the owner of a dwelling unit subject to a rental inspection ordinance be provided to the building department in less than 60 days after the adoption of a rental inspection ordinance. However, there shall be no penalty for the failure of an owner of a

residential rental dwelling unit to comply with the provisions of this subsection, unless and until the building department provides personal or written notice to the property owner, as provided in this section. In any event, the sole penalty for the willful failure of an owner of a dwelling unit who is using the dwelling unit for residential rental purposes to comply with the written notification requirement shall be a civil penalty of up to \$50. For purposes of this subsection, notice sent by regular first-class mail to the last known address of the owner as shown on the current real estate tax assessment books or current real estate tax assessment records shall be deemed compliance with this requirement.

Upon establishment of a rental inspection district in accordance with this section, the building department may, in conjunction with the written notifications as provided for above, proceed to inspect dwelling units in the designated rental inspection district to determine if the dwelling units are being used as a residential rental property and for compliance with the provisions of this code that affect the safe, decent and sanitary living conditions for the tenants of such property.

If a multifamily development has more than 10 dwelling units, in the initial and periodic inspections, the building department shall inspect only a sampling of dwelling units, of not less than two and not more than 10% of the dwelling units, of a multifamily development, that includes all of the multifamily buildings that are part of that multifamily development. In no event, however, shall the building department charge a fee authorized by this section for inspection of more than 10 dwelling units. If the building department determines upon inspection of the sampling of dwelling units that there are violations of this code that affect the safe, decent and sanitary living conditions for the tenants of such multifamily development, the building department may inspect as many dwelling units as necessary to enforce these provisions, in which case, the fee shall be based upon a charge per dwelling unit inspected, as otherwise provided in the fee schedule established pursuant to this section.

Upon the initial or periodic inspection of a residential rental dwelling unit subject to a rental inspection ordinance, the building department has the authority under these provisions to require the owner of the dwelling unit to submit to such follow-up inspections of the dwelling unit as the building department deems necessary, until such time as the dwelling unit is brought into compliance with the provisions of this code that affect the safe, decent and sanitary living conditions for the tenants.

Except as provided for above, following the initial inspection of a residential rental dwelling unit subject to a rental inspection ordinance, the building department may inspect any residential rental dwelling unit in a rental inspection district, that is not otherwise exempted in accordance with this section, no more than once each calendar year.

Upon the initial or periodic inspection of a residential rental dwelling unit subject to a rental inspection ordinance for compliance with these provisions, provided that there are no violations of this code that affect the safe, decent and sanitary living conditions for the tenants of such residential rental dwelling unit, the building department shall provide, to the owner of such residential rental dwelling unit, an exemption from the rental inspection ordinance for a minimum of four years. Upon the sale of a residential rental dwelling unit, the building department may perform a periodic inspection as provided above, subsequent to such sale. If a residential rental dwelling unit has been issued a certificate of occupancy within the

last four years, an exemption shall be granted for a minimum period of four years from the date of the issuance of the certificate of occupancy by the building department. If the residential rental dwelling unit becomes in violation of this code during the exemption period, the building department may revoke the exemption previously granted under this section.

A local governing body may establish a fee schedule for enforcement of these provisions, which includes a per dwelling unit fee for the initial inspections, follow-up inspections and periodic inspections under this section.

The provisions of this section shall not in any way alter the rights and obligations of landlords and tenants pursuant to the applicable provisions of Chapter 13 (Section 55-217 et seq.) or Chapter 13.2 (Section 55-248.2 et seq.) of Title 55 of the Code of Virginia.

The provisions of this section shall not alter the duties or responsibilities of the local building department under Section 36-105 of the Code of Virginia to enforce the USBC.

Unless otherwise provided for in Section 36-105.1:1 of the Code of Virginia, penalties for violation of this section shall be the same as the penalties provided for violations of other sections of the USBC.

SECTION 104 ENFORCEMENT, GENERALLY

104.1 Scope of enforcement. This section establishes the requirements for enforcement of this code in accordance with Section 36-105 of the Code of Virginia. The local governing body may also inspect and enforce the provisions of the USBC for existing buildings and structures, whether occupied or not. Such inspection and enforcement shall be carried out by an agency or department designated by the local governing body.

If the local building department receives a complaint that a violation of this code exists that is an immediate and imminent threat to the health or safety of the owner, tenant, or occupants of any building or structure, or the owner, occupant, or tenant of any nearby building or structure, and the owner, occupant, or tenant of the building or structure that is the subject of the complaint has refused to allow the code official or his agent to have access to the subject building or structure, the code official or his agent may present sworn testimony to make an affidavit under oath before a magistrate or court of competent jurisdiction and request that the magistrate or court grant the code official or his agent an inspection warrant to enable the code official or his agent to enter the subject building or structure for the purpose of determining whether violations of this code exist. After issuing a warrant under this section, the magistrate or judge shall file the affidavit in the manner prescribed by Section 19.2-54 of the Code of Virginia. After executing the warrant, the code official or his agents shall return the warrant to the clerk of the circuit court of the city or county wherein the inspection was made. The code official or his agent shall make a reasonable effort to obtain consent from the owner, occupant, or tenant of the subject building or structure prior to seeking the issuance of an inspection warrant under this section.

Note: Generally, official action must be taken by the local government to enforce the VMC. Consultation with the legal counsel of the jurisdiction when initiating or changing such action is advised.

104.1.1 Transfer of ownership. In accordance with Section 36-105 of the Code of Virginia, if the local building department has initiated an enforcement action against the owner of a building or structure and such owner subsequently transfers the ownership of the building or structure to an entity in which the owner holds an ownership interest greater than 50%, the pending enforcement action shall continue to be enforced against the owner.

104.2 Fees. In accordance with Section 36-105 of the Code of Virginia, fees may be levied by the local governing body in order to defray the cost of enforcement and appeals.

104.3 State buildings. In accordance with Section 36-98.1 of the Code of Virginia, this code shall be applicable to state-owned buildings and structures. Acting through the Division of Engineering and Buildings, the Department of General Services shall function as the building official for state-owned buildings.

104.3.1 Certification of state enforcement personnel. State enforcement personnel shall comply with the applicable certification requirements of Sections 104.4.2 through 104.4.4 and 104.4.3 for certification, periodic maintenance training, and continuing education.

104.4 Local enforcing agency. In jurisdictions enforcing this code, the local governing body shall designate the agency within the local government responsible for such enforcement and appoint a code official. The local governing body may also utilize technical assistants to assist the code official in the enforcement of this code. A permanently appointed code 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. DHCD shall be notified by the appointing authority within 30 days of the appointment or release of a permanent or acting code official and within 60 days after retaining or terminating a technical assistant.

Note: Code officials and technical assistants are subject to sanctions in accordance with the VCS.

104.4.1 Qualifications of code official and technical assistants. The code official shall have at least five years of building experience as a licensed professional engineer or architect, building, fire or trade inspector, contractor, housing inspector or superintendent of building, fire or trade construction or at least five years of building 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 code official shall have general knowledge of sound engineering practice in respect to the design and construction of structures, the basic principles of fire prevention, 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.

A technical assistant shall have at least three years of experience and general knowledge in at least one of the following areas: building construction, building, fire or housing inspections, plumbing, electrical or mechanical trades, fire protection, elevators or property maintenance work. Any

Comment [x9]: Changes to correlate with the moving of the code change training and continuing education requirements to the Virginia Certification Standards.

Comment [x8]: These changes reflect changes in the law that is the basis for this section.

combination of education and experience which would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The locality may establish additional certification requirements.

104.4.2 Certification of code official and technical assistants. An acting or permanent code official shall be certified obtain an active certification as a code official in accordance with the VCS within one year after being appointed as acting or permanent code official. A technical assistant shall be certified obtain an active certification in accordance with the VCS in the appropriate subject area within 18 months after becoming a technical assistant. When required by a locality to have two or more active certifications under the VCS, a technical assistant shall obtain the additional certifications within three years from the date of such requirement.

Exception: A code official or technical assistant in place prior to April 1, 1995, shall not be required to meet the certification requirements in this section while continuing to serve in the same capacity in the same locality.

104.4.3 Noncertified code official. Except for a code official exempt from certification under the exception to Section 104.4.2, any acting or permanent code official who is does not certified possess an active certification as a code official in accordance with the VCS 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 104.4.2.

~~**104.4.4 Requirements for periodic maintenance training and education.** Code officials and technical assistants shall attend periodic maintenance training as designated by DHCD. In addition to the periodic maintenance training required above, code officials and technical assistants shall attend 16 hours of continuing education every two years as approved by DHCD. If a code official or technical assistant possesses more than one BHCD certificate, the 16 hours shall satisfy the continuing education requirement for all BHCD certificates.~~

104.4.5 104.4.4 Conflict of interest. The standards of conduct for code officials and technical assistants shall be in accordance with the provisions of the State and Local Government Conflict of Interests Act, Chapter 31 (Section 2.2-3100 et seq.) of Title 2.2 of the Code of Virginia.

~~**104.4.6 104.4.5 Records.** The local enforcing agency shall retain a record of applications received, permits, certificates, notices and orders issued, fees collected and reports of inspections in accordance with The Library of Virginia's General Schedule Number Six.~~

104.5 Powers and duties, generally. The code official shall enforce this code as set out herein and as interpreted by the State Review Board and shall issue all necessary notices or orders to ensure compliance with the code.

104.5.1 Delegation of authority. The code official may delegate powers and duties except where such authority is limited by the local government. When such delegations are made, the code

official shall be responsible for assuring that they are carried out in accordance with the provisions of this code.

104.5.2 Issuance of modifications. Upon written application by an owner or an owner's agent, the code official may approve a modification of any provision of this code provided the spirit and intent of the code are observed and public health, welfare and safety are assured. The decision of the code official concerning a modification shall be made in writing and the application for a modification and the decision of the code official concerning such modification shall be retained in the permanent records of the local enforcing agency.

104.5.2.1 Substantiation of modification. The code official may require or may consider a statement from a professional engineer, architect or other person competent in the subject area of the application as to the equivalency of the proposed modification.

104.5.3 Inspections. The code official may inspect buildings or structures to determine compliance with this code and shall carry proper credentials when performing such inspections. The code official is authorized to engage such expert opinion as deemed necessary to report upon unusual, detailed, or complex technical issues in accordance with local policies.

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

104.5.3.2 Approved inspection agencies and individuals. The code official may accept reports of inspections or tests from individuals or inspection agencies approved in accordance with the code official's written policy required by Section 104.5.3.3. The individual or inspection agency shall meet the qualifications and reliability requirements established by the written policy. Reports of inspections by approved individuals or agencies shall be in writing, shall indicate if compliance with the applicable provisions of this code have been met, and shall be certified by the individual inspector or by the responsible officer when the report is from an agency. The code official shall review and approve the report unless there is cause to reject it. Failure to approve a report shall be in writing within five working days of receiving it, stating the reasons for rejection.

104.5.3.3 Third-party inspectors. Each code official charged with the enforcement of this code and who accepts third-party reports shall have a written policy establishing the minimum acceptable qualifications for third-party inspectors. The policy shall include the format and time frame required for submission of reports, any prequalification or preapproval requirements before conducting a third-party inspection and any other requirements and procedures established by the code official.

104.5.3.4 Qualifications. In determining third-party qualifications, the code official may consider such items as

Comment [x10]: Changes necessary to correlate with the Virginia Certification Standards.

Comment [x11]: Renumbering.

Comment [x12]: Renumbering.

DHCD inspector certification, other state or national certifications, state professional registrations, related experience, education, and any other factors that would demonstrate competency and reliability to conduct inspections.

104.5.4 Notices, reports and orders. Upon findings by the code official that violations of this code exist, the code official shall issue a correction notice or notice of violation to the owner or the person responsible for the maintenance of the structure. Work done to correct violations of this code subject to the permit, inspection and approval provisions of the VCC shall not be construed as authorization to extend the time limits established for compliance with this code.

104.5.4.1 Correction notice. The correction notice shall be a written notice of the defective conditions. The correction notice shall require correction of the violation or violations within a reasonable time unless an emergency condition exists as provided under the unsafe building provisions of Section 105. Upon request, the correction notice shall reference the code section that serves as the basis for the defects and shall state that such defects shall be corrected and reinspected in a reasonable time designated by the code official.

104.5.4.2 Notice of violation. If the code official determines there are violations of this code other than those for unsafe structures, unsafe equipment or structures unfit for human occupancy under Section 105, the code official may issue a notice of violation to be communicated promptly in writing to the owner or the person responsible for the maintenance or use of the building or structure in lieu of a correction notice as provided for in Section 104.5.4.1. In addition, the code official shall issue a notice of violation for any uncorrected violation remaining from a correction notice established in Section 104.5.4.1. A notice of violation shall be issued by the code official before initiating legal proceedings unless the conditions violate the unsafe building conditions of Section 105 and the provisions established therein are followed. The code official shall provide the section numbers to the owner for any code provision cited in the notice of violation. The notice shall require correction of the violation or violations within a reasonable time unless an emergency condition exists as provided under the building provisions of Section 105. The owner or person to whom the notice of violation has been issued shall be responsible for contacting the code official within the time frame established for any reinspections to assure the violations have been corrected. The code official will be responsible for making such inspection and verifying the violations have been corrected. In addition, the notice of violation shall indicate the right of appeal by referencing the appeals section of this code.

104.5.5 Coordination of inspections. The code official shall coordinate inspections and administrative orders with any other state or local agencies having related inspection authority and shall coordinate those inspections required by the Virginia Statewide Fire Prevention Code (13VAC5-51) for maintenance of fire protection devices, equipment and assemblies so that the owners and occupants will not be subjected to numerous inspections or conflicting orders.

Note: The Fire Prevention Code requires the fire official to coordinate such inspections with the code official.

104.5.6 Further action when violation not corrected. If the responsible party has not complied with the notice of violation, the code official shall submit a written request to the legal counsel of the locality to institute the appropriate legal proceedings to restrain, correct or abate the violation or to require the removal or termination of the use of the building or structure involved. In cases where the locality so authorizes, the code official may issue or obtain a summons or warrant.

104.5.7 Penalties and abatement. Penalties for violations of this code shall be as set out in Section 36-106 of the Code of Virginia. The successful prosecution of a violation of the code shall not preclude the institution of appropriate legal action to require correction or abatement of a violation.

SECTION 105 UNSAFE STRUCTURES OR STRUCTURES UNFIT FOR HUMAN OCCUPANCY

105.1 General. This section shall apply to existing structures which are classified as unsafe or unfit for human occupancy. All conditions causing such structures to be classified as unsafe or unfit for human occupancy shall be remedied or as an alternative to correcting such conditions, the structure may be vacated and secured against public entry or razed and removed. Vacant and secured structures shall still be subject to other applicable requirements of this code. Notwithstanding the above, when the code official determines that an unsafe structure or a structure unfit for human occupancy constitutes such a hazard that it should be razed or removed, then the code official shall be permitted to order the demolition of such structures in accordance with applicable requirements of this code.

Note: Structures which become unsafe during construction are regulated under the VCC.

105.2 Inspection of unsafe or unfit structures. The code official shall inspect any structure reported or discovered as unsafe or unfit for human habitation and shall prepare a report to be filed in the records of the local enforcing agency and a copy issued to the owner. The report shall include the use of the structure and a description of the nature and extent of any conditions found.

105.3 Unsafe conditions not related to maintenance. When the code official finds a condition that constitutes a serious and dangerous hazard to life or health in a structure constructed prior to the initial edition of the USBC and when that condition is of a cause other than improper maintenance or failure to comply with state or local building codes that were in effect when the structure was constructed, then the code official shall be permitted to order those minimum changes to the design or construction of the structure to remedy the condition.

105.3.1 Limitation to requirements for retrofitting. In accordance with Section 103.2, this code does not generally provide for requiring the retrofitting of any structure. However, conditions may exist in structures constructed prior to the initial edition of the USBC because of faulty design or equipment that constitute a danger to life or health or a serious hazard. Any changes to the design or construction required by the code official under this section shall be only to remedy the serious

hazard or danger to life or health and such changes shall not be required to fully comply with the requirements of the VCC applicable to newly constructed buildings or structures.

105.4 Notice of unsafe structure or structure unfit for human occupancy. When a structure is determined to be unsafe or unfit for human occupancy by the code official, a written notice of unsafe structure or structure unfit for human occupancy shall be issued by personal service to the owner, the owner's agent or the person in control of such structure. The notice shall specify the corrections necessary to comply with this code, or if the structure is required to be demolished, the notice shall specify the time period within which the demolition must occur. Requirements in Section 104.5.4 for notices of violation are also applicable to notices issued under this section to the extent that any such requirements are not in conflict with the requirements of this section.

Note: Whenever possible, the notice should also be given to any tenants of the affected structure.

105.4.1 Vacating unsafe structure. If the code official determines there is actual and immediate danger to the occupants or public, or when life is endangered by the occupancy of an unsafe structure, the code official shall be authorized to order the occupants to immediately vacate the unsafe structure. When an unsafe structure is ordered to be vacated, the code official shall post a notice with the following wording at each entrance: "THIS STRUCTURE IS UNSAFE AND ITS OCCUPANCY (OR USE) IS PROHIBITED BY THE CODE OFFICIAL." After posting, occupancy or use of the unsafe structure shall be prohibited except when authorized to enter to conduct inspections, make required repairs or as necessary to demolish the structure.

105.5 Posting of notice. If the notice is unable to be issued by personal service as required by Section 105.4, then the notice shall be sent by registered or certified mail to the last known address of the responsible party and a copy of the notice shall be posted in a conspicuous place on the premises.

105.6 Posting of placard. In the case of a structure unfit for human habitation, at the time the notice is issued, a placard with the following wording shall be posted at the entrance to the structure: "THIS STRUCTURE IS UNFIT FOR HABITATION AND ITS USE OR OCCUPANCY HAS BEEN PROHIBITED BY THE CODE OFFICIAL." In the case of an unsafe structure, if the notice is not complied with, a placard with the above wording shall be posted at the entrance to the structure. After a structure is placarded, entering the structure shall be prohibited except as authorized by the code official to make inspections, to perform required repairs or to demolish the structure. In addition, the placard shall not be removed until the structure is determined by the code official to be safe to occupy, nor shall the placard be defaced.

105.7 Revocation of certificate of occupancy. If a notice of unsafe structure or structure unfit for human habitation is not complied with within the time period stipulated on the notice, the code official shall be permitted to request the local building department to revoke the certificate of occupancy issued under the VCC.

105.8 Vacant and open structures. When an unsafe structure or a structure unfit for human habitation is open for public entry at the time a placard is issued under Section 105.6, the code official shall be permitted to authorize the necessary work to make such structure

secure against public entry whether or not legal action to compel compliance has been instituted.

105.9 Emergency repairs and demolition. To the extent permitted by the locality, the code official may authorize emergency repairs to unsafe structures or structures unfit for human habitation when it is determined that there is an immediate danger of any portion of the unsafe structure or structure unfit for human habitation collapsing or falling and when life is endangered. Emergency repairs may also be authorized where there is a code violation resulting in the immediate serious and imminent threat to the life and safety of the occupants. The code official shall be permitted to authorize the necessary work to make the structure temporarily safe whether or not legal action to compel compliance has been instituted. In addition, whenever an owner of an unsafe structure or structure unfit for human habitation fails to comply with a notice to demolish issued under Section 105.4 in the time period stipulated, the code official shall be permitted to cause the structure to be demolished. In accordance with Sections 15.2-906 and 15.2-1115 of the Code of Virginia, the legal counsel of the locality may be requested to institute appropriate action against the property owner to recover the costs associated with any such emergency repairs or demolition and every such charge that remains unpaid shall constitute a lien against the property on which the emergency repairs or demolition were made and shall be enforceable in the same manner as provided in Articles 3 (Section [58.1-3490](#) [58.1-3940](#) et seq.) and 4 (Section 58.1-3965 et seq.) of Chapter 39 of Title 58.1 of the Code of Virginia.

Note: Code officials and local governing bodies should be aware that other statutes and court decisions may impact on matters relating to demolition, in particular whether newspaper publication is required if the owner cannot be located and whether the demolition order must be delayed until the owner has been given the opportunity for a hearing. In addition, historic building demolition may be prevented by authority granted to local historic review boards in accordance with Section 15.2-2306 of the Code of Virginia unless determined necessary by the code official.

105.10 Closing of streets. When necessary for public safety, the code official shall be permitted to order the temporary closing of sidewalks, streets, public ways or premises adjacent to unsafe or unfit structures and prohibit the use of such spaces.

SECTION 106 APPEALS

106.1 Establishment of appeals board. In accordance with Section 36-105 of the Code of Virginia, there shall be established within each local enforcing agency a LBBCA. Whenever a county or a municipality does not have such a LBBCA, the local governing body shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by DHCD for such appeals resulting therefrom. Fees may be levied by the local governing body in order to defray the cost of such appeals. The LBBCA for hearing appeals under the VCC shall be permitted to serve as the appeals board required by this section. The locality is responsible for maintaining a duly constituted LBBCA prepared to hear appeals within the time limits established in this section. The LBBCA shall meet as necessary to assure a duly constituted board, appoint officers as necessary, and receive such training on the code as may be appropriate or necessary from staff of the locality.

Comment [x13]: Correction of an error in the 2012 edition.

106.2 Membership of board. The LBBCA shall consist of at least five members appointed by the locality for a specific term 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 locality. 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.

106.3 Officers and qualifications of members. The LBBCA shall annually select one of its regular members to serve as chairman. When the chairman is not present at an appeal hearing, the members present shall select an acting chairman. The locality or the chief executive officer of the locality shall appoint a secretary to the LBBCA to maintain a detailed record of all proceedings. Members of the LBBCA shall be selected by the locality on the basis of their ability to render fair and competent decisions regarding application of the USBC and shall to the extent possible, represent different occupational or professional fields relating to the construction industry. At least one member should be an experienced builder; at least one member should be an RDP, and at least one member should be an experienced property manager. Employees or officials of the locality shall not serve as members of the LBBCA.

106.4 Conduct of members. No member shall hear an appeal in which that member has a conflict of interest in accordance with the State and Local Government Conflict of Interests Act (Section 2.2-3100 et seq. of the Code of Virginia). Members shall not discuss the substance of an appeal with any other party or their representatives prior to any hearings.

106.5 Right of appeal; filing of appeal application. Any person aggrieved by the local enforcing agency's application of this code or the refusal to grant a modification to the provisions of this code may appeal to the LBBCA. The applicant shall submit a written request for appeal to the LBBCA within 14 calendar days of the receipt of the decision being appealed. The application shall contain the name and address of the owner of the building or structure and, in addition, the name and address of the person appealing, when the applicant is not the owner. A copy of the code official's decision shall be submitted along with the application for appeal and maintained as part of the record. The application shall be marked by the LBBCA to indicate the date received. Failure to submit an application for appeal within the time limit established by this section shall constitute acceptance of a code official's decision.

106.6 Meetings and postponements. The LBBCA shall meet within 30 calendar days after the date of receipt of the application for appeal, except that a period of up to 45 calendar days shall be permitted where the LBBCA has regularly scheduled monthly meetings. A longer time period shall be permitted if agreed to by all the parties involved in the appeal. A 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, except that a lesser time period shall be permitted if agreed to by all the parties involved in the appeal. When a quorum of the LBBCA is not present at a hearing to hear an appeal, any party involved in the appeal shall have the right to request a postponement of the hearing. The LBBCA shall reschedule the appeal within 30 calendar days of the postponement, except that a longer time period shall be permitted if agreed to by all the parties involved in the appeal.

106.7 Hearings and decision. All hearings before the LBBCA shall be open meetings and the appellant, the appellant's representative, the locality's representative and any person whose interests are affected by the code official's decision in question 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. The LBBCA shall have the power to uphold, reverse or modify the decision of the official by a concurring vote of a majority of those present. Decisions of the LBBCA shall be final if no further appeal is made. The decision of the LBBCA shall be by resolution signed by the chairman and retained as part of the record of the appeal. Copies of the resolution shall be sent to all parties by certified mail. In addition, the resolution shall contain the following wording:

"Any person who was a party to the appeal may appeal to the State Review Board by submitting an application to such Board within 21 calendar days upon receipt by certified mail of this resolution. Application forms are available from the Office of the State Review Board, 600 East Main Street, Richmond, Virginia 23219, (804) 371-7150."

106.8 Appeals to the State Review Board. After final determination by the LBBCA in an appeal, any person who was a party to the appeal may further appeal to the State Review Board. In accordance with Section 36-98.2 of the Code of Virginia for state-owned buildings and structures, appeals by an involved state agency from the decision of the code official for state-owned buildings or structures shall be made directly to the State Review Board. The application for appeal shall be made to the State Review Board within 21 calendar days of the receipt of the decision to be appealed. Failure to submit an application within that time limit shall constitute an acceptance of the code official's decision. For appeals from a LBBCA, a copy of the code official's decision and the resolution of the LBBCA shall be submitted with the application for appeal to the State Review Board. Upon request by the Office of the State Review Board, the LBBCA shall submit a copy of all pertinent information from the record of the appeal. In the case of appeals involving state-owned buildings or structures, the involved state agency shall submit a copy of the code official's decision and other relevant information with the application for appeal to the State Review Board. Procedures of the State Review Board are in accordance with Article 2 (Section 36-108 et seq.) of Chapter 6 of Title 36 of the Code of Virginia. Decisions of the State Review Board shall be final if no further appeal is made.

CHAPTER 2 DEFINITIONS

SECTION 201 GENERAL

201.1 Scope. Unless otherwise expressly stated, the following terms shall, for the purposes of this code, have the meanings shown in this chapter.

201.2 Interchangeability. Words stated in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the *International Building Code, International Existing Building Code, International Fire Code, International Fuel Gas Code, International Mechanical Code, International Plumbing Code, International Residential Code, International Zoning Code or NFPA 70* other International Codes, such terms shall have the meanings ascribed to them as stated in those codes, except that terms that are not defined in this code and that are defined in the VCC shall take precedence over other definitions.

201.4 Terms not defined. Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

201.5 Parts. Whenever the words “dwelling unit,” “dwelling,” “premises,” “building,” “rooming house,” “rooming unit,” “housekeeping unit” or “story” are stated in this code, they shall be construed as though they were followed by the words “or any part thereof.”

SECTION 202 GENERAL DEFINITIONS

ANCHORED. Secured in a manner that provides positive connection.

[A] APPROVED. Acceptable to the *code official*.

BASEMENT. That portion of a building which is partly or completely below grade.

BATHROOM. A room containing plumbing fixtures including a bathtub or shower.

BEDROOM. Any room or space used or intended to be used for sleeping purposes in either a dwelling or *sleeping unit*.

[A] CODE OFFICIAL. The official who is charged with the administration and enforcement of this code, or any duly authorized representative.

CONDEMN. To adjudge unfit for occupancy.

COST OF SUCH DEMOLITION OR EMERGENCY

REPAIRS. The costs shall include the actual costs of the demolition or repair of the structure less revenues obtained if salvage was conducted prior to demolition or repair. Costs shall include, but not be limited to, expenses incurred or necessitated related to demolition or emergency repairs, such as asbestos survey and abatement if necessary; costs of inspectors, testing agencies or experts retained relative to the demolition or emergency repairs; costs of testing; surveys for other materials that are controlled or regulated from being dumped in a landfill; title searches; mailing(s); postings; recording; and attorney fees expended for recovering of the cost of emergency repairs or to obtain or enforce an order of demolition made by a *code official*, the governing body or board of appeals.

DETACHED. When a structural element is physically disconnected from another and that connection is necessary to provide a positive connection.

DETERIORATION. To weaken, disintegrate, corrode, rust or decay and lose effectiveness.

[BG] DWELLING UNIT. A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

[Z] EASEMENT. That portion of land or property reserved for present or future use by a person or agency other than the legal fee *owner*(s) of the property. The *easement* shall be permitted to be for use under, on or above a said lot or lots.

EQUIPMENT SUPPORT. Those structural members or assemblies of members or manufactured elements, including braces, frames, lugs, snuggers, hangers or saddles, that transmit gravity load, lateral load and operating load between the equipment and the structure.

EXTERIOR PROPERTY. The open space on the *premises* and on adjoining property under the control of *owners* or *operators* of such *premises*.

GARBAGE. The animal or vegetable waste resulting from the handling, preparation, cooking and consumption of food.

[BE] GUARD. A building component or a system of building components located at or near the open sides of elevated walking surfaces that minimizes the possibility of a fall from the walking surface to a lower level.

[BG] HABITABLE SPACE. Space in a structure for living, sleeping, eating or cooking. *Bathrooms, toilet rooms, closets, halls, storage or utility spaces, and similar areas* are not considered *habitable spaces*.

HISTORIC BUILDING. Any building or structure that is one or more of the following:

1. Listed or certified as eligible for listing, by the State

Comment [x16]: These terms are not used in the Virginia Maintenance Code and are therefore deleted.

Comment [x14]: Existing state amendment.

Comment [x15]: This term is not used in the Virginia Maintenance Code, therefore it is deleted.

Comment [x17]: This term is not used in the Virginia Maintenance Code and is therefore deleted.

Historic Preservation Officer or the Keeper of the National Register of Historic Places, in the National Register of Historic Places.

2. Designated as historic under an applicable state or local law.

3. Certified as a contributing resource within a National Register or state or locally designated historic district.

HOUSEKEEPING UNIT. A room or group of rooms forming a single *habitable space* equipped and intended to be used for living, sleeping, cooking and eating which does not contain, within such a unit, a toilet, lavatory and bathtub or shower.

~~**IMMINENT DANGER.** A condition which could cause serious or life threatening injury or death at any time.~~

INFESTATION. The presence, within or contiguous to, a structure or *premises* of insects, rats, vermin or other pests.

~~**INOPERABLE MOTOR VEHICLE.** A vehicle which cannot be driven upon the public streets for reason including but not limited to being unlicensed, wrecked, abandoned, in a state of disrepair, or incapable of being moved under its own power.~~

~~**[A] LABELED.** Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above *labeled* items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.~~

LET FOR OCCUPANCY or LET. To permit, provide or offer possession or *occupancy* of a dwelling, *dwelling unit*, *rooming unit*, building, premise or structure by a person who is or is not the legal *owner* of record thereof, pursuant to a written or unwritten lease, agreement or license, or pursuant to a recorded or unrecorded agreement of contract for the sale of land.

~~**NEGLECT.** The lack of proper maintenance for a building or structure.~~

[A] OCCUPANCY. The purpose for which a building or portion thereof is utilized or occupied.

OCCUPANT. Any individual living or sleeping in a building, or having possession of a space within a building.

~~**OPENABLE AREA.** That part of a window, skylight or door which is available for unobstructed ventilation and which opens directly to the outdoors.~~

OPERATOR. Any person who has charge, care or control of a structure or *premises* which is let or offered for *occupancy*.

[A] OWNER. Any person, agent, *operator*, firm or corporation

having legal or equitable interest in the property; or recorded in the official records of the state, county or municipality as holding title to the property; or otherwise having control of the property, including the guardian of the estate of any such person, and the executor or administrator of the estate of such person if ordered to take possession of real property by a court.

PERSON. An individual, corporation, partnership or any other group acting as a unit.

~~**PEST ELIMINATION.** The control and elimination of insects, rodents or other pests by eliminating their harborage places; by removing or making inaccessible materials that serve as their food or water; by other *approved pest elimination methods*.~~

[A] PREMISES. A lot, plot or parcel of land, *easement* or *public way*, including any structures thereon.

[A] PUBLIC WAY. Any street, alley or similar parcel of land essentially unobstructed from the ground to the sky, which is deeded, dedicated or otherwise permanently appropriated to the public for public use.

ROOMING HOUSE. A building arranged or occupied for lodging, with or without meals, for compensation and not occupied as a one- or two-family dwelling.

ROOMING UNIT. Any room or group of rooms forming a single habitable unit occupied or intended to be occupied for sleeping or living, but not for cooking purposes.

RUBBISH. Combustible and noncombustible waste materials, except garbage; the term shall include the residue from the burning of wood, coal, coke and other combustible materials, paper, rags, cartons, boxes, wood, excelsior, rubber, leather, tree branches, *yard* trimmings, tin cans, metals, mineral matter, glass, crockery and dust and other similar materials.

[BG] SLEEPING UNIT. A room or space in which people sleep, which can also include permanent provisions for living, eating and either sanitation or kitchen facilities, but not both. Such rooms and spaces that are also part of a *dwelling unit* are not *sleeping units*.

~~**STRICT LIABILITY OFFENSE.** An offense in which the prosecution in a legal proceeding is not required to prove criminal intent as a part of its case. It is enough to prove that the defendant either did an act which was prohibited, or failed to do an act which the defendant was legally required to do.~~

[A] STRUCTURE. That which is built or constructed or a portion thereof.

~~**STRUCTURE UNFIT FOR HUMAN OCCUPANCY.** An existing structure determined by the code official to be dangerous to the health, safety and welfare of the occupants of the structure or the public because (i) of the degree to which the structure is in disrepair or lacks maintenance, ventilation, illumination, sanitary or heating facilities or other essential equipment, or (ii) the required plumbing and sanitary facilities are inoperable.~~

Comment [x22]: This term is not used in the Virginia Maintenance Code, therefore it is deleted.

Comment [x18]: This term is not used in the Virginia Maintenance Code, therefore it is deleted.

Comment [x19]: These terms are not used in the Virginia Maintenance Code, therefore they are deleted.

Comment [x20]: This term is not used in the Virginia Maintenance Code, therefore it is deleted.

Comment [x23]: This term is not used in the Virginia Maintenance Code, therefore it is deleted.

Comment [x21]: This term is not used in the Virginia Maintenance Code, therefore it is deleted.

Comment [x24]: Existing state amendment.

TENANT. A person, corporation, partnership or group, whether or not the legal *owner* of record, occupying a building or portion thereof as a unit.

TOILET ROOM. A room containing a water closet or urinal but not a bathtub or shower.

ULTIMATE DEFORMATION. The deformation at which failure occurs and which shall be deemed to occur if the sustainable load reduces to 80 percent or less of the maximum strength.

Comment [x25]: This term is not used in the Virginia Maintenance Code, therefore it is deleted.

UNSAFE EQUIPMENT. Unsafe equipment includes any boiler, heating equipment, elevator, moving stairway, electrical wiring or device, flammable liquid containers or other equipment that is in such disrepair or condition that such equipment is determined by the code official to be dangerous to the health, safety and welfare of the occupants of a structure or the public.

Comment [x26]: Existing state amendment.

UNSAFE STRUCTURE. An existing structure (i) determined by the code official to be dangerous to the health, safety and welfare of the occupants of the structure or the public, (ii) that contains unsafe equipment, or (iii) that is so damaged, decayed, dilapidated, structurally unsafe or of such faulty construction or unstable foundation that partial or complete collapse is likely. A vacant existing structure unsecured or open shall be deemed to be an unsafe structure.

Comment [x27]: Existing state amendment.

[M] VENTILATION. The natural or mechanical process of supplying conditioned or unconditioned air to, or removing such air from, any space.

WORKMANLIKE. Executed in a skilled manner; e.g., generally plumb, level, square, in line, undamaged and without marring adjacent work.

Comment [x28]: This term is not used in the Virginia Maintenance Code, therefore it is deleted.

[Z] YARD. An open space on the same lot with a structure.

CHAPTER 3 GENERAL REQUIREMENTS

SECTION 301 GENERAL

301.1 Scope. The provisions of this chapter shall govern the minimum conditions and the responsibilities of persons for the maintenance of structures, and equipment and for the maintenance of exterior property to the extent that this code is applicable.

301.2 Responsibility. The owner of the premises shall maintain the structures and exterior property in compliance with these requirements, except as otherwise provided for in this code. A person shall not occupy as owner-occupant or permit another person to occupy premises that are not in a sanitary and safe condition and that do not comply with the requirements of this chapter. Occupants of a dwelling unit, rooming unit or housekeeping unit are responsible for keeping in a clean, sanitary and safe condition that part of the dwelling unit, rooming unit, housekeeping unit or premises which they occupy and control.

301.3 Vacant structures and land. Vacant structures and premises thereof or vacant land shall be maintained in a clean, safe, secure and sanitary condition as provided herein so as not to cause a blighting problem or adversely affect the public health or safety.

SECTION 302 EXTERIOR PROPERTY AREAS

302.1 Sanitation. Exterior property and premises shall be maintained in a clean, safe and sanitary condition. The occupant shall keep that part of the exterior property that such occupant occupies or controls in a clean and sanitary condition.

302.2 Grading and drainage. All premises shall be graded and maintained to prevent the erosion of soil and to prevent the accumulation of stagnant water thereon, or within any structure located thereon protect the foundation walls or slab of the structure from the accumulation and drainage of surface or stagnant water in accordance with the VCC.

Exception: Approved retention areas and reservoirs.

302.3 Sidewalks and driveways. All sidewalks, walkways, stairs, driveways, parking spaces and similar areas spaces regulated under the VCC shall be kept in a proper state of repair, and maintained free from hazardous conditions.

302.4 Weeds. Premises and exterior property shall be maintained free from weeds or plant growth in excess of [JURISDICTION TO INSERT HEIGHT IN INCHES]. Noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs provided; however, this term shall not include cultivated flowers and gardens.

Upon failure of the owner or agent having charge of a property to cut and destroy weeds after service of a notice of

violation, they shall be subject to prosecution in accordance with Section 106.3 and as prescribed by the authority having jurisdiction. Upon failure to comply with the notice of violation, any duly authorized employee of the jurisdiction or contractor hired by the jurisdiction shall be authorized to enter upon the property in violation and cut and destroy the weeds growing thereon, and the costs of such removal shall be paid by the owner or agent responsible for the property.

302.5 Rodent harborage. All structures and exterior property adjacent premises shall be kept free from rodent harborage and infestation where such harborage or infestation adversely affects the structures. Where rodents are found, they shall be promptly exterminated by approved processes that will not be injurious to human health. After pest elimination, proper precautions shall be taken to eliminate rodent harborage and prevent reinfestation.

302.6 Exhaust vents. Pipes, ducts, conductors, fans or blowers shall not discharge gases, steam, vapor, hot air, grease, smoke, odors or other gaseous or particulate wastes directly upon abutting or adjacent public or private property or that of another tenant.

302.7 Accessory structures. Accessory structures, including detached garages, fences and walls, shall be maintained structurally sound and in good repair.

302.8 Motor vehicles. Except as provided for in other regulations, no inoperative or unlicensed motor vehicle shall be parked, kept or stored on any premises, and no vehicle shall at any time be in a state of major disassembly, disrepair, or in the process of being stripped or dismantled. Painting of vehicles is prohibited unless conducted inside an approved spray booth.

Exception: A vehicle of any type is permitted to undergo major overhaul, including body work, provided that such work is performed inside a structure or similarly enclosed area designed and approved for such purposes.

302.9 Defacement of property. No person shall willfully or wantonly damage, mutilate or deface any exterior surface of any structure or building on any private or public property by placing thereon any marking, carving or graffiti. It shall be the responsibility of the owner to restore said surface to an approved state of maintenance and repair.

SECTION 303 SWIMMING POOLS, SPAS AND HOT TUBS

303.1 Swimming pools. Swimming pools shall be maintained in a clean and sanitary condition, and in good repair.

303.2 Enclosures. Private swimming pools, hot tubs and spas, containing water more than 24 inches (610 mm) in depth shall be completely surrounded by a fence or barrier not less than 48 inches (1219 mm) in height above the finished ground level measured on the side of the barrier away from the pool. Gates and doors in such barriers shall be self-closing

Comment [x34]: Existing state amendments.

Comment [x29]: The scope section is modified to delete the reference to the responsibility of persons as that is addressed in Chapter 1 and in state law. A statement is added to limit the application of "exterior property" provisions to only those applicable as "premises" in general are not regulated unless affecting a building or structure. The "responsibility" section is deleted for the same reason.

Comment [x35]: This is not a maintenance requirement, so it is deleted.

Comment [x30]: This section is modified to delete the references to vacant land and to delete the language concerning blight as that is not within the scope of the VMC.

Comment [x31]: Existing state amendments.

Comment [x36]: Existing state amendments.

Comment [x32]: These changes are necessary to reflect the scoping of the VMC to apply only to those aspects of exterior property regulated by the VCC.

Comment [x33]: Existing state amendment.

and self latching. Where the self latching device is not less than 54 inches (1372 mm) above the bottom of the gate, the release mechanism shall be located on the pool side of the gate. Self closing and self latching gates shall be maintained such that the gate will positively close and latch when released from an open position of 6 inches (152 mm) from the gatepost. No existing pool enclosure shall be removed, replaced or changed in a manner that reduces its effectiveness as a safety barrier. Swimming pool, hot tub and spa barriers shall be maintained as required by the code or ordinance under which such barriers were constructed.

Exception: Spas or hot tubs with a safety cover that complies with ASTM F 1346 shall be exempt from the provisions of this section.

SECTION 304 EXTERIOR STRUCTURE

304.1 General. The exterior of a structure shall be maintained in good repair, structurally sound and sanitary so as not to pose a threat to the public health, safety or welfare.

304.1.1 Unsafe conditions. The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the *International Building Code* or the *International Existing Building Code* as required for existing buildings:

1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength;

2. The anchorage of the floor or roof to walls or columns, and of walls and columns to foundations is not capable of resisting all nominal loads or load effects;

3. Structures or components thereof that have reached their limit state;

4. Siding and masonry joints including joints between the building envelope and the perimeter of windows, doors and skylights are not maintained, weather resistant or water tight;

5. Structural members that have evidence of deterioration or that are not capable of safely supporting all nominal loads and load effects;

6. Foundation systems that are not firmly supported by footings, are not plumb and free from open cracks and breaks, are not properly anchored or are not capable of supporting all nominal loads and resisting all load effects;

7. Exterior walls that are not anchored to supporting and supported elements or are not plumb and free of holes, cracks or breaks and loose or rotting materials, are not properly anchored or are not capable of supporting all nominal loads and resisting all load effects;

8. Roofing or roofing components that have defects that admit rain, roof surfaces with inadequate drainage, or any portion of the roof framing that is not in good repair with signs of deterioration, fatigue or without proper anchorage and incapable of supporting all nominal loads and resisting all load effects;

9. Flooring and flooring components with defects that affect serviceability or flooring components that show signs of deterioration or fatigue, are not properly anchored or are incapable of supporting all nominal loads and resisting all load effects;

10. Veneer, cornices, belt courses, corbels, trim, wall facings and similar decorative features not properly anchored or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects;

11. Overhang extensions or projections including, but not limited to, trash chutes, canopies, marquees, signs, awnings, fire escapes, standpipes and exhaust ducts not properly anchored or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects;

12. Exterior stairs, decks, porches, balconies and all similar appurtenances attached thereto, including guards and handrails, are not structurally sound, not properly anchored or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects; or

13. Chimneys, cooling towers, smokestacks and similar appurtenances not structurally sound or not properly anchored, or that are anchored with connections not capable of supporting all nominal loads and resisting all load effects.

Exceptions:

1. Where substantiated otherwise by an approved method;

2. Demolition of unsafe conditions shall be permitted where approved by the code official;

304.2 Protective treatment. Exterior surfaces, including but not limited to, doors, door and window frames, cornices, porches, trim, balconies, decks and fences, shall be maintained in good condition. Exterior wood surfaces, other than decay-resistant woods, shall be protected from the elements and decay by painting or other protective covering or treatment. Peeling, flaking and chipped paint shall be eliminated and surfaces repainted. Siding and masonry joints, as well as those between the building envelope and the perimeter of windows, doors and skylights, shall be maintained weather resistant and water tight. Metal surfaces subject to rust or corrosion shall be coated to inhibit such rust and corrosion, and surfaces with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion. Oxidation stains shall be removed from exterior surfaces. Surfaces designed for stabilization

Comment [x37]: Minimum standards are replaced with general language requiring maintenance of barriers in accordance with the code in effect at the time of construction. Since there is authorization in state law for a locality to have an ordinance requiring barriers for pools, a reference to local ordinances is added.

Comment [x38]: The term "public" is deleted since the statutory scope of the code is to protect the citizens of the Commonwealth, in addition to the public.

Comment [x39]: Existing state amendment.

by oxidation are exempt from this requirement.

[F] 304.3 Premises identification. Buildings shall have approved address numbers placed in a position to be plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be not less than 4 inches (102 mm) in height with a minimum stroke width of 0.5 inch (12.7 mm). Address numbers of buildings shall be maintained when required by the code under which such buildings were constructed or when required by ordinance.

304.4 Structural members. Structural members shall be maintained free from deterioration, and shall be capable of safely supporting the imposed dead and live loads.

304.5 Foundation walls. Foundation walls shall be maintained plumb and free from open cracks and breaks and shall be kept in such condition so as to prevent the entry of rodents and other pests.

304.6 Exterior walls. Exterior walls shall be free from holes, breaks, and loose or rotting materials; and maintained weatherproof and properly surface coated where required to prevent deterioration.

304.7 Roofs and drainage. The roof and flashing shall be sound, tight and not have defects that admit rain. Roof drainage shall be adequate to prevent dampness or deterioration in the walls or interior portion of the structure. Roof drains, gutters and downspouts shall be maintained in good repair and free from obstructions. Roof water shall not be discharged in a manner that creates a public nuisance to protect the foundation or slab of buildings and structures from the accumulation of roof drainage.

304.8 Decorative features. Cornices, belt courses, corbels, terra cotta trim, wall facings and similar decorative features shall be maintained in good repair with proper anchorage and in a safe condition.

304.9 Overhang extensions. Overhang extensions including, but not limited to, canopies, marquees, signs, metal awnings, fire escapes, standpipes and exhaust ducts shall be maintained in good repair and be properly anchored so as to be kept in a sound condition. Where required, all exposed surfaces of metal or wood shall be protected from the elements and against decay or rust by periodic application of weather-coating materials, such as paint or similar surface treatment.

304.10 Stairways, decks, porches and balconies. Every exterior stairway, deck, porch and balcony, and all appurtenances attached thereto, shall be maintained structurally sound, in good repair, with proper anchorage and capable of supporting the imposed loads.

304.11 Chimneys and towers. Chimneys, cooling towers, smoke stacks, and similar appurtenances shall be maintained structurally safe and sound, and in good repair. Exposed surfaces of metal or wood shall be protected from the elements and against decay or rust by periodic application of weather-coating materials, such as paint or similar surface treatment.

304.12 Handrails and guards. Every handrail and guard shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.

304.13 Window, skylight and door frames. Every window, skylight, door and frame shall be kept in sound condition, good repair and weather tight.

304.13.1 Glazing. Glazing materials shall be maintained free from cracks and holes.

304.13.2 Openable windows. Every window, other than a fixed window, shall be easily openable and capable of being held in position by window hardware.

304.14 Insect screens. During the period from [DATE] April 1 to [DATE] December 1, every door, window and other outside opening required for ventilation of habitable rooms, food preparation areas, food service areas or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with approved tightly fitting screens of minimum not less than 16 mesh per inch (16 mesh per 25 mm); and every screen door used for insect control shall have a self-closing device in good working condition.

Exception: Screens shall not be required where other approved means, such as mechanical ventilation, air curtains or insect repellent fans, are employed used.

304.15 Doors. Exterior doors, door assemblies, operator systems if provided, and hardware shall be maintained in good condition. Locks at all entrances to dwelling units and sleeping units shall tightly secure the door. Locks on means of egress doors shall be in accordance with Section 702.3.

304.16 Basement hatchways. Every basement hatchway shall be maintained to prevent the entrance of rodents, rain and surface drainage water.

304.17 Guards for basement windows. Every basement window that is openable shall be supplied with rodent shields, storm windows or other approved protection against the entry of rodents.

304.18 Building security. Doors, windows or hatchways for dwelling units, room units or housekeeping units shall be provided with devices designed to provide security for the occupants and property within. Devices designed to provide security for the occupants and property within, when required by the code under which a building was constructed, or when provided, shall be maintained unless their removal is approved by the building official under the VCC.

304.18.1 Doors. Doors providing access to a dwelling unit, rooming unit or housekeeping unit that is rented, leased or let shall be equipped with a deadbolt lock designed to be readily openable from the side from which egress is to be made without the need for keys, special knowledge or effort and shall have a minimum lock throw of 1 inch (25 mm). Such deadbolt locks shall be installed according to the manufacturer's specifications and maintained

Comment [x40]: Premises marking is required by the VCC, so the section is modified to only require maintenance of the identification method, or in accordance with local ordinance.

Comment [x42]: Existing state amendment.

Comment [x41]: Existing state amendment.

Comment [x43]: While this section was deleted in the 2012 and previous editions of the VMC, there is a need for requiring the maintenance of security devices that were required by the code under which a building was constructed, or which have been provided, so general maintenance language has been added.

in good working order. For the purpose of this section, a sliding bolt shall not be considered an acceptable deadbolt lock.

304.18.2 Windows. Operable windows located in whole or in part within 6 feet (1828 mm) above ground level or a walking surface below that provide access to a *dwelling unit, rooming unit or housekeeping unit* that is rented, leased or let shall be equipped with a window sash locking device.

304.18.3 Basement hatchways. *Basement hatchways that provide access to a dwelling unit, rooming unit or housekeeping unit that is rented, leased or let shall be equipped with devices that secure the units from unauthorized entry.*

304.19 Gates. *To the extent required by the code under which constructed or to the extent provided when constructed, exterior gates, gate assemblies, operator systems if provided, and hardware shall be maintained in good condition. Latches at all entrances shall tightly secure the gates.*

**SECTION 305
INTERIOR STRUCTURE**

305.1 General. The interior of a structure and equipment therein shall be maintained in good repair, structurally sound and in a sanitary condition. *Occupants shall keep that part of the structure that they occupy or control in a clean and sanitary condition. Every owner of a structure containing a rooming house, housekeeping units, a hotel, a dormitory, two or more dwelling units or two or more nonresidential occupancies, shall maintain, in a clean and sanitary condition, the shared or public areas of the structure and exterior property.*

305.1.1 Unsafe conditions. *The following conditions shall be determined as unsafe and shall be repaired or replaced to comply with the International Building Code or the International Existing Building Code as required for existing buildings:*

1. The nominal strength of any structural member is exceeded by nominal loads, the load effects or the required strength;
2. The anchorage of the floor or roof to walls or columns, and of walls and columns to foundations is not capable of resisting all nominal loads or load effects;
3. Structures or components thereof that have reached their limit state;
4. Structural members are incapable of supporting nominal loads and load effects;
5. Stairs, landings, balconies and all similar walking surfaces, including *guards* and handrails, are not structurally sound, not properly anchored or are anchored with connections not capable of supporting all nominal loads and resisting all load effects;
6. Foundation systems that are not firmly supported by

footings are not plumb and free from open cracks and breaks, are not properly anchored or are not capable of supporting all nominal loads and resisting all load effects.

Exceptions:

1. Where substantiated otherwise by an approved method;
2. Demolition of unsafe conditions shall be permitted when approved by the code official.

305.2 Structural members. Structural members shall be maintained structurally sound, and be capable of supporting the imposed loads.

305.3 Interior surfaces. Interior surfaces, including windows and doors, shall be maintained in good, clean and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster, decayed wood and other defective surface conditions shall be corrected.

305.4 Stairs and walking surfaces. Every stair, ramp, landing, balcony, porch, deck or other walking surface shall be maintained in sound condition and good repair.

305.5 Handrails and guards. Every handrail and guard shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.

305.6 Interior doors. Every interior door shall fit reasonably well within its frame and shall be capable of being opened and closed by being properly and securely attached to jambs, headers or tracks as intended by the manufacturer of the attachment hardware.

305.7 Carbon monoxide alarms. Carbon monoxide alarms shall be maintained as approved.

**SECTION 306
COMPONENT SERVICEABILITY**

306.1 General. The components of a structure and equipment therein shall be maintained in good repair, structurally sound and in a sanitary condition.

306.1.1 Unsafe conditions. *Where any of the following conditions cause the component or system to be beyond its limit state, the component or system shall be determined as unsafe and shall be repaired or replaced to comply with the International Building Code or the International Existing Building Code as required for existing buildings:*

1. Soils that have been subjected to any of the following conditions:
 - 1.1. Collapse of footing or foundation system;
 - 1.2. Damage to footing, foundation, concrete or other structural element due to soil expansion;

Comment [x47]: Existing state amendment.

Comment [x44]: Existing state amendments.

Comment [x45]: Language recommended by VBCOA to be able to use the IPMC text for gates.

Comment [x46]: Occupant responsibility for violations is determined by Chapter 1 so this language is deleted.

1.3. Adverse effects to the design strength of footing, foundation, concrete or other structural element due to a chemical reaction from the soil;

1.4. Inadequate soil as determined by a geotechnical investigation;

1.5. Where the allowable bearing capacity of the soil is in doubt; or

1.6. Adverse effects to the footing, foundation, concrete or other structural element due to the ground-water table.

2. Concrete that has been subjected to any of the following conditions:

2.1. Deterioration;

2.2. Ultimate deformation;

2.3. Fractures;

2.4. Fissures;

2.5. Spalling;

2.6. Exposed reinforcement; or

2.7. Detached, dislodged or failing connections.

3. Aluminum that has been subjected to any of the following conditions:

3.1. Deterioration;

3.2. Corrosion;

3.3. Elastic deformation;

3.4. Ultimate deformation;

3.5. Stress or strain cracks;

3.6. Joint fatigue; or

3.7. Detached, dislodged or failing connections.

4. Masonry that has been subjected to any of the following conditions:

4.1. Deterioration;

4.2. Ultimate deformation;

4.3. Fractures in masonry or mortar joints;

4.4. Fissures in masonry or mortar joints;

4.5. Spalling;

4.6. Exposed reinforcement; or

4.7. Detached, dislodged or failing connections.

5. Steel that has been subjected to any of the following conditions:

5.1. Deterioration;

5.2. Elastic deformation;

5.3. Ultimate deformation;

5.4. Metal fatigue; or

5.5. Detached, dislodged or failing connections.

6. Wood that has been subjected to any of the following conditions:

6.1. Ultimate deformation;

6.2. Deterioration;

6.3. Damage from insects, rodents and other vermin;

6.4. Fire damage beyond charring;

6.5. Significant splits and checks;

6.6. Horizontal shear cracks;

6.7. Vertical shear cracks;

6.8. Inadequate support;

6.9. Detached, dislodged or failing connections;
or

6.10. Excessive cutting and notching.

Exceptions:

1. Where substantiated otherwise by an approved method.

2. Demolition of unsafe conditions shall be permitted where approved by the code official.

SECTION 307 HANDRAILS AND GUARDRAILS

307.1 General. Every exterior and interior flight of stairs having more than four risers shall have a handrail on one side of the stair and every open portion of a stair, landing, balcony, porch, deck, ramp or other walking surface that is more than 30 inches (762 mm) above the floor or grade below shall have guards. Handrails shall be not less than 30 inches (762 mm) in height or more than 42 inches (1067 mm) in height measured vertically above the nosing of the tread or above the finished floor of the landing or walking surfaces. Guards shall be not less than 30 inches (762 mm) in height above the floor of the landing, balcony, porch, deck, or ramp or other walking surface. Handrails and guards required by the code under

Comment [x48]: Existing state amendments.

which a building was constructed or which were provided when a building was constructed shall be maintained.

Exception: *Guards* shall not be required where exempted by the adopted building code.

SECTION 308 RUBBISH AND GARBAGE

308.1 Accumulation of rubbish or garbage. *Exterior property and premises, and* the interior of every structure, shall be free from any excessive accumulation of rubbish or garbage.

308.2 Disposal of rubbish. Every occupant of a structure shall dispose of all rubbish in a clean and sanitary manner by placing such rubbish in approved containers.

308.2.1 Rubbish storage facilities. The owner of every occupied premises shall supply approved covered containers for rubbish, and the owner of the premises shall be responsible for the removal of rubbish.

308.2.2 Refrigerators. Refrigerators and similar equipment not in operation shall not be discarded, abandoned or stored on premises without first removing the doors.

308.3 Disposal of garbage. Every occupant of a structure shall dispose of garbage in a clean and sanitary manner by placing such garbage in an approved garbage disposal facility or approved garbage containers.

308.3.1 Garbage facilities. The owner of every dwelling shall supply one of the following: an approved mechanical food waste grinder in each dwelling unit; an approved incinerator unit in the structure available to the occupants in each dwelling unit; or an approved leakproof, covered, outside garbage container.

308.3.2 Containers. The operator of every establishment producing garbage shall provide, and at all times cause to be utilized, approved leakproof containers provided with close fitting covers for the storage of such materials until removed from the premises for disposal.

SECTION 309 PEST ELIMINATION INFESTATION AND EXTERMINATION

309.1 Infestation. This section shall apply to the extent that insect and rodent infestation adversely affects a structure. All structures shall be kept free from insect and rodent infestation. Structures in which insects or rodents are found shall be promptly exterminated by approved processes that will not be injurious to human health. After pest elimination extermination, proper precautions shall be taken to prevent reinfestation.

309.2 Owner. The owner of any structure shall be responsible

for pest elimination within the structure prior to renting or leasing the structure.

309.3 Single occupant. The occupant of a one family dwelling or of a single tenant nonresidential structure shall be responsible for pest elimination on the premises.

309.4 Multiple occupancy. The owner of a structure containing two or more dwelling units, a multiple occupancy, a rooming house or a nonresidential structure shall be responsible for pest elimination in the public or shared areas of the structure and exterior property. If infestation is caused by failure of an occupant to prevent such infestation in the area occupied, the occupant and owner shall be responsible for pest elimination.

309.5 Occupant. The occupant of any structure shall be responsible for the continued rodent and pest free condition of the structure.

Exception: Where the infestations are caused by defects in the structure, the owner shall be responsible for pest elimination

SECTION 310 LEAD-BASED PAINT

310.1 General. Interior and exterior painted surfaces of dwellings and child care facilities, including fences and outbuildings, that contain lead levels equal to or greater than 1.0 milligram per square centimeter or in excess of 0.50% lead by weight shall be maintained in a condition free from peeling, chipping and flaking paint or removed or covered in an approved manner. Any surface to be covered shall first be identified by an approved warning as to the lead content of such surface.

SECTION 311 ABOVEGROUND LIQUID FERTILIZER STORAGE TANKS

311.1 General. ALFSTs shall be maintained in accordance with the requirements of Section 1701.16 of the VRC and the requirements of the VCC applicable to such ALFSTs when newly constructed and the requirements of the VRC when undergoing a change of occupancy to an ALFST and when repaired, altered or reconstructed, including the requirements for inspections and for a secondary containment system.

Comment [x49]: Removing construction requirements and adding a general statement requiring maintenance.

Comment [x52]: These sections in the IPMC address who is responsible for code violations. Since that subject matter is covered in Chapter 1 and in state law, the sections are deleted.

Comment [x50]: Existing state amendments.

Comment [x53]: Existing state amendments.

Comment [x51]: Existing state amendment.

CHAPTER 4 LIGHT, VENTILATION AND OCCUPANCY LIMITATIONS

SECTION 401 GENERAL

401.1 Scope. The provisions of this chapter shall govern the minimum conditions and standards maintenance of structures for light, ventilation and space for occupying a structure occupancy.

401.2 Responsibility. The owner of the structure shall provide and maintain light, ventilation and space conditions in compliance with these requirements. A person shall not occupy as owner occupant, or permit another person to occupy, any premises that do not comply with the requirements of this chapter.

401.3 Alternative devices. In lieu of the means for natural light and ventilation herein prescribed, artificial light or mechanical ventilation complying with the *International Building Code* shall be permitted.

SECTION 402 LIGHT

402.1 Habitable spaces Natural or artificial light. Every habitable space, hallway, stairway, bathroom and other spaces shall have not less than one window of approved size facing directly to the outdoors or to a court. The minimum total glazed area for every habitable space shall be 8 percent of the floor area of such room. Wherever walls or other portions of a structure face a window of any room and such obstructions are located less than 3 feet (914 mm) from the window and extend to a level above that of the ceiling of the room, such window shall not be deemed to face directly to the outdoors nor to a court and shall not be included as contributing to the required minimum total window area for the room shall be maintained to provide natural or artificial light to the extent required by the code under which a building was constructed or to the extent provided when such building was constructed.

Exception: Where natural light for rooms or spaces without exterior glazing areas is provided through an adjoining room, the unobstructed opening to the adjoining room shall be not less than 8 percent of the floor area of the interior room or space, but a minimum of 25 square feet (2.33 m²). The exterior glazing area shall be based on the total floor area being served.

402.2 Common halls and stairways. Every common hall and stairway in residential occupancies, other than in one and two family dwellings, shall be lighted at all times with not less than a 60 watt standard incandescent light bulb for each 200 square feet (19 m²) of floor area or equivalent illumination, provided that the spacing between lights shall not be greater than 30 feet (9144 mm). In other than residential occupancies, means of egress, including exterior means of egress, stairways shall be illuminated at all times the building space served by the means of egress is occupied with not less than 1 footcandle (11 lux) at floors, landings and treads.

402.3 Other spaces. All other spaces shall be provided with natural or artificial light sufficient to permit the maintenance of sanitary conditions, and the safe occupancy of the space and utilization of the appliances, equipment and fixtures.

SECTION 403 VENTILATION

403.1 Habitable spaces Natural or mechanical ventilation. Every habitable space, hallway, stairway, bathroom and other spaces shall have not less than one openable window. The total openable area of the window in every room shall be equal to not less than 45 percent of the minimum glazed area required in Section 402.1 be maintained to provided natural or mechanical ventilation to the extent required by the code under which a building was constructed or to the extent provided when such building was constructed.

Exception: Where rooms and spaces without openings to the outdoors are ventilated through an adjoining room, the unobstructed opening to the adjoining room shall be not less than 8 percent of the floor area of the interior room or space, but not less than 25 square feet (2.33 m²). The ventilation openings to the outdoors shall be based on a total floor area being ventilated.

403.2 Bathrooms and toilet rooms. Every bathroom and toilet room shall comply with the ventilation requirements for habitable spaces as required by Section 403.1, except that a window shall not be required in such spaces equipped with a mechanical ventilation system. Air exhausted by a mechanical ventilation system from a bathroom or toilet room shall discharge to the outdoors and shall not be recirculated.

403.3 Cooking facilities. Unless approved through the certificate of occupancy, cooking shall not be permitted in any rooming unit or dormitory unit, and a cooking facility or appliance shall not be permitted to be present in the rooming unit or dormitory unit.

Exceptions:

1. Where specifically approved in writing by the code official.
2. Devices such as coffee pots and microwave ovens shall not be considered cooking appliances.

403.4 Process ventilation. Where injurious, toxic, irritating or noxious fumes, gases, dusts or mists are generated, a local exhaust ventilation system shall be provided to remove the contaminating agent at the source. Air shall be exhausted to the exterior and not be recirculated to any space. Local exhaust systems required by the code under which a building was constructed, or which are provided, that exhaust injurious, toxic, irritating or noxious fumes, gases, dusts or mists to the exterior of a building shall be maintained to prevent compromising the required ventilation system.

403.5 Clothes dryer exhaust. Clothes dryer exhaust systems

Comment [x54]: The scope statement is changed to bring it in line with Chapter 1 and the statutory authority for the VMC.

Comment [x57]: Construction requirements in the IPMC are deleted and maintenance and operational requirements left intact.

Comment [x55]: Who is responsible for code violations is addressed in Chapter 1 and in state law, so Section 401.2 is deleted. Section 401.3 is deleted as it assumes that the IPMC construction requirements are enforceable.

Comment [x56]: All construction requirements in this section are deleted and replaced by a general statement requiring the maintenance of existing facilities.

shall be independent of all other systems and shall be exhausted outside the structure in accordance with the manufacturer's instructions.

Exception: Listed and labeled condensing (ductless) clothes dryers.

**SECTION 404
OCCUPANCY LIMITATIONS**

404.05 Limitation of application of section. The provisions of Section 404 which address construction aspects of occupancy limitations shall apply on the extent that such requirements were part of the code under which a building was constructed. Operational requirements such as the use of rooms or minimum areas per occupant are part of this code to the extent that they do not require alterations to be made to a building.

404.1 Privacy. Dwelling units, hotel units, housekeeping units, rooming units and dormitory units shall be arranged to provide privacy and be separate from other adjoining spaces.

404.2 Minimum room widths. A habitable room, other than a kitchen, shall be not less than 7 feet (2134 mm) in any plan dimension. Kitchens shall have a minimum clear passageway of 3 feet (914 mm) between counterfronts and appliances or counterfronts and walls.

404.3 Minimum ceiling heights. Habitable spaces, hallways, corridors, laundry areas, bathrooms, toilet rooms and habitable basement areas shall have a minimum clear ceiling height of 7 feet (2134 mm).

Exceptions:

1. In one- and two-family dwellings, beams or girders spaced not less than 4 feet (1219 mm) on center and projecting a maximum of 6 inches (152 mm) below the required ceiling height.

2. Basement rooms in one- and two-family dwellings occupied exclusively for laundry, study or recreation purposes, having a minimum ceiling height of 6 feet 8 inches (2033 mm) with a minimum clear height of 6 feet 4 inches (1932 mm) under beams, girders, ducts and similar obstructions.

3. Rooms occupied exclusively for sleeping, study or similar purposes and having a sloped ceiling over all or part of the room, with a minimum clear ceiling height of 7 feet (2134 mm) over not less than one-third of the required minimum floor area. In calculating the floor area of such rooms, only those portions of the floor area with a minimum clear ceiling height of 5 feet (1524 mm) shall be included.

404.4 Bedroom and living room requirements. Every bedroom and living room shall comply with the requirements of Sections 404.4.1 through 404.4.5.

404.4.1 Room area. Every living room shall contain not less than 120 square feet (11.2 m²) and every bedroom shall contain not less than 70 square feet (6.5 m²) and

every bedroom occupied by more than one person shall contain not less than 50 square feet (4.6 m²) of floor area for each occupant thereof.

404.4.2 Access from bedrooms. Bedrooms shall not constitute the only means of access to other bedrooms or habitable spaces and shall not serve as the only means of egress from other habitable spaces.

Exception: Units that contain fewer than two bedrooms.

404.4.3 Water closet accessibility. Every bedroom shall have access to not less than one water closet and one lavatory without passing through another bedroom. Every bedroom in a dwelling unit shall have access to not less than one water closet and lavatory located in the same story as the bedroom or an adjacent story.

404.4.4 Prohibited occupancy. Kitchens and nonhabitable spaces shall not be used for sleeping purposes.

404.4.5 Other requirements. Bedrooms shall comply with the applicable provisions of this code including, but not limited to, the light, ventilation, room area, ceiling height and room width requirements of this chapter; the plumbing facilities and water-heating facilities requirements of Chapter 5; the heating facilities and electrical receptacle requirements of Chapter 6; and the smoke detector and emergency escape requirements of Chapter 7.

404.5 Overcrowding. Dwelling units shall not be occupied by more occupants than permitted by the minimum area requirements of Table 404.5.

**TABLE 404.5
MINIMUM AREA REQUIREMENTS**

SPACE	MINIMUM AREA IN SQUARE FEET		
	1-2 occupants	3-5 occupants	6 or more occupants
Living room ^{a, b}	120	120	150
Dining room ^{a, b}	No requirement	80	100
Bedrooms	Shall comply with Section 404.4.1		

For SF: 1 square foot = 0.0929 m².

a. See Section 404.5.2 for combined living room/dining room spaces.

b. See Section 404.5.1 for limitations on determining the minimum occupancy area for sleeping purposes.

404.5.1 Sleeping area. The minimum occupancy area required by Table 404.5 shall not be included as a sleeping area in determining the minimum occupancy area for sleeping purposes. Sleeping areas shall comply with Section 404.4.

404.5.2 Combined spaces. Combined living room and dining room spaces shall comply with the requirements of Table 404.5 if the total area is equal to that required for separate rooms and if the space is located so as to function as a combination living room/dining room.

404.6 Efficiency unit. Nothing in this section shall prohibit an efficiency living unit from meeting the following requirements:

Comment [x58]: Since there have been prior state amendments to this section addressing criteria for occupancy, a general statement is added to the beginning of the section authorizing the use of the section to the extent that it does not require alterations to be made, since that would be a construction requirement and not within the scope of the VMC.

1. A unit occupied by not more than one occupant shall have a minimum clear floor area of 120 square feet (11.2 m²). A unit occupied by not more than two *occupants* shall have a minimum clear floor area of 220 square feet (20.4 m²). A unit occupied by three *occupants* shall have a minimum clear floor area of 320 square feet (29.7 m²). These required areas shall be exclusive of the areas required by Items 2 and 3.

2. The unit shall be provided with a kitchen sink, cooking appliance and refrigeration facilities, each having a minimum clear working space of 30 inches (762 mm) in front. Light and *ventilation* conforming to this code shall be provided.

3. The unit shall be provided with a separate *bathroom* containing a water closet, lavatory and bathtub or shower.

4. The maximum number of *occupants* shall be three.

404.7 Food preparation. All spaces to be occupied for food preparation purposes shall contain suitable space and equipment to store, prepare and serve foods in a sanitary manner. There shall be adequate facilities and services for the sanitary disposal of food wastes and refuse, including facilities for temporary storage.

CHAPTER 5 PLUMBING FACILITIES AND FIXTURE REQUIREMENTS

SECTION 501 GENERAL

501.1 Scope General. The provisions of this chapter shall govern the minimum maintenance of structures for plumbing systems, facilities and plumbing fixtures to be provided.

501.2 Responsibility. The owner of the structure shall provide and maintain such plumbing facilities and plumbing fixtures in compliance with these requirements. A person shall not occupy as owner-occupant or permit another person to occupy any structure or premises that does not comply with the requirements of this chapter.

SECTION 502 REQUIRED FACILITIES

502.1 Dwelling units. Every dwelling unit shall contain its own bathtub or shower, lavatory, water closet and kitchen sink that shall be maintained in a sanitary, safe working condition. The lavatory shall be placed in the same room as the water closet or located in close proximity to the door leading directly into the room in which such water closet is located. A kitchen sink shall not be used as a substitute for the required lavatory.

502.2 Rooming houses. Not less than one water closet, lavatory and bathtub or shower shall be supplied for each four rooming units.

502.3 Hotels. Where private water closets, lavatories and baths are not provided, one water closet, one lavatory and one bathtub or shower having access from a public hallway shall be provided for each 10 occupants.

502.4 Employees' facilities. Not less than one water closet, one lavatory and one drinking facility shall be available to employees.

502.4.1 Drinking facilities. Drinking facilities shall be a drinking fountain, water cooler, bottled water cooler or disposable cups next to a sink or water dispenser. Drinking facilities shall not be located in toilet rooms or bathrooms.

502.5 Public toilet facilities. Public toilet facilities shall be maintained in a safe, sanitary and working condition in accordance with the International Plumbing Code. Except for periodic maintenance or cleaning, public access and use shall be provided to the toilet facilities at all times during occupancy of the premises.

SECTION 503 TOILET ROOMS

503.1 Privacy. Toilet rooms and bathrooms shall provide privacy and shall not constitute the only passageway to a hall or other space, or to the exterior. A door and interior locking device shall be provided for all common or shared bathrooms

and toilet rooms in a multiple dwelling.

503.2 Location. Toilet rooms and bathrooms serving hotel units, rooming units or dormitory units or housekeeping units, shall have access by traversing not more than one flight of stairs and shall have access from a common hall or passageway.

503.3 Location of employee toilet facilities. Toilet facilities shall have access from within the employees' working area. The required toilet facilities shall be located not more than one story above or below the employees' working area and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m). Employee facilities shall either be separate facilities or combined employee and public facilities.

Exception: Facilities that are required for employees in storage structures or kiosks, which are located in adjacent structures under the same ownership, lease or control, shall not exceed a travel distance of 500 feet (152 m) from the employees' regular working area to the facilities.

503.4 Floor surface. In other than dwelling units, every toilet room floor shall be maintained to be a smooth, hard, nonabsorbent surface to permit such floor to be easily kept in a clean and sanitary condition.

SECTION 504 PLUMBING SYSTEMS AND FIXTURES

504.1 General. Plumbing fixtures shall be properly installed and maintained in working order, and shall be kept free from obstructions, leaks and defects and be capable of performing the function for which such plumbing fixtures are designed. Plumbing fixtures shall be maintained in a safe, sanitary and functional condition. Required or provided plumbing systems and facilities shall be maintained in compliance with the code under which constructed.

504.1.1 Public and employee facilities. Except for periodic maintenance or cleaning, access and use shall be provided to facilities at all times during occupancy of the premises in accordance with the code under which constructed.

504.2 Plumbing fixtures. All plumbing fixtures shall be maintained in a safe, sanitary and working condition. A kitchen sink shall not be used as a substitute for a required lavatory.

504.2.1 Fixture clearances. Plumbing fixtures shall have adequate clearances for usage and cleaning of plumbing fixtures shall be maintained as approved when installed.

504.3 Plumbing system hazards. Where it is found that a plumbing system in a structure constitutes a hazard to the public, the occupants or the structure by reason of inadequate service, inadequate venting, cross-connection, backsiphonage, improper installation, deterioration or damage or for similar reasons, the code official shall require the defects to be corrected to eliminate the hazard.

Comment [x59]: The scope statement is changed to bring it in line with Chapter 1 and the statutory authority for the VMC.

Comment [x60]: Who is responsible for code violations is addressed in Chapter 1 and in state law, so this section is deleted.

Comment [x61]: This section is construction-related and therefore deleted.

Comment [x63]: Maintenance requirements deleted in other sections are provided in this general section.

Comment [x64]: These sections were moved from Section 502 since the remainder of Section 502 was deleted.

Comment [x65]: The language is changed to only require maintenance of clearances provided.

Comment [x62]: This section contains all construction-related requirements, so it is deleted.

Comment [x66]: Language addressing minimum criteria is deleted since it could require a building to be upgraded and language addressing lack of maintenance is left in.

**SECTION 505
WATER SYSTEM**

505.1 General Supply. Every sink, lavatory, bathtub or shower, drinking fountain, water closet or other plumbing fixture shall be properly connected to either a public water system or to an approved private water system. Kitchen sinks, lavatories, laundry facilities, bathtubs and showers shall be supplied with hot or tempered and cold running water in accordance with the *International Plumbing Code*. Required or provided water supply systems shall be maintained in compliance with the code under which the systems were constructed. All water supply systems shall be free from obstructions, defects and leaks.

505.1.1 Tempered water. Tempered water shall be supplied to fixtures and facilities when required by the code under which constructed.

505.2 Protection of water supply systems. Protection of water supply systems shall be provided to the extent required by the code under which a building was constructed and shall be maintained.

505.2.1 Attached hoses. Shampoo basin faucets, janitor sink faucets and other hose bibs or faucets to which hoses are attached and left in place shall be protected by an approved atmospheric-type vacuum breaker or an approved permanently attached hose connection vacuum breaker.

[P] 505.2.1 505.3 Contamination Inspection and testing of backflow prevention assemblies. The water supply shall be maintained free from contamination, and all water inlets for plumbing fixtures shall be located above the flood level rim of the fixture. Shampoo basin faucets, janitor sink faucets and other hose bibs or faucets to which hoses are attached and left in place, shall be protected by an approved atmospheric type vacuum breaker or an approved permanently attached hose connection vacuum breaker. Inspection and testing shall comply with Sections 505.3.1 and 505.3.2.

505.3.1 Inspections. Inspections shall be made of all backflow assemblies and air gaps to determine whether they are operable.

505.3.2 Testing. Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, double-detector check valve assemblies and pressure vacuum breaker assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5013; ASSE 5015; ASSE 5020; ASSE 5047; ASSE 5048; or CSA B64.10.1.

505.3 Supply. The water supply system shall be installed and maintained to provide a supply of water to plumbing fixtures, devices and appurtenances in sufficient volume and at pressures

adequate to enable the fixtures to function properly, safely, and free from defects and leaks.

505.4 Water heating facilities. Water heating facilities shall be properly installed, maintained and capable of providing an adequate amount of water to be drawn at every required sink, lavatory, bathtub, shower and laundry facility at a minimum temperature of 110°F (43°C). A gas burning water heater shall not be located in any bathroom, toilet room, bedroom or other occupied room normally kept closed, unless adequate combustion air is provided. An approved combination temperature and pressure-relief valves and relief valve discharge pipes shall be properly installed and maintained on water heaters.

**SECTION 506
SANITARY DRAINAGE SYSTEM**

[P] 506.1 General Draining and venting. Plumbing fixtures shall be properly connected to either a public sewer system or to an approved private sewage disposal system. Required or provided sanitary drainage and venting systems shall be maintained in compliance with the code under which the system was constructed.

[P] 506.2 Maintenance. Every plumbing stack, vent, waste and sewer line building drainage and sewer system shall function properly and be kept free from obstructions, leaks and defects.

[P] 506.3 Grease interceptors. Grease interceptors and automatic grease removal devices shall be maintained in accordance with this code and the manufacturer's installation instructions. Grease interceptors and automatic grease removal devices shall be regularly serviced and cleaned to prevent the discharge of oil, grease, and other substances harmful or hazardous to the building drainage system, the public sewer, the private sewage disposal system or the sewage treatment plant or processes. Records of maintenance, cleaning and repairs shall be available for inspection by the code official.

**SECTION 507
STORM DRAINAGE**

[P] 507.1 General. Drainage of roofs and paved areas, yards and courts, and other open areas on the premises shall not be discharged in a manner that creates a public nuisance to protect the buildings and structures from the accumulation of overland water runoff.

Comment [x67]: Section 505.1 is reworded to delete construction-related requirements and add all maintenance requirements from the remainder of Section 505. Sections 505.3 and 505.4 are existing state amendments.

Comment [x68]: Construction-related provisions deleted and maintenance provisions kept.

Comment [x69]: Removed the reference to connections as that is controlled by the Virginia Dept. of Health.

Comment [x70]: The language in the IPMC is clarified to include all building drainage and sewer systems.

Comment [x71]: Existing state amendment.

CHAPTER 6 MECHANICAL AND ELECTRICAL REQUIREMENTS

SECTION 601 GENERAL

601.1 Scope General. The provisions of this chapter shall govern the ~~minimum~~ maintenance of mechanical and electrical facilities and equipment to be provided.

601.2 Responsibility. The *owner* of the structure shall provide and maintain mechanical and electrical facilities and equipment in compliance with these requirements. A person shall not occupy as *owner-occupant* or permit another person to occupy any premises that does not comply with the requirements of this chapter.

SECTION 602 HEATING AND COOLING FACILITIES

602.1 Facilities required. Heating and cooling facilities shall be provided maintained and operated in structures as required by this section.

602.2 Residential occupancies. Dwellings shall be provided with heating facilities capable of maintaining a room temperature of 68°F (20°C) in all habitable rooms, *bathrooms* and *toilet rooms* based on the winter outdoor design temperature for the locality indicated in Appendix D of the *International Plumbing Code*. Cooking appliances shall not be used, nor shall portable unvented fuel-burning space heaters be used, as a means to provide required heating.

Exception: In areas where the average monthly temperature is above 30°F (-1°C), a minimum temperature of 65°F (18°C) shall be maintained.

602.3 602.2 Heat supply. Every *owner* and *operator* of any a Group R-2 apartment building or other residential building who rents, leases or lets one or more *dwelling units* or *sleeping units*, *rooming unit*, *dormitory* or *guestroom* on terms, either expressed or implied, to furnish heat to the *occupants* thereof shall supply heat during the period from ~~{DATE} October 15~~ to ~~{DATE} May 1~~ to maintain a ~~minimum~~ temperature of not less than 68°F (20°C) in all habitable rooms, *bathrooms*, and *toilet rooms*. The code official may also consider modifications as provided in Section 104.5.2 when requested for unusual circumstances or may issue notice approving building owners to convert shared heating and cooling piping HVAC systems 14 calendar days before or after the established dates when extended periods of unusual temperatures merit modifying these dates.

Exceptions: 1. When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity. The winter outdoor design temperature for the locality shall be as indicated in Appendix D of the *International Plumbing Code*.

2. In areas where the average monthly temperature is above 30°F (-1°C), a minimum temperature of 65°F

(18°C) shall be maintained.

602.2.1 Prohibited use. In dwelling units subject to Section 602.2, one or more unvented room heaters shall not be used as the sole source of comfort heat in a dwelling unit.

602.4 602.3 Occupiable work spaces. Indoor occupiable work spaces shall be supplied with heat during the period from ~~{DATE} October 1~~ to ~~{DATE} May 15~~ to maintain a minimum temperature of 65°F (18°C) during the period the spaces are occupied.

Exceptions:

1. Processing, storage and operation areas that require cooling or special temperature conditions.

2. Areas in which persons are primarily engaged in vigorous physical activities.

602.4 Cooling supply. Every owner and operator of a Group R-2 apartment building who rents, leases or lets one or more dwelling units, rooming units or guestrooms on terms, either expressed or implied, to furnish cooling to the occupants thereof shall supply cooling during the period from May 15 to October 1 to maintain a temperature of not more than 80°F (27°C) in all habitable rooms. The code official may also consider modifications as provided in Section 104.5.2 when requested for unusual circumstances or may issue notice approving building owners to convert shared heating and cooling piping HVAC systems 14 calendar days before or after the established dates when extended periods of unusual temperatures merit modifying these dates.

Exception: When the outdoor temperature is higher than the summer design temperature for the locality, maintenance of the room temperature shall not be required provided that the cooling system is operating at its full design capacity. The summer outdoor design temperature for the locality shall be as indicated in the IECC.

602.5 Room temperature measurement. The required room temperatures shall be measured 3 feet (914 mm) above the floor near the center of the room and 2 feet (610 mm) inward from the center of each exterior wall.

SECTION 603 MECHANICAL EQUIPMENT

603.1 Mechanical appliances. Required or provided ~~M~~mechanical appliances, fireplaces, solid fuel-burning appliances, cooking appliances, *chimneys*, *vents* and water heating appliances shall be ~~properly installed and maintained in compliance with the code under which the appliance, system or equipment was installed, kept~~ in a safe working condition, and shall be capable of performing the intended function.

603.2 Removal of combustion products. Where required by the code under which installed, ~~F~~fuel-burning equipment and appliances shall be connected to an *approved* chimney or vent.

Exception: Fuel-burning equipment and appliances that

Comment [x72]: The scope section is changed to bring it in line with Chapter 1 and the statutory authority for the VMC and the responsibility section is deleted as in prior chapters.

Comment [x73]: All changes to this section are existing state amendments.

Comment [x74]: Construction-related requirements are deleted and maintenance-related requirements left in.

~~are labeled for unvented operation.~~

603.3 Clearances. Required clearances to combustible materials shall be maintained.

603.4 Safety controls. Safety controls for fuel-burning equipment shall be maintained in effective operation.

603.5 Combustion air. ~~Where required by the code under which installed, A~~ supply of air for complete combustion of the fuel ~~and for ventilation of the space containing the fuel-burning equipment shall be provided for the fuel-burning equipment.~~

603.6 Energy conservation devices. ~~Devices intended to reduce fuel consumption by attachment to a fuel-burning appliance, to the fuel supply line thereto, or to the vent outlet or vent piping therefrom, shall not be installed unless labeled for such purpose and the installation is specifically approved.~~

SECTION 604 ELECTRICAL FACILITIES

604.1 Facilities required Electrical system. ~~Every occupied building shall be Required or provided with an electrical systems in compliance with the requirements of this section and Section 605 and facilities shall be maintained in compliance with the code under which the system or facility was constructed.~~

604.2 Service. ~~The size and usage of appliances and equipment shall serve as a basis for determining the need for additional facilities in accordance with NFPA 70. Dwelling units shall be served by a three-wire, 120/240 volt, single-phase electrical service having a minimum rating of 60 amperes.~~

604.3 Electrical system hazards. ~~Where it is found that the electrical system in a structure constitutes a hazard to the occupants or the structure by reason of inadequate service, improper fusing, insufficient receptacle and lighting outlets, improper wiring or installation, deterioration or damage, or for similar reasons, the code official shall require the defects to be corrected to eliminate the hazard.~~

604.3.1 Abatement of electrical hazards associated with water exposure. The provisions of this section shall govern the repair and replacement of electrical systems and equipment that have been exposed to water.

604.3.1.1 Electrical equipment. Electrical distribution equipment, motor circuits, power equipment, transformers, wire, cable, flexible cords, wiring devices, ground fault circuit interrupters, surge protectors, molded case circuit breakers, low-voltage fuses, luminaires, ballasts, motors and electronic control, signaling and communication equipment that have been exposed to water shall be replaced in accordance with the provisions of the *International Building Code VCC*.

Exception: The following equipment shall be allowed to be repaired or reused where an inspection report from the equipment manufacturer ~~or, an approved representative of the equipment manufacturer's representative, a third party licensed or certified electrician, or an electrical engineer indicates~~

that the equipment has not sustained damage that requires replacement:

1. Enclosed switches, rated ~~a maximum of~~ 600 volts or less;
2. Busway, rated ~~a maximum of~~ 600 volts or less;
3. Panelboards, rated ~~a maximum of~~ 600 volts or less;
4. Switchboards, rated ~~a maximum of~~ 600 volts or less;
5. Fire pump controllers, rated ~~a maximum of~~ 600 volts or less;
6. Manual and magnetic motor controllers;
7. Motor control centers;
8. Alternating current high-voltage circuit breakers;
9. Low-voltage power circuit breakers;
10. Protective relays, meters and current transformers;
11. Low- and medium-voltage switchgear;
12. Liquid-filled transformers;
13. Cast-resin transformers;
14. Wire or cable that is suitable for wet locations and whose ends have not been exposed to water;
15. Wire or cable, not containing fillers, that is suitable for wet locations and whose ends have not been exposed to water;
16. Luminaires that are listed as submersible;
17. Motors;
18. Electronic control, signaling and communication equipment.

604.3.2 Abatement of electrical hazards associated with fire exposure. ~~The provisions of this section shall govern the repair and replacement of electrical systems and equipment that have been exposed to fire.~~

604.3.2.1 Electrical equipment. ~~Electrical switches, receptacles and fixtures, including furnace, water heating, security system and power distribution circuits, that have been exposed to fire, shall be replaced in accordance with the provisions of the *International Building Code*.~~

Exception: ~~Electrical switches, receptacles and fixtures that shall be allowed to be repaired where an inspection report from the equipment manufacturer or approved manufacturer's representative indicates that the equipment has not sustained damage that requires replacement.~~

Comment [x75]: Construction-related requirements are deleted and maintenance-related requirements left in. Section 604.3.1.1 contains existing state amendments.

**SECTION 605
ELECTRICAL EQUIPMENT**

605.1 Installation Electrical components. Electrical equipment, wiring and appliances shall be ~~properly installed and~~ maintained in compliance with the code under which constructed and in a safe and ~~approved~~ manner.

605.2 Power distribution and Receptacles. ~~Every habitable space in a dwelling shall contain not less than two separate and remote receptacle outlets. Every laundry area shall contain not less than one grounding-type receptacle or a receptacle with a ground fault circuit interrupter. Every bathroom shall contain not less than one receptacle. Any new bathroom receptacle outlet shall have~~ Required or provided power circuits and receptacles shall be maintained in accordance with the code under which constructed and ground fault ~~and arc-fault~~ circuit interrupter protection shall be provided where required by the code in effect at the time of construction. All receptacle outlets shall have the appropriate faceplate cover for the location when required by the code under which constructed.

605.3 Lighting distribution and Luminaires. Every public hall, interior stairway, ~~toilet room, kitchen, bathroom, laundry room, boiler room and furnace room shall contain not less than one electric luminaire. Pool and spa luminaires over 15 V shall have ground fault circuit interrupter protection.~~ Required or provided lighting circuits and luminaires shall be maintained in compliance with the code under which constructed.

605.4 Wiring Flexible cords. Flexible cords shall not be used for permanent wiring, or for running run through doors, windows, or cabinets, or concealed within walls, floors, or ceilings.

**SECTION 606
ELEVATORS, ESCALATORS AND DUMBWAITERS**

606.1 General. Elevators, dumbwaiters and escalators shall be maintained in compliance with ASME A17.1. The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter, be available for public inspection in the office of the building operator or be posted in a publicly conspicuous location ~~approved by the code official. The inspection and tests shall be performed at not less than the periodic intervals listed in ASME A17.1, Appendix N, except where otherwise specified by the authority having jurisdiction. An annual periodic inspection and test is required of elevators and escalators. A locality shall be permitted to require a six-month periodic inspection and test. All periodic inspections shall be performed in accordance with Section 8.11 of ASME A17.1. The code official may also provide for such inspection by an approved agency or through agreement with other local certified elevator inspectors. An approved agency includes any individual, partnership or corporation who has met the certification requirements established by the VCS.~~

606.2 Elevators. In buildings equipped with passenger elevators, not less than one elevator shall be maintained in operation at all times when the building is occupied.

Exception: Buildings equipped with only one elevator shall be permitted to have the elevator temporarily out of service for testing or servicing.

**SECTION 607
DUCT SYSTEMS**

607.1 General. Duct systems shall be maintained free of obstructions and shall be capable of performing the required function.

607.2 Clothes dryer exhaust duct. Required or provided clothes dryer exhaust systems shall be maintained in compliance with the code under which constructed.

Comment [x76]: Construction-related requirements are deleted and maintenance-related requirements left in.

Comment [x77]: Existing state amendments.

CHAPTER 7 FIRE SAFETY REQUIREMENTS

SECTION 701 GENERAL

701.1 Scope General. The provisions of this chapter shall govern the ~~minimum conditions and standards for fire safety relating to structures and exterior premises, including maintenance of fire safety facilities and equipment to be provided.~~

701.2 Responsibility. ~~The owner of the premises shall provide and maintain such fire safety facilities and equipment in compliance with these requirements. A person shall not occupy as owner-occupant or permit another person to occupy any premises that do not comply with the requirements of this chapter.~~

SECTION 702 MEANS OF EGRESS

[F] 702.1 General. ~~A safe, continuous and unobstructed path of travel shall be provided from any point in a building or structure to the public way. All required or provided means of egress components shall comply with the International Fire Code be maintained in accordance with the code under which constructed.~~

[F] 702.2 Aisles. ~~The required width of aisles in accordance with the International Fire Code shall be unobstructed, shall be maintained in accordance with the code under which constructed.~~

[F] 702.3 Locked doors. ~~Means of egress doors shall be maintained and, to the extent required by the code in effect at the time of construction, shall be readily openable from the side from which egress is to be made without the need for keys, special knowledge or effort, except where the door hardware conforms to that permitted by the International Building Code.~~

[F] 702.4 Emergency escape openings. ~~Required emergency escape openings shall be maintained in accordance with the code in effect at the time of construction, and the following: Required emergency escape and rescue openings to the extent required by the code in effect at the time of construction, shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates or similar devices are permitted to be placed over emergency escape and rescue openings provided 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 escape and rescue opening.~~

SECTION 703 FIRE-RESISTANCE RATINGS

[F] 703.1 Fire-resistance-rated assemblies. ~~The required fire-resistance rating of fire-resistance-rated walls, fire stops, shaft enclosures, partitions and floors shall be maintained.~~

[F] 703.2 Opening protectives. ~~Required opening protectives shall be maintained in an operative condition. Fire and~~

~~smokestop doors shall be maintained in operable condition. Fire doors and smoke barrier doors shall not be blocked or obstructed or otherwise made inoperable.~~

SECTION 704 FIRE PROTECTION SYSTEMS

[F] 704.1 General. ~~Systems, devices and equipment to detect a fire, actuate an alarm, or suppress or control a fire or any combination thereof shall be maintained in an operable condition at all times in accordance with the International Fire Code.~~

[F] 704.1.1 Automatic sprinkler systems. ~~Inspection, testing and maintenance of automatic sprinkler systems shall be in accordance with NFPA 25 for the purpose of operation and maintenance.~~

[F] 704.1.2 Fire department connection. ~~Where the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall be subject to the approval of the fire-code official.~~

[F] 704.2 Single- and multiple-station smoke alarms. ~~Required or provided single- and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Sections 704.2.1 through 704.2.3 maintained in compliance with the code under which they were constructed.~~

[F] 704.2.1 Where required. ~~Existing Group I-1 and R occupancies shall be provided with single-station smoke alarms in accordance with Sections 704.2.1.1 through 704.2.1.4. Interconnection and power sources shall be in accordance with Sections 704.2.2 and 704.2.3.~~

Exceptions:

- ~~1. Where the code that was in effect at the time of construction required smoke alarms and smoke alarms complying with those requirements are already provided.~~
- ~~2. Where smoke alarms have been installed in occupancies and dwellings that were not required to have them at the time of construction, additional smoke alarms shall not be required provided that the existing smoke alarms comply with requirements that were in effect at the time of installation.~~
- ~~3. Where smoke detectors connected to a fire alarm system have been installed as a substitute for smoke alarms.~~

[F] 704.2.1.1 Group R-1. ~~Single- or multiple-station~~

Comment [x78]: The text in this chapter is revised to keep maintenance-related requirements and to delete construction-related or administrative requirements.

Comment [x79]: The International Fire Code may have requirements for upgrading fire safety systems, which would be in conflict with Chapter 1, so the reference is deleted.

Comment [x80]: Language is added to clarify the use of the referenced standard.

smoke alarms shall be installed in all of the following locations in Group R-1:

1. In sleeping areas.
2. In every room in the path of the *means of egress* from the sleeping area to the door leading from the *sleeping unit*.
3. In each story within the *sleeping unit*, including basements. For *sleeping units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

[F] 704.2.1.2 Groups R-2, R-3, R-4 and I-1. Single or multiple station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1 regardless of *occupant load* at all of the following locations:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.
3. In each story within a *dwelling unit*, including basements but not including crawl spaces and uninhabitable attics. In *dwelling units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

[F] 704.2.1.3 Installation near cooking appliances. Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm in a location required by Section 704.2.1.1 or 704.2.1.2.

1. Ionization smoke alarms shall not be installed less than 20 feet (6096 mm) horizontally from a permanently installed cooking appliance.
2. Ionization smoke alarms with an alarm silencing switch shall not be installed less than 10 feet (3048 mm) horizontally from a permanently installed cooking appliance.
3. Photoelectric smoke alarms shall not be installed less than 6 feet (1829 mm) horizontally from a permanently installed cooking appliance.

[F] 704.2.1.4 Installation near bathrooms. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section 704.2.1.1 or 704.2.1.2.

[F] 704.2.2 Interconnection. Where more than one smoke

alarm is required to be installed within an individual *dwelling or sleeping unit*, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Exceptions:

1. Interconnection is not required in buildings that are not undergoing *alterations*, repairs or construction of any kind.
2. Smoke alarms in existing areas are not required to be interconnected where *alterations* or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available that could provide access for interconnection without the removal of interior finishes.

[F] 704.2.3 Power source. Single station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. Smoke alarms are permitted to be solely battery operated in existing buildings where no construction is taking place.
2. Smoke alarms are permitted to be solely battery operated in buildings that are not served from a commercial power source.
3. Smoke alarms are permitted to be solely battery operated in existing areas of buildings undergoing *alterations* or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or *basement* available that could provide access for building wiring without the removal of interior finishes.

[F] 704.2.4 Smoke detection system. Smoke detectors listed in accordance with UL 268 and provided as part of the building's fire alarm system shall be an acceptable alternative to single and multiple station smoke alarms and shall comply with the following:

1. The fire alarm system shall comply with all applicable requirements in Section 907 of the *International Fire Code*.

~~2. Activation of a smoke detector in a dwelling or sleeping unit shall initiate alarm notification in the dwelling or sleeping unit in accordance with Section 907.5.2 of the *International Fire Code*.~~

~~3. Activation of a smoke detector in a dwelling or sleeping unit shall not activate alarm notification appliances outside of the dwelling or sleeping unit, provided that a supervisory signal is generated and monitored in accordance with Section 907.6.5 of the *International Fire Code*.~~

CHAPTER 8
REFERENCED STANDARDS

Comment [x81]: Existing state amendments.

Add the following referenced standards to Chapter 8 of the IPMC:

ASSE		American Society of Sanitary Engineers 901 Canterbury Road, Suite A Westlake, OH 44145
<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
5013—2009	Performance Requirements for Testing Reduced Pressure Principle Backflow Prevention Assembly (RPA) and Reduced Pressure Fire Protection Backflow Preventers (RFP)	505.2.2
5015—2009	Performance Requirements for Testing Double Check Valve Backflow Prevention Assemblies (DC) and Double Check Fire Protection Backflow Prevention Assemblies (DCF)	505.2.2
5020—2009	Performance Requirements for Testing Pressure Vacuum Breaker Assemblies (PVBA)	505.2.2
5047—98	Performance Requirements for Testing Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies (RPDA)	505.2.2
5048—2009	Performance Requirements for Testing Double Check Valve Detector Assembly (DCDA)	505.2.2
CSA		CSA Group 8501 East Pleasant Valley Cleveland, OH 44131-5516
<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
B64.10.1—11	Maintenance and Field Testing of Backflow Preventers	505.2.2

R-102.2 cdpVa-15

Proponent : Ronald Clements, Jr (clementsro@chesterfield.gov)

2012 Virginia Rehabilitation Code

102.2 Scope.

The provisions of this code shall control the rehabilitation, reconstruction, alteration, repair, ~~and change of occupancy~~ of existing buildings and structures in occupancies other than Group R-5 and shall be permitted to be used as an alternative to compliance with the VCC for additions to buildings in any occupancy classification and for reconstruction, alteration or repair in Group R-5 occupancies. In other than group I-2 or I-3 the provisions of the VRC for change of occupancy shall be met.

~~**Exception:** The use of this code shall not be permitted for change of occupancy involving Group I-2 or I-3.~~

**TABLE 1012.4
MEANS OF EGRESS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1, <u>R-5</u>
5 (Lowest Hazard)	F-2, S-2, U

**TABLE 1012.5
HEIGHTS AND AREAS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, S-1, M

4 (Lowest Hazard)	B, F-2, S-2, A-5, R-3, U, <u>R-5</u>
-------------------	--------------------------------------

Reason: Change of occupancy from R-5 to a commercial use is not specifically addressed in the VRC. Conversion of group R-5 single family dwellings to various commercial uses is a common change of occupancy.

VRC section 102.2 prohibits the use of the VRC for change of use from R-5 to another use. The VRC can only be used for R-5 addition, alteration, reconstruction or repair of R-5 buildings. The proposed change to section 102.2 extends the scope of the VRC to include change of use from R-5 to another use.

Under the "work area" method of compliance in the Virginia Rehabilitation code change of occupancy is addressed by VRC chapter 10. When using chapter 10 requirements for means of egress are established based on hazard classes assigned in table 1012.4 and allowable height and area requirements are established based on hazard classes assigned in table 1012.5. Group R-5 is not addressed by either table. This is due to the fact that group R-5 is a Virginia group classification that does not exist in the ICC family of codes; therefore, group R-5 was not included in the IEBC as adopted by Virginia. I chose to classify R-5 as hazard class #4 in both tables because group R-5 is closest in hazard level to group R-3.

Cost Impact: This code change does not alter the cost of construction.

Workgroup 1 Recommendation: Consensus for Approval

Workgroup 1 Reason: Move forward, will be changed based on VBCOA VRC committee change that will be similar.

Workgroup 2:

Workgroup 2 Reason:

R-102.2 cdpVa-15

R-301.1.2 cdpVA-15

Proponent : Kenney Payne, Representing AIA-Virginia
(kpayne@moseleyarchitects.com)

2015 International Existing Building Code

301.1.2 ~~Work area~~Proportional compliance method. *No change to text.*

Reason: The term "Work area" when used to describe an entire "compliance method" leads to confusion among owners, designers, reviewers, code and fire officials. "Work area" is a defined term and involves reconfigured spaces. However, not all "work" covered under the "work area" compliance method is actually "work areas!" A "work area" is but a small part of this entire compliance method, yet the entire method is named after this one concept. This is like calling the original 13 colonies the "Virginia Colonies." Virginia was but just one of the original colonies. Chapters 5 through 13 technically fall under the "Work area" compliance method; however, "work areas" only apply in Chapters 8 and 9 (in other words, 2 out of 9 chapters).

Repair: Has nothing to do with a "work area," yet it falls under the "Work area" compliance method. So, would a code/fire official be correct in interpreting a repair is a work area?

Level 1 alteration: Has nothing to do with a "work area," yet it falls under the "Work area" compliance method. So, would a code/fire official be correct in interpreting a repair is a work area?.

Addition, moved/relocated building, or a historic building: They all must be "work areas," because they fall under the "work area" compliance method.

Since it is apparent NONE of the above examples are actual "work areas" (per the definition in Chapter 2), then why confuse things by assigning them to the "Work area" compliance method? If we revise the name/title of this particular compliance method, then at least trying to connect all "work" performed under Chapters 5-13 to a "work area" should no longer be an interpretation issue.

Other than the Index (where I cannot make a code change under this cdpVA system), this is the only place the term "Work area" compliance method is used.

Cost Impact: Could potentially reduce costs if we can avoid interpretations that require repairs, Level 1 alterations, some Level 2 alterations, additions, etc. to be classified as "work areas."

Workgroup 2:

Workgroup 2 Reason:

R-301.1.2 cdpVA-15

R-903.1 cdpVA-15

Proponent : Kenney Payne, Representing AIA-Virginia
(kpayne@moseleyarchitects.com)

2015 International Existing Building Code

903.1 Existing ~~shafts and vertical openings~~stairways. Existing stairways that are part of the means of egress shall be enclosed in accordance with Section 803.2.1 and its Exceptions if applicable, from the highest *work area* floor to, and including, the level of exit discharge and all floors below.

Reason: The revision to the header is to avoid potential confusion as the charging paragraph is only about stairways, and not shafts and vertical openings.

The purpose of adding "and Exceptions, if applicable" is to again avoid potential confusion where it may be interpreted that all such stairways must be enclosed, regardless of whether the exceptions would otherwise apply. In other words, could a code official interpret that the stairway must be enclosed - period - per 803.2.1, which only addresses the hourly rating - without allowing the application of the exceptions? If yes, then this code change is needed and should avoid such confusion or incorrect interpretations.

Cost Impact: If it could be interpreted that the stairway(s) must be enclosed in rated construction without allowing the use of the exceptions, then this code change would result in COST SAVINGS.

Workgroup 2:

Workgroup 2 Reason:

R-903.1 cdpVA-15

R-1012.7.2 cdpVA-15

Proponent : Kenney Payne, Representing AIA-Virginia
(kpayne@moseleyarchitects.com)

2015 International Existing Building Code

1012.7.2 Stairways. When a change of occupancy ~~classification~~classification is made to a higher hazard category as shown in Table 1012.4, interior stairways shall be enclosed as required by Chapter 10 of the *International Building Code*.

- **Exceptions:**

1. In other than Group I occupancies, an enclosure shall not be required for openings serving only one adjacent floor and that are not connected with corridors or stairways serving other floors.
2. Unenclosed existing stairways need not be enclosed in a continuous vertical shaft if each story is separated from other stories by 1-hour fire-resistance-rated construction or approved wired glass set in steel frames and all exit corridors are sprinklered. The openings between the corridor and the occupant space shall have at least one sprinkler head above the openings on the tenant side. The sprinkler system shall be permitted to be supplied from the domestic watersupply systems, provided the system is of adequate pressure, capacity, and sizing for the combined domestic and sprinkler requirements.
3. Existing penetrations of stairway enclosures shall be accepted if they are protected in accordance with the *International Building Code*.
4. Compliance with 1012.4.1, Exception 1 shall be permmitted.

Reason: The first revision corrects a typo.

Adding "Chapter 10" is consistant with the wording used under 1012.4.1, the section that is referenced.

Adding the 4th exception clarifies that one could utilize Exception 1 under 1012.4.1 and avoids confusion or conflicting requirements. Without the 4th exception, 1012.7.2 requires enclosure of interior stairways per IBC unless one can meet the 3 exceptions under 1012.7.2. However, what about Exception 1 under 1012.4.1? Which provision applies? This code change would allow one to use Exception 1 if they so chose.

Cost Impact: Could potentially avoid full enclosure of existing stairways, and therefore would result in COST SAVINGS.

Workgroup 2:

Workgroup 2 Reason:

**Structure Fires Summary By Sprinkler (AES) Presence
Virginia, 2004-2015**

Year	AES Present					Partial AES Present					AES Not Present				
	Total	Percent	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths	Total	Percent	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths	Total	Percent	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths
2004	229	6.1	\$ 4,324,540	6	0	0	0.0	\$ -	0	0	3,199	85.8	\$ 85,540,807	203	60
2005	313	6.9	\$ 17,190,340	19	1	0	0.0	\$ -	0	0	3,754	82.9	\$ 128,112,155	181	32
2006	303	6.6	\$ 21,736,694	11	2	4	0.1	\$ 10,500	0	0	3,794	82.1	\$ 163,798,343	184	42
2007	318	6.7	\$ 7,861,915	11	1	9	0.2	\$ 358,550	1	0	3,875	81.7	\$ 153,927,921	208	44
2008	341	6.6	\$ 56,917,953	12	0	17	0.3	\$ 1,042,362	3	0	4,296	82.9	\$ 168,542,515	279	53
2009	403	7.4	\$ 17,313,905	14	0	22	0.4	\$ 302,625	1	0	4,483	81.9	\$ 175,980,283	245	46
2010	474	8.0	\$ 6,765,219	11	2	25	0.4	\$ 1,364,502	0	0	4,895	83.0	\$ 167,609,786	309	47
2011	471	8.3	\$ 17,873,744	27	0	15	0.3	\$ 267,080	0	0	4,754	83.4	\$ 135,200,007	317	40
2012	456	8.1	\$ 16,581,813	18	0	12	0.2	\$ 75,950	0	0	4,739	83.7	\$ 156,075,573	268	38
2013	405	7.5	\$ 7,864,997	20	0	18	0.3	\$ 1,504,280	1	0	4,508	83.2	\$ 144,466,491	273	43
2014	421	7.8	\$ 12,263,795	24	1	16	0.3	\$ 469,403	1	0	4,466	82.2	\$ 164,203,508	288	52
2015	420	8.6	\$ 18,968,212	24	0	27	0.6	\$ 288,175	0	0	4,040	83.0	\$ 147,747,913	225	38
TOTAL	4,554	7.4	\$ 205,663,127	197	7	165	0.3	\$ 5,683,427	7	0	50,803	82.9	\$ 1,791,205,302	2,980	535

Source: Virginia Department of Fire Programs, February, 2016.

NOTE: Structure fires as defined above include incident codes 110-123 and structure types 1, 2.

**Structure Fires Summary By Sprinkler (AES) Presence
Virginia, 2004-2015**

Year	AES Undetermined					Total Structure Fires			
	Total	Percent	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths	Total	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths
2004	302	8.1	\$ 12,461,254	5	4	3,730	\$ 102,326,601	214	64
2005	460	10.2	\$ 16,424,541	3	2	4,527	\$ 161,727,036	203	35
2006	518	11.2	\$ 13,839,971	1	4	4,619	\$ 199,385,508	196	48
2007	539	11.4	\$ 21,942,666	6	1	4,741	\$ 184,091,052	226	46
2008	529	10.2	\$ 28,794,892	5	4	5,183	\$ 255,297,722	299	57
2009	565	10.3	\$ 27,902,416	3	5	5,473	\$ 221,499,229	263	51
2010	504	8.5	\$ 14,075,054	9	7	5,898	\$ 189,814,561	329	56
2011	459	8.1	\$ 13,076,874	6	3	5,699	\$ 166,417,705	350	43
2012	456	8.1	\$ 14,142,776	3	5	5,663	\$ 186,876,112	289	43
2013	488	9.0	\$ 24,189,275	6	5	5,419	\$ 178,025,043	300	48
2014	527	9.7	\$ 17,754,140	7	2	5,430	\$ 194,690,846	320	55
2015	380	7.8	\$ 18,192,755	8	3	4,867	\$ 185,197,055	257	41
TOTAL	5,727	9.4	\$ 222,796,614	62	45	61,249	\$ 2,225,348,470	3,246	587

Source: Virginia Department of Fire Programs, February, 2016.

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	AES Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Assembly	111	Bowling alley	2	0.6%	\$102	0	0
	112	Billiard center, pool hall	0	0.0%	\$0	0	0
	113	Electronic amusement center	3	0.9%	\$5,000	0	0
	114	Ice rink: indoor, outdoor	3	0.9%	\$37,000	0	0
	115	Roller rink: indoor or outdoor	0	0.0%	\$0	0	0
	116	Swimming facility: indoor or outdoor	1	0.3%	\$20,000	0	0
	110	Fixed use recreation places, other	5	1.5%	\$11,100	0	0
	121	Ballroom, gymnasium	4	1.2%	\$2,500	0	0
	122	Convention center, exhibition hall	4	1.2%	\$25,051	0	0
	123	Stadium, arena	1	0.3%	\$10	0	0
	124	Playground	0	0.0%	\$0	0	0
	129	Amusement center: indoor/outdoor	1	0.3%	\$0	0	0
	120	Variable use amusement, recreation places	1	0.3%	\$8,500	0	0
	131	Church, mosque, synagogue, temple, chapel	13	4.0%	\$2,597,050	0	0
	134	Funeral parlor	0	0.0%	\$0	0	0
	130	Places of worship, funeral parlors	0	0.0%	\$0	0	0
	141	Athletic/health club	15	4.6%	\$39,200	0	0
	142	Clubhouse	5	1.5%	\$252,000	0	0
	143	Yacht Club	0	0.0%	\$0	0	0
	140	Clubs, other	7	2.1%	\$716,300	0	0
	151	Library	2	0.6%	\$801	0	0
	152	Museum	1	0.3%	\$100	0	0
	154	Memorial structure, including monuments & statues	0	0.0%	\$0	0	0
	155	Courthouse	2	0.6%	\$0	0	0
	150	Public or government, other	3	0.9%	\$100	0	0
	161	Restaurant or cafeteria	209	63.9%	\$7,704,877	8	0
	162	Bar or nightclub	6	1.8%	\$109,000	0	0
	160	Eating, drinking places	18	5.5%	\$109,502	0	0
	171	Airport passenger terminal	10	3.1%	\$20,425	0	0
	170	Passenger terminal, other	0	0.0%	\$0	0	0
181	Live performance theater	3	0.9%	\$500	0	0	
182	Auditorium or concert hall	1	0.3%	\$0	0	0	
183	Movie theater	3	0.9%	\$4,350	0	0	
180	Studio/theater, other	1	0.3%	\$270,000	0	0	
100	Assembly, other	3	0.9%	\$601,060	0	0	
Assembly Total			327	100.0%	\$12,534,528	8	0
Educational	211	Preschool	5	4.5%	\$14,500	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	AES Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Educational	213	Elementary school, including kindergarten	20	17.9%	\$83,301	0	0
	215	High school/junior high school/middle school	61	54.5%	\$1,377,436	0	0
	210	Schools, non-adult	3	2.7%	\$10,002	0	0
	241	Adult education center, college classroom	12	10.7%	\$35,700	0	0
	254	Day care, in commercial property	5	4.5%	\$0	0	0
	255	Day care, in residence, licensed	0	0.0%	\$0	0	0
	200	Educational, other	6	5.4%	\$23,500	0	0
Educational Total			112	100.0%	\$1,544,439	0	0
Health Care, Detention, and Correction	311	24-hour care Nursing homes, 4 or more persons	106	54.4%	\$1,471,000	14	2
	321	Mental retardation/development disability facility	3	1.5%	\$13,000	0	0
	322	Alcohol or substance abuse recovery center	4	2.1%	\$3,750	0	0
	323	Asylum, mental institution	4	2.1%	\$55,600	0	0
	331	Hospital - medical or psychiatric	40	20.5%	\$196,507	1	0
	341	Clinic, clinic-type infirmary	0	0.0%	\$0	0	0
	342	Doctor, dentist or oral surgeon's office	1	0.5%	\$20,000	0	0
	340	Clinics, Doctors offices, hemodialysis centers	10	5.1%	\$292,300	0	0
	361	Jail, prison (not juvenile)	10	5.1%	\$1,109,000	5	0
	363	Reformatory, juvenile detention center	7	3.6%	\$4,871	0	0
	365	Police station	1	0.5%	\$0	0	0
300	Health care, detention, & correction, other	9	4.6%	\$146,200	0	0	
Health Care, Detention, and Correction Total			195	100.0%	\$3,312,228	20	2
Residential	419	1 or 2 family dwelling	207	18.7%	\$8,717,084	4	2
	429	Multifamily dwellings	644	58.1%	\$18,431,189	38	3
	439	Boarding/rooming house, residential hotels	21	1.9%	\$336,850	6	0
	449	Hotel/motel, commercial	168	15.2%	\$3,641,551	11	0
	459	Residential board and care	19	1.7%	\$193,750	4	0
	462	Sorority house, fraternity house	4	0.4%	\$607	0	0
	464	Barracks, dormitory	8	0.7%	\$1,480,500	0	0
	460	Dormitory type residence, other	26	2.3%	\$148,779	5	0
	400	Residential, other	11	1.0%	\$123,200	0	0
Residential Total			1,108	100.0%	\$33,073,510	68	5
Mercantile, Business	511	Convenience store	11	2.4%	\$31,900	3	0
	519	Food and beverage sales, grocery store	119	25.4%	\$1,066,857	1	0
	529	Textile, wearing apparel sales	19	4.1%	\$261,820	0	0
	539	Household goods, sales, repairs	7	1.5%	\$1,907,075	0	0
	549	Specialty shop	39	8.3%	\$2,970,153	0	0
	557	Personal service, including barber & beauty shops	8	1.7%	\$64,450	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	AES Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Mercantile, Business	559	Recreational, hobby, home repair sales, pet store	2	0.4%	\$330	0	0
	564	Laundry, dry cleaning	24	5.1%	\$474,214	0	0
	569	Professional supplies, services	12	2.6%	\$326,600	0	0
	571	Service station, gas station	10	2.1%	\$9,977	0	0
	579	Motor vehicle or boat sales, services, repair	22	4.7%	\$251,105	1	0
	581	Department or discount store	49	10.5%	\$833,019	1	0
	580	General retail, other	18	3.8%	\$136,603	2	0
	592	Bank	4	0.9%	\$13,600	0	0
	593	Office: veterinary or research	3	0.6%	\$5,000	0	0
	596	Post office or mailing firms	0	0.0%	\$0	0	0
	599	Business office	76	16.2%	\$4,028,598	1	0
	500	Mercantile, business, other	45	9.6%	\$719,275	0	0
Mercantile, Business Total			468	100.0%	\$13,100,576	9	0
Industrial, Utility, Defense, Agriculture, Mining	614	Steam or heat generating plant	1	3.0%	\$50,000	0	0
	615	Electric generating plant	1	3.0%	\$6,000	0	0
	610	Energy production plant, other	1	3.0%	\$25,000	0	0
	629	Laboratory or science laboratory	8	24.2%	\$4,360	0	0
	631	Defense, military installation	4	12.1%	\$2,003,600	0	0
	635	Computer center	2	6.1%	\$30,100	0	0
	639	Communications center	0	0.0%	\$0	0	0
	642	Electrical distribution	1	3.0%	\$300	0	0
	645	Flammable liquid distribution, pipeline, flammable	0	0.0%	\$0	0	0
	647	Water utility	1	3.0%	\$10,001	0	0
	648	Sanitation utility	2	6.1%	\$3,000	0	0
	640	Utility or Distribution system, other	3	9.1%	\$10,000	0	0
	655	Crops or orchard	0	0.0%	\$0	0	0
	659	Livestock production	0	0.0%	\$0	0	0
	669	Forest, timberland, woodland	0	0.0%	\$0	0	0
	679	Mine or quarry	0	0.0%	\$0	0	0
	600	Utility, defense, agriculture, mining, other	9	27.3%	\$363,601	1	0
Industrial, Utility, Defense, Agriculture, Mining Total			33	100.0%	\$2,505,962	1	0
Manufacturing, Processing	700	Manufacturing, processing	299	100.0%	\$30,649,150	13	0
Manufacturing, Processing Total			299	100.0%	\$30,649,150	13	0
Storage	807	Outside material storage area	2	2.5%	\$0	0	0
	808	Outbuilding or shed	3	3.8%	\$2,200	0	0
	816	Grain elevator, silo	0	0.0%	\$0	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	AES Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Storage	819	Livestock, poultry storage	2	2.5%	\$0	0	0
	839	Refrigerated storage	6	7.6%	\$2,458,501	0	0
	849	Outside storage tank	1	1.3%	\$0	0	0
	881	Parking garage, (detached residential garage)	0	0.0%	\$0	0	0
	882	Parking garage, general vehicle	3	3.8%	\$30,000	0	0
	888	Fire station	2	2.5%	\$12,300	0	0
	880	Vehicle storage, other	3	3.8%	\$0	0	0
	891	Warehouse	49	62.0%	\$64,241,852	7	0
	898	Dock, marina, pier, wharf	0	0.0%	\$0	0	0
	899	Residential or self storage units	0	0.0%	\$0	0	0
	800	Storage, other	8	10.1%	\$114,600	0	0
Storage Total			79	100.0%	\$66,859,453	7	0
Outside or Special Property	919	Dump, sanitary landfill	0	0.0%	\$0	0	0
	926	Outbuilding, protective shelter	0	0.0%	\$0	0	0
	931	Open land or field	0	0.0%	\$0	0	0
	935	Campsite with utilities	0	0.0%	\$0	0	0
	936	Vacant lot	0	0.0%	\$0	0	0
	937	Beach	0	0.0%	\$0	0	0
	938	Graded and cared-for plots of land	0	0.0%	\$0	0	0
	940	Water area, other	0	0.0%	\$0	0	0
	951	Railroad right of way	0	0.0%	\$0	0	0
	952	Railroad yard	0	0.0%	\$0	0	0
	961	Highway or divided highway	0	0.0%	\$0	0	0
	962	Residential street, road or residential driveway	1	14.3%	\$0	0	0
	963	Street or road in commercial area	0	0.0%	\$0	0	0
	965	Vehicle parking area	1	14.3%	\$1,000	0	0
	960	Street, other	0	0.0%	\$0	0	0
	974	Aircraft loading area	1	14.3%	\$30,000	0	0
	981	Construction site	1	14.3%	\$0	0	0
	983	Pipeline, power line or other utility right of way	0	0.0%	\$0	0	0
	984	Industrial plant yard - area	2	28.6%	\$500,000	0	0
	900	Outside or special property, other	1	14.3%	\$3,000	0	0
Outside or Special Property Total			7	100.0%	\$534,000	0	0
	000	Property Use, other	7	100.0%	\$45,900	0	0
	NNN	None	5	100.0%	\$86,752	0	0
	UUU	Undetermined or Not Reported	10	100.0%	\$502,050	0	0
Grand Total			2,650	100.0%	\$164,748,548	126	7

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	None Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Assembly	111	Bowling alley	2	0.4%	\$150,000	0	0
	112	Billiard center, pool hall	3	0.5%	\$90,000	0	0
	113	Electronic amusement center	1	0.2%	\$10,000	0	0
	114	Ice rink: indoor, outdoor	1	0.2%	\$0	0	0
	115	Roller rink: indoor or outdoor	0	0.0%	\$0	0	0
	116	Swimming facility: indoor or outdoor	13	2.4%	\$322,890	0	0
	110	Fixed use recreation places, other	21	3.8%	\$397,501	0	0
	121	Ballroom, gymnasium	4	0.7%	\$12,050	0	0
	122	Convention center, exhibition hall	5	0.9%	\$400	0	0
	123	Stadium, arena	3	0.5%	\$0	0	0
	124	Playground	3	0.5%	\$500	0	0
	129	Amusement center: indoor/outdoor	4	0.7%	\$71,000	0	0
	120	Variable use amusement, recreation places	15	2.7%	\$406,000	2	0
	131	Church, mosque, synagogue, temple, chapel	135	24.5%	\$33,644,410	10	2
	134	Funeral parlor	6	1.1%	\$162,000	1	0
	130	Places of worship, funeral parlors	13	2.4%	\$2,567,550	1	0
	141	Athletic/health club	10	1.8%	\$239,100	0	0
	142	Clubhouse	25	4.5%	\$1,277,176	0	0
	143	Yacht Club	1	0.2%	\$50,000	0	0
	140	Clubs, other	15	2.7%	\$879,100	0	0
	151	Library	2	0.4%	\$150,500	0	0
	152	Museum	3	0.5%	\$1,001,000	0	0
	154	Memorial structure, including monuments & statues	1	0.2%	\$0	0	0
	155	Courthouse	5	0.9%	\$230,000	0	0
	150	Public or government, other	12	2.2%	\$925,100	0	0
	161	Restaurant or cafeteria	174	31.5%	\$12,991,932	7	0
	162	Bar or nightclub	33	6.0%	\$3,089,901	2	0
	160	Eating, drinking places	17	3.1%	\$2,173,330	1	0
	171	Airport passenger terminal	2	0.4%	\$0	0	0
	170	Passenger terminal, other	2	0.4%	\$250	0	0
181	Live performance theater	1	0.2%	\$700	0	0	
182	Auditorium or concert hall	0	0.0%	\$0	0	0	
183	Movie theater	4	0.7%	\$1,000	0	0	
180	Studio/theater, other	3	0.5%	\$1,121,250	0	0	
100	Assembly, other	13	2.4%	\$216,500	0	0	
Assembly Total			552	100.0%	\$62,181,140	24	2
Educational	211	Preschool	1	0.5%	\$1,001	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	None Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Educational	213	Elementary school, including kindergarten	52	25.2%	\$416,929	1	0
	215	High school/junior high school/middle school	88	42.7%	\$5,866,922	12	0
	210	Schools, non-adult	13	6.3%	\$646,381	0	0
	241	Adult education center, college classroom	21	10.2%	\$1,094,200	0	0
	254	Day care, in commercial property	14	6.8%	\$350,973	0	1
	255	Day care, in residence, licensed	1	0.5%	\$5,500	0	0
	200	Educational, other	16	7.8%	\$2,252,102	0	0
Educational Total			206	100.0%	\$10,634,008	13	1
Health Care, Detention, and Correction	311	24-hour care Nursing homes, 4 or more persons	25	20.8%	\$256,660	6	0
	321	Mental retardation/development disability facility	12	10.0%	\$113,616	0	0
	322	Alcohol or substance abuse recovery center	4	3.3%	\$6,900	0	0
	323	Asylum, mental institution	1	0.8%	\$0	0	0
	331	Hospital - medical or psychiatric	14	11.7%	\$29,982	2	0
	341	Clinic, clinic-type infirmary	1	0.8%	\$0	0	0
	342	Doctor, dentist or oral surgeon's office	17	14.2%	\$1,494,300	0	0
	340	Clinics, Doctors offices, hemodialysis centers	15	12.5%	\$8,354,050	0	0
	361	Jail, prison (not juvenile)	13	10.8%	\$20,521	0	0
	363	Reformatory, juvenile detention center	4	3.3%	\$11,500	0	0
	365	Police station	3	2.5%	\$1,000	0	0
300	Health care, detention, & correction, other	11	9.2%	\$249,103	4	0	
Health Care, Detention, and Correction Total			120	100.0%	\$10,537,632	12	0
Residential	419	1 or 2 family dwelling	22,915	80.3%	\$766,449,432	1,477	336
	429	Multifamily dwellings	4,687	16.4%	\$158,868,400	474	42
	439	Boarding/rooming house, residential hotels	85	0.3%	\$1,523,233	13	0
	449	Hotel/motel, commercial	143	0.5%	\$11,094,731	11	2
	459	Residential board and care	26	0.1%	\$58,024	9	1
	462	Sorority house, fraternity house	9	0.0%	\$222,390	1	0
	464	Barracks, dormitory	4	0.0%	\$200,020	0	0
	460	Dormitory type residence, other	33	0.1%	\$214,815	0	0
	400	Residential, other	632	2.2%	\$18,122,530	18	7
Residential Total			28,534	100.0%	\$956,753,575	2,003	388
Mercantile, Business	511	Convenience store	81	6.7%	\$2,732,152	1	0
	519	Food and beverage sales, grocery store	109	9.1%	\$9,400,345	6	0
	529	Textile, wearing apparel sales	11	0.9%	\$157,891	0	0
	539	Household goods, sales, repairs	20	1.7%	\$1,629,600	0	0
	549	Specialty shop	140	11.6%	\$33,846,290	2	0
	557	Personal service, including barber & beauty shops	45	3.7%	\$1,979,371	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	None Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Mercantile, Business	559	Recreational, hobby, home repair sales, pet store	17	1.4%	\$2,359,852	0	0
	564	Laundry, dry cleaning	116	9.7%	\$2,426,432	3	1
	569	Professional supplies, services	43	3.6%	\$8,572,053	5	1
	571	Service station, gas station	33	2.7%	\$808,805	1	0
	579	Motor vehicle or boat sales, services, repair	170	14.1%	\$25,363,383	7	4
	581	Department or discount store	21	1.7%	\$1,119,479	0	0
	580	General retail, other	33	2.7%	\$3,730,603	0	1
	592	Bank	9	0.7%	\$164,850	0	0
	593	Office: veterinary or research	12	1.0%	\$289,850	2	0
	596	Post office or mailing firms	3	0.2%	\$26,100	1	0
	599	Business office	207	17.2%	\$11,835,295	2	0
	500	Mercantile, business, other	132	11.0%	\$8,974,795	9	0
Mercantile, Business Total			1,202	100.0%	\$115,417,146	39	7
Industrial, Utility, Defense, Agriculture, Mining	614	Steam or heat generating plant	0	0.0%	\$0	0	0
	615	Electric generating plant	4	2.5%	\$3,900,000	0	0
	610	Energy production plant, other	0	0.0%	\$0	0	0
	629	Laboratory or science laboratory	3	1.9%	\$200,000	0	0
	631	Defense, military installation	3	1.9%	\$1,610,000	0	0
	635	Computer center	1	0.6%	\$0	0	0
	639	Communications center	5	3.2%	\$1,000	0	0
	642	Electrical distribution	0	0.0%	\$0	0	0
	645	Flammable liquid distribution, pipeline, flammable	2	1.3%	\$200	0	0
	647	Water utility	5	3.2%	\$7,001	0	0
	648	Sanitation utility	11	7.0%	\$240,350	3	0
	640	Utility or Distribution system, other	0	0.0%	\$0	0	0
	655	Crops or orchard	14	8.9%	\$404,375	0	0
	659	Livestock production	53	33.5%	\$2,730,625	0	0
	669	Forest, timberland, woodland	9	5.7%	\$418,800	0	0
	679	Mine or quarry	2	1.3%	\$20,000	0	0
600	Utility, defense, agriculture, mining, other	46	29.1%	\$1,430,454	0	0	
Industrial, Utility, Defense, Agriculture, Mining Total			158	100.0%	\$10,962,805	3	0
Manufacturing, Processing	700	Manufacturing, processing	178	100.0%	\$20,011,044	2	0
Manufacturing, Processing Total			178	100.0%	\$20,011,044	2	0
Storage	807	Outside material storage area	144	5.4%	\$3,077,048	1	0
	808	Outbuilding or shed	1,582	59.6%	\$20,016,584	17	4
	816	Grain elevator, silo	5	0.2%	\$3,000	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	None Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Storage	819	Livestock, poultry storage	97	3.7%	\$5,212,200	0	0
	839	Refrigerated storage	2	0.1%	\$7,000	0	0
	849	Outside storage tank	2	0.1%	\$0	0	0
	881	Parking garage, (detached residential garage)	394	14.9%	\$9,802,157	6	2
	882	Parking garage, general vehicle	34	1.3%	\$589,225	0	0
	888	Fire station	8	0.3%	\$707,600	0	0
	880	Vehicle storage, other	84	3.2%	\$4,993,204	0	0
	891	Warehouse	73	2.8%	\$12,965,407	0	0
	898	Dock, marina, pier, wharf	3	0.1%	\$56,000	0	0
	899	Residential or self storage units	59	2.2%	\$6,314,961	7	0
	800	Storage, other	166	6.3%	\$7,820,053	1	0
Storage Total			2,653	100.0%	\$71,564,439	32	6
Outside or Special Property	919	Dump, sanitary landfill	2	0.4%	\$7,000	0	0
	926	Outbuilding, protective shelter	236	46.6%	\$2,443,056	2	1
	931	Open land or field	29	5.7%	\$203,100	0	0
	935	Campsite with utilities	19	3.8%	\$193,375	2	0
	936	Vacant lot	18	3.6%	\$3,030	0	0
	937	Beach	0	0.0%	\$0	0	0
	938	Graded and cared-for plots of land	20	4.0%	\$189,273	0	0
	940	Water area, other	1	0.2%	\$2,000	0	0
	951	Railroad right of way	1	0.2%	\$0	0	0
	952	Railroad yard	1	0.2%	\$1,100	0	0
	961	Highway or divided highway	14	2.8%	\$103,450	1	0
	962	Residential street, road or residential driveway	52	10.3%	\$1,635,950	2	0
	963	Street or road in commercial area	3	0.6%	\$1,003,000	0	0
	965	Vehicle parking area	29	5.7%	\$124,803	1	0
	960	Street, other	4	0.8%	\$4,010	0	0
	974	Aircraft loading area	1	0.2%	\$500,000	0	0
	981	Construction site	28	5.5%	\$1,001,602	0	0
	983	Pipeline, power line or other utility right of way	1	0.2%	\$500	0	0
984	Industrial plant yard - area	8	1.6%	\$1,330,501	0	0	
900	Outside or special property, other	39	7.7%	\$1,145,153	0	0	
Outside or Special Property Total			506	100.0%	\$9,890,903	8	1
	000	Property Use, other	95	100.0%	\$3,505,111	0	0
	NNN	None	125	100.0%	\$1,332,701	3	0
	UUU	Undetermined or Not Reported	73	100.0%	\$761,277	1	0
Grand Total			34,402	100.0%	\$1,273,551,781	2,140	405

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	Undetermined or Not Reported				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Assembly	111	Bowling alley	4	3.8%	\$100,700	0	0
	112	Billiard center, pool hall	1	0.9%	\$650,000	0	0
	113	Electronic amusement center	3	2.8%	\$5,200	0	0
	114	Ice rink: indoor, outdoor	0	0.0%	\$0	0	0
	115	Roller rink: indoor or outdoor	1	0.9%	\$4,500	0	0
	116	Swimming facility: indoor or outdoor	2	1.9%	\$3,000	0	0
	110	Fixed use recreation places, other	2	1.9%	\$0	0	0
	121	Ballroom, gymnasium	0	0.0%	\$0	0	0
	122	Convention center, exhibition hall	0	0.0%	\$0	0	0
	123	Stadium, arena	0	0.0%	\$0	0	0
	124	Playground	0	0.0%	\$0	0	0
	129	Amusement center: indoor/outdoor	0	0.0%	\$0	0	0
	120	Variable use amusement, recreation places	0	0.0%	\$0	0	0
	131	Church, mosque, synagogue, temple, chapel	25	23.6%	\$1,053,023	0	0
	134	Funeral parlor	0	0.0%	\$0	0	0
	130	Places of worship, funeral parlors	0	0.0%	\$0	0	0
	141	Athletic/health club	1	0.9%	\$4,500	0	0
	142	Clubhouse	0	0.0%	\$0	0	0
	143	Yacht Club	0	0.0%	\$0	0	0
	140	Clubs, other	0	0.0%	\$0	0	0
	151	Library	1	0.9%	\$0	0	0
	152	Museum	1	0.9%	\$0	0	0
	154	Memorial structure, including monuments & statues	0	0.0%	\$0	0	0
	155	Courthouse	0	0.0%	\$0	0	0
	150	Public or government, other	3	2.8%	\$0	0	0
	161	Restaurant or cafeteria	49	46.2%	\$3,328,000	0	0
	162	Bar or nightclub	2	1.9%	\$300	0	0
	160	Eating, drinking places	5	4.7%	\$75,700	0	0
	171	Airport passenger terminal	0	0.0%	\$0	0	0
	170	Passenger terminal, other	1	0.9%	\$0	0	0
181	Live performance theater	0	0.0%	\$0	0	0	
182	Auditorium or concert hall	0	0.0%	\$0	0	0	
183	Movie theater	2	1.9%	\$0	0	0	
180	Studio/theater, other	1	0.9%	\$100	0	0	
100	Assembly, other	2	1.9%	\$0	0	0	
Assembly Total			106	100.0%	\$5,225,023	0	0
Educational	211	Preschool	0	0.0%	\$0	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	Undetermined or Not Reported				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Educational	213	Elementary school, including kindergarten	3	13.0%	\$0	0	0
	215	High school/junior high school/middle school	10	43.5%	\$81,550	0	0
	210	Schools, non-adult	1	4.3%	\$0	0	0
	241	Adult education center, college classroom	3	13.0%	\$11,501	0	0
	254	Day care, in commercial property	3	13.0%	\$35,000	0	0
	255	Day care, in residence, licensed	0	0.0%	\$0	0	0
	200	Educational, other	3	13.0%	\$38,200	0	0
Educational Total			23	100.0%	\$166,251	0	0
Health Care, Detention, and Correction	311	24-hour care Nursing homes, 4 or more persons	8	27.6%	\$3,602,000	0	0
	321	Mental retardation/development disability facility	0	0.0%	\$0	0	0
	322	Alcohol or substance abuse recovery center	0	0.0%	\$0	0	0
	323	Asylum, mental institution	0	0.0%	\$0	0	0
	331	Hospital - medical or psychiatric	6	20.7%	\$417,550	0	0
	341	Clinic, clinic-type infirmary	1	3.4%	\$1,001	0	0
	342	Doctor, dentist or oral surgeon's office	2	6.9%	\$100	0	0
	340	Clinics, Doctors offices, hemodialysis centers	5	17.2%	\$65,202	0	0
	361	Jail, prison (not juvenile)	4	13.8%	\$500	0	0
	363	Reformatory, juvenile detention center	1	3.4%	\$0	0	0
	365	Police station	0	0.0%	\$0	0	0
300	Health care, detention, & correction, other	2	6.9%	\$0	0	0	
Health Care, Detention, and Correction Total			29	100.0%	\$4,086,353	0	0
Residential	419	1 or 2 family dwelling	2,272	85.9%	\$77,816,102	26	27
	429	Multifamily dwellings	172	6.5%	\$4,602,957	5	1
	439	Boarding/rooming house, residential hotels	4	0.2%	\$18,000	0	0
	449	Hotel/motel, commercial	13	0.5%	\$86,050	0	0
	459	Residential board and care	3	0.1%	\$2,950	2	0
	462	Sorority house, fraternity house	0	0.0%	\$0	0	0
	464	Barracks, dormitory	0	0.0%	\$0	0	0
	460	Dormitory type residence, other	3	0.1%	\$41,002	0	0
	400	Residential, other	178	6.7%	\$4,553,562	1	1
Residential Total			2,645	100.0%	\$87,120,623	34	29
Mercantile, Business	511	Convenience store	15	6.2%	\$1,101,976	0	0
	519	Food and beverage sales, grocery store	41	17.0%	\$2,094,101	0	0
	529	Textile, wearing apparel sales	2	0.8%	\$0	0	0
	539	Household goods, sales, repairs	6	2.5%	\$1,670,026	0	0
	549	Specialty shop	30	12.4%	\$1,328,702	1	0
	557	Personal service, including barber & beauty shops	3	1.2%	\$3,800	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	Undetermined or Not Reported				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Mercantile, Business	559	Recreational, hobby, home repair sales, pet store	2	0.8%	\$200	0	0
	564	Laundry, dry cleaning	23	9.5%	\$5,300,731	0	0
	569	Professional supplies, services	9	3.7%	\$50,500	0	0
	571	Service station, gas station	5	2.1%	\$47,500	0	0
	579	Motor vehicle or boat sales, services, repair	26	10.8%	\$5,977,203	0	0
	581	Department or discount store	2	0.8%	\$0	0	0
	580	General retail, other	9	3.7%	\$655,150	0	0
	592	Bank	5	2.1%	\$2,060	0	0
	593	Office: veterinary or research	0	0.0%	\$0	0	0
	596	Post office or mailing firms	1	0.4%	\$205,000	0	0
	599	Business office	33	13.7%	\$1,889,502	0	0
	500	Mercantile, business, other	29	12.0%	\$1,344,201	0	0
Mercantile, Business Total			241	100.0%	\$21,670,652	1	0
Industrial, Utility, Defense, Agriculture, Mining	614	Steam or heat generating plant	1	3.6%	\$35,000	0	0
	615	Electric generating plant	1	3.6%	\$25,000	0	0
	610	Energy production plant, other	0	0.0%	\$0	0	0
	629	Laboratory or science laboratory	1	3.6%	\$0	0	0
	631	Defense, military installation	0	0.0%	\$0	0	0
	635	Computer center	0	0.0%	\$0	0	0
	639	Communications center	0	0.0%	\$0	0	0
	642	Electrical distribution	0	0.0%	\$0	0	0
	645	Flammable liquid distribution, pipeline, flammable	0	0.0%	\$0	0	0
	647	Water utility	0	0.0%	\$0	0	0
	648	Sanitation utility	1	3.6%	\$2,001	0	0
	640	Utility or Distribution system, other	1	3.6%	\$0	0	0
	655	Crops or orchard	3	10.7%	\$43,000	0	0
	659	Livestock production	4	14.3%	\$200,000	0	0
	669	Forest, timberland, woodland	2	7.1%	\$150,000	0	0
	679	Mine or quarry	2	7.1%	\$11,000	0	0
600	Utility, defense, agriculture, mining, other	12	42.9%	\$2,021,012	0	0	
Industrial, Utility, Defense, Agriculture, Mining Total			28	100.0%	\$2,487,013	0	0
Manufacturing, Processing	700	Manufacturing, processing	53	100.0%	\$6,743,401	1	0
Manufacturing, Processing Total			53	100.0%	\$6,743,401	1	0
Storage	807	Outside material storage area	5	3.3%	\$98,000	0	0
	808	Outbuilding or shed	81	53.3%	\$1,049,300	0	0
	816	Grain elevator, silo	0	0.0%	\$0	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	Undetermined or Not Reported				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Storage	819	Livestock, poultry storage	4	2.6%	\$88,200	0	0
	839	Refrigerated storage	0	0.0%	\$0	0	0
	849	Outside storage tank	0	0.0%	\$0	0	0
	881	Parking garage, (detached residential garage)	21	13.8%	\$889,000	0	0
	882	Parking garage, general vehicle	4	2.6%	\$100,000	0	0
	888	Fire station	1	0.7%	\$300	0	0
	880	Vehicle storage, other	6	3.9%	\$60,100	0	0
	891	Warehouse	13	8.6%	\$10,901,504	0	0
	898	Dock, marina, pier, wharf	0	0.0%	\$0	0	0
	899	Residential or self storage units	3	2.0%	\$3,001	0	0
	800	Storage, other	14	9.2%	\$85,602	0	0
Storage Total			152	100.0%	\$13,275,007	0	0
Outside or Special Property	919	Dump, sanitary landfill	0	0.0%	\$0	0	0
	926	Outbuilding, protective shelter	15	30.0%	\$17,000	0	0
	931	Open land or field	5	10.0%	\$4,200	0	0
	935	Campsite with utilities	5	10.0%	\$82,000	0	0
	936	Vacant lot	1	2.0%	\$0	0	0
	937	Beach	1	2.0%	\$60,000	0	0
	938	Graded and cared-for plots of land	0	0.0%	\$0	0	0
	940	Water area, other	1	2.0%	\$0	0	0
	951	Railroad right of way	0	0.0%	\$0	0	0
	952	Railroad yard	0	0.0%	\$0	0	0
	961	Highway or divided highway	1	2.0%	\$0	0	0
	962	Residential street, road or residential driveway	7	14.0%	\$91,000	0	0
	963	Street or road in commercial area	0	0.0%	\$0	0	0
	965	Vehicle parking area	1	2.0%	\$0	0	0
	960	Street, other	2	4.0%	\$0	0	0
	974	Aircraft loading area	0	0.0%	\$0	0	0
	981	Construction site	3	6.0%	\$7,502	0	0
	983	Pipeline, power line or other utility right of way	1	2.0%	\$0	0	0
	984	Industrial plant yard - area	2	4.0%	\$5,000	0	0
	900	Outside or special property, other	5	10.0%	\$6,100	0	0
Outside or Special Property Total			50	100.0%	\$272,802	0	0
	000	Property Use, other	23	100.0%	\$1,299,276	0	0
	NNN	None	103	100.0%	\$1,762,600	0	0
	UUU	Undetermined or Not Reported	59	100.0%	\$17,502	0	0
Grand Total			3,512	100.0%	\$144,126,503	36	29

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	Grand Total				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Assembly	111	Bowling alley	8	0.8%	\$250,802	0	0
	112	Billiard center, pool hall	4	0.4%	\$740,000	0	0
	113	Electronic amusement center	7	0.7%	\$20,200	0	0
	114	Ice rink: indoor, outdoor	4	0.4%	\$37,000	0	0
	115	Roller rink: indoor or outdoor	1	0.1%	\$4,500	0	0
	116	Swimming facility: indoor or outdoor	16	1.6%	\$345,890	0	0
	110	Fixed use recreation places, other	28	2.8%	\$408,601	0	0
	121	Ballroom, gymnasium	8	0.8%	\$14,550	0	0
	122	Convention center, exhibition hall	9	0.9%	\$25,451	0	0
	123	Stadium, arena	4	0.4%	\$10	0	0
	124	Playground	3	0.3%	\$500	0	0
	129	Amusement center: indoor/outdoor	5	0.5%	\$71,000	0	0
	120	Variable use amusement, recreation places	16	1.6%	\$414,500	2	0
	131	Church, mosque, synagogue, temple, chapel	173	17.6%	\$37,294,483	10	2
	134	Funeral parlor	6	0.6%	\$162,000	1	0
	130	Places of worship, funeral parlors	13	1.3%	\$2,567,550	1	0
	141	Athletic/health club	26	2.6%	\$282,800	0	0
	142	Clubhouse	30	3.0%	\$1,529,176	0	0
	143	Yacht Club	1	0.1%	\$50,000	0	0
	140	Clubs, other	22	2.2%	\$1,595,400	0	0
	151	Library	5	0.5%	\$151,301	0	0
	152	Museum	5	0.5%	\$1,001,100	0	0
	154	Memorial structure, including monuments & statues	1	0.1%	\$0	0	0
	155	Courthouse	7	0.7%	\$230,000	0	0
	150	Public or government, other	18	1.8%	\$925,200	0	0
	161	Restaurant or cafeteria	432	43.9%	\$24,024,809	15	0
	162	Bar or nightclub	41	4.2%	\$3,199,201	2	0
	160	Eating, drinking places	40	4.1%	\$2,358,532	1	0
	171	Airport passenger terminal	12	1.2%	\$20,425	0	0
	170	Passenger terminal, other	3	0.3%	\$250	0	0
	181	Live performance theater	4	0.4%	\$1,200	0	0
182	Auditorium or concert hall	1	0.1%	\$0	0	0	
183	Movie theater	9	0.9%	\$5,350	0	0	
180	Studio/theater, other	5	0.5%	\$1,391,350	0	0	
100	Assembly, other	18	1.8%	\$817,560	0	0	
Assembly Total			985	100.0%	\$79,940,691	32	2
Educational	211	Preschool	6	1.8%	\$15,501	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	Grand Total				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Educational	213	Elementary school, including kindergarten	75	22.0%	\$500,230	1	0
	215	High school/junior high school/middle school	159	46.6%	\$7,325,908	12	0
	210	Schools, non-adult	17	5.0%	\$656,383	0	0
	241	Adult education center, college classroom	36	10.6%	\$1,141,401	0	0
	254	Day care, in commercial property	22	6.5%	\$385,973	0	1
	255	Day care, in residence, licensed	1	0.3%	\$5,500	0	0
	200	Educational, other	25	7.3%	\$2,313,802	0	0
Educational Total			341	100.0%	\$12,344,698	13	1
Health Care, Detention, and Correction	311	24-hour care Nursing homes, 4 or more persons	139	40.4%	\$5,329,660	20	2
	321	Mental retardation/development disability facility	15	4.4%	\$126,616	0	0
	322	Alcohol or substance abuse recovery center	8	2.3%	\$10,650	0	0
	323	Asylum, mental institution	5	1.5%	\$55,600	0	0
	331	Hospital - medical or psychiatric	60	17.4%	\$644,039	3	0
	341	Clinic, clinic-type infirmary	2	0.6%	\$1,001	0	0
	342	Doctor, dentist or oral surgeon's office	20	5.8%	\$1,514,400	0	0
	340	Clinics, Doctors offices, hemodialysis centers	30	8.7%	\$8,711,552	0	0
	361	Jail, prison (not juvenile)	27	7.8%	\$1,130,021	5	0
	363	Reformatory, juvenile detention center	12	3.5%	\$16,371	0	0
	365	Police station	4	1.2%	\$1,000	0	0
300	Health care, detention, & correction, other	22	6.4%	\$395,303	4	0	
Health Care, Detention, and Correction Total			344	100.0%	\$17,936,213	32	2
Residential	419	1 or 2 family dwelling	25,394	78.7%	\$852,982,618	1,507	365
	429	Multifamily dwellings	5,503	17.0%	\$181,902,546	517	46
	439	Boarding/rooming house, residential hotels	110	0.3%	\$1,878,083	19	0
	449	Hotel/motel, commercial	324	1.0%	\$14,822,332	22	2
	459	Residential board and care	48	0.1%	\$254,724	15	1
	462	Sorority house, fraternity house	13	0.0%	\$222,997	1	0
	464	Barracks, dormitory	12	0.0%	\$1,680,520	0	0
	460	Dormitory type residence, other	62	0.2%	\$404,596	5	0
	400	Residential, other	821	2.5%	\$22,799,292	19	8
Residential Total			32,287	100.0%	\$1,076,947,708	2,105	422
Mercantile, Business	511	Convenience store	107	5.6%	\$3,866,028	4	0
	519	Food and beverage sales, grocery store	269	14.1%	\$12,561,303	7	0
	529	Textile, wearing apparel sales	32	1.7%	\$419,711	0	0
	539	Household goods, sales, repairs	33	1.7%	\$5,206,701	0	0
	549	Specialty shop	209	10.9%	\$38,145,145	3	0
	557	Personal service, including barber & beauty shops	56	2.9%	\$2,047,621	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	Grand Total				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Mercantile, Business	559	Recreational, hobby, home repair sales, pet store	21	1.1%	\$2,360,382	0	0
	564	Laundry, dry cleaning	163	8.5%	\$8,201,377	3	1
	569	Professional supplies, services	64	3.3%	\$8,949,153	5	1
	571	Service station, gas station	48	2.5%	\$866,282	1	0
	579	Motor vehicle or boat sales, services, repair	218	11.4%	\$31,591,691	8	4
	581	Department or discount store	72	3.8%	\$1,952,498	1	0
	580	General retail, other	60	3.1%	\$4,522,356	2	1
	592	Bank	18	0.9%	\$180,510	0	0
	593	Office: veterinary or research	15	0.8%	\$294,850	2	0
	596	Post office or mailing firms	4	0.2%	\$231,100	1	0
	599	Business office	316	16.5%	\$17,753,395	3	0
	500	Mercantile, business, other	206	10.8%	\$11,038,271	9	0
Mercantile, Business Total			1,911	100.0%	\$150,188,374	49	7
Industrial, Utility, Defense, Agriculture, Mining	614	Steam or heat generating plant	2	0.9%	\$85,000	0	0
	615	Electric generating plant	6	2.7%	\$3,931,000	0	0
	610	Energy production plant, other	1	0.5%	\$25,000	0	0
	629	Laboratory or science laboratory	12	5.5%	\$204,360	0	0
	631	Defense, military installation	7	3.2%	\$3,613,600	0	0
	635	Computer center	3	1.4%	\$30,100	0	0
	639	Communications center	5	2.3%	\$1,000	0	0
	642	Electrical distribution	1	0.5%	\$300	0	0
	645	Flammable liquid distribution, pipeline, flammable	2	0.9%	\$200	0	0
	647	Water utility	6	2.7%	\$17,002	0	0
	648	Sanitation utility	14	6.4%	\$245,351	3	0
	640	Utility or Distribution system, other	4	1.8%	\$10,000	0	0
	655	Crops or orchard	17	7.8%	\$447,375	0	0
	659	Livestock production	57	26.0%	\$2,930,625	0	0
	669	Forest, timberland, woodland	11	5.0%	\$568,800	0	0
	679	Mine or quarry	4	1.8%	\$31,000	0	0
600	Utility, defense, agriculture, mining, other	67	30.6%	\$3,815,067	1	0	
Industrial, Utility, Defense, Agriculture, Mining Total			219	100.0%	\$15,955,780	4	0
Manufacturing, Processing	700	Manufacturing, processing	530	100.0%	\$57,403,595	16	0
Manufacturing, Processing Total			530	100.0%	\$57,403,595	16	0
Storage	807	Outside material storage area	151	5.2%	\$3,175,048	1	0
	808	Outbuilding or shed	1,666	57.8%	\$21,068,084	17	4
	816	Grain elevator, silo	5	0.2%	\$3,000	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Property Series	Property Use	Description	Grand Total				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Storage	819	Livestock, poultry storage	103	3.6%	\$5,300,400	0	0
	839	Refrigerated storage	8	0.3%	\$2,465,501	0	0
	849	Outside storage tank	3	0.1%	\$0	0	0
	881	Parking garage, (detached residential garage)	415	14.4%	\$10,691,157	6	2
	882	Parking garage, general vehicle	41	1.4%	\$719,225	0	0
	888	Fire station	11	0.4%	\$720,200	0	0
	880	Vehicle storage, other	93	3.2%	\$5,053,304	0	0
	891	Warehouse	135	4.7%	\$88,108,763	7	0
	898	Dock, marina, pier, wharf	3	0.1%	\$56,000	0	0
	899	Residential or self storage units	62	2.1%	\$6,317,962	7	0
	800	Storage, other	188	6.5%	\$8,020,255	1	0
Storage Total			2,884	100.0%	\$151,698,899	39	6
Outside or Special Property	919	Dump, sanitary landfill	2	0.4%	\$7,000	0	0
	926	Outbuilding, protective shelter	251	44.6%	\$2,460,056	2	1
	931	Open land or field	34	6.0%	\$207,300	0	0
	935	Campsite with utilities	24	4.3%	\$275,375	2	0
	936	Vacant lot	19	3.4%	\$3,030	0	0
	937	Beach	1	0.2%	\$60,000	0	0
	938	Graded and cared-for plots of land	20	3.6%	\$189,273	0	0
	940	Water area, other	2	0.4%	\$2,000	0	0
	951	Railroad right of way	1	0.2%	\$0	0	0
	952	Railroad yard	1	0.2%	\$1,100	0	0
	961	Highway or divided highway	15	2.7%	\$103,450	1	0
	962	Residential street, road or residential driveway	60	10.7%	\$1,726,950	2	0
	963	Street or road in commercial area	3	0.5%	\$1,003,000	0	0
	965	Vehicle parking area	31	5.5%	\$125,803	1	0
	960	Street, other	6	1.1%	\$4,010	0	0
	974	Aircraft loading area	2	0.4%	\$530,000	0	0
	981	Construction site	32	5.7%	\$1,009,104	0	0
	983	Pipeline, power line or other utility right of way	2	0.4%	\$500	0	0
984	Industrial plant yard - area	12	2.1%	\$1,835,501	0	0	
900	Outside or special property, other	45	8.0%	\$1,154,253	0	0	
Outside or Special Property Total			563	100.0%	\$10,697,705	8	1
	000	Property Use, other	125	100.0%	\$4,850,287	0	0
	NNN	None	233	100.0%	\$3,182,053	3	0
	UUU	Undetermined or Not Reported	142	100.0%	\$1,280,829	1	0
Grand Total			40,564	100.0%	\$1,582,426,832	2,302	441

Note: **Data is compiled from all fire incidents reported to the Virginia Fire Incident Reporting System (VFIRS) for 2002-2011 as of 3/8/2012.** Aid given (mutual or automatic) incidents were excluded and fire exposure incidents were included with the numbers. Structure fires include incidents with incident type coded as 110, 111, 120-123 and with structure type coded as 1 or 2.

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Building Height 7 Stories or Above

Health Care, Detention, and Correction, and Residential Property Use Only

Property Series	Property Use	Description	AES Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Health Care, Detention, and Correction	311	24-hour care Nursing homes, 4 or more persons	2	20.0%	\$0	0	0
	321	Mental retardation/development disability facility	0	0.0%	\$0	0	0
	331	Hospital - medical or psychiatric	7	70.0%	\$12,595	0	0
	340	Clinics, Doctors offices, hemodialysis centers	1	10.0%	\$0	0	0
Health Care, Detention, and Correction Total			10	100.0%	\$12,595	0	0
Residential	419	1 or 2 family dwelling	2	1.9%	\$2,000	0	0
	429	Multifamily dwellings	60	56.6%	\$1,366,540	3	0
	439	Boarding/rooming house, residential hotels	2	1.9%	\$150	1	0
	449	Hotel/motel, commercial	36	34.0%	\$588,461	4	0
	459	Residential board and care	1	0.9%	\$3,500	1	0
	464	Barracks, dormitory	2	1.9%	\$0	0	0
	460	Dormitory type residence, other	2	1.9%	\$1,500	0	0
	400	Residential, other	1	0.9%	\$0	0	0
Residential Total			106	100.0%	\$1,962,151	9	0
Grand Total			116	100.0%	\$1,974,746	9	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Building Height 7 Stories or Above

Health Care, Detention, and Correction, and Residential Property Use Only

Property Series	Property Use	Description	None Present				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Health Care, Detention, and Correction	311	24-hour care Nursing homes, 4 or more persons	0	0.0%	\$0	0	0
	321	Mental retardation/development disability facility	1	25.0%	\$1,000	0	0
	331	Hospital - medical or psychiatric	2	50.0%	\$3,100	0	0
	340	Clinics, Doctors offices, hemodialysis centers	1	25.0%	\$0	0	0
Health Care, Detention, and Correction Total			4	100.0%	\$4,100	0	0
Residential	419	1 or 2 family dwelling	206	50.9%	\$6,762,204	14	1
	429	Multifamily dwellings	173	42.7%	\$4,161,032	18	2
	439	Boarding/rooming house, residential hotels	1	0.2%	\$3,000	0	0
	449	Hotel/motel, commercial	11	2.7%	\$53,303	0	0
	459	Residential board and care	5	1.2%	\$8,300	0	0
	464	Barracks, dormitory	0	0.0%	\$0	0	0
	460	Dormitory type residence, other	2	0.5%	\$0	0	0
	400	Residential, other	7	1.7%	\$130,600	0	0
Residential Total			405	100.0%	\$11,118,439	32	3
Grand Total			409	100.0%	\$11,122,539	32	3

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Building Height 7 Stories or Above

Health Care, Detention, and Correction, and Residential Property Use Only

Property Series	Property Use	Description	Undetermined or Not Reported				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Health Care, Detention, and Correction	311	24-hour care Nursing homes, 4 or more persons	0	0.0%	\$0	0	0
	321	Mental retardation/development disability facility	0	0.0%	\$0	0	0
	331	Hospital - medical or psychiatric	0	0.0%	\$0	0	0
	340	Clinics, Doctors offices, hemodialysis centers	0	0.0%	\$0	0	0
Health Care, Detention, and Correction Total			0	0.0%	\$0	0	0
Residential	419	1 or 2 family dwelling	4	40.0%	\$80,501	0	0
	429	Multifamily dwellings	5	50.0%	\$18,750	0	0
	439	Boarding/rooming house, residential hotels	0	0.0%	\$0	0	0
	449	Hotel/motel, commercial	0	0.0%	\$0	0	0
	459	Residential board and care	0	0.0%	\$0	0	0
	464	Barracks, dormitory	0	0.0%	\$0	0	0
	460	Dormitory type residence, other	0	0.0%	\$0	0	0
	400	Residential, other	1	10.0%	\$500	0	0
Residential Total			10	100.0%	\$99,751	0	0
Grand Total			10	100.0%	\$99,751	0	0

Structure Fires By Property Use By Sprinkler (AES) Presence, Virginia, 2002-2011

Building Height 7 Stories or Above

Health Care, Detention, and Correction, and Residential Property Use Only

Property Series	Property Use	Description	Grand Total				
			Total	Percent	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths
Health Care, Detention, and Correction	311	24-hour care Nursing homes, 4 or more persons	2	14.3%	\$0	0	0
	321	Mental retardation/development disability facility	1	7.1%	\$1,000	0	0
	331	Hospital - medical or psychiatric	9	64.3%	\$15,695	0	0
	340	Clinics, Doctors offices, hemodialysis centers	2	14.3%	\$0	0	0
Health Care, Detention, and Correction Total			14	100.0%	\$16,695	0	0
Residential	419	1 or 2 family dwelling	212	40.7%	\$6,844,705	14	1
	429	Multifamily dwellings	238	45.7%	\$5,546,322	21	2
	439	Boarding/rooming house, residential hotels	3	0.6%	\$3,150	1	0
	449	Hotel/motel, commercial	47	9.0%	\$641,764	4	0
	459	Residential board and care	6	1.2%	\$11,800	1	0
	464	Barracks, dormitory	2	0.4%	\$0	0	0
	460	Dormitory type residence, other	4	0.8%	\$1,500	0	0
	400	Residential, other	9	1.7%	\$131,100	0	0
Residential Total			521	100.0%	\$13,180,341	41	3
Grand Total			535	100.0%	\$13,197,036	41	3

Note: **Data is compiled from all fire incidents reported to the Virginia Fire Incident Reporting System (VFIRS) for 2002-2011 as of 3/8/2012.** Aid given (mutual or automatic) incidents were excluded and fire exposure incidents were included with the numbers. Structure fires include incidents with incident type coded as 110, 111, 120-123 and with structure type coded as 1 or 2.

**Structure Fires by Property Use and Sprinkler (AES) Presence
Virginia, 2004-2015**

Property Series	Property Use Code	Description	AES Present					Partial AES Present				
			Total	Percent	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths	Total	Percent	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths
Assembly	100	Assembly, Other	10	33.3	\$ 601,060	0	0	0	0.0	\$ -	0	0
	110	Fixed-use recreation places, other	5	17.2	\$ 5,101	0	0	0	0.0	\$ -	0	0
	111	Bowling establishment	4	36.4	\$ 17,600	1	0	0	0.0	\$ -	0	0
	112	Billiard center, pool hall	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	113	Electronic amusement center	1	16.7	\$ 5,000	0	0	0	0.0	\$ -	0	0
	114	Ice rink	3	75.0	\$ 37,000	0	0	0	0.0	\$ -	0	0
	115	Roller rink	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	116	Swimming facility	4	21.1	\$ 25,000	0	0	0	0.0	\$ -	0	0
	120	Variable-use amusement, recreation places, other.	3	15.0	\$ 18,500	0	0	0	0.0	\$ -	0	0
	121	Ballroom, gymnasium	4	57.1	\$ -	0	0	0	0.0	\$ -	0	0
	122	Convention center, exhibit hall	5	55.6	\$ 27,051	0	0	0	0.0	\$ -	0	0
	123	Stadium, arena	2	28.6	\$ 2,010	0	0	0	0.0	\$ -	0	0
	124	Playground or outdoor area	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	129	Amusement center, indoor/outdoor	2	16.7	\$ 10,000	0	0	0	0.0	\$ -	0	0
	130	Places of worship, funeral parlors, other.	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	131	Church, mosque	21	9.8	\$ 2,606,580	0	0	0	0.0	\$ -	0	0
	134	Funeral parlor	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	140	Clubs, other	9	33.3	\$ 829,800	0	0	0	0.0	\$ -	0	0
	141	Athletic or health club	21	47.7	\$ 106,250	0	0	3	6.8	\$ 11,000	0	0
	142	Clubhouse associated with country club	7	14.9	\$ 302,300	0	0	0	0.0	\$ -	0	0
	143	Yacht club	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	144	Casino, gambling clubs	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	150	Public or government, other	9	23.7	\$ 42,491	0	0	0	0.0	\$ -	0	0
	151	Library	4	40.0	\$ 4,551	0	0	0	0.0	\$ -	0	0
	152	Museum	1	10.0	\$ 100	0	0	0	0.0	\$ -	0	0
	154	Memorial structure	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	155	Courthouse	3	33.3	\$ -	0	0	0	0.0	\$ -	0	0
	160	Eating, drinking places, other	27	43.5	\$ 121,352	0	0	1	1.6	\$ -	0	0
	161	Restaurant or cafeteria	355	51.4	\$ 10,465,668	11	0	24	3.5	\$ 638,078	0	0
	162	Bar, nightclub, saloon, tavern, pub	13	23.6	\$ 113,525	2	0	1	1.8	\$ 65,000	0	0
	170	Passenger terminal, other	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	171	Airport passenger terminal	11	84.6	\$ 35,425	0	0	0	0.0	\$ -	0	0
	173	Bus station	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	174	Rapid transit station	1	50.0	\$ -	0	0	0	0.0	\$ -	0	0
	180	Studio, theater, other	1	12.5	\$ 5,000	0	0	1	12.5	\$ 270,000	0	0
	181	Live performance theater	5	83.3	\$ 600	0	0	0	0.0	\$ -	0	0
	182	Auditorium, concert hall	2	100.0	\$ -	0	0	0	0.0	\$ -	0	0
	183	Movie theater	6	54.5	\$ 5,100	0	0	0	0.0	\$ -	0	0
	185	Radio, television studio	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	186	Film/Movie production studio	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
Assembly Total			539	37.3	\$ 15,387,064	14	0	30	2.1	\$ 984,078	0	0

Educational	200	Educational, other	9	31.0	\$ 174,000	0	0	0	0.0	\$ -	0	0
	210	Schools, non-adult, other	7	24.1	\$ 14,203	0	0	0	0.0	\$ -	0	0
	211	Preschool, not in same facility with other grades	7	63.6	\$ 14,500	0	0	0	0.0	\$ -	0	0
	213	Elementary school	29	23.8	\$ 217,002	0	0	6	4.9	\$ 10,770	0	0
	215	High school, junior high, middle school	104	41.1	\$ 1,364,611	0	0	7	2.8	\$ 113,952	0	0
	241	Adult education center, college classroom	20	42.6	\$ 157,711	0	0	0	0.0	\$ -	0	0
	254	Day care in commercial property	10	25.6	\$ 40,560	0	0	0	0.0	\$ -	0	0
	255	Day care in residence, licensed	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	256	Day care in residence, unlicensed	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
Educational Total			186	35.0	\$ 1,982,587	0	0	13	2.4	\$ 124,722	0	0
Health Care, Detention, and Correction	300	Health care, detention, and correction, other	15	51.7	\$ 172,500	0	0	0	0.0	\$ -	0	0
	311	Nursing homes licensed by the State	162	69.8	\$ 688,641	17	1	4	1.7	\$ 6,501	0	0
	321	Mental retardation/development disability facility	3	14.3	\$ 13,000	0	0	0	0.0	\$ -	0	0
	322	Alcohol or substance abuse recovery center	5	55.6	\$ 3,560	0	0	0	0.0	\$ -	0	0
	323	Asylum, mental institution	5	83.3	\$ 58,600	1	0	0	0.0	\$ -	0	0
	331	Hospital: medical, pediatrics, psychiatric	57	67.1	\$ 222,053	1	0	1	1.2	\$ -	0	0
	332	Hospices	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	340	Clinics, doctors' offices, hemodialysis centers, other	17	38.6	\$ 360,960	0	0	1	2.3	\$ -	0	0
	341	Clinic, clinic-type infirmary	2	40.0	\$ 2,500	0	0	0	0.0	\$ -	0	0
	342	Doctor, dentist, or oral surgeon office	6	18.8	\$ 33,100	0	0	0	0.0	\$ -	0	0
	343	Hemodialysis unit	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	340	Clinics, doctors' offices	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	361	Jail, prison (not juvenile)	20	45.5	\$ 1,140,510	10	0	1	2.3	\$ -	0	0
	363	Reformatory, juvenile detention center	8	57.1	\$ 10,871	0	0	0	0.0	\$ -	0	0
365	Police station	2	33.3	\$ -	0	0	0	0.0	\$ -	0	0	
Health Care, Detention, and Correction Total			302	57.3	\$ 2,706,295	29	1	7	1.3	\$ 6,501	0	0
Residential	400	Residential, other	28	2.2	\$ 455,381	1	0	1	0.1	\$ -	0	0
	419	1- or 2-family dwelling	396	1.1	\$ 12,959,123	8	2	8	0.0	\$ 263,100	0	0
	429	Multifamily dwelling	1,352	15.2	\$ 32,557,913	79	4	59	0.7	\$ 886,400	4	0
	439	Boarding/Rooming house	47	25.5	\$ 397,282	9	0	0	0.0	\$ -	0	0
	449	Hotel/Motel, commercial	289	54.4	\$ 8,324,130	13	0	1	0.2	\$ 500	0	0
	459	Residential board and care	29	34.9	\$ 255,357	2	0	0	0.0	\$ -	0	0
	460	Dormitory-type residence, other	49	45.4	\$ 277,284	6	0	0	0.0	\$ -	0	0
	462	Sorority house, fraternity house	1	7.1	\$ 2	0	0	0	0.0	\$ -	0	0
464	Barracks, dormitory	14	48.3	\$ 1,494,610	0	0	0	0.0	\$ -	0	0	
Residential Total			2,205	4.6	\$ 56,721,082	118	6	69	0.1	\$ 1,150,000	4	0

Mercantile, Business	500	Mercantile, business, other	75	26.2	\$ 1,923,103	0	0	1	0.3	\$ -	0	0
	511	Convenience store	17	10.8	\$ 152,200	1	0	2	1.3	\$ 400	2	0
	519	Food and beverage sales, grocery store	174	45.8	\$ 1,435,190	3	0	12	3.2	\$ 71,400	1	0
	529	Textile, wearing apparel sales	23	47.9	\$ 296,820	0	0	1	2.1	\$ 2,000	0	0
	539	Household goods, sales, repairs	7	14.9	\$ 1,892,575	0	0	1	2.1	\$ 40,000	0	0
	549	Specialty shop	45	17.0	\$ 3,360,453	0	0	0	0.0	\$ -	0	0
	557	Personal service	17	19.1	\$ 304,950	0	0	0	0.0	\$ -	0	0
	559	Recreational stores	6	20.0	\$ 934	0	0	0	0.0	\$ -	0	0
	564	Laundry, dry cleaning	38	16.6	\$ 812,519	0	0	0	0.0	\$ -	0	0
	569	Professional supplies, services	21	21.9	\$ 374,694	0	0	1	1.0	\$ 300,001	0	0
	571	Service station, gas station	11	17.5	\$ 4,977	0	0	3	4.8	\$ 1,500	0	0
	579	Motor vehicle or boat sales, services, repair	32	10.5	\$ 484,108	2	0	1	0.3	\$ -	0	0
	580	General retail, other	29	33.0	\$ 3,596,945	0	0	0	0.0	\$ -	0	0
	581	Department or discount store	63	67.7	\$ 809,939	1	0	0	0.0	\$ -	0	0
	592	Bank	8	26.7	\$ 14,601	0	0	0	0.0	\$ -	0	0
	593	Office: veterinary or research	4	26.7	\$ 5,500	0	0	0	0.0	\$ -	0	0
596	Post office or mailing firms	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0	
599	Business office	106	25.4	\$ 6,220,522	1	0	3	0.7	\$ 850,000	0	0	
Mercantile, Business Total			676	25.5	\$ 21,690,030	8	0	25	0.9	\$ 1,265,301	3	0
Industrial, Utility, Defense, Agriculture, Mining	600	Industrial, utility, defense, agriculture, mining, other	19	20.0	\$ 500,351	2	0	0	0.0	\$ -	0	0
	610	Energy production plant, other	2	40.0	\$ 25,000	0	0	0	0.0	\$ -	0	0
	614	Steam- or heat-generating plant	6	66.7	\$ 55,000	0	0	0	0.0	\$ -	0	0
	615	Electric-generating plant, regardless of fuel source	2	20.0	\$ 6,000	0	0	1	10.0	\$ 10,000	0	0
	629	Laboratory or science laboratory	15	78.9	\$ 15,610	0	0	0	0.0	\$ -	0	0
	631	Defense, military installation	3	30.0	\$ 2,001,600	0	0	0	0.0	\$ -	0	0
	635	Computer center	4	80.0	\$ 60,100	0	0	0	0.0	\$ -	0	0
	639	Communications center	1	14.3	\$ 1,001	0	0	0	0.0	\$ -	0	0
	640	Utility or distribution system, other	3	60.0	\$ 10,000	0	0	0	0.0	\$ -	0	0
	642	Electrical distribution	1	50.0	\$ 300	0	0	0	0.0	\$ -	0	0
	644	Gas distribution, gas pipeline	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	645	Flammable liquid distribution system	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	647	Water utility	1	9.1	\$ 10,001	0	0	0	0.0	\$ -	0	0
	648	Water utility	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
655	Crops or orchard	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0	
659	Livestock production	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0	
669	Forest, timberland, woodland	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0	
679	Mine, quarry	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0	
Industrial, Utility, Defense, Agriculture, Mining Total			57	17.2	\$ 2,684,963	2	0	1	0.3	\$ 10,000	0	0

Manufacturing, Processing	700	Manufacturing, processing	398	53.6	\$ 33,443,674	18	0	14	1.9	\$ 2,142,825	0	0
Manufacturing, Processing Total			398	53.6	\$ 33,443,674	18	0	14	1.9	\$ 2,142,825	0	0
Storage	800	Storage, other	7	2.8	\$ 116,525	0	0	0	0.0	\$ -	0	0
	807	Outside material storage area	2	1.0	\$ -	0	0	0	0.0	\$ -	0	0
	808	Outbuilding or shed	7	0.3	\$ 18,700	0	0	0	0.0	\$ -	0	0
	816	Grain elevator, silo	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	819	Livestock, poultry storage	0	0.0	\$ -	0	0	1	0.6	\$ -	0	0
	839	Refrigerated storage	5	71.4	\$ 658,501	0	0	0	0.0	\$ -	0	0
	849	Outside storage tank	1	25.0	\$ -	0	0	0	0.0	\$ -	0	0
	880	Vehicle storage, other	3	2.5	\$ -	0	0	0	0.0	\$ -	0	0
	881	Parking garage, detached residential garage	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	882	Parking garage, general vehicle	4	6.9	\$ 32,000	0	0	0	0.0	\$ -	0	0
	888	Fire station	6	30.0	\$ 15,500	0	0	0	0.0	\$ -	0	0
	891	Warehouse	66	35.7	\$ 64,441,204	8	0	0	0.0	\$ -	0	0
	898	Dock, marina, pier, wharf	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	899	Residential storage or self-storage units	1	1.1	\$ 200	0	0	0	0.0	\$ -	0	0
Storage Total			102	2.4	\$ 65,282,630	8	0	1	0.0	\$ -	0	0
Outside or Special Property	900	Outside or special property, other	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	919	Dump, sanitary landfill	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	921	Bridge, trestle	1	100.0	\$ -	0	0	0	0.0	\$ -	0	0
	922	Tunnel	1	100.0	\$ 500	0	0	0	0.0	\$ -	0	0
	926	Outbuilding, protective shelter	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	931	Open land or field	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	935	Campsite with utilities	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	936	Vacant lot	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	937	Beach	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	938	Graded and cared-for plots of land	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	940	Water area, other	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	941	Open ocean, sea, or tidal waters	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	946	Lake, river, stream	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	951	Railroad right-of-way	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	952	Railroad yard, switch or classification area	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	960	Street, other	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	961	Highway or divided highway	2	6.5	\$ 52,200	0	0	0	0.0	\$ -	0	0
	962	Residential street, road, or residential driveway	2	1.8	\$ -	0	0	0	0.0	\$ -	0	0
	963	Street or road in commercial area	2	25.0	\$ -	0	0	0	0.0	\$ -	0	0
	965	Vehicle parking area	4	6.9	\$ 31,000	0	0	0	0.0	\$ -	0	0
	972	Aircraft runway	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	973	Aircraft taxiway	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	974	Aircraft loading area	2	50.0	\$ 30,000	0	0	0	0.0	\$ -	0	0
	981	Construction site	1	2.4	\$ 10,000	0	0	1	2.4	\$ -	0	0
	982	Oil or gas field	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	983	Pipeline, power line, or other utility right-of-way	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	984	Industrial plant yard area, not outdoor storage	4	20.0	\$ 500,000	0	0	0	0.0	\$ -	0	0
Outside or Special Property Total			19	2.1	\$ 623,700	0	0	1	0.1	\$ -	0	0
Other, None, Undetermined	000	Property use, other	9	5.2	\$ 48,900	0	0	0	0.0	\$ -	0	0
	NNN	None	11	3.5	\$ 90,152	0	0	0	0.0	\$ -	0	0
	UUU	Undetermined	11	6.6	\$ 5,002,050	0	0	1	0.6	\$ -	0	0
TOTAL			4,515	7.5	\$ 205,663,127	197	7	162	0.3	\$ 5,683,427	7	0

Property Series	Property Use Code	Description	AES Not Present					AES Undetermined				
			Total	Percent	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths	Total	Percent	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths
Assembly	100	Assembly, Other	15	50.0	\$ 178,500	0	0	5	16.7	\$ 1,500	0	0
	110	Fixed-use recreation places, other	22	75.9	\$ 371,751	0	0	2	6.9	\$ -	0	0
	111	Bowling establishment	3	27.3	\$ 153,000	0	0	4	36.4	\$ 100,700	0	0
	112	Billiard center, pool hall	3	75.0	\$ 400	0	0	1	25.0	\$ 650,000	0	0
	113	Electronic amusement center	2	33.3	\$ 485,000	0	0	3	50.0	\$ 5,200	0	0
	114	Ice rink	1	25.0	\$ -	0	0	0	0.0	\$ -	0	0
	115	Roller rink	0	0.0	\$ -	0	0	1	100.0	\$ 4,500	0	0
	116	Swimming facility	12	63.2	\$ 319,790	0	0	3	15.8	\$ 25,000	0	0
	120	Variable-use amusement, recreation places, other.	17	85.0	\$ 406,050	2	0	0	0.0	\$ -	0	0
	121	Ballroom, gymnasium	3	42.9	\$ 8,000	0	0	0	0.0	\$ -	0	0
	122	Convention center, exhibit hall	4	44.4	\$ 300	0	0	0	0.0	\$ -	0	0
	123	Stadium, arena	5	71.4	\$ 65,000	0	0	0	0.0	\$ -	0	0
	124	Playground or outdoor area	5	100.0	\$ 500	0	0	0	0.0	\$ -	0	0
	129	Amusement center, indoor/outdoor	9	75.0	\$ 351,000	0	0	1	8.3	\$ 500	0	0
	130	Places of worship, funeral parlors, other.	18	94.7	\$ 4,097,550	1	0	1	5.3	\$ 30,000	0	0
	131	Church, mosque	161	74.9	\$ 34,163,723	12	2	33	15.3	\$ 1,059,625	0	0
	134	Funeral parlor	8	100.0	\$ 1,067,000	1	0	0	0.0	\$ -	0	0
	140	Clubs, other	17	63.0	\$ 635,200	0	0	1	3.7	\$ 85,000	0	0
	141	Athletic or health club	18	40.9	\$ 340,501	0	0	2	4.5	\$ 5,200	0	0
	142	Clubhouse associated with country club	37	78.7	\$ 1,530,456	0	0	3	6.4	\$ 1,400,000	0	0
	143	Yacht club	1	100.0	\$ 50,000	0	0	0	0.0	\$ -	0	0
	144	Casino, gambling clubs	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	150	Public or government, other	24	63.2	\$ 1,026,511	0	0	5	13.2	\$ 402,000	0	0
	151	Library	3	30.0	\$ 150,500	0	0	3	30.0	\$ -	0	0
	152	Museum	7	70.0	\$ 1,010,000	0	0	2	20.0	\$ -	0	0
	154	Memorial structure	1	100.0	\$ -	0	0	0	0.0	\$ -	0	0
	155	Courthouse	6	66.7	\$ 232,000	0	0	0	0.0	\$ -	0	0
	160	Eating, drinking places, other	24	38.7	\$ 2,941,581	1	0	10	16.1	\$ 86,100	0	0
	161	Restaurant or cafeteria	232	33.6	\$ 16,036,140	5	0	79	11.4	\$ 4,297,210	0	0
	162	Bar, nightclub, saloon, tavern, pub	39	70.9	\$ 4,787,301	0	0	2	3.6	\$ 300	0	0
	170	Passenger terminal, other	1	50.0	\$ -	0	0	1	50.0	\$ -	0	0
	171	Airport passenger terminal	2	15.4	\$ -	0	0	0	0.0	\$ -	0	0
	173	Bus station	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	174	Rapid transit station	1	50.0	\$ 200	0	0	0	0.0	\$ -	0	0
	180	Studio, theater, other	5	62.5	\$ 1,159,250	0	0	1	12.5	\$ 100	0	0
	181	Live performance theater	1	16.7	\$ 700	0	0	0	0.0	\$ -	0	0
	182	Auditorium, concert hall	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	183	Movie theater	4	36.4	\$ 1,000	0	0	1	9.1	\$ -	0	0
	185	Radio, television studio	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	186	Film/Movie production studio	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
Assembly Total			711	49.2	\$ 71,568,904	22	2	164	11.4	\$ 8,152,935	0	0
Educational	200	Educational, other	16	55.2	\$ 2,132,602	0	0	4	13.8	\$ 40,200	0	0
	210	Schools, non-adult, other	20	69.0	\$ 725,381	0	0	2	6.9	\$ -	0	0
	211	Preschool, not in same facility with other grades	4	36.4	\$ 24,001	0	0	0	0.0	\$ -	0	0
	213	Elementary school	76	62.3	\$ 1,915,009	1	0	11	9.0	\$ 12,800	0	0
	215	High school, junior high, middle school	117	46.2	\$ 6,070,317	14	0	25	9.9	\$ 93,177	0	0
	241	Adult education center, college classroom	22	46.8	\$ 1,101,800	1	0	5	10.6	\$ 11,501	0	0
	254	Day care in commercial property	24	61.5	\$ 546,739	0	1	5	12.8	\$ 35,100	0	0
	255	Day care in residence, licensed	1	100.0	\$ 5,500	0	0	0	0.0	\$ -	0	0
	256	Day care in residence, unlicensed	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
Educational Total			280	52.7	\$ 12,521,349	16	1	52	9.8	\$ 192,778	0	0

Health Care, Detention, and Correction	300	Health care, detention, and correction, other	11	37.9	\$ 273,903	4	0	3	10.3	\$ -	0	0
	311	Nursing homes licensed by the State	44	19.0	\$ 1,187,715	9	0	22	9.5	\$ 3,634,050	1	0
	321	Mental retardation/development disability facility	18	85.7	\$ 158,040	2	0	0	0.0	\$ -	0	0
	322	Alcohol or substance abuse recovery center	4	44.4	\$ 6,900	0	0	0	0.0	\$ -	0	0
	323	Asylum, mental institution	1	16.7	\$ -	0	0	0	0.0	\$ -	0	0
	331	Hospital: medical, pediatrics, psychiatric	19	22.4	\$ 10,582	0	0	8	9.4	\$ 417,550	1	0
	332	Hospices	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	340	Clinics, doctors' offices, hemodialysis centers, other	19	43.2	\$ 8,371,752	0	0	7	15.9	\$ 65,202	0	0
	341	Clinic, clinic-type infirmary	2	40.0	\$ 1,000	0	0	1	20.0	\$ 1,001	0	0
	342	Doctor, dentist, or oral surgeon office	22	68.8	\$ 3,511,700	0	0	4	12.5	\$ 2,125	0	0
	343	Hemodialysis unit	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	340	Clinics, doctors' offices	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	361	Jail, prison (not juvenile)	19	43.2	\$ 404,822	1	0	4	9.1	\$ 500	0	0
363	Reformatory, juvenile detention center	5	35.7	\$ 22,500	0	0	1	7.1	\$ -	0	0	
365	Police station	4	66.7	\$ 501,510	0	0	0	0.0	\$ -	0	0	
Health Care, Detention, and Correction Total			168	31.9	\$ 14,450,424	16	0	50	9.5	\$ 4,120,428	2	0
Residential	400	Residential, other	926	73.3	\$ 26,189,138	24	11	308	24.4	\$ 8,402,684	3	3
	419	1- or 2-family dwelling	33,411	89.8	\$ 1,195,620,648	2,044	447	3,394	9.1	\$ 123,186,145	43	37
	429	Multifamily dwelling	7,179	80.6	\$ 227,049,377	706	57	321	3.6	\$ 6,718,734	9	3
	439	Boarding/Rooming house	128	69.6	\$ 2,303,044	13	1	9	4.9	\$ 20,620	0	0
	449	Hotel/Motel, commercial	213	40.1	\$ 15,395,208	10	1	28	5.3	\$ 312,850	0	0
	459	Residential board and care	47	56.6	\$ 211,409	3	1	7	8.4	\$ 3,700	2	0
	460	Dormitory-type residence, other	54	50.0	\$ 251,407	1	0	5	4.6	\$ 101,002	0	0
	462	Sorority house, fraternity house	13	92.9	\$ 207,390	1	0	0	0.0	\$ -	0	0
	464	Barracks, dormitory	15	51.7	\$ 203,735	0	0	0	0.0	\$ -	0	0
Residential Total			41,986	86.9	\$ 1,467,431,356	2,802	518	4,072	8.4	\$ 138,745,735	57	43
Mercantile, Business	500	Mercantile, business, other	160	55.9	\$ 8,799,587	11	0	50	17.5	\$ 1,372,552	0	0
	511	Convenience store	116	73.4	\$ 3,834,063	1	0	23	14.6	\$ 1,211,626	0	0
	519	Food and beverage sales, grocery store	143	37.6	\$ 11,890,743	5	0	51	13.4	\$ 2,102,222	0	0
	529	Textile, wearing apparel sales	19	39.6	\$ 296,241	0	0	5	10.4	\$ 273,800	0	0
	539	Household goods, sales, repairs	30	63.8	\$ 4,843,140	0	0	9	19.1	\$ 1,716,026	0	0
	549	Specialty shop	170	64.2	\$ 38,577,416	3	0	50	18.9	\$ 1,924,902	1	0
	557	Personal service	67	75.3	\$ 2,402,515	6	0	5	5.6	\$ 3,800	0	0
	559	Recreational stores	19	63.3	\$ 2,452,802	0	0	5	16.7	\$ 900	0	0
	564	Laundry, dry cleaning	157	68.6	\$ 6,258,328	8	1	34	14.8	\$ 5,326,812	0	0
	569	Professional supplies, services	64	66.7	\$ 9,673,524	5	0	10	10.4	\$ 410,500	0	0
	571	Service station, gas station	39	61.9	\$ 839,300	2	0	10	15.9	\$ 288,000	0	0
	579	Motor vehicle or boat sales, services, repair	233	76.1	\$ 34,905,905	16	4	40	13.1	\$ 8,030,403	1	0
	580	General retail, other	42	47.7	\$ 5,339,003	0	1	17	19.3	\$ 1,133,650	0	0
	581	Department or discount store	25	26.9	\$ 1,204,379	0	0	5	5.4	\$ 198,000	0	0
	592	Bank	15	50.0	\$ 298,850	0	0	7	23.3	\$ 2,060	0	0
593	Office: veterinary or research	11	73.3	\$ 282,650	2	0	0	0.0	\$ -	0	0	
596	Post office or mailing firms	3	50.0	\$ 1,100	0	0	3	50.0	\$ 205,000	0	0	
599	Business office	250	60.0	\$ 13,276,519	2	0	58	13.9	\$ 1,922,192	0	0	
Mercantile, Business Total			1,563	59.1	\$ 145,176,065	61	6	382	14.4	\$ 26,122,445	2	0

Industrial, Utility, Defense, Agriculture, Mining	600	Industrial, utility, defense, agriculture, mining, other	63	66.3	\$ 2,060,654	0	0	13	13.7	\$ 2,021,052	0	0
	610	Energy production plant, other	1	20.0	\$ 200	0	0	2	40.0	\$ 1,190,000	0	0
	614	Steam- or heat-generating plant	1	11.1	\$ 10,000	0	0	2	22.2	\$ 46,500	0	0
	615	Electric-generating plant, regardless of fuel source	5	50.0	\$ 3,900,201	0	0	2	20.0	\$ 30,000	0	0
	629	Laboratory or science laboratory	3	15.8	\$ 290,000	0	0	1	5.3	\$ -	0	0
	631	Defense, military installation	7	70.0	\$ 2,710,011	0	0	0	0.0	\$ -	0	0
	635	Computer center	1	20.0	\$ 50,000	0	0	0	0.0	\$ -	0	0
	639	Communications center	6	85.7	\$ 750	0	0	0	0.0	\$ -	0	0
	640	Utility or distribution system, other	1	20.0	\$ -	0	0	1	20.0	\$ -	0	0
	642	Electrical distribution	1	50.0	\$ -	0	0	0	0.0	\$ -	0	0
	644	Gas distribution, gas pipeline	1	100.0	\$ 30,000	0	0	0	0.0	\$ -	0	0
	645	Flammable liquid distribution system	1	100.0	\$ 200	0	0	0	0.0	\$ -	0	0
	647	Water utility	10	90.9	\$ 32,051	0	0	0	0.0	\$ -	0	0
	648	Water utility	11	84.6	\$ 245,350	0	0	2	15.4	\$ 6,001	0	0
655	Crops or orchard	17	85.0	\$ 413,375	0	0	3	15.0	\$ 43,000	0	0	
659	Livestock production	87	91.6	\$ 7,745,604	0	0	8	8.4	\$ 201,020	0	0	
669	Forest, timberland, woodland	11	84.6	\$ 425,300	0	0	2	15.4	\$ 150,000	0	0	
679	Mine, quarry	7	70.0	\$ 170,000	0	0	3	30.0	\$ 11,000	0	1	
Industrial, Utility, Defense, Agriculture, Mining Total			234	70.7	\$ 18,083,696	0	0	39	11.8	\$ 3,698,573	0	1
Manufacturing, Processing	700	Manufacturing, processing	248	33.4	\$ 38,243,748	4	0	83	11.2	\$ 8,929,501	1	0
Manufacturing, Processing Total			248	33.4	\$ 38,243,748	4	0	83	11.2	\$ 8,929,501	1	0
Storage	800	Storage, other	219	88.3	\$ 10,330,482	1	0	22	8.9	\$ 255,102	0	0
	807	Outside material storage area	184	93.9	\$ 4,927,308	1	0	10	5.1	\$ 98,000	0	0
	808	Outbuilding or shed	2,337	94.5	\$ 34,193,583	29	5	130	5.3	\$ 3,155,651	0	0
	816	Grain elevator, silo	11	84.6	\$ 483,500	0	0	2	15.4	\$ 35,000	0	0
	819	Livestock, poultry storage	157	92.9	\$ 8,420,996	0	0	11	6.5	\$ 464,200	0	0
	839	Refrigerated storage	2	28.6	\$ 90,000	0	0	0	0.0	\$ -	0	0
	849	Outside storage tank	2	50.0	\$ 100	0	1	1	25.0	\$ 100	0	0
	880	Vehicle storage, other	109	90.8	\$ 6,597,704	0	0	8	6.7	\$ 460,100	0	0
	881	Parking garage, detached residential garage	553	94.2	\$ 15,594,560	13	3	34	5.8	\$ 1,705,179	0	1
	882	Parking garage, general vehicle	49	84.5	\$ 814,426	0	0	5	8.6	\$ 100,000	0	0
	888	Fire station	13	65.0	\$ 1,093,500	0	0	1	5.0	\$ 300	0	0
	891	Warehouse	100	54.1	\$ 16,973,100	0	0	19	10.3	\$ 20,993,304	0	0
	898	Dock, marina, pier, wharf	5	100.0	\$ 106,000	0	0	0	0.0	\$ -	0	0
	899	Residential storage or self-storage units	82	93.2	\$ 6,076,912	5	0	5	5.7	\$ 3,001	0	0
Storage Total			3,823	91.6	\$ 105,702,171	49	9	248	5.9	\$ 27,269,937	0	1

Outside or Special Property	900	Outside or special property, other	75	93.8	\$ 1,526,496	0	0	5	6.3	\$ 6,100	0	0
	919	Dump, sanitary landfill	5	100.0	\$ 12,000	0	0	0	0.0	\$ -	0	0
	921	Bridge, trestle	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	922	Tunnel	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	926	Outbuilding, protective shelter	345	92.7	\$ 4,900,436	3	1	27	7.3	\$ 85,000	0	0
	931	Open land or field	46	79.3	\$ 297,950	0	0	12	20.7	\$ 11,200	0	0
	935	Campsite with utilities	32	78.0	\$ 420,950	5	0	9	22.0	\$ 150,100	0	0
	936	Vacant lot	35	92.1	\$ 64,431	2	0	3	7.9	\$ 6,000	0	0
	937	Beach	0	0.0	\$ -	0	0	1	100.0	\$ 60,000	0	0
	938	Graded and cared-for plots of land	33	100.0	\$ 219,082	0	0	0	0.0	\$ -	0	0
	940	Water area, other	0	0.0	\$ -	0	0	1	100.0	\$ -	0	0
	941	Open ocean, sea, or tidal waters	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	946	Lake, river, stream	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0
	951	Railroad right-of-way	1	100.0	\$ -	0	0	0	0.0	\$ -	0	0
	952	Railroad yard, switch or classification area	1	100.0	\$ 1,100	0	0	0	0.0	\$ -	0	0
	960	Street, other	5	50.0	\$ 64,010	0	0	5	50.0	\$ 500	0	0
	961	Highway or divided highway	27	87.1	\$ 345,500	1	0	2	6.5	\$ -	0	0
	962	Residential street, road, or residential driveway	90	81.1	\$ 2,295,250	2	1	19	17.1	\$ 284,350	0	0
	963	Street or road in commercial area	6	75.0	\$ 1,008,500	0	0	0	0.0	\$ -	0	0
	965	Vehicle parking area	50	86.2	\$ 228,324	1	0	4	6.9	\$ 18,000	0	0
972	Aircraft runway	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0	
973	Aircraft taxiway	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0	
974	Aircraft loading area	2	50.0	\$ 502,500	0	0	0	0.0	\$ -	0	0	
981	Construction site	34	81.0	\$ 1,051,802	0	0	6	14.3	\$ 10,603	0	0	
982	Oil or gas field	0	0.0	\$ -	0	0	0	0.0	\$ -	0	0	
983	Pipeline, power line, or other utility right-of-way	2	66.7	\$ 500	0	0	1	33.3	\$ -	0	0	
984	Industrial plant yard area, not outdoor storage	13	65.0	\$ 1,340,501	0	0	3	15.0	\$ 10,000	0	0	
Outside or Special Property Total			802	87.2	\$ 14,279,332	14	2	98	10.7	\$ 641,853	0	0
Other, None, Undetermined	000	Property use, other	120	69.4	\$ 3,329,361	1	0	44	25.4	\$ 1,670,276	0	0
	NNN	None	155	49.1	\$ 1,767,703	3	0	150	47.5	\$ 3,206,700	0	0
	UUU	Undetermined	80	48.2	\$ 1,180,939	1	0	74	44.6	\$ 45,953	0	0
TOTAL			50,170	83.2	\$ 1,893,735,048	2,989	538	5,456	9.0	\$ 222,797,114	62	45

Property Series	Property Use Code	Description	Total Structure Fires			
			Total	Total Fire Loss	Civilian Fire Injuries	Civilian Fire Deaths
Assembly	100	Assembly, Other	30	\$ 781,060	0	0
	110	Fixed-use recreation places, other	29	\$ 376,852	0	0
	111	Bowling establishment	11	\$ 271,300	1	0
	112	Billiard center, pool hall	4	\$ 650,400	0	0
	113	Electronic amusement center	6	\$ 495,200	0	0
	114	Ice rink	4	\$ 37,000	0	0
	115	Roller rink	1	\$ 4,500	0	0
	116	Swimming facility	19	\$ 369,790	0	0
	120	Variable-use amusement, recreation places, other.	20	\$ 424,550	2	0
	121	Ballroom, gymnasium	7	\$ 8,000	0	0
	122	Convention center, exhibit hall	9	\$ 27,351	0	0
	123	Stadium, arena	7	\$ 67,010	0	0
	124	Playground or outdoor area	5	\$ 500	0	0
	129	Amusement center, indoor/outdoor	12	\$ 361,500	0	0
	130	Places of worship, funeral parlors, other.	19	\$ 4,127,550	1	0
	131	Church, mosque	215	\$ 37,829,928	12	2
	134	Funeral parlor	8	\$ 1,067,000	1	0
	140	Clubs, other	27	\$ 1,550,000	0	0
	141	Athletic or health club	44	\$ 462,951	0	0
	142	Clubhouse associated with country club	47	\$ 3,232,756	0	0
	143	Yacht club	1	\$ 50,000	0	0
	144	Casino, gambling clubs	0	\$ -	0	0
	150	Public or government, other	38	\$ 1,471,002	0	0
	151	Library	10	\$ 155,051	0	0
	152	Museum	10	\$ 1,010,100	0	0
	154	Memorial structure	1	\$ -	0	0
	155	Courthouse	9	\$ 232,000	0	0
	160	Eating, drinking places, other	62	\$ 3,149,033	1	0
161	Restaurant or cafeteria	690	\$ 31,437,096	16	0	
162	Bar, nightclub, saloon, tavern, pub	55	\$ 4,966,126	2	0	
170	Passenger terminal, other	2	\$ -	0	0	
171	Airport passenger terminal	13	\$ 35,425	0	0	
173	Bus station	0	\$ -	0	0	
174	Rapid transit station	2	\$ 200	0	0	
180	Studio, theater, other	8	\$ 1,434,350	0	0	
181	Live performance theater	6	\$ 1,300	0	0	
182	Auditorium, concert hall	2	\$ -	0	0	
183	Movie theater	11	\$ 6,100	0	0	
185	Radio, television studio	0	\$ -	0	0	
186	Film/Movie production studio	0	\$ -	0	0	
Assembly Total			1,444	\$ 96,092,981	36	2
Educational	200	Educational, other	29	\$ 2,346,802	0	0
	210	Schools, non-adult, other	29	\$ 739,584	0	0
	211	Preschool, not in same facility with other grades	11	\$ 38,501	0	0
	213	Elementary school	122	\$ 2,155,581	1	0
	215	High school, junior high, middle school	253	\$ 7,642,057	14	0
	241	Adult education center, college classroom	47	\$ 1,271,012	1	0
	254	Day care in commercial property	39	\$ 622,399	0	1
	255	Day care in residence, licensed	1	\$ 5,500	0	0
	256	Day care in residence, unlicensed	0	\$ -	0	0
	Educational Total			531	\$ 14,821,436	16

Health Care, Detention, and Correction	300	Health care, detention, and correction, other	29	\$ 446,403	4	0
	311	Nursing homes licensed by the State	232	\$ 5,516,907	27	1
	321	Mental retardation/development disability facility	21	\$ 171,040	2	0
	322	Alcohol or substance abuse recovery center	9	\$ 10,460	0	0
	323	Asylum, mental institution	6	\$ 58,600	1	0
	331	Hospital: medical, pediatrics, psychiatric	85	\$ 650,185	2	0
	332	Hospices	0	\$ -	0	0
	340	Clinics, doctors' offices, hemodialysis centers, other	44	\$ 8,797,914	0	0
	341	Clinic, clinic-type infirmary	5	\$ 4,501	0	0
	342	Doctor, dentist, or oral surgeon office	32	\$ 3,546,925	0	0
	343	Hemodialysis unit	0	\$ -	0	0
	340	Clinics, doctors' offices	0	\$ -	0	0
	361	Jail, prison (not juvenile)	44	\$ 1,545,832	11	0
	363	Reformatory, juvenile detention center	14	\$ 33,371	0	0
365	Police station	6	\$ 501,510	0	0	
Health Care, Detention, and Correction Total			527	\$ 21,283,648	47	1
Residential	400	Residential, other	1,263	\$ 35,047,203	28	14
	419	1- or 2-family dwelling	37,209	\$ 1,332,029,016	2,095	486
	429	Multifamily dwelling	8,911	\$ 267,212,424	798	64
	439	Boarding/Rooming house	184	\$ 2,720,946	22	1
	449	Hotel/Motel, commercial	531	\$ 24,032,688	23	1
	459	Residential board and care	83	\$ 470,466	7	1
	460	Dormitory-type residence, other	108	\$ 629,693	7	0
	462	Sorority house, fraternity house	14	\$ 207,392	1	0
	464	Barracks, dormitory	29	\$ 1,698,345	0	0
Residential Total			48,332	\$ 1,664,048,173	2,981	567
Mercantile, Business	500	Mercantile, business, other	286	\$ 12,095,242	11	0
	511	Convenience store	158	\$ 5,198,289	4	0
	519	Food and beverage sales, grocery store	380	\$ 15,499,555	9	0
	529	Textile, wearing apparel sales	48	\$ 868,861	0	0
	539	Household goods, sales, repairs	47	\$ 8,491,741	0	0
	549	Specialty shop	265	\$ 43,862,771	4	0
	557	Personal service	89	\$ 2,711,265	6	0
	559	Recreational stores	30	\$ 2,454,636	0	0
	564	Laundry, dry cleaning	229	\$ 12,397,659	8	1
	569	Professional supplies, services	96	\$ 10,758,719	5	0
	571	Service station, gas station	63	\$ 1,133,777	2	0
	579	Motor vehicle or boat sales, services, repair	306	\$ 43,420,416	19	4
	580	General retail, other	88	\$ 10,069,598	0	1
	581	Department or discount store	93	\$ 2,212,318	1	0
	592	Bank	30	\$ 315,511	0	0
	593	Office: veterinary or research	15	\$ 288,150	2	0
596	Post office or mailing firms	6	\$ 206,100	0	0	
599	Business office	417	\$ 22,269,233	3	0	
Mercantile, Business Total			2,646	\$ 194,253,841	74	6

Industrial, Utility, Defense, Agriculture, Mining	600	Industrial, utility, defense, agriculture, mining, other	95	\$ 4,582,057	2	0
	610	Energy production plant, other	5	\$ 1,215,200	0	0
	614	Steam- or heat-generating plant	9	\$ 111,500	0	0
	615	Electric-generating plant, regardless of fuel source	10	\$ 3,946,201	0	0
	629	Laboratory or science laboratory	19	\$ 305,610	0	0
	631	Defense, military installation	10	\$ 4,711,611	0	0
	635	Computer center	5	\$ 110,100	0	0
	639	Communications center	7	\$ 1,751	0	0
	640	Utility or distribution system, other	5	\$ 10,000	0	0
	642	Electrical distribution	2	\$ 300	0	0
	644	Gas distribution, gas pipeline	1	\$ 30,000	0	0
	645	Flammable liquid distribution system	1	\$ 200	0	0
	647	Water utility	11	\$ 42,052	0	0
	648	Water utility	13	\$ 251,351	0	0
	655	Crops or orchard	20	\$ 456,375	0	0
659	Livestock production	95	\$ 7,946,624	0	0	
669	Forest, timberland, woodland	13	\$ 575,300	0	0	
679	Mine, quarry	10	\$ 181,000	0	1	
Industrial, Utility, Defense, Agriculture, Mining Total			331	\$ 24,477,232	2	1
Manufacturing, Processing	700	Manufacturing, processing	743	\$ 82,759,748	23	0
Manufacturing, Processing Total			743	\$ 82,759,748	23	0
Storage	800	Storage, other	248	\$ 10,702,109	1	0
	807	Outside material storage area	196	\$ 5,025,308	1	0
	808	Outbuilding or shed	2,474	\$ 37,367,934	29	5
	816	Grain elevator, silo	13	\$ 518,500	0	0
	819	Livestock, poultry storage	169	\$ 8,885,196	0	0
	839	Refrigerated storage	7	\$ 748,501	0	0
	849	Outside storage tank	4	\$ 200	0	1
	880	Vehicle storage, other	120	\$ 7,057,804	0	0
	881	Parking garage, detached residential garage	587	\$ 17,299,739	13	4
	882	Parking garage, general vehicle	58	\$ 946,426	0	0
	888	Fire station	20	\$ 1,109,300	0	0
	891	Warehouse	185	\$ 102,407,608	8	0
	898	Dock, marina, pier, wharf	5	\$ 106,000	0	0
	899	Residential storage or self-storage units	88	\$ 6,080,113	5	0
Storage Total			4,174	\$ 198,254,738	57	10

Outside or Special Property	900	Outside or special property, other	80	\$ 1,532,596	0	0
	919	Dump, sanitary landfill	5	\$ 12,000	0	0
	921	Bridge, trestle	1	\$ -	0	0
	922	Tunnel	1	\$ 500	0	0
	926	Outbuilding, protective shelter	372	\$ 4,985,436	3	1
	931	Open land or field	58	\$ 309,150	0	0
	935	Campsite with utilities	41	\$ 571,050	5	0
	936	Vacant lot	38	\$ 70,431	2	0
	937	Beach	1	\$ 60,000	0	0
	938	Graded and cared-for plots of land	33	\$ 219,082	0	0
	940	Water area, other	1	\$ -	0	0
	941	Open ocean, sea, or tidal waters	0	\$ -	0	0
	946	Lake, river, stream	0	\$ -	0	0
	951	Railroad right-of-way	1	\$ -	0	0
	952	Railroad yard, switch or classification area	1	\$ 1,100	0	0
	960	Street, other	10	\$ 64,510	0	0
	961	Highway or divided highway	31	\$ 397,700	1	0
	962	Residential street, road, or residential driveway	111	\$ 2,579,600	2	1
	963	Street or road in commercial area	8	\$ 1,008,500	0	0
	965	Vehicle parking area	58	\$ 277,324	1	0
	972	Aircraft runway	0	\$ -	0	0
	973	Aircraft taxiway	0	\$ -	0	0
	974	Aircraft loading area	4	\$ 532,500	0	0
981	Construction site	42	\$ 1,072,405	0	0	
982	Oil or gas field	0	\$ -	0	0	
983	Pipeline, power line, or other utility right-of-way	3	\$ 500	0	0	
984	Industrial plant yard area, not outdoor storage	20	\$ 1,850,501	0	0	
Outside or Special Property Total			920	\$ 15,544,885	14	2
Other, None, Undetermined	000	Property use, other	173	\$ 5,048,537	1	0
	NNN	None	316	\$ 5,064,555	3	0
	UUU	Undetermined	166	\$ 6,228,942	1	0
TOTAL			60,303	\$ 2,327,878,716	3,255	590

Source: Virginia Department of Fire Programs, March, 2016.

NOTE: Structure fires as defined above include incident codes 110-123 and structure types 1, 2. Mutual Aid Given incidents and exposures were excluded from totals.