DHCD, DBFR 2009 Code Change Process

April 29, 2010 Meeting Agenda Package

Combined Workgroup – Remaining Code Changes

USBC: VCC AND SFPC

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change No. C-101.2(b)

Nature of Change:

A rewrite of many of the provisions of the USBC.

Proponent: Dan K. Williams, representing himself

Staff Comments:

The proponent considers the proposal to be more of an errata than substantive changes to the USBC, to make editorial, grammatical and correlation corrections; however, staff identified a number of substantive changes within the proposal, such as a new inspection for fire and smoke-resistant penetrations, the deletion of a state amendment for fire and smoke dampers which differs from the IBC, etc. These should be resubmitted on individual code change forms so each issue can be vetted independently. Staff will review the editorial, grammatical and correlation suggestions in the proposal during the preparation of the final regulations as those changes may be made by staff automatically as they are not substantive in nature. The proposal was not received in time to be considered through the workgroup process.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

H:\My Documents\2009 Va-2009 International Codes\Code changes\Code Changes-Responses-2nd submission\Code Changes-Responses-3rd submission\2009 VCC-3 101.2.doc

Code Change Number: C-101.2(b)

Proponent Information (Check one): ☒ Individual ☐ Government Entity ☐ Company

Name: Dan K. Williams Representing: Self

Mailing Address: 12055 Government Center Parkway, Suite 316 Fairfax, VA 22035

Email Address: Dan.Williams@fairfaxcounty.gov Telephone Number: 703-324-1060

Proposal Information Revision to Code Change No. C-101.2(b) in Compilation Document Part I.

In Compilation Document Part I, the Staff comment to Code Change No. C-101.2(b) noted various items might be substantiative code change proposals rather than errata. In response to the Staff comment, and after further discussions with DHCD Staff, most issues are resolved and are now withdrawn by the proponent from this proposal:

VCC Sections 101.2, 103.3, 109.2.1, 113.3, (310.6) R301.2.1 – R301.2.1.1, (310.6) R302.2, (310.6) R303.8 – R303.8.1, 407.9 – 407.10 – 407.11, 408.5.1 – 408.5.2, Chapter 7 Title, 703.6, 716.5.3, 903.2.1.3, 1007.6.2, 1009.4.2, 1009.11 – 1009.12, Table 1018.1, 1405.13.2, Table 1704.4, 2701.1, 2702.2.17, 3002.4, 3412.1, and 3413.15.

The sole item remaining in this Code Change No. C-101.2(b) is:

VCC Section 1704.1.

Code(s) and Section(s): 2009 Virginia Construction Code Section No(s): VCC Section 1704.1

Proposed Change (including all relevant section numbers, if multiple sections):

Change Section 1704.1 of the IBC to read:

1704.1 General. Where application is made for construction as described in this section, the owner shall employ one or more special inspectors to provide inspections during construction on the types of work listed under Section 1704. All individuals or agents performing special inspection functions shall operate under the direct supervision of an RDP in responsible charge of special inspection activities; also known as the "special inspector." The special inspector shall ensure that the individuals under their charge are performing only those special inspections or laboratory testing that are consistent with their knowledge, training and certification for the specified inspection or laboratory testing.

Exceptions:

1. Special inspections are not required for work of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official.
2. Special inspections are not required for building components unless the design involves the practice of professional engineering or architecture as defined by the laws of this Commonwealth and regulations governing the professional registration and certification of engineers or architects.

3. Unless otherwise required by the building official, special inspections are not required for residential occupancies ~~in Group R-3, R-4 or R-5~~ built in accordance with the *Virginia Residential Code*, and occupancies in Group U that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.

Supporting Statement (including intent, need, and impact of the proposal):

Most residential buildings, when built in accordance with the *Virginia Residential Code*, do not require any special inspections, but if unique components such as those described below are part of the design, only those components would be subject to special inspections.

1704.1 General. In previous editions of the building code, the IBC exempted Groups R-3 and U from special inspections (Virginia modification added Groups R-4 and R-5 to the exemption).

The 2009 IBC removed the exception for residential occupancies in Group R. As is described in *Significant Changes to the 2009 International Building Code*, published by the International Code Council, Inc., the structural systems of some residential buildings have components such as high-strength concrete, cast-in-place elevated concrete, structural steel frames, engineered masonry, and pile or pier foundations, that are necessary to be designed by registered design professionals and require special inspections, just as do the structural systems of commercial buildings.

This especially applies to Groups R-1 and R-2 buildings, and also may apply to other residential buildings that are designed in accordance with the IBC rather than the IRC for typical single-family houses.

The proposed revision to Exception 3 emphasizes that most residential buildings, when built in accordance with the *Virginia Residential Code*, would not require any special inspections, but if such particular components are part of the design, only those components would be subject to special inspections which are necessary for the higher quality of construction that is required.

I request this code change proposal for VCC Section 1704.1 to be approved as submitted.

Submittal Information

Date Submitted: March 19, 2010

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Center
600 E. Main St., Suite 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change No. C-102.3(7)

Nature of Change:

To further clarify language approved for the proposed 2009 USBC which explicitly exempts federally-owned buildings and structures. The further amendment recognizes federal law requirements for such installations as underground storage tanks.

Proponent: Ron Clements, Chesterfield County Building Department, representing VBCOA

Staff Comments:

This proposal was tentatively approved at the Codes and Standards Committee meeting of December 14, 2009 unless public comment is received during the Compilation Document comment period.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-102.3(7)

Proponent Information (Check one): ☒ Individual ☒ Government Entity ☐ Company

Name: Ron Clements

Representing: Virginia Building and Code Officials Association

Mailing Address: 9800 Government Center Parkway

Email Address: clementsro@chesterfield.gov

Telephone Number: (804) 751-4163

Proposal Information

Code(s) and Section(s): 102.3 Exemptions

Proposed Change (including all relevant section numbers, if multiple sections):

Add the following Exemption to section 102.3:

7. Federally owned buildings and structures unless federal law specifically requires a permit from the locality. Underground storage tank installations, modifications and removals shall comply with this code in accordance with federal law.

Supporting Statement (including intent, need, and impact of the proposal):

Though it has been a widely held interpretation that buildings and structures owned by the Federal government are exempt from the building code it is not expressly stated in the VA Uniform Statewide Building code. Most federal buildings are constructed under the authority of the US Government's General Services Administration and GSA policy section 1.3 states that under federal law (Public Law 100-678 sec. 21) buildings built on federal property are exempt from state and local building codes. Other federal buildings, such as military installations, are constructed under the authority of the department or agency that owns the building.

One specific instance where a federal structure is required to comply with the VA Construction code is underground storage tank installations, modifications or removals. That is the reason the second sentence is included. The state and federal laws regarding underground storage tank permits are provided below.

State law:

§ 36-99.6. Underground and aboveground storage tank inspections.

A. The Board of Housing and Community Development shall incorporate, as part of the Building Code, regulations adopted and promulgated by the State Water Control Board governing the installation, repair, upgrade and closure of underground and aboveground storage tanks.

B. Inspections undertaken pursuant to such Building Code regulations shall be done by employees of the local building department or another individual authorized by the local building department.

(1987, c. 528; 1992, c. 456; 1994, c. 256.)

Federal law:
-HEAD-
Sec. 6991f. Federal facilities

-STATUTE-
(a) In general
Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any underground storage tank or underground storage tank system, or (2) engaged in any activity resulting, or which may result, in the installation, operation, management, or closure of any underground storage tank, release response activities related thereto, or in the delivery, acceptance, or deposit of any regulated substance to an underground storage tank or underground storage tank system shall be subject to, and comply with, all Federal, State, interstate, and local requirements, both substantive and procedural (including any requirement for permits or reporting or any provisions for injunctive relief and such sanctions as may be imposed by a court to enforce such relief), respecting underground storage tanks in the same manner, and to the same extent, as any person is subject to such requirements, including the payment of reasonable service charges. The Federal, State, interstate, and local substantive and procedural requirements referred to in this subsection include, but are not limited to, all administrative orders and all civil and administrative penalties and fines, regardless of whether such penalties or fines are punitive or coercive in nature or are imposed for isolated, intermittent, or continuing violations. The United States hereby expressly waives any immunity otherwise applicable to the United States with respect to any such substantive or procedural requirement (including, but not limited to, any injunctive relief, administrative order or civil or administrative penalty or fine referred to in the preceding sentence, or reasonable service charge). The reasonable service charges referred to in this subsection include, but are not limited to, fees or charges assessed in connection with the processing and issuance of permits, renewal of permits, amendments to permits, review of plans, studies, and other documents, and inspection and monitoring of facilities, as well as any other nondiscriminatory charges that are assessed in connection with a Federal, State, interstate, or local underground storage tank regulatory program.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change Nos. C-103.5(a) and C-103.5(b)

Nature of Change:

Two proposals clarifying the alteration provisions of the USBC to address whether the code permits the replacement of materials with like materials, even if there is substantial rebuilding of a building, such as when a fire occurs.

Proponent: Ray Pylant, Building Official, representing Fairfax County Building Department

Staff Comments:

The first proposal (C-103.5(a)) would require any work other than a repair to comply with new construction provisions. The second proposal (C-103.5(b)) would also require any work other than a repair to comply with new construction provisions, but in addition would limit repairs to less than 50% of the replacement value of the part of the building being repaired without having to comply with new construction provisions. The proposal was considered in one meeting of staff with representatives of the Virginia Building and Code Officials Association. While there was no consensus to recommend either proposal, most commenting at the meeting agreed that the current provision needs clarification as some read it to permit the replacement of like with like and others to require any work done to meet new requirements. There was also comment that the definition of the term "repair" in Chapter 2 of the IBC was problematic as used with this proposal as it uses the word "reconstruction" in the definition, even through the use of the term is limited to only work required for the maintenance of a building.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to:		Document No. C-103.5(a)
DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		Committee Action: _____ BHCD Action: _____

Submitted by: Ray Pylant — Representing: Fairfax County

Address: 12055 Govt. Ctr. Pky, Fairfax, Va. 22035 — Phone No.: 703-324-1910

Regulation Title: Virginia New Construction Code – 2009 IBC Section Section No(s): 103.5

Proposed Change:

103.5 Reconstruction, alteration or repair. The following criteria is applicable to reconstruction, alteration or repair of buildings or structures:

1. Any reconstruction, alteration or repair shall not adversely affect the performance of the building or structure, or cause the building or structure to become unsafe or lower existing levels of health and safety.
2. Parts of a building or structure being reconstructed or altered shall comply with the requirements of this code applicable to newly constructed buildings or structures. Parts of the building or structure not being reconstructed or altered ~~or repaired~~ shall not be required to comply with the requirements of this code applicable to newly constructed buildings or structures.
3. The installation of material or equipment, or both, that is neither required nor prohibited shall only be required to comply with the provisions of this code relating to the safe installation of such material or equipment.

4. Repairs to an existing building or structure shall be permitted to be made through the replacement of ~~M~~material or equipment components, or both, ~~may be replaced in the same location~~ with material or equipment components of a similar kind or capacity placed in the same location.

Exceptions:

1. This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.
2. ~~Reconstructed decks, balconies, porches and similar structures located 30 inches (762 mm) or more above grade shall meet the current code provisions for structural loading capacity, connections and structural attachment. This requirement excludes handrails and guardrails.~~

Supporting Statement: Current code language is ambiguous, leading some to believe that even a building or structure which no longer exists can be "repaired back into existence" under whatever building code standards may (or may not) have existed at the time of original construction. Replacing a rotted board in the floor of a deck is clearly a "repair," and should be allowed without building permits or the need to upgrade the deck to current building code requirements. Replacing the entire deck, on the other hand, is not a repair; it is reconstruction, and should be required to comply with current building code standards.

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to: DHCD, the Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.state.va.us		Document No. C-103.5(b) Committee Action: _____ BHCD Action: _____

Submitted by: Ray Pylant — Representing: Fairfax County

Address: 12055 Govt. Ctr. Pky, Fairfax, Va. 22035 — Phone No.: 703-324-1910

Regulation Title: Virginia New Construction Code – 2009 IBC Section Section No(s): 103.5

Proposed Change: **ALTERNATE PROPOSAL, NOVEMBER 18, 2009**

103.5 Reconstruction, alteration or repair. The following criteria is applicable to reconstruction, alteration or repair of buildings or structures:

1. Any reconstruction, alteration or repair shall not adversely affect the performance of the building or structure, or cause the building or structure to become unsafe or lower existing levels of health and safety.
2. Parts of a building or structure being reconstructed or altered shall comply with the requirements of this code applicable to newly constructed buildings or structures. Parts of the building or structure not being reconstructed or altered ~~or repaired~~ shall not be required to comply with the requirements of this code applicable to newly constructed buildings or structures.
3. The installation of material or equipment, or both, that is neither required nor prohibited shall only be required to comply with the provisions of this code relating to the safe installation of such material or equipment.

4. Repairs to an existing building or structure shall be permitted to be made through the replacement of ~~M~~material or equipment components, or both, ~~may be replaced in the same location~~ with material or equipment components of a similar kind or capacity placed in the same location. Where the scope of such material or equipment component replacement exceeds 50% of the replacement value of the structure (or part thereof) undergoing renovation, the work shall be deemed reconstruction, and the requirements of this code applicable to newly constructed buildings or structures shall apply.

Exceptions:

1. This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.
2. ~~Reconstructed decks, balconies, porches and similar structures located 30 inches (762 mm) or more above grade shall meet the current code provisions for structural loading capacity, connections and structural attachment. This requirement excludes handrails and guardrails.~~

Supporting Statement: Current code language is ambiguous, leading some to believe that even a building or structure which no longer exists can be "repaired back into existence" under whatever building code standards may (or may not) have existed at the time of original construction. Replacing a rotted board in the floor of a deck is clearly a "repair," and should be allowed without building permits or the need to upgrade the deck to current building code requirements. Replacing the entire deck, on the other hand, is not a repair; it is reconstruction, and should be required to comply with current building code standards.

The same distinction between "repair" and "replacement" should be made with respect to code regulated equipment as well. Replacing a blower motor in an existing furnace is a "repair" (the replacement of an equipment component), but if the entire furnace is being replaced, it should be with code compliant equipment installed to current code standards.

The suggested "dividing line" between "repair" and "reconstruction" of "50% of the replacement value" of whatever is being renovated (for example, a deck or a furnace) is intended to avoid unreasonable interpretations in either extreme; replacing all but one part of an existing assembly is "reconstruction," not "repair," and replacing only a few parts of an existing assembly is "repair," not "reconstruction."

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change Nos. C-109.3.1(a) and C-109.3.1(b)

Nature of Change:

Two proposals adding requirements for the construction documents to show the nature of all portions of the means of egress.

Proponent: David J. Thomas, PE, representing himself and J. Kenneth Payne, Jr., AIA, representing VSAIA

Staff Comments:

The first proposal (C-109.3.1(a)), by Mr. Thomas, would require construction documents to show the location, construction, size and number of occupants in all areas, including the path of exit discharge, which is typically the area outside of the building. The second proposal (C-109.3.1(b)), by Mr. Payne, would only require details on exit construction and would provide only the location of exit access corridors and the occupant load of rooms and spaces required to have assigned occupant loads. Both proposals were vetted through the workgroup process and there was general sentiment that the current USBC permits appropriate flexibility in dictating the specificity of construction documents for the means of egress. The second proposal was submitted only as a less restrictive alternative to the first proposal and would be withdrawn if it is determined that no action is necessary on the first proposal as the proponent shared the general sentiment that the current USBC is adequate.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): X Individual ☐ Government Entity ☐ Company

Name: David J. Thomas, PE Representing: Self

Mailing Address: Fire Prevention Division, 10700 Page Ave, Fairfax Va 22030

Email Address: david.thomas@fairfaxcounty.gov Telephone Number: 703-246-4819

Proposal Information

Code(s) and Section(s): USBC, Volume 1, Section 109. Add the following Section 109.7:

Proposed Change (including all relevant section numbers, if multiple sections):

109.7 Means of egress: The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. In other than occupancies in Groups R-2, R-3, R-5, and I-1, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

Supporting Statement (including intent, need, and impact of the proposal):

This statement is in IBC 2006 at Section 106.1.2, and was deleted by the USBC when Chapter 1 of IBC was replaced by Chapter 1 of the USBC. It formerly, under the BOCA codes, resided in Chapter 10. Since the paragraph was lost in the transition to IBC, it needs to be reinstated in the proper place in the USBC, under Construction Documents. It provides both the designer and the reviewer of the documents with the necessary guidance to have on the drawings the basis of egress calculations and egress capacity sizing. Placement of these numbers on the drawings removes ambiguity and formerly, under the BOCA Codes, was there to ensure completeness and fair and equitable review of the designer's intent. It should be restored to the code, since it provides clarity for all parties in the construction documents. Summary sheets are sometimes found in current documents, but the aggregate data can cause confusion unless supported by actual numbers of occupants for which the spaces are designed. Since the designer already compiles the aggregate data, this will merely involve placing the basic data on the plans as well as the aggregate numbers.

It is not anticipated that any basic changes in either design procedures or costs will be affected by this proposal, which is a restoration of a clause long present in the codes which was inadvertently left out when the transition to IBC was accomplished.

Submittal Information

Date Submitted: April 8, 2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-109.3.1(b)

Proponent Information (Check one): ☐ Individual ☐ Government Entity ☒ Company

Name: J. Kenneth Payne, Jr., AIA Representing: VSAIA

Mailing Address: 3200 Norfolk Street, Richmond, Virginia 23230

Email Address: kpayne@moseleyarchitects.com Telephone Number: 804-794-7555

Proposal Information

Code(s) and Section(s): 2006 VCC Section 109.5 – Approval of construction documents

Proposed Change (including all relevant section numbers, if multiple sections):

Add the following new subparagraphs:

109.5.1 Arrangement of egress. The *construction documents* shall show in sufficient detail the location, construction, size and character of all *exits*, together with the arrangement of *aisles*, *corridors*, passageways and hallways leading thereto in compliance with the provisions of this code.

109.5.2 Number of occupants. In other than occupancies in Use Groups R-2, R-3 and I-1, the *construction documents* and the application for a permit shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces that are required to have assigned *occupant loads* in accordance with Section 1004. Unless otherwise specified, the minimum number of occupants to be accommodated by the *exits* shall be determined by the occupant load prescribed in Section 1004. The occupant load of the building shall be limited to that number. The fire prevention code official shall be informed in *writing* of the calculated occupant load.

Supporting Statement (including intent, need, and impact of the proposal):

A code change was submitted (included below for reference) requesting "means of egress" be reintroduced into the VCC. The BOCA model code included similar language in Chapter 10. The BOCA requirements were relocated to Chapter 1 when the IBC was introduced. Virginia replaced Chapter 1 of the IBC with our own Chapter 1 in the VCC. These requirements did not make the transition and were not included in Chapter 1 of the VCC.

2009 IBC Chapter 1 text and previously submitted code change:

107.2.3 Means of egress. The *construction documents* shall show in sufficient detail the location, construction, size and character of all portions of the *means of egress* in compliance with the provisions of this code. In other than occupancies in Groups R-2, R-3, and I-1, the *construction documents* shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

Although egress information should be included in the Construction Documents, the 2009 version leaves too much to be interpreted, and extends to spaces that otherwise Section 1004 does not require an occupant load be assigned. As written in the 2009 IBC, "all portions of the means of egress" [emphasis added] must be addressed. By definition, *means of egress* includes exit access, exits, and exit discharge. It is the exit access (within *every* room and space) and exit discharge (which terminates at a *public way*) that causes concern and opens the door for the potential of different interpretations as to how a LAHJ would interpret showing "construction, size and character" of an office, classroom, sidewalk, curb, parking area, or street.

The second sentence in the 2009 IBC version requires the A/E to indicate occupant loads "in all rooms and spaces" [emphasis added]. LAHJ could interpret this to require every single room and space in the entire building be assigned an occupant load. However, not all rooms or spaces require an occupant load be assigned to them (e.g., corridors, toilets, janitor's closets, stairs, attics, crawl spaces, etc.).

If we had to provide an occupant load everywhere, we would also be required to provide more plumbing fixtures ($$$), wider and more egress elements ($$$), greater HVAC requirements ($$$), more parking ($$$)...or more of everything tied to the building occupancy loads.

This proposed change more closely parallels that of the original BOCA model code that Virginia used for many years (included below for reference).

1996 BOCA version:

> **1003.1 Arrangement of egress.** The *construction documents* shall show in sufficient detail the location, construction, size and character of all *exits*, together with the arrangement of *aisles*, *corridors*, passageways and hallways leading thereto in compliance with the provisions of this code.
>
> **1003.2 Number of occupants.** In other than occupancies in Use Groups R-2, R-3 and I-1, the *construction documents* and the application for a permit shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces as required by the code official. Unless otherwise specified, the minimum number of occupants to be accommodated by the *exits* shall be determined by the occupant load prescribed in Section 1008.0 [Occupant Load]. The posted occupant load of the building shall be limited to that number. The fire prevention code official shall be informed in *writing* of the calculated occupant load.

Rather than create an entirely new paragraph in the VCC (109.7), this proposed change becomes a subparagraph related to the *approval* of the construction documents.

Submittal Information

Date Submitted: May 6, 2009 (revised May 28, 2009)

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

Hodge, Vernon (DHCD)

From: Rodgers, Emory (DHCD)
Sent: Wednesday, March 31, 2010 4:27 PM
To: Hodge, Vernon (DHCD); 'Payne, Kenney'
Cc: Eubank, Paula (DHCD)
Subject: RE: USBC item 109.3.1

Lets enter into the mix the DHCD with Ken tweak on the title line. I bet the BHCD will buy into this approach altought not sure broken. If is broken Fairfax is doing this now and ahs been for years so what.

From: Hodge, Vernon (DHCD)
Sent: Wednesday, March 31, 2010 3:43 PM
To: Payne, Kenney
Cc: Rodgers, Emory (DHCD); Eubank, Paula (DHCD)
Subject: FW: USBC item 109.3.1

Kenney, looks like it's a no go for the compromise proposal. Just let us know what proposal you would like to end up with coming from you.

Vernon

From: Thomas, David [mailto:David.Thomas@fairfaxcounty.gov]
Sent: Wednesday, March 31, 2010 3:20 PM
To: Hodge, Vernon (DHCD)
Subject: RE: USBC item 109.3.1

Vernon, With all due respect, I would like to leave my proposal in as is. I believe it to be clear and correct. D.Thomas 3-31-10 1519 hrs EDT

From: Hodge, Vernon (DHCD) [mailto:Vernon.Hodge@dhcd.virginia.gov]
Sent: Wednesday, March 31, 2010 8:21 AM
To: Payne, Kenney; Thomas, David
Cc: Rodgers, Emory (DHCD); Duncan Abernathy; Dean, Glenn (VDFP); Eubank, Paula (DHCD)
Subject: RE: USBC item 109.3.1

Kenney and Dave,

DHCD would suggest a compromise proposal to simply add the following language to Section 109.3:

109.3 Engineering details. When determined necessary by the building official, construction documents shall include adequate detail of the structural, mechanical, plumbing or electrical components, and sufficient detail of the means of egress system to verify occupant loads, travel distances and other characteristics necessary to determine compliance with this code. (Remainder of section unchanged)

Vernon Hodge, Technical Services Manager
Technical Assistance Services Office (TASO)
Division of Building and Fire Regulations
Va. Department of Housing and Community Development
Direct Dial: (804) 371-7174
Email: Vernon.Hodge@DHCD.virginia.gov
Blackberry: (804) 382-2973

From: Payne, Kenney [mailto:kpayne@moseleyarchitects.com]
Sent: Tuesday, March 30, 2010 1:43 PM
To: Dean, Glenn (VDFP); Thomas, David
Cc: Rodgers, Emory (DHCD); Hodge, Vernon (DHCD); Duncan Abernathy
Subject: RE: USBC item 109.3.1

We do understand LAHJ can require different things. My mentioning about confusion is mostly driven by the following:

1. How do you show "detail" and "character" of the exit discharge?
    a. Will LAHJ require occupant loads, occupant capacities, minimum egress widths, etc. on sidewalks? Parking lots? Plazas? Whatever "path" one takes until they reach the public way, which could be ½ mile away on some projects.
    b. This would be very confusing to an A/E on how to address that requirement for what is otherwise considered "site elements" and not "building" elements.
2. Providing occupant loads in "all rooms and spaces".
    a. Code doesn't require loads in spaces that do not require loads (e.g., toilets, closets, corridors, stairs, etc.).
    b. Code allows the use of "gross" areas...so what is an A/E to do in those cases?
3. Those are a couple of confusing issues that we see could happen (there may be other examples) if the literal wording is enforced of your proposal.

I will await further comments when you have an opportunity. Thank you.

From: Dean, Glenn (VDFP) [mailto:Glenn.Dean@vdfp.virginia.gov]
Sent: Tuesday, March 30, 2010 11:48 AM
To: Payne, Kenney; Thomas, David
Cc: Rodgers, Emory (DHCD); Hodge, Vernon (DHCD); Duncan Abernathy
Subject: RE: USBC item 109.3.1

Pardon my clipped comments. I'm in a meeting that I'm trying to pay attention to and I can't take the time right now to suggest tweaks.
Kenny, you mention confusing the professionals in what is required but you say the delineation is to be in a manner that's acceptable to the BO. You understand the manner that's acceptable can change from one localitiy to another. That can be confusing also. I applaud the effort to ensure a historical reference on what the path to the public way is or is supposed to be so the fire official, or others, have something to go by and maintain during the life of the building. Let's keep trying.
Thank you.

Glenn A. Dean, CFM
State Fire Marshal's Office
804-612-7269

From: Payne, Kenney [mailto:kpayne@moseleyarchitects.com]
Sent: Tuesday, March 30, 2010 11:33 AM
To: Thomas, David; Dean, Glenn (VDFP)
Cc: Rodgers, Emory (DHCD); Hodge, Vernon (DHCD); Duncan Abernathy
Subject: RE: USBC item 109.3.1

Gentlemen,

In an effort to achieve consensus, please comment on the following proposed "tweaks" (added R-5 and exit discharge) to the proposal we submitted, that does not accomplish what you are looking for.

It appears to us that the proposal below should provide for the information you seek, without providing language (currently in the 2009 IBC and David's proposal) that might be used by various LAHJ that could confuse our professionals in what is required (refer to our comments we made relative to David's proposal).

109.5.1 Arrangement of egress. The *construction documents* shall show in sufficient detail the location, construction, size and character of all *exits*, together with the arrangement of *aisles*, *corridors*, passageways and hallways leading thereto in compliance with the provisions of this code.

109.5.1.1 Extent of the exit discharge. The *construction documents* shall delineate the extent of the path of *exit discharge* from every *exit* to the *public way* in a manner acceptable to the building official on the site plan, or other *construction document* if a site plan is not provided.

109.5.2 Number of occupants. In other than occupancies in Use Groups R-2, R-3, R-5, and I-1, the *construction documents* shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces that are required to have assigned *occupant loads* in compliance with the provisions of this code. Unless otherwise indicated, the minimum number of occupants to be accommodated by the exits shall be determined by the occupant load prescribed in Section 1004.0.

If you believe further tweaking is required to address your concerns, please feel free. Of course, the possibility exists that the Codes and Standards Committee and/or DHCD may deny both of the current proposals and we end up with nothing changed.

Thank you.

J. Kenneth Payne, Jr., AIA
Vice President
Quality Assurance and Training
LEED Accredited Professional

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VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change No. C-307.1

Nature of Change:

To delete the consumer fireworks category from the hazardous material table in the IBC and the IFC.

Proponent: Robby Dawson, representing the Virginia Fire Services Board

Staff Comments:

This proposal was approved at the first round of hearings for the 2012 International Codes. It is unknown whether public comment will be received for reconsideration of the proposal for the final action hearings. The result of the proposal is to regulate consumer fireworks as explosive materials. The amounts permitted to be stored however will not change as the category being deleted was the same as the category already in both the IBC and the IFC for explosive materials. The proposal may result in other explosive material requirements in the IBC and the IFC applying to consumer fireworks and to the subcategory of fireworks indentified in Virginia as "permissible fireworks" which under state law are not regulated by the SFPC. The proposal was not received in time to be vetted through the workgroup process.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-307.1

Proponent Information (Check one): ☐ Individual X Government Entity ☐ Company

Name: Robby Dawson Representing: Virginia Fire Services Board

Mailing Address: 1005 Technology Park Drive, Glen Allen, VA 23059

Email Address: dawsonj@chesterfield.gov Telephone Number: 804-717-6838

Proposal Information

Code(s) and Section(s): USBC Table 307.1(1); USBC Section 307.2
SFPC Table 2703.1.1(1) and Section 3302.1

Proposed Change (including all relevant section numbers, if multiple sections):

[F] TABLE 307.1(1)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[a,j,n,p]

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[b]			USE-CLOSED SYSTEM[b]			USE-OPEN SYSTEMS	
			SOLID POUNDS (CUBIC FEET)	LIQUID GALLONS (POUNDS)	GAS (CUBIC FEET AT NTP)	SOLID POUNDS (CUBIC FEET)	LIQUID GALLONS (POUNDS)	GAS (CUBIC FEET AT NTP)	SOLID POUNDS (CUBIC FEET)	LIQUID GALLONS (POUNDS)
~~Consumer fireworks (Class C, Common)~~	~~1.4G~~	~~H-3~~	~~125[d,e,l]~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~
No changes to remainder of table.										

Section 307.2 Definitions.

EXPLOSIVE. A chemical compound, mixture or device, the primary or common purpose of which is to function by explosion. The term includes, but is not limited to, dynamite, black powder, pellet powder, initiating explosives, detonators, safety fuses, squibs, detonating cord, igniter cord, igniters and display fireworks, 1.3G (Class B, Special).
~~The term "Explosive" includes any material determined to be within the scope of USC Title 18: Chapter 40 and also includes any material classified as an explosive other than consumer fireworks, 1.4G (Class C, Common) by the hazardous materials regulations of DOTn 49 CFR Parts 100-185.~~
(Remainder unchanged.)

Fireworks, 1.4G. (Formerly known as Class C, Common Fireworks.) Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion or deflagration that complies~~. Such 1.4G fireworks which comply~~ with the construction, chemical composition and labeling regulations of the DOTn for Fireworks, UN 0336, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR: Parts 1500 and 1507,~~ are not explosive materials for the purpose of this code~~.

TABLE 2703.1.1(1)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[a,j,n,p]

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[b]			USE-CLOSED SYSTEM[b]			USE-OPEN SYSTEMS	
			SOLID POUNDS (CUBIC FEET)	LIQUID GALLONS (POUNDS)	GAS (CUBIC FEET AT NTP)	SOLID POUNDS (CUBIC FEET)	LIQUID GALLONS (POUNDS)	GAS (CUBIC FEET AT NTP)	SOLID POUNDS (CUBIC FEET)	LIQUID GALLONS (POUNDS)
~~Consumer fireworks (Class C, Common)~~	~~1.4G~~	~~H-3~~	~~125[d,e,i]~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~
No changes to remainder of table.										

Section 3302.1 Definitions.

EXPLOSIVE. A chemical compound, mixture or device, the primary or common purpose of which is to function by explosion. The term includes, but is not limited to, dynamite, black powder, pellet powder, initiating explosives, detonators, safety fuses, squibs, detonating cord, igniter cord, igniters and display fireworks, 1.3G (Class B, Special).
~~The term "Explosive" includes any material determined to be within the scope of USC Title 18: Chapter 40 and also includes any material classified as an explosive other than consumer fireworks, 1.4G (Class C, Common) by the hazardous materials regulations of DOTn 49 CFR Parts 100-185.~~
(Remainder unchanged.)

Fireworks, 1.4G. (Formerly known as Class C, Common Fireworks.) Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion or deflagration that complies~~. Such 1.4G fireworks which comply~~ with the construction, chemical composition and labeling regulations of the DOTn for Fireworks, UN 0336, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR: Parts 1500 and 1507,~~ are not explosive materials for the purpose of this code~~.

Supporting Statement (including intent, need, and impact of the proposal):

The intent of this change is to revert to language stating consumer fireworks are explosive in nature.

The IFC definition language denoting that consumer fireworks would not be considered "explosive materials for the purpose of this code" originated through IFC code change F97-99. The proponent at the time stated the change was to "revise the definitions for consumer fireworks and display to be more closely aligned with the definitions contained in the 1997 IFCI Uniform Fire Code including 1999 Accumulative Supplement and the 1999 BOCA National Fire Prevention Code."

In looking back for the UFC and BOCA fire codes that were referenced in the F97-99 change to the IFC, code change B3-97 introduced language through the BOCA building code claiming consumer fireworks are not explosive materials and did not provide any technical substantiation to support the claim. We would accept the proponent was making the claim as a means to justify reclassifying the storage and/or sale of consumer fireworks from an H-1 to an H-3 building. For that, we would agree somewhat with the proponent in saying that it "appears reasonable" given the comparison for other H-3 commodities but that is not the issue in this proposed change.

The next BOCA cycle saw the introduction of F18-98 changing the definition of consumer fireworks, 1.4G as "not explosive materials for the purpose of this code". The committee hearing the change at the time denied the proposal with a conference action to amend. Subsequently the proponent brought the issue back in the form of an amendment. But here again, a technical substantiation was not provided.

This same F18-98 change, as amended, carved out consumer fireworks from BOCA's MAQ table to "correlate with code change B3-97 to the 1996 BOCA National Building Code" to be shown as a Group H-3 building instead of a Group H-1. The proponent also stated that it was to "correlate definitions used in the BOCA National Fire Prevention Code and Building Code with terminology used in the new DOTn/UN classifications and regulations and NFPA

standards." That may be true to a point and it's that point that gets to the heart of the reason behind this proposed change, which is, DOTn 49 CFR Parts 100-178, U.S Consumer Products Safety Commission as set forth in CPSC 16 CFR, UN 0336, NFPA standards 495, 1123, 1124, and 1126 **do not** contain language saying consumer fireworks are not explosive, at least not that was found. We went so far as to check pamphlets published by the Institute of Makers of Explosives; the U.S. Department of Justice, Bureau of Alcohol, Tobacco, Firearms and Explosives, AFT Publication 5400.7; the American Pyrotechnics Association Standard 87-1, and found nothing in that respect. In fact, everything found labels fireworks as "explosive" without distinction for 1.4G "consumer fireworks" versus a 1.4G professional pyrotechnic device such as the "gerb" that was used and ignited The Station nightclub fire in Rhode Island.

It is the accumulative results of B3-97 and F18-98 that lent itself to the reference in IFC code change F97-99 supporting statement.

That portion of the proposed definition change to include "deflagration" is a resurrection of a previously used descriptor and is to more accurately reflect the functioning of some consumer fireworks. While a sparkler or fountain may operate through combustion, simple combustion does not necessarily mean enough force will be produced quickly enough for the device to function in a desired manner. If the pyrotechnic material does not deflagrate, the flaming balls of roman candles may not launch; aerial devices may not have enough expelling force to obtain the needed altitude.

The changes to USBC Table 307.1(1) and SFPC Table 2703.1.1(1) is a change to reflect that consumer fireworks are indeed properly classified as an Explosive 1.4G and it's not necessary to have a separate line with identical threshold values, including all footnotes, to determine at what point a building would be classified as a Group H-3. It's redundant within the same tables. In reality, at the model code level, other than the deletion of language saying consumer fireworks are not explosive, the net effect of this change will be zero to what is taking place in the world of "permissible fireworks" and consumer fireworks manufacturing, storage, sale and use.

At the time of this submission copies of the UFC code changes referenced earlier have not been located but it's suspected the supporting statements closely resembled those submitted to BOCA.

The change to the definition of "Explosive" is to delete language related to consumer fireworks that was inserted as a result of IFC code change B3-97.

This proposed change, designated as F186-09/10, was accepted (modified) by the ICC Fire Code Committee at the recent Code Change hearings held in Baltimore. The Committee vote was 11 to 2 in favor of "As Modified".

Submittal Information

Date Submitted: 12/16/2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

Julie Heckman, Executive Director of the American Pyrotechnic Association, representing the American Pyrotechnics Association requests Approval as Modified by this Public Comment to the Virginia USBC and SFPC Code Change C-307.1 submitted by Robbie Dawson representing the Virginia Fire Services Board as follows:

Further modify the proposal as follows:

TABLE 2703.1.1(1) [IBC TABLE [F] 307.1(1)]
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[a,j,n,p]

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[b]			USE-CLOSED SYSTEM[b]			USE-OPEN SYSTEMS	
			SOLID POUNDS (CUBIC FEET)	LIQUID GALLONS (POUNDS)	GAS (CUBIC FEET AT NTP)	SOLID POUNDS (CUBIC FEET)	LIQUID GALLONS (POUNDS)	GAS (CUBIC FEET AT NTP)	SOLID POUNDS (CUBIC FEET)	LIQUID GALLONS (POUNDS)
Consumer fireworks	1.4G	H-3	125[d,e,f]	N/A	N/A	N/A	N/A	N/A	N/A	N/A

(Portions of table and notes not shown remain unchanged)

3302.1 (IBC [F]307.2) Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

EXPLOSIVE. A chemical compound, mixture or device, the primary or common purpose of which is to function by explosion. The term includes, but is not limited to, dynamite, black powder, pellet powder, initiating explosives, detonators, safety fuses, squibs, detonating cord, igniter cord, igniters and display fireworks, 1.3G ~~(Class B, Special)~~.

The term "Explosive" includes any material determined to be within the scope of USC Title 18: Chapter 40 and also includes any material classified as an explosive other than consumer fireworks, 1.4G (Class C, Common) by the hazardous materials regulations of DOTn 49 CFR Parts 100 – 185.

FIREWORKS, 1.4G. Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion ~~or deflagration that complies~~. Such 1.4G fireworks which comply with the construction, chemical composition and labeling regulations of the DOTn for Fireworks, UN 0336 as set forth in DOTn 49 CFR: Part 172, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR: Parts 1500 and 1507, are not explosive materials for the purpose of this code.

(Portions of the definition of "Fireworks" not shown remain unchanged)

Commenter's Reason: This Public Comment basically reinstates the current definitions for "Explosive" and "Fireworks, 1.4G" with some additional revisions to further clarify them to make them more consistent with the DOTn regulations for them.

This Public Comment also reinstates the entry in Table 2703.1.1(1) for Consumer Fireworks, 1.4G based on it being a defined term that is distinctive from Explosives, 1.4G by its definition.

It should also be noted that a very significant, unintended consequence will result if Code Change C-307.1 is approved as submitted by Robbie Dawson, representing the Virginia Fire Services Board without further modification by this Public Comment regarding the definition for "Explosive" because of the deletion of the second paragraph of the definition which currently includes materials within the scope of USC Title 18: Chapter 40, as well as materials classified as an explosive by the Hazardous Materials Regulations of DOTn 49 CFR: Parts 100 – 185. The inclusion of that paragraph within the definition for "Explosive" is also consistent with the definition for "Explosive Material" found in Section 3.3.98 of the 2009 NFPA 1 Fire Code including the Annex Note A.3.3.98, as well as with the definition for "Explosive" in Section

3.3.18 of NFPA 495 Explosive Materials Code (2006) including the Annex Note A.3.3.18. This paragraph is important to complete the definition for "Explosive" to be consistent with federal regulations.

This Public Comment also further revises the current definition for "Fireworks, 1.4G" to include a reference to DOTn 49 CFR: Part 172 which makes the definition consistent with the definition currently contained in NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles (2006), as well as with the definition for "Consumer Fireworks" in the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF) Federal Explosives Law and Regulations, ATF Publication 5400.7 (November 2007). Contrary to the proponent's Reason Statement, the current definition for "Fireworks, 1.4G" is totally consistent with the definitions in NFPA 1123 and NFPA 1124. And as noted previously, although not mentioned in the submitter's statement, the definition is also totally consistent with that contained in the NFPA 1 Fire Code (2009) including the Annex Note. The definition in NFPA 1123 is extracted from NFPA 1124 and the Annex Note to that definition in Section A.3.3.15.1 includes the following: "Consumer fireworks contain limited quantities of pyrotechnic composition per unit and do not pose a mass explosion hazard where stored. Therefore, they are not required to be stored in a magazine." The Annex Note to the definition for "Consumer Fireworks" in NFPA 1124-2006 in Section A.3.3.30.1 states: "Consumer fireworks... are not considered to be explosive materials for the purposes of this code." Similarly, the Annex Note to the definition for "Consumer Fireworks" in the NFPA 1 Fire Code (2009) Section A.3.3.115.1 contains the same statement. Also, the Annex Note to the definition for "Explosive Material" in the NFPA 1 Fire Code Section A.3.3.98 contains the following statement: "The term explosive includes any material determined to be within the scope of Title 18, United States Code, Chapter 40, and also includes any material classified as an explosive, other than consumer fireworks, 1.4G, by the Hazardous Materials Regulations of the U.S. Department of Transportation in 49 CFR."

The proponent's Reason Statement also states that the following regulations, standards and codes do not contain language saying that consumer fireworks are not explosive:

DOTn 49 CFR: Parts 100 – 178

US CPSC 16 CFR, UN0336

NFPA 495 Explosives Materials Code (2006)

NFPA 1123 Code for Fireworks Display (2010)

NFPA 1126 Standard for the Use of Pyrotechnics Before a Proximate Audience (2006)

The following discusses why that is or is not the case.

The regulations in DOTn 49 CFR: Parts 100 – 178 establish the UN classification scheme for explosives as the basis of the DOTn regulations for the transportation of explosives in the United States. In that classification scheme consumer fireworks in the U.S. are classified as fireworks, 1.4G (UN0336) for the purposes of regulating these devices in transportation. The International Fire Code (IFC) has also utilized the UN classification scheme for explosives for regulating explosives in other uses and applications, as well as in transportation. Because of this, it was necessary to adapt the classification scheme for consumer fireworks, 1.4G for regulating those devices in other than transportation since they are truly not explosive within the context of the IFC requirements for explosives. Even the BATF exempts consumer fireworks from their Federal Explosives Law and Regulations (2007) which establish requirements for explosives. The BATF Federal Explosives Law and Regulations define consumer fireworks as follows: "Any small firework device designed to produce visible effects by combustion and which must comply with the construction, chemical composition, and labeling regulations of the U.S. Consumer Products Safety Commission, as set forth in Title 16, Code of Federal Regulations, Parts 1500 and 1507. Some small devices designed to produce audible effects are included, such as

whistling devices, ground devices containing 50 mg or less of explosive materials, and aerial devices containing 130 mg or less of explosive materials. Consumer fireworks are classified as fireworks UN0336 and UN0337 by the U.S. Department of Transportation at 49 CFR 172.101. This term does not include fused setpieces containing components which together exceed 50 mg of salute powder."

The US CPC 16 CFR, UN0336 contains the regulations for the construction, chemical composition, and labeling of consumer fireworks (UN0336) which establish the basis for regulating consumer fireworks in the U.S. Therefore, those regulations are not concerned with the need to indicate that consumer fireworks are not considered explosives. They simply establish the criteria for what makes a pyrotechnic device a consumer fireworks regulated by the CPSC which are the only types of consumer fireworks allowed to be sold for use by consumers in the U.S.

NFPA 495 Explosive Materials Code (2006) does not contain such a statement since the application of that code does not apply to consumer fireworks. In fact, Section 1.3.4 states: "This code shall not apply to pyrotechnics such as flares, fuses, and railway torpedoes. It also shall not apply to fireworks and pyrotechnic special effects as defined in NFPA 1123, Code for Fireworks Display; NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Pyrotechnic Artic es; and NFPA 1126 Standard for the Use of Pyrotechnics Before a Proximate Audience."

Similarly, the scope of NFPA 1123 Code for Fireworks Display (2010) in Section 1.1.2 states: "This code shall not apply to the following: (3) Use of consumer fireworks by the public." The same is true for NFPA 1126 Standard for the Use of Pyrotechnics Before a Proximate Audience (2006) which states in Section 1.38: "This standard shall not apply to the use of consumer fireworks by the general public."

In conclusion, it becomes readily apparent when the proper research is conducted in a thorough manner of all of the applicable codes, standards, and regulations for consumer fireworks, 1.4G that approving this code change as submitted would make the IFC inconsistent with all the previously noted regulations, standards, and codes. However, approving this code change as modified by the Committee as further modified by this Public Comment will maintain the IFC consistent with those regulations, standards, and codes regarding consumer fireworks, 1.4G. Therefore, we urge the group to vote for Approval as Modified by this Public Comment.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change No. C-308.1

Nature of Change:

A rewrite of the provisions of the IBC for facilities which provide care (assisted living facilities, nursing homes, hospitals, child care facilities, group homes, etc.).

Proponent: Ed Altizer, State Fire Marshal, representing the State Fire Marshal's Office

Staff Comments:

The proposal resulted from a number of meetings of a sub-workgroup on assisted living facilities. The 2009 IBC changed the criteria for Group I-2 from being facilities with more than five persons to facilities with one of more persons. However, the specific definition of "nursing homes" within the Group I-2 classification still retained the phrase "more than five." In addition, the Group R-4 classification in the 2009 IBC, for assisted living facilities, still only regulates facilities with more than five persons. As facilities with five or fewer persons are not nursing homes or assisted living facilities under the 2009 IBC, they may be constructed as single family dwellings and the occupants may be in any condition, either able to exit without assistance or unable to exit without assistance. This remains consistent with past IBC and BOCA Code language. Further, an interpretation under the BOCA Code extended the five or less concept to facilities with more than five persons permitting a facility with more than five occupants to have up to five occupants who needed assistance in exiting, without the facility being classified as a Group I-2 facility. The USBC recognizes this interpretation in an exception for small group homes and assisted living facilities with up to eight occupants based on a zoning law prohibiting the "zoning out" of these facilities in residential neighborhoods, and specifically permits up to five of the occupants to need assistance in exiting. This proposal would reverse those established requirements and require a sprinkler system to be installed and residents incapable of exiting to be on the lowest floor. Staff notes that the provisions would be difficult to implement, especially for the small facilities with up eight occupants, as the classification does not change (both a house and a small assisted living facility are Group R-5), so there would be no change of occupancy to use a house as a small assisted living facility, therefore no way to require the additional safeguards. In addition, staff notes a number of inconsistencies and conflicts in the proposal, such as the Group R-4 classification still only applying to facilities with more than five occupants, the definition of assisted living facilities only applying to facilities caring for four or more residents of any exiting capability and the Group I-2 classification permitting facilities with five or fewer residents to be classified as Group R-5.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-308.1

Proponent Information (Check one): ☐ Individual ☒ Government Entity ☐ Company

Name: Ed Altizer

Representing: Virginia State Fire Marshal's Office

Mailing Address: 1005 Technology Park Drive
Glen Allen, VA 23059

Email Address: ed.altizer@vdfp.virginia.gov

Telephone Number: 804-612-7267

Proposal Information

Code(s) and Section(s): 2009USBC and proposed referenced 2009 IBC 308.1, 308.2, 308.3, 308.3.1, 310.1, 310.2, (IFC [B] 202); [F] 903.2.6, [F] 903.2.8, [F] 903.3.1.3, [F] 903.3.2, [F] 907.2.6, [F] 907.2.6.2, (IFC 903.2.6, 903.2.8, 903.3.1.3, 903.3.2, 907.2.6, 907.2.6.2);

Proposed Change (including all relevant section numbers, if multiple sections): See attached

Supporting Statement (including intent, need, and impact of the proposal): See attached

Submittal Information

Date Submitted: January 6, 2010

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Centre
600 E. Main St., Ste. 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

Revise as follows:

308.1 Institutional Group I. Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which ~~people are cared for or live in a supervised environment, having physical limitations because of health or age are harbored for medical treatment or other care or treatment, or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted~~ care or supervision is provided to individuals who, are or are not capable of self preservation without physical assistance or in which people are detained for penal or correctional purposes or in which the movement of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3 or I-4.

308.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

(Relocate revised definitions from Section 308.3.1, and revise)

24 HOUR CARE. The actual time that a person is an occupant within a facility for the purpose of receiving care. It shall not include a facility that is open for 24 hours and is capable of providing care to someone visiting the facility during any segment of the 24 hours.

DETOXIFICATION FACILITIES. Facilities that ~~serve patients who are~~ provided treatment for substance abuse ~~on a 24-hour basis and~~ serving care recipients who are incapable of self-preservation or who are harmful to themselves or others.

~~CHILD~~ FOSTER CARE FACILITIES. Facilities that provide care ~~on a 24-hour basis~~ to more than five children, 2 1/2 years of age or less,

HOSPITALS AND ~~MENTAL~~ PSYCHIATRIC HOSPITALS. Facilities ~~buildings or portion thereof used on a 24-hour basis~~ that provides care or treatment for the medical, psychiatric, obstetrical, or surgical treatment of inpatients ~~who~~ care recipients that are incapable of self-preservation.

INCAPABLE OF SELF PRESERVATION. Persons because of age; physical limitations; mental limitations; chemical dependency; or medical treatment cannot respond as an individual to an emergency situation.

MEDICAL CARE. Care involving medical or surgical procedures, nursing or for psychiatric purposes.

NURSING HOMES. ~~Nursing homes are long-term care~~ Facilities that provide long-term care ~~on a 24-hour basis~~, including both intermediate care facilities and skilled nursing facilities, ~~serving more than five persons and~~ where any of the persons are incapable of self-preservation.

~~RESIDENTIAL CARE~~/ASSISTED LIVING FACILITIES. ~~A building or part thereof housing persons on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment which provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This classification shall include, but not be limited to, the following: residential board and care facilities, assisted living facilities, halfway houses, group homes, congregate care facilities, social rehabilitation facilities, alcohol and drug abuse centers and convalescent facilities~~. Assisted living facility" means any congregate residential setting that provides or coordinates personal and health care services, 24-hour supervision, and assistance (scheduled and unscheduled) for the maintenance or care of four or more adults who are aged, infirm or disabled and who are cared for in a primarily residential setting. Maintenance or care means the protection, general supervision and oversight of the physical and mental well-being of an aged, infirm or disabled individual. Residents may or may not need assistance to evacuate.

~~308.2~~ 308.3 (IFC [B] 202) Group I-1. This occupancy shall include buildings, structures or portions thereof ~~housing~~ for more than 16 persons who reside on a 24 hour basis ~~who because of age, mental disability or other reasons, live~~ in a supervised ~~residential~~ environment ~~that provides *personal care services*~~ and receive custodial care. The occupants are capable of ~~responding to an emergency situation without physical assistance from staff~~ self preservation. This group shall include, but not be limited to, the following:

Alcohol and drug centers

Assisted living facilities with residents capable of self preservation
Congregate care facilities
~~Convalescent facilities~~
Group homes
Halfway houses
~~Initial stage Alzheimer's facilities~~
~~Residential board and custodial care facilities~~
Social rehabilitation facilities

A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2 provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or Section P2904 of the International Residential Code. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4. Up to five residents incapable of self preservation are permitted when located in rooms at the lowest level of exit discharge.

~~308.3~~ 308.4 **(IFC [B] 202) Group I-2.** This occupancy shall include buildings and structures used for medical or custodial ~~surgical, psychiatric, nursing or custodial~~ care on a 24 hour basis for more than five persons who are not capable of self-preservation. This group shall include, but not be limited to, the following:

Assisted living facilities with residents incapable of self preservation
Foster ~~Child~~ care facilities
Detoxification facilities
Hospitals
Nursing homes
~~Mental~~ Psychiatric hospitals

A facility such as the above with five or fewer residents shall be classified as Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2.

308.3.1 Definitions. ~~The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.~~

(Relocate revised definitions to Section 308.2)

310.1 (IFC [B] 202) Residential Group R. Residential Group R includes, among others, the use of a building, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the International Residential Code in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Boarding houses (transient)
Hotels (transient)
Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses
Assisted living facilities with residents capable of self preservation
Boarding houses (not transient)
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units,
Monasteries,
Motels (nontransient),
Vacation timeshare properties

Congregate living facilities with 16 or fewer individuals are permitted to comply with the requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, or I, including:

Buildings that do not contain more than two dwelling units.
Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24-hours.
Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Care facilities as that provide accommodations for five or fewer persons
Congregate living facilities with 16 or fewer individuals.

~~Adult care and child~~ Care facilities for 5 or fewer individuals receiving care that are within a single-family ~~home~~ dwellings are permitted to comply with the International Residential Code. Up to five residents incapable of self preservation are permitted provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or Section P2904 of the International Residential Code and the resident rooms are located at the lowest level of exit discharge.

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff with the additional requirement to provide an automatic sprinkler system in accordance with Section 903.3 and the resident rooms are located at the lowest level of exit discharge.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code, or shall comply with the *International Residential Code* provided an automatic sprinkler system is installed in accordance with Section 903.3. These facilities include but are not limited to the following:

Alcohol and drug centers
Assisted living facilities with residents capable of self preservation
Congregate care facilities
~~Convalescent facilities,~~
Group homes
Halfway houses
~~Initial stage Alzheimer's facilities~~
Residential board and custodial care facilities
Social rehabilitation facilities

Exception: Group homes licensed by the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services or the Virginia Department of Social Services that house no more than eight persons with one or more resident counselors shall be classified as Group R-2, R-3, R-4 or R-5. Not more than five of the persons may require physical assistance from staff to respond to an emergency situation provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 and the resident rooms are located at the lowest level of exit discharge.

R-5. Residential occupancies in detached one- and two-family dwellings, townhouses and accessory structures within the scope of the *International Residential Code*, also referred to as the "IRC." This group includes assisted living facilities with residents capable of self preservation provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or Section P2904 of the *International Residential Code and the resident rooms are located* at the lowest level of exit discharge

310.2 Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

BOARDING HOUSE. A building arranged or used for lodging for compensation, with or without meals, and not occupied as a single-family unit.

CONGREGATE LIVING FACILITIES. A building or part thereof that contains sleeping units where residents share bathroom and/or kitchen facilities.

DORMITORY. A space in a building where group sleeping accommodations are provided in one room, or in a series of

closely associated rooms, for persons not members of the same family group, under joint occupancy and single management, as in college dormitories or fraternity houses.

GROUP HOME. A facility for social rehabilitation, substance abuse or mental health problems that contain a group housing arrangement that provides custodial care but does not provide acute care.

TRANSIENT. Occupancy of a *dwelling unit* or *sleeping unit* for not more than 30 days.

[F] 903.2.6 (IFC 903.2.6) Group I. An *automatic sprinkler system* shall be provided throughout buildings with a Group I *fire area*.

Exception: An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 ~~or 903.3.1.3~~ shall be ~~allowed~~ permitted in Group I-1 facilities.

[F] 903.2.8 (IFC 903.2.8) Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R *fire area*.

An *automatic sprinkler system* installed in accordance with 903.3.1.3 shall be permitted in Group R-3 0r R-4 congregate residences with 16 or fewer residents. An automatic sprinkler system installed in accordance with 903.3.1.3 shall be permitted in care facilities with 5 or fewer individuals a single family dwelling.

[F] 903.3.1.3 (IFC 903.3.1.3) NFPA 13D sprinkler systems. *Automatic sprinkler systems* installed in one and two-family *dwellings*, Group R-3 and R-4 congregate residences and *townhouses* shall be permitted to be installed throughout in accordance with NFPA 13D.

□

[F] 903.3.2 (IFC 903.3.2) Quick-response and residential sprinklers. Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in the following areas in accordance with Section 903.3.1 and their listings:

1 Throughout all spaces within a smoke compartment containing ~~patient~~ care recipient sleeping units in Group I-2 in accordance with this code.
2 Dwelling units, and sleeping units in Group R and I-1 occupancies.
3 Light-hazard occupancies as defined in NFPA 13.

[F] 907.2.6 (IFC 907.2.6) Group I. A manual fire alarm system that activates the occupant notification system shall be installed in Group I occupancies. An automatic smoke detection system that activates the occupant notification system shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2 and 907.2.6.3.3.

Exceptions:

1 Manual fire alarm boxes in ~~resident or patient~~ sleeping units of Group I-1 and I-2 occupancies shall not be required at *exits* if located at all ~~nurses'~~ care providers' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in Section 907.4.2 are not exceeded.
2 Occupant notification systems are not required to be activated where private mode signaling installed in accordance with NFPA 72 is *approved* by the fire code official.

[F] 907.2.6.2 (IFC 907.2.6.2) Group I-2. An automatic smoke detection system shall be installed in *corridors* in nursing homes, long term care facilities ~~(both intermediate care and skilled nursing facilities)~~, assisted living, detoxification facilities and spaces permitted to be open to the *corridors* by Section 407.2. The system shall be activated in accordance with Section 907.5. Hospitals shall be equipped with smoke detection as required in Section 407.

Exceptions:

1 *Corridor* smoke detection is not required in smoke compartments that contain ~~patient~~ sleeping units where such units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the *corridor* side of each ~~patient sleeping unit~~ and shall provide an audible and visual alarm at the care provider ~~nursing~~ station attending each unit. *Corridor* smoke detection is not required in smoke compartments that contain ~~patient sleeping units~~ where ~~patient sleeping unit~~ doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

Justification

The above proposed changes have been discussed and supported by the representatives of the Virginia Health Care Association, Virginia Association of Nonprofit Homes for the Aging, Department of Social Services, and Department of Health. The changes are to the 2009 ICC Building Code which I believe is the base document for this code cycle. Some of the changes are similar to the ICC Code Technology Committee proposed change G20 which was passed at the ICC code development hearings in Baltimore October 24-Novermber 11, 2009. Several proposed changes were submitted regarding resident protection and care in Assisted Living Facilities and other care facilities. The changes submitted were to the 2009 ICC International Building for the update cycle to the 2012 ICC International Building Code. These particular proposed changes were heard by the General Committee on November 7 and included proposal G20. As indicated above, change G20 was the proposal by the ICC's Code Technology Committee (CTC) after several months and possibly years of studying the issue of "care" including reviews of federal regulations. Virginia was well represented on the CTC.

The 2009 ICC Building Code and the code changes proposed for the 2012 ICC Building Code require automatic sprinklers in all Use Group R, including the IRC, and Use Group I facilities with no exceptions. Also, neither edition allows residents incapable of self preservation in any Assisted Living Facilities (ALF) unless it is classified as a Use Group I-2. The CTC committee's work reflects the actual current reality of the thinking across the country regarding protection required for facilities providing care such as ALFs. Virginia has had a long history of lowering requirements of national model codes when addressing Assisted Living Facilities including allowing 8 residents in a single family dwelling, 5 of whom are not capable of self preservation and with **no** additional protection. While old BOCA interpretations supported allowing the 5 residents who are not capable of self preservation to be housed in other than an I-2 facility, current codes have changed the wording and do not support that interpretation. No model code has ever supported 8 residents requiring care in a single family dwelling with no protection. Virginia has consistently put these residents at risk.

These proposed code changes require protection that do fall well below those of the current national model codes but substantially increase protection above that which currently exists in the 2006 USBC. Protection for ALFs in the current 2006 USBC was also well below the 2006 ICC Building Code. The changes also are in response to the Board of Housing and Community Development's action to remove sprinkler requirements from the base document proposed in Virginia for the 2009 Code. The other changes in this proposal continue to allow 5 residents requiring assistance to evacuate but require sprinkler protection and limit resident rooms for those residents to the 1st floor.

Without any sprinkler protection, 5 residents who are not able to exit without assistance would not be able to exit. As a reminder 80%+ of fire deaths are in single family dwellings with a majority being the young and elderly. By removing the requirements vetted at the national level, we may send a wrong message to owners of these facilities that the safety of their staff and residents has been provided when in fact it has not based on current national model codes and those who develop those standards across the country. After decisions are made based on "all" facts, owners will have a better understanding of what the requirements are and what protection is in place.

Cost Impact: Will impact those facilities that Virginia has historically lessened requirements from the national model codes.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): ☐ Individual ☒ Government Entity ☐ Company

Name: (Under consideration by SFMO) Representing: _____

Mailing Address: 1005 Technology Park Drive, Glen Allen, VA 23059

Email Address: ed.altizer@vdfp.virginia.gov Telephone Number: 804-612-7267

Proposal Information
Code(s) and Section(s): USBC VCC 308.2, 308.3 and 310.1

Proposed Change (including all relevant section numbers, if multiple sections):

Change Section 308.2 as shown below:

308.2 Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

Residential board and care facilities
Assisted living facilities
Halfway houses
Group homes
Congregate care facilities
Social rehabilitation facilities
Alcohol and drug centers
Convalescent facilities

Exception: In Group I-1 occupancies, not more than five of the residents may require physical assistance from staff to respond to an emergency situation if residing on a level of exit discharge.

A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.

Change the Group R-4 requirements in Section 310.1 as shown below:

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet that requirements for construction as defined for Group R-3, except as otherwise provided for in this code, or shall comply with the International Residential Code with the additional requirement to provide an automatic sprinkler system in accordance with Section 903.2.7.

~~Exception~~ Exceptions :

1. In Group R-4 occupancies, not more than five of the residents may require physical assistance from staff to respond to an emergency situation if residing on a level of exit discharge.

2. Group homes licensed by the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services or the Virginia Department of Social Services that house no more than eight persons with one or more resident counselors shall be classified as Group R-2, R-3, R-4 or R-5. All of the residents must be capable of responding to an emergency situation without physical assistance from staff.

   Exception: ~~Not~~ Where the building is protected by an automatic sprinkler system installed in accordance with Section 903.3, not more than five of the ~~persons~~ residents may require physical assistance from staff to respond to an emergency situation if residing on a level of exit discharge. In Group R-5 occupancies, the automatic sprinkler system shall also be permitted to comply with Section P2904 of the IRC and a level of exit discharge would be any level where no interior stairs need to be traversed to reach an exit door.

Supporting Statement (including intent, need, and impact of the proposal):

This proposal is a substitute proposal for Code Change No. C-308.1. As the additional language and requirements in the original proposal are still being vetted at the national level, this proposal only addresses the issue of the number of residents permitted to be unable to exit in an emergency in recognition of Virginia's longstanding allowance to permit up to five residents to be incapable of self preservation in facilities designed for persons who are able to exit on their own. This proposal simply adds the requirement for a sprinkler system and limits the residents' rooms to be on the lower level when the facility will have up to five residents incapable of exiting. As this proposal is consistent with the original proposal in addressing this issue, the supporting statement in the original proposal contains additional relevant information and justification for the change.

Submittal Information

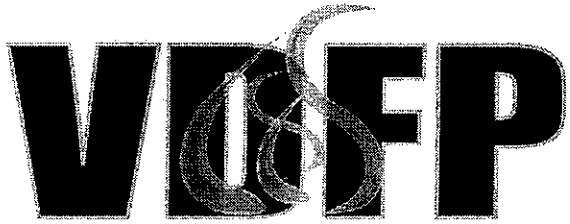
Date Submitted: 3/18/2010

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Center
600 E. Main St., Suite 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150



Virginia Department of Fire Programs

Structural Fires with Day Cares / Nursing Homes Summary, Virginia, 2004 - 2009 *

Year	Total	Percent	Total Property Loss	Total Contents Loss	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths	Fire Service Injuries	Fire Service Deaths
2004	15	13.3%	$206,501	$45,001	$251,502	5	0	0	0
2005	20	17.7%	$55,302	$4,472	$59,774	0	0	0	0
2006	24	21.2%	$3,271,667	$426,272	$3,697,939	1	1	0	0
2007	18	15.9%	$247,601	$97,500	$345,101	2	1	0	0
2008	19	16.8%	$51,525	$14,530	$66,055	1	0	0	0
2009 *	17	15.0%	$32,700	$25,400	$58,100	1	0	0	0
Grand Total	**113**	**100.0%**	**$3,865,296**	**$613,175**	**$4,478,471**	**10**	**2**	**0**	**0**

Structural Fires with Day Cares / Nursing Homes By Automatic Extinguishing System (AES) Presence, Virginia, 2004 - 2009 *

Year	Present	None Present	Unknown or Not Reported	Grand Total	Percent
2004	11	3	1	15	13.3%
2005	14	6	0	20	17.7%
2006	12	9	3	24	21.2%
2007	11	7	0	18	15.9%
2008	12	4	3	19	16.8%
2009 *	12	4	1	17	15.0%
Grand Total	**72**	**33**	**8**	**113**	**100.0%**
Percent	63.7%	29.2%	7.1%	100.0%	

Note: **Data is compiled from all fire incidents reported to the Virginia Fire Incident Reporting System (VFIRS) for 2004-2008 as of 04/06/2009, and 2009 as of 02/08/2010.Data for 2009 is still considered preliminary.** 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 codes as 1 or 2. Day Cares and Nursing Homes include all incidents with property use coded as 254 (Day care in commercial property.), 255 (Day care in residence, licensed.), 256 (Day care in residence, unlicensed.), 311 (Nursing homes licensed by the state, providing 24-hour nursing care for four or more persons.), and 321 (Mental retardation/development disability facility that houses, on a 24-hour basis, four or more persons.).

*** Data for 2009 is considered preliminary since we are still receiving reports from fire departments and the data is not final. Caution should be exercised in releasing and comparing the numbers.**

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change No. C-403.3.5

Nature of Change:

To retain the current dimensions for fire command rooms in high-rise buildings and in other buildings subject to the requirement.

Proponent: Shaun Pharr, representing the Apartment and Office Building Association of Metropolitan Washington DC and the Virginia Apartment Management Association

Staff Comments:

While the proposal was not submitted early during the workgroup process, this was an issue identified as a significant difference between the 2006 and 2009 International Building Code and it was discussed at the workgroup meetings. Some pros and cons identified were that the larger rooms were necessary as command centers now serve multiple functions and larger rooms could tend to be used for storage, which could be a hazard.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-403.3.5

Proponent Information (Check one): ☐ Individual ☐ Government Entity ☒ Company

Name: W. Shaun Pharr

Representing: The Apartment and Office Building Assn. of Metropolitan Washington DC and the Virginia Apartment Management Association

Mailing Address: 1050 17th Street NW Suite 300 Washington, DC 20036

Email Address: spharr@aoba-metro.org

Telephone Number: (202) 296-3390

Proposal Information

Code(s) and Section(s): IBC/IFC 403.3.5, 911.1.3

Proposed Change (including all relevant section numbers, if multiple sections):
Change 200 square feet to 96 square feet and 10 feet to 8 feet

Supporting Statement (including intent, need, and impact of the proposal):
No evidence has been presented to show that the size of fire command rooms in Virginia buildings built under current and previous codes has been so inadequate as to now be more than doubled from what the USBC has previously required. For various reasons, the use of fire command centers has arguably diminished in recent years (e.g. use of portable radios/phones rather than in-building telephone system, active smoke control/management systems not required; continued miniaturization of panel circuitry etc. reducing equipment space needs). Fire command centers' location in street-front space on exterior of buildings means they occupy space that is often the most expensive leased space on a per square foot basis in the building. Absent compelling evidence that fire command centers in Virginia buildings must be made significantly larger, current VSBC size requirements should be maitained.

Submittal Information

Date Submitted: January 25, 2010

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change Nos. C-422(a) and C-422(b)

Nature of Change:

Two proposals to permit the typical doctor and dentist offices to be exempt from the new requirements in the 2009 IBC for ambulatory health care facilities, which would require a sprinkler system and other safeguards.

Proponent: Jerry Canaan/Karah Gunther, representing the Medical Society of Virginia (C-422(a)) and Shaun Pharr, representing the Apartment and Office Building Association of Metropolitan Washington DC and the Virginia Apartment Management Association (C-422(b))

Staff Comments:

While the proposals were not received in time to be vetted through the workgroup process, the issue was identified as a significant difference between the 2006 and 2009 IBC and was discussed at the workgroup meetings with the fire services representatives generally supporting the new 2009 IBC requirements. The Canaan/Gunther proposal adds specific language and is more of a complete proposal while Mr. Pharr's proposal was more of a placeholder to keep the issue on the table.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): ☐ Individual ☒ Government Entity ☐ Company

Name: Ed Altizer Representing: Virginia State Fire marshal's Office

Mailing Address: 1005 Technmology Park Drive, Glen Allen, VA 23059

Email Address: ed.altizer@vdfp.virginia.gov Telephone Number: 804-612-726

Proposal Information

Code(s) and Section(s) USBC Construction Code - Chapter 2 – Section 202 Definitions:

Proposed Change (including all relevant section numbers, if multiple sections):

Change definition to read:

AMBULATORY HEALTH CARE FACILITY. Buildings or portions thereof **that are licensed by the Virginia Department of Health as Outpatient Surgical Hospitals.** ~~used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to individuals who are rendered incapable of self-preservation.~~

Supporting Statement (including intent, need, and impact of the proposal):

This proposal is submitted as a substitute to proposals C-422 (a) and C-422 (b) discussed at the Work Group 2 meeting on April 8. During that discussion, concern was expressed that the language in the proposed 2009 USBC was not clear as to scope and may contain requirements that could be interpreted to apply to doctor's and dentist's offices or medical office buildings because doctors and dentists may use sedation for routine office procedures. This could result in unnecessary or unintended application of the requirements to doctor's and dentist's offices not performing procedures that require state licensing oversight. In some cases it may be difficult for the building official to determine whether medical office building should be viewed as an **"Ambulatory Health Care Facility."** The requirements in the ICC Building Code proposed for Virginia were based on the Federal Government Center for Medicaid/ Medicare requirements to receive federal funds if the facility is licensed as to provide outpatient surgical services. As one of the original proponents for the change at ICC, it was never my intent to apply the requirements broadly to all buildings housing person in the medical profession but only those that would require license by the State health Department.

After the discussion at the Work Group meeting, I held a meeting with the proponents of the two existing proposals noted in the above paragraph to discuss a solution. That meeting was on April 14th. As indicated above, representatives of the Medical Society of Virginia {proponent of C-422 (a)}, the Apartment and Office Building Association of Metropolitan Washington, D. C. {proponent of C-422 (b)}, Virginia Department of Health (VDH), Medical Society of Virginia, Virginia Fire Prevention Association and Virginia Fire Chiefs Association were present or connected by conference call. The above proposed substitute would make the requirements in Virginia applicable only to those facilities licensed by the VDH. We feel the simple fix would be to change only the definition so that the use of **"Ambulatory Health Care Facility"** in the many other sections of the code in which it is used would have a definite and finite meaning based on the VDH definitions. By changing only the definition, there would be no need to change all the other parts of thee code in which the term **"Ambulatory Health Care Facility"** is used. The remaining language is deleted as not necessary and confusing because the VDH regulations cover the scope of those facilities that must be licensed. Those present at this meeting are in agreement with this substitute.

Submittal Information

Date Submitted: 4-15-2010

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Centre
600 E. Main St., Ste. 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change No. C-424(a) through (d)

Nature of Change:

To establish specific requirements for the installation of large above-ground liquid fertilizer storage tanks.

Proponent: DHCD Staff, sub-workgroup on fertilizer tanks

Staff Comments:

The proposals are a placeholder while a sub-workgroup works on more detailed language. This issue was raised through legislation just introduced to the 2010 General Assembly. Staff is attempting to work with all interested parties to see if a regulatory change will resolve the concerns.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): ☐ Individual ☐ Government Entity ☐ Company

Name: DHCD Staff Representing: The Fertilizer Tank Workgroup

Mailing Address: _____

Email Address: _____ Telephone Number: _____

Proposal Information

Code(s) and Section(s): Virginia Construction Code (VCC) and Virginia Maintenance Code (VMC)

Proposed Change (including all relevant section numbers, if multiple sections):

(Third Proposal)

Add the following definitions to the VCC in Section 202:

ABOVEGROUND LIQUID FERTILIZER STORAGE TANK (ALFST). A device that contains an accumulation of liquid fertilizer (i) constructed of nonearthen materials, such as concrete, steel or plastic, that provide structural support, (ii) having a capacity of 100,000 gallons (378 500 L) or greater, and (iii) the volume of which is more than 90 percent above the surface of the ground. The term does not include any wastewater treatment or wastewater storage tank, utility or industry pollution control equipment.

CHANGE OF OCCUPANCY. A change in the use or occupancy of any building or structure which would place the building or structure in a different division of the same group of occupancies or in a different group of occupancies; or a change in the purpose or level of activity within a building or structure that involves a change in application of the requirements of this code.

LIQUID FERTILIZER. A fluid in which a fertilizer is in true solution. This term does not include anhydrous ammonia or a solution used in pollution control.

Change Section 103.3 of the VCC as follows:

Section 103.3 Change of occupancy. No change of occupancy shall be made in ~~the existing occupancy classification of~~ any structure when the current USBC requires a greater degree of accessibility, structural strength, fire protection, means of egress, ventilation or sanitation. When such a greater degree is required, the owner of the owner's agent shall make written application to the local building department for a new certificate of occupancy and shall obtain a new certificate of occupancy prior to the new use of the structure ~~under the new occupancy classification~~. When impractical to achieve compliance with this code for the new ~~occupancy classification~~ use, the building official shall consider modifications upon application and as provided for in Section 106.3.

(continued next page)

Add new Section 425 to the VCC as follows:

SECTION 425
ABOVEGROUND LIQUID FERTILIZER STORAGE TANKS

425.1 General. This section shall apply to the construction of ALFSTs and shall supersede any conflicting requirements in other provisions of this code. ALFSTs shall also comply with any applicable non-conflicting requirements of this code.

425.1.1 When change of occupancy rules apply. A change of occupancy to use a tank as an ALFST occurs when there is a change in the use of a tank from storing liquids other than liquid fertilizers to use storing liquid fertilizer and when the type of liquid fertilizer being stored has a difference of at least 20 percent of the specific gravity or operating temperature, or both, or a significant change in the material's compatibility.

425.2 Standards. Newly constructed welded steel ALFSTs shall comply with API 650 and TFI RMIP, as applicable. Newly constructed ALFSTs constructed of materials other than welded steel shall be constructed in accordance with accepted engineering practice to prevent the discharge of liquid fertilizer and shall be constructed of materials that are resistant to corrosion, puncture or cracking. In addition, newly constructed ALFSTs constructed of materials other than welded steel shall comply with TFI RMIP, as applicable. For the purposes of this code, the use of TFI RMIP shall be construed as mandatory and any language in TFI RMIP, such as, but not limited to, the terms "should" or "may" which indicate that a provision is only a recommendation or a guideline shall be taken as a requirement. ALFSTs shall be placarded in accordance with NFPA 704.

Exception: Sections 4.1.4, 4.2.5, 5.1.2, 5.2.8, 5.3 and 8.1(d)(i) of TFI RMIP shall not be construed as mandatory.

425.3 Secondary containment. When ALFSTs are newly constructed and when there is a change of occupancy to use a tank as an ALFST, a secondary containment system designed and constructed to prevent any liquid fertilizer from reaching the surface water, groundwater or adjacent land before cleanup occurs shall be provided. The secondary containment system may include dikes, berms or retaining walls, curbing, diversion ponds, holding tanks, sumps, vaults, double-walled tanks, liners external to the tank, or other approved means and shall be capable of holding up to 110 percent of the capacity of the ALFST as certified by an RDP.

425.4 Repair, alteration and reconstruction of ALFSTs. Repair, alteration and reconstruction of ALFSTs shall comply with applicable provisions of API 653 and TFI RMIP.

425.5 Inspection. Applicable inspections as required by and in accordance with API 653 and TFI RMIP shall be performed for repairs and alterations to ALFSTS, the reconstruction of ALFSTs and when there is a change of occupancy to use a tank as an ALFST. When required by API 653 or TFI RMIP, such inspections shall occur prior to the use of the ALFST.

425.6 Abandoned ALFSTs. Abandoned ALFSTs shall comply with applicable provisions of Section 3404.2.13.2 of the IFC.

Add new Section 3411.16 to the VCC as follows:

3411.16 ALFSTs. Existing ALFSTs, regardless of when constructed, shall, by October 1, 2011, meet the applicable requirements of API 653 and TFI RMIP for suitability for service and inspections and shall provide a secondary containment system complying with Section 425.3.

(continued next page)

Add the following standards to Chapter 35 of the VCC:

API	American Petroleum Institute, 1220 L Street, NW, Washington D.C. 20005-4070	
	650-09	Welded Steel Tanks for Oil Storage
	653-09	Tank Inspection, Repair, Alteration and Reconstruction
TFI	The Fertilizer Institute, 820 First Street, N.E., Suite 430, Washington, D.C. 20002	
	RMIP-09	Aboveground Storage Tanks Containing Liquid Fertilizer, Recommended Mechanical Integrity Practices
NFPA	704-07	Identification of the Hazards of Materials for Emergency Response

Add new Section 310 to the VMC to read as follows:

SECTION 310
ABOVEGROUND LIQUID FERTILIZER STORAGE TANKS (ALFSTs)

310.1 General. ALFSTs shall be maintained in accordance with the requirements of Section 3411.16 of the Virginia Construction Code and the requirements of the Virginia Construction Code applicable to such ALFSTs when newly constructed, 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.

Supporting Statement (including intent, need, and impact of the proposal):

This proposal was developed in response to legislation in the 2010 Session of the Virginia General Assembly. A sub-workgroup was established by DHCD of impacted parties and those with expertise in tanks and codes to develop a proposal for the DHCD established workgroups to review for consensus.

The proposal does not involve the Virginia Statewide Fire Prevention Code (SFPC) as issues related to the scope of the code surfaced and it is unclear whether the SFPC may contain provisions for ALFSTs as the hazards are more environmental than fire related.

The proposal is based on the final version of the legislation with the exception of including secondary containment requirements, which were taken from an earlier proposal.

The proposal adds definitions relative to ALFSTs from the legislation and amends the existing Virginia Construction Code language for change of occupancy to include a definition which applies to the conversion of a tank from a product other than liquid fertilizer to an ALFST. The proposal references applicable standards for ALFSTs and sets out requirements for both existing ALFSTs and ALFSTs being newly constructed, or converted or repaired, altered or reconstructed. Specific inspection requirements are also added for both existing ALFSTs and ALFSTs undergoing construction. A provision is also added to the Virginia Maintenance Code to assure existing tanks are maintained and inspected as necessary.

It is noted that through delegations of authority permitted under the USBC, local fire officials could be assigned responsibility for assuring continued compliance of ALFSTs through enforcement of the Virginia Maintenance Code, or legislation could be submitted to extend the scope of the SFPC to include ALFSTs. Provisions could then be developed for the SFPC to address operational permits for ALFSTs.

Submittal Information

Date Submitted: _____

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change Nos. C-705.2(a) and C-705.2(b)

Nature of Change:

Two proposals to clarify whether decks and porches extending off of the end walls of homes and townhouses close to a perpendicular property line need to have fire protection.

Proponent: Frank Castelvecchi, representing Henrico County Building Department (C-705.2(a)) and Roger Robertson, representing Chesterfield County Building Department (C-705.2(b))

Staff Comments:

Mr. Castelvecchi's proposal assumes that the 2009 IRC already requires decks and porches to have a fire wall constructed on the property line side of a porch or deck. This issue has been discussed at the workgroup meetings and there is no consensus that the IRC does in fact require porches and decks to be separated just because a perpendicular property line is present. The IRC only regulates the dwelling unit itself and the fire wall between units in townhouses or the exterior wall of a house built close to a property line does not include a deck or porch as a projection. Projections are typically only roof overhangs. Mr. Robertson's proposal is based on the IRC not requiring such extensions of the fire wall or exterior wall and modifies the IBC to be consistent. Staff would suggest that clarifying language also needs to be added to the IRC to make it clear whether porches and decks are considered projections.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: E-705.2(a)

Proponent Information (Check one): ☐ Individual Xx Government Entity ☐ Company

Name: Frank G Castelvecchi, III, PE Representing: Henrico County

Mailing Address:
PO Box 90775
Henrico VA 23273

Email Address: cas13@co.henrico.va.us Telephone Number: 804 501 4375

Proposal Information

Code(s) and Section(s): IBC 705.2, 706.5.2 R-5 IRC 302.1 Exceptions

Proposed Change (including all relevant section numbers, if multiple sections):
IRC 302.1 and IBC 705.2—add exception
Decks and porches, not under a roof or other structure, where the walking surface is not more than 36 inches above the adjoining ground level.

Supporting Statement (including intent, need, and impact of the proposal):
Low decks are unlikely to direct venting flames and products of combustion to adjoining properties and present little more hazard than if the items on them were sitting on the grass. The 36 inch limiting height minimizes the potential fire hazard of storage under the deck and the amount of fuel package exposing the adjoining property.

In contrast high decks and roofed decks or porches can shelter occupancies and the fire underneath will direct flames onto the adjacent property. Adjoining porch roofs and upper or multi-level decks can and do lead to the spread of fire from one inside one building to another around the firewalls. Covered or enclosed porches are likely to have higher fire loads than open decks.

Submittal Information

Date Submitted: 12/8/2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Centre
600 E. Main St., Ste. 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C - 705. 2(b)

Proponent Information (Check one): ☐ Individual ☐ Government Entity ☐ Company

Name: Roger Robertson Representing: Chesterfield County

Mailing Address: P.O. Box 40, 9800 Government Center parkway, Chesterfield, VA 23832

Email Address: robertsonr@chesterfield.gov Telephone Number: 804-751-4749

Proposal Information

Code(s) and Section(s): Virginia Construction Code part I, section 705.2 and 706.5.2:

Proposed Change (including all relevant section numbers, if multiple sections):
705.2 Projections. Except for buildings and structures in R-3 and R-4 occupancy classifications, ~~C~~cornices, eave overhangs, exterior balconies and similar projections extending beyond the exterior wall shall conform to the requirements of this section and Section 1406. Exterior egress balconies and exterior exit stairways shall also comply with Sections 1019 and 1026 respectively. Projections shall not extend beyond the distance determined by the following three methods, whichever results in the lesser projection:

(Remainder of section unchanged.)

706.5.2 Horizontal projecting elements.
Fire walls shall extend to the outer edge of horizontal projecting elements such as balconies, roof overhangs, canopies, marquees and similar projections that are within 4 feet (1220 mm) of the fire wall.
Exceptions:
1. Horizontal projecting elements without concealed spaces, provided the exterior wall behind and below the projecting element has not less than 1-hour fire-resistance-rated construction for a distance not less than the depth of the projecting element on both sides of the fire wall. Openings within such exterior walls shall be protected by opening protectives having a fire protection rating of not less than ¾ hour.
2. Noncombustible horizontal projecting elements with concealed spaces, provided a minimum 1-hour fire-resistance-rated wall extends through the concealed space. The projecting element shall be separated from the building by a minimum of 1-hour fire-resistance-rated construction for a distance on each side of the fire wall equal to the depth of the projecting element. The wall is not required to extend under the projecting element where the building exterior wall is not less than 1-hour fire-resistance rated for a distance on each side of the fire wall equal to the depth of the projecting element. Openings within such exterior walls shall be protected by opening protectives having a fire protection rating of not less than ¾ hour.
3. For combustible horizontal projecting elements with concealed spaces, the fire wall need only extend through the concealed space to the outer edges of the projecting elements. The exterior wall behind and below the projecting element shall be of not less than 1-hour fire-resistance-rated construction for a distance not less than the depth of the

projecting elements on both sides of the fire wall. Openings within such exterior walls shall be protected by opening protectives having a fire-protection rating of not less than ¾ hour.
4. Buildings and structures in R-3 and R-4 occupancy classifications.

Supporting Statement (including intent, need, and impact of the proposal): The intent of this proposed change is to clarify that the building code does not intend that buildings of R-3 and R-4 occupancies be required to meet the provisions of Sections 705.2 or 706.5.2. The alternative for these structures when relatively adjacent would require construction of fire or separation walls between adjacent decks or porches. This change eliminates the misinterpretations and inconsistencies caused by the ambiguity of the current language.

Submittal Information

Date Submitted: January 25, 2010

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Centre
600 E. Main St., Ste. 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change No. C-907.2.3

Nature of Change:

To add requirements for an emergency voice/alarm communication system in schools and to increase the required rating of school corridors.

Proponent: Robby Dawson, representing the Virginia Fire Services Board Code Committee

Staff Comments:

The proposal was not received in time to be vetted through the workgroup process. It is based on a proposal which was approved in the first round of hearings at ICC for the 2012 IBC. It is not known at this time whether public comment has been received at the national level to challenge the requirement. The voice/alarm communication system is what is already required for large Group A (assembly) occupancies. The change to the corridor rating requirement is to require a one-hour rated corridor regardless of whether a sprinkler system is installed.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): ☐ Individual ☐ Government Entity ☐ Company

Name: Robby Dawson Representing: Fire Services Board Code Committee

Mailing Address: _____

Email Address: dawsonj@chesterfield.gov Telephone Number: _____

Proposal Information

Code(s) and Section(s): USBC Section 907.2.3 and Table 1018.1 with corresponding changes to SFPC

Proposed Change (including all relevant section numbers, if multiple sections):

1. Revise as follows:

907.2.3 Group E. A manual fire alarm system that ~~activates~~ initiates the occupant notification signal utilizing an emergency voice/alarm communications system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

Exceptions:
1. A manual fire alarm system is not required in Group E occupancies with an occupant load of ~~less than 50~~ 30 or less.

2. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:

2.1. Interior corridors are protected by smoke detectors.

2.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.

2.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.

~~2.4. The capability to activate the evacuation signal from a central point is provided.~~

~~2.5. In buildings where normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, except in locations specifically designated by the fire code official.~~

3. Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, the ~~notification appliances~~ emergency voice/alarm communications system will activate on sprinkler waterflow and manual activation is provided from a normally occupied location.

2. Revise table as follows:

TABLE 1018.1
CORRIDOR FIRE-RESISTANCE RATING

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (HOURS)	
		Without sprinkler system	With sprinkler system[c]
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, B, E, F, M, S, U	Greater than 30	1	0
~~E~~	~~Greater than 30~~	~~1~~	~~1~~
R	Greater than 30	Not Permitted	0.5
I-2[a], I-4	All	Not Permitted	0
I-1, I-3	All	Not Permitted	1[b]

a. For requirements for occupancies in Group I-2, see sections 407.2 and 407.3.

b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.

c. Building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.1.2 where allowed.

Supporting Statement (including intent, need, and impact of the proposal):

REVISED 4/12/10 – This revision removes the corridor rating requirement. This was included inadvertently, and should have been deleted in the initial submission of this change.

This code change was proposed by several parties in the last ICC development cycle as E117-07/08. Although half the Committee supported its adoption, the Chair broke a tie vote in favor of a recommendation of disapproval. At the Final Action Hearings, the Committee's recommendation was overturned, but a motion to "approve as submitted" failed to secure the 2/3 majority needed for adoption. The ICC Membership voted 55% in favor of adoption.

There are good reasons that a solid majority of the ICC Membership favored adopting this proposal. First, the E occupancies at issue represent structures built to house a dense population of children ranging from ages 4 through early teens. E occupancies typically have paper and other flammables hung from ceilings to floors throughout. Classrooms are filled with desks containing books, papers and other flammables. Science labs use chemicals and accelerants. Lunch rooms have stoves, ovens and trash cans spread throughout loaded with waste paper and other flammables. Theaters house clothing, wooden and cardboard props and paper banners strung from one end of the room to the other. Lockers contain books and hide things that are not easily monitored. Janitorial closets house cleaning solutions and solvents. Many E occupancies are multi-story buildings with classrooms on several floors.

E occupancies mix a high concentration of children with fuel loads on a daily basis. As budgets shrink, so do the number of adult supervisors. Our children are in schools because they are required to be there. We owe them a duty to ensure they are safe from the risk of fire while in school. e simply cannot wait for a catastrophe to protect children while at school.

Unfortunately the world of elementary, secondary and higher education learning has gone through tremendous changes in security measures undertaken, both operationally and hardware installations, due to the threat of violent acts committed against students and staff. Where we had educational facilities with highly effective fire drill evacuation procedures and actions during system activation, we now have written plans and training in place to ignore the activation of the fire alarm system if a "lockdown" has been declared because the activation of the fire alarm system may be a diversion to bring staff and students out into the open to serve as victims.

This is not a possible situation. This is a very real situation that occurs throughout the country in response to the acts of violence that have occurred at educational facilities. Though the exact procedure may vary site to site, the main premise of a "lockdown" is to gather staff and students into classrooms and offices and to lock the doors, preventing intruders from getting into the room and preventing staff and students from leaving the rooms until an all clear is

announced. The staff and students are trained to ignore a fire alarm activation during a lockdown until they are ordered to evacuate after someone in authority, (could be a Principal or could be a Police Commander), makes a determination that the fire threat is real and that they must evacuate to survive the fire.

We have two main concerns. Once the students and staff ignore the fire alarm, there needs to be a reliable method of communicating the message that now is the time to evacuate. PA systems that do not meet appropriate standards of care for installation or maintenance related to reliability at the time of a fire emergency do not satisfy that need. To address this issue this proposal would require the installation of an emergency voice/alarm communications system installed in accordance with the code and referenced standards. Recognizing that there is a related increase in the cost of construction Section 907.5.2.2 allows that system to be used for other announcements to eliminate the need for a public address system for that purpose.

Section 907.2.3, Exception one has been modified to correlate the occupant load triggers, Items 2.4 and 2.5 would be redundant since the emergency voice/alarm communications system would meet those two requirements and Exception 3 was modified to correlate with the new language in 907.2.3.

Because the students and staff will delay their evacuation while a fire is attacking the structure and potentially cutting off escape routes where corridors are not protected, this code change proposal will also require all corridors serving an occupant load greater than 30 in group E educational occupancies to have 1 hour fire resistant rating except as allowed by Exception 1 to section 1018.1.

Exception 1 to Section 1018.1 is a legitimate exception for the one hour corridor fire resistant rating requirement, since it requires every classroom to have at least one door directly to the exterior and rooms used for assembly purposes have at least ½ of the required means of egress directly to the exterior as well. Under those conditions, there is no need for the students and other occupants to rely on exiting the building through the corridors since they can go directly to the exterior and move to a safe area of refuge. Once the announcement to evacuate occurs they can exit without being exposed to the fire threat potentially extended into the unprotected corridor.

However, if this is not the case, then the students, teachers, and other occupants of the educational occupancy must rely on the corridor system to exit safely from the building. In that case the paths of travel to get out of the building are restricted and the occupants may be exposed to the room of fire origin while trying to evacuate. Certainly, the basis for 1 hour fire resistive protection for corridors when the occupant load exceeds 30 is to provide for a reasonable level of protection for the occupants as they exit the building without having them unduly be exposed to a fire condition, water, and smoke which may impede their egress because they have delayed their evacuation due to a "lockdown".

It has been reported that there is an annual average of 14,700 fires in educational properties in the United States. The estimated average property loss from these fires is $85 million per year, and caused approximately 100 injuries. The costs of bussing students to alternate facilities, the impact of double sessions in schools to accommodate displaced students, and the mental aspect of the children who fell victim to the fires is less than construction costs of a 1 hour fire resistant corridor.

Nearly half (49.7 %) of these fires were incendiary or suspicious in nature. Structure fires can start in a wide variety of different areas. During 1999-2001, 23% of the fire origins were in bathrooms/locker rooms, 13% started in the kitchen area, 7% in the classrooms, and another 7% started in corridors. Even more disturbing are findings indicating that injuries per school fires are higher than those of ALL non-residential structure fires. Certainly, the fact that more than 70% of fires occur between 0800 and 1600, the hours students are most likely to be in school, and 16% of fires occur between 1700 and 2400; 12% occur between 2400 and 0800 shows that the threat of a fire occurring while children are present is real.

Currently, the USBC allows the 1-hour fire –resistance rated corridor to be omitted where the building is protected by an automatic sprinkler system. We don't believe that such a "trade-off" is appropriate, especially in an educational occupancy where there are large numbers of children at relatively high density who are placed at risk in a fire situation. We believe that due to the expanding use of "lockdown" procedures a balanced design approach to providing life safety in educational occupancies is prudent so that the 1-hour fire resistance rated corridors can work in conjunction with the automatic sprinkler system to assure the level of life safety for the building's occupants intended by the code.

Note that an I-3 occupancy, (correctional centers, detention centers, jails, prerelease centers, prisons, and reformatories), requires the corridors to have 1 hour fire-resistance ratings when the occupancy is protected by a fire suppression system, regardless of the number of occupants. When a "lockdown" occurs in a school the staff and students are prisoners. They are prohibited from leaving the rooms or areas of protection until given permission (ordered) to do so, or because they are being held hostage. For consistency purposes the staff and students in educational occupancies deserve the same level of protection we provide to inmates. A comparison to the other I groups where evacuation of the occupants may be delayed or prevented because they are incapable of self

preservation is also appropriate and substantiates a need to increase the protection level for corridors in the education group occupancies since in the case of "lockdowns" the staff and students are prevented from taking self preservation actions when the fire alarm activates until authorized, (ordered), to evacuate after an undetermined delay in time.

Other points to consider are the construction modifications made due to high-profile events and fuel loads in our schools. Events as the Columbine High School shootings, the need of school security can sometimes conflict with the requirements of fire safety. For example, exits may be restricted for security reasons preventing escape should a fire occur. Today's structures are unquestionably safer, yet the contents of today's classrooms are more combustible. Evidence suggests that fires in schools can spread far more rapidly due to the fuel load in the school buildings.

An additional benefit of the 1-hour fire resistance rated corridor is that it can assist fire fighters and tactical response team members in doing their job by providing a protected means of access to the interior of the building where they can perform their search and rescue missions, as well as fire fighting operations, in relative safety. Fire resistant corridors provide fire fighters and tactical response team members with additional time to conduct their life safety operations more effectively and safely.

From an economic perspective, fires rank as a major national problem, and since no individual safety measure is reliable all of the time, fire protection should and must be redundant. We are concerned that the compounding effect of sprinkler trade-offs could lead to greater risk to the life safety of the building occupants, especially if combined with the reduction in or the elimination of the 1 hour fire resistance rated corridors providing access to the exits or exit stairwells in an occupancy that routinely has staff and students drill and respond in real events to ignore fire alarm system activations.

This proposed change, designated as F107-09/10, was accepted by the ICC Fire Code Committee at the recent Code Change hearings held in Baltimore. The Committee vote was 11 to 0 in favor of "As Submitted".

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

Virginia Department of Fire Programs

Structural Fires with Educational Property Use Summary, Virginia, 2004 - 2009 *

Year	Total	Percent	Total Property Loss	Total Contents Loss	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths	Fire Service Injuries	Fire Service Deaths
2004	28	12.5%	$133,601	$69,301	$202,902	1	0	0	0
2005	48	21.4%	$289,811	$320,781	$610,592	0	0	0	0
2006	33	14.7%	$837,725	$253,733	$1,091,458	0	0	2	0
2007	49	21.9%	$3,486,738	$1,502,599	$4,989,337	0	1	0	0
2008	41	18.3%	$644,304	$279,899	$924,203	0	0	0	0
2009 *	25	11.2%	$1,056,110	$515,165	$1,571,275	8	0	1	0
Grand Total	**224**	**100.0%**	**$6,448,289**	**$2,941,478**	**$9,389,767**	**9**	**1**	**3**	**0**

Structural Fires with Educational Property Use By Automatic Extinguishing System (AES) Presence, Virginia, 2004 - 2009 *

Year	Present	None Present	Unknown or Not Reported	Grand Total	Percent
2004	6	21	1	28	12.5%
2005	16	29	3	48	21.4%
2006	11	19	3	33	14.7%
2007	14	30	5	49	21.9%
2008	15	22	4	41	18.3%
2009 *	10	13	2	25	11.2%
Grand Total	**72**	**134**	**18**	**224**	**100.0%**
Percent	**32.1%**	**59.8%**	**8.0%**	**100.0%**	

Note: **Data is compiled from all fire incidents reported to the Virginia Fire Incident Reporting System (VFIRS) for 2004-2008 as of 04/06/2009, and 2009 as of 02/08/2010.Data for 2009 is still considered preliminary.** 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 codes as 1 or 2. Educational includes all incidents coded with educational property use (Series 2).

*** Data for 2009 is considered preliminary since we are still receiving reports from fire departments and the data is not final. Caution should be exercised in releasing and comparing the numbers.**

Virginia Department of Fire Programs

Structural Fires with Nursing Homes Summary, Virginia, 2004 - 2009 *

Year	Total	Percent	Total Property Loss	Total Contents Loss	Total Fire Dollar Loss	Civilian Fire Injuries	Civilian Fire Deaths	Fire Service Injuries	Fire Service Deaths
2004	14	16.7%	$206,501	$45,001	$251,502	5	0	0	0
2005	14	16.7%	$50,301	$3,951	$54,252	0	0	0	0
2006	19	22.6%	$3,219,651	$416,071	$3,635,722	1	1	0	0
2007	7	8.3%	$15,601	$7,500	$23,101	2	0	0	0
2008	17	20.2%	$26,525	$4,530	$31,055	1	0	0	0
2009 *	13	15.5%	$14,700	$3,400	$18,100	1	0	0	0
Grand Total	**84**	**100.0%**	**$3,533,279**	**$480,453**	**$4,013,732**	**10**	**1**	**0**	**0**

Structural Fires with Nursing Homes By Automatic Extinguishing System (AES) Presence, Virginia, 2004 - 2009 *

Year	Present	None Present	Unknown or Not Reported	Grand Total	Percent
2004	11	2	1	14	16.7%
2005	12	2		14	16.7%
2006	12	4	3	19	22.6%
2007	7			7	8.3%
2008	12	4	1	17	20.2%
2009 *	12		1	13	15.5%
Grand Total	**66**	**12**	**6**	**84**	**100.0%**
Percent	**78.6%**	**14.3%**	**7.1%**	**100.0%**	

Note: **Data is compiled from all fire incidents reported to the Virginia Fire Incident Reporting System (VFIRS) for 2004-2008 as of 04/06/2009, and 2009 as of 02/08/2010.Data for 2009 is still considered preliminary.** 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 codes as 1 or 2 Nursing Homes include all incidents with property use coded as 311 (Nursing homes licensed by the state, providing 24-hour nursing care for four or more persons).

*** Data for 2009 is considered preliminary since we are still receiving reports from fire departments and the data is not final. Caution should be exercised in releasing and comparing the numbers.**

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change No. C-908.1

Nature of Change:

To add requirements for carbon monoxide alarms in Groups I and R to the IBC as well as installation and design standards.

Proponent: Chief James A Gray, representing the Virginia Fire Chiefs Association, Inc.

Staff Comments:

The proposal was received in time to be considered through the workgroup process with no consensus for approval achieved. Issues discussed were that the proposal is for all Group I occupancies, which would include jails and prisons and the Group R occupancies have been considered by the Virginia Housing Commission without a recommendation for implementation. It was agreed that Group R-2 occupancies are of higher risk and are where reports of exposures are dominant. Staff notes that the use of two new standards are included in the proposal, yet no copies of the standards were provided.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-908.1

Proponent Information (Check one): ☒Individual ☒Government Entity ☐Company

Name: Chief James A. Gray Representing: Virginia Fire Chiefs Association, Inc

Mailing Address: Hampton Division of Fire & Rescue 22 Lincoln Street Hampton, VA 23669

Email Address: jgray@hampton.gov Telephone Number: 757-727-6580

Proposal Information

Code(s) and Section(s): USBC 908.1

Proposed Change (including all relevant section numbers, if multiple sections):

Add New USBC

SECTION 908 CARBON MONOXIDE ALARMS

908.1 Carbon monoxide alarms. Group I or R occupancies in a building containing fuel burning appliances or a building which has an attached garage shall be provided with single station carbon monoxide alarms. The carbon monoxide alarms shall be Isingle or multiple station carbon monoxide alarms complying with UL 2034 and be installed and maintained in accordance with NFPA 720 and manufacturer's instructions. An open parking structure, as defined in the International Building Code, shall not be deemed to be an attached garage. shall be provided in accordance with this section.

Exception: Guestrooms or dwelling units which do not themselves contain a fuel-burning appliance or have an attached garage, but which are located in a building with a fuel-burning appliance or an attached garage, need not be provided with single station carbon monoxide alarms, provided that:

1. The guestroom or dwelling unit is located more than one story above or below any story which contains a fuel-burning appliance or an attached garage;
2. The guestroom or dwelling unit is not connected by duct work or ventilation shafts to any room containing a fuel-burning appliance or to an attached garage; and
3. The building is provided with a common area carbon monoxide alarm system.

908.2 Group R-1 and R-2. Single or multiple station carbon monoxide alarms shall be installed in all sleeping units in Group R-1 and R-2 equipped with fuel fired appliance(s) in the following locations:

1. In each story within a *dwelling unit.*
2. On the ceiling or wall outside of each separate *sleeping area* in the immediate vicinity of the bedrooms.

908.3 Groups R-3 and R-4. Single or multiple station carbon monoxide alarms shall be installed in Groups R-3 and R-4 dwelling units equipped with fuel fired appliance(s) in the following locations:

1. In each story within a *dwelling unit.*

2. On the ceiling or wall outside of each separate *sleeping area* in the immediate vicinity of the bedrooms.

908.4 Maintenance. Required carbon monoxide alarms shall be maintained in accordance with the Statewide Fire Prevention Code.

(Renumber subsequent sections)

Add New SFPC

908.7 Carbon monoxide alarms. Carbon monoxide alarms shall be maintained as approved when required by the USBC.

Supporting Statement (including intent, need, and impact of the proposal):

Carbon monoxide detectors available in today's market meet the updated requirements which have eliminated the false positives that are an issue with those opposed previously to carbon monoxide detectors installation requirements.

Prior to the strong support of the fire service and others, 21 individuals were treated and 5 hospitalized because of carbon monoxide fumes in a student apartment in Blacksburg. In Salem the year before, there was a fatality resulting from carbon monoxide fumes at Roanoke College. Now, according to the Journal of the American Medical Association (JAMA), those who sustained heart muscle injury due to their exposure to carbon monoxide had an increased risk of death during a mid-point follow-up period of 7.6 years compared to those without injury to the heart. Despite a decline in the annual death rate from carbon monoxide (CO) poisoning, CO remains the most common type of accidental poisoning in the United Sates, contributing to 40,000 or more emergency department visits each year, according to background information. The only way to protect citizens from an odorless, tasteless and colorless gas, which are products of combustion, is to install carbon monoxide detectors around sleeping quarters, in basements and other areas where the gas may settle. Carbon monoxide poisoning mimics many common illnesses such as the flu and food poisoning.

In 2008, the Virginia Department of Fire Programs implemented a grant program where carbon monoxide detectors were given to families in the Martinsville / Henry County area who met certain requirements relating to heating assistance. Within three days of installation, a family of 4 evacuated their house because the alarm sounded. It was found that piping in the heating system had numerous holes thus causing the accumulation of gas in the home they were renting. Four people are alive today because of a carbon monoxide detector. In 2005, there were six deaths attributed to carbon monoxide poisoning and in 2006 there were 635 incidents in which fire departments responded. In April 2009, two children were overcome by carbon monoxide in an apartment, but survived. The 5 condo building in Fairfax County, all received the gas from a generator being used inside a utility room.

Carbon monoxide detectors undeniably save lives and need to be installed where there are fossil fuel appliances in close proximity, i.e. attached garages or fireplaces. As stated previously, carbon monoxide is an odorless, tasteless and colorless gas, which is product of combustion and can make an individual extremely ill or can be fatal.

This is for new construction only.

Submittal Information

Date Submitted: 5/19/09

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change No. C-1018.2

Nature of Change:

To add exceptions to the minimum egress width requirements for assisted living facilities.

Proponent: Ed Altizer, State Fire Marshal, representing the Virginia State Fire Marshal's Office

Staff Comments:

The proposal was submitted based on discussions at the sub-workgroup meetings for assisted living facilities. The proposal has not been vetted through the full workgroups. Staff notes that the provision should not use the term "Assisted Living Facility" as that is a state specific term to the Virginia Department of Social Services and would be confusing in the USBC. Staff further notes that it would be possible to read the proposal as a more restrictive requirement than the current code as exception numbers two and three of the current provision typically apply to assisted living facilities.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION
Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-1018.2

Proponent Information (Check one): ☐ Individual ☒ Government Entity ☐ Company

Name: Ed Altizer Representing: Virginia State Fire Marshal's Office

Mailing Address: 1005 Technology Park Drive , Glen Allen, VA 23059

Email Address: ed.altizer@vdfp.virginia.gov Telephone Number: 804-612-7267

Proposal Information

Code(s) and Section(s): 2009USBC and proposed referenced 2009 IBC 1018.2

Proposed Change (including all relevant section numbers, if multiple sections

1018.2 Corridor width. The minimum corridor width shall be as determined in Section 1005.1, but not less than 44 inches (1118 mm).

Exceptions:

1. Twenty-four inches (610 mm)—For access to and utilization of electrical, mechanical or plumbing systems or equipment.
2. Thirty-six inches (914 mm)—With a required occupant capacity of less than 50.
3. Thirty-six inches (914 mm)—within a dwelling unit.
4. Seventy-two inches (1829 mm)—In Group E with a corridor having a required capacity of 100 or more.
5. Seventy-two inches (1829 mm)—In corridors and areas serving gurney traffic in occupancies where patients receive outpatient medical care, which causes the patient to be not capable of self-reservation.
6. Ninety-six inches (2438 mm)—In Group I-2 in areas where required for bed movement.
7. Seventy-two inches (1829 mm)—In Group I-2 Assisted Living Facilities in corridors serving areas with wheelchair, walker, and gurney traffic in I-2 occupancies where residents are capable of self preservation.
8. Forty Four inches (1118 mm) – In corridors in Assisted Living Facility serving resident rooms with a means of egress door leading directly to the outside.

Supporting Statement (including intent, need, and impact of the proposal): Justification:

This is to clarify an often misconception that all I-2 facilities must have 8 foot corridors for patient use. Some ALFs with residents who are not capable of self preservation may not require movement of beds for evacuation but would otherwise require some assistance and thus a 6 foot corridor that allow wheelchairs, gurneys, walkers and other devices to pass would be sufficient width.

Cost Impact: Will lessen costs on facilities affected.

Submittal Information

Date Submitted: November 20, 2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Construction Code
Code Change Nos. C-1301(402.4.2)(a), (b) and (c)

Nature of Change:

Three proposals to address the duct and blower door testing requirements in the 2009 IECC and IRC.

Proponent: Mike Toalson, representing Home Builders Association of Virginia (C-1301(402.4.2)(a)) and Guy Tomberlin, representing VPMIA and VBCOA's Plumbing/Mechanical/Fuel Gas Committees (C-1301(402.4.2)(b) and (c))

Staff Comments:

This issue was identified as a significant change between the 2006 and 2009 IECC and IRC for the workgroups and by the energy sub-workgroup. While the proposals were not received in time to be reviewed by the workgroups, there was general comment that alternatives should be provided to the requirements for duct and blower door testing. Mr. Toalson's proposal would permit random testing not to be less than one home for every seven constructed and Mr. Tomberlin's changes would require testing of every house, but would permit the HVAC contractor to do the testing. It should be noted that the IECC and the IRC already provide an inspection option in lieu of blower door testing.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-1301(402.4.2)(a)

Proponent Information (Check one): ☐ Individual ☐ Government Entity ☐ Company

Name: Mike Toalson Representing: HBAV

Mailing Address:

Email Address: Telephone Number:

Proposal Information

Code(s) and Section(s): IECC 401.4 (and correlating provision in the IRC)

Proposed Change (including all relevant section numbers, if multiple sections):

Add new text and table as follows:

401.4 Compliance testing. Where testing is required to determine air leakage of buildings or duct systems, the code official shall be permitted to require random sample testing of no fewer than one in seven residences.

Supporting Statement (including intent, need, and impact of the proposal):

Duct testing 100% of residences is costly and unnecessary.

Submittal Information

Date Submitted: 1-25-10

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: C-1301 (402.4.2)(6)

Proponent Information (Check one): ☐ Individual ☒ Government Entity ☐ Company

Name: Guy Tomberlin

Representing: VPMIA/VBCOA PMG Code Committees

Mailing Address: 12055 Government Center Parkway, Suite 630, Fairfax VA 22030

Email Address: mailto:guy.tomberlin@fairfaxcounty.gov

Telephone Number: 703-324-1611

Proposal Information

Code(s) and Section(s): IECC Section 402.4.2.1 and IRC Section N1102.4.2.1 amended by the 2006 VUSBC

Proposed Change (including all relevant section numbers, if multiple sections):
Add new Section 402.4.2.2 to the IECC and N1102.4.2.2 to the IRC to read as follows:

IECC 402.4.2.1.1 Test. Testing shall be performed by approved qualified individuals, testing agencies or contractors. Testing and results shall be as prescribed in Section 403.2.2 and approved recognized industry standards. Test results shall be submitted to the code official prior to occupancy.

IRC N1102.4.2.1.1 Test Testing shall be performed by approved qualified individuals, testing agencies or contractors. Testing and results shall be as prescribed in Section N1102.4.2.1 and approved recognized industry standards. Test results shall be submitted to the code official prior to occupancy.

Supporting Statement (including intent, need, and impact of the proposal):
This will permit the installing contractor or any other approved testing agency to perform whole house "blower door" testing, if that option is elected test as permitted by the IECC/IRC. This proposal is specifically submitted to replace and delete other proposals that would permit any type of random testing. There is no fair, uniform, reasonable method to implement random, testing. The code official cannot be put into the position of determining when testing occurs, neither can the contractor. What if it was decided that every 3 permits issued requires testing? Would it be in a 12 month period? What about the custom home builder who only builds 3 homes a year? Is it acceptable to allow 2 custom homes to be turned over to the owners without required testing? What about the track builder that builds 100 houses per year? They only have to test 33.3%? What if they use multiple sub contractors? Do they just use the best subs on the ones they know are going to require testing? The whole concept behind the testing is to assure energy conservation measures have been incorporated into the buildings construction. Random testing has the potential to completely negate energy conservation assurance. We need to focus on the intent and assurance that each building has complied with the requirements outlined in the energy code, random testing would be cheating virtually all the home buyers who didn't have the required test performed. The answer is what we have proposed here and that is to incorporate the allowance for any qualified person/company to do the test, not to create more burdensome provisions such as specialty contractors or 3rd party certifications that some feel are needed to perform these test.

Submittal Information

Date Submitted: Jan. 21, 2010.

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Centre
600 E. Main St., Ste. 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

Code Change No: C-1301

BCAP Dedicated to the adoption, implementation, and advancement of building energy codes

Virginia Board of Housing and Community Development
Main Street Center
600 East Main Street, Suite 300
Richmond, VA 23219
ATTN: Stephen W. Calhoun

January 25, 2010

RE: Comments of the Building Codes Assistance Project (BCAP) in support of Virginia's adoption of the 2009 International Energy Conservation Code (2009 IECC)

Dear Board Members:

The Building Codes Assistance Project (BCAP) supports the adoption of Regulation 13VAC5-63, as published September 28, 2009 in the Virginia Register of Regulations (Volume 26, Issue 2, page 184). As we understand the proposal, the state would update the Virginia Uniform Statewide Building Code (USBC) by adopting the 2009 International Residential Code (2009 IRC) for the construction of all one- and two-family dwellings, and the 2009 IECC for all other construction. Although we recommend that the provisions of the 2009 IRC which are substantively weaker than the provisions of the IECC be amended to meet the stringency level of the 2009 IECC, we recognize that the regulatory process is nearly complete, and we urge the Board to move quickly to adopt the proposed changes to the USBC. We believe that the 2009 IECC – without weakening amendments – should be a fundamental part of the Commonwealth's energy future.

Launched in 1994, BCAP is a non-profit organization and a joint initiative of the Alliance to Save Energy (ASE), the American Council of an Energy Efficient Economy (ACEEE), and the National Resource Defense Council (NRDC). BCAP provides custom-tailored assistance on building energy code adoption and implementation. We assist state and local regulatory and legislative bodies and help coordinate others representing environmental interests, consumers, labor, and industry. BCAP provides states with code advocacy assistance on behalf of the U.S. Department of Energy, and coordinates with DOE to provide technical assistance.

We support the Board's proposal to update the USBC by referencing the 2009 editions of the International Codes, including the IECC. These actions will help the Commonwealth meet its commitments under the American Recovery and Reinvestment Act (Recovery Act) of 2009. In a March 20, 2009 letter to DOE, then-Governor Tim Kaine committed to meet the terms of the Recovery Act as a condition for receiving State Energy Program (SEP) grants of up to $70 million (http://www.energy.gov/media/Kaine_Virginia.pdf). In fact, based on Governor Kaine's commitments, Virginia has already received over $35 million of these funds. (http://apps1.eere.energy.gov/state_energy_program/recovery_act_awards.cfm).

Model energy efficiency standards will benefit the Commonwealth for years to come by reducing building energy consumption and pollution, increasing utility system reliability, creating a more comfortable living and working environment for Virginia's citizens, and saving

Building Codes Assistance Project
1850 M. St. NW Suite 600 Washington, DC 20036
202.530.2211 www.bcap-energy.org

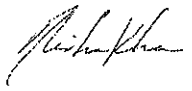
A joint initiative of the Alliance to Save Energy, the Natural Resource Defense Council, and the American Council for an Energy Efficient Economy

homeowners and businesses money in reduced energy bills, thereby stimulating the local economy.

However, Virginia also intends to adopt the 2009 IRC, which includes an weaker alternative energy compliance path, for the construction of all one- and two-family dwellings. DOE has determined that this path is not equivalent to the 2009 IECC and thus does not meet the requirements of the Recovery Act. BCAP urges the Board to follow DOE's recommendation and correct this shortfall by either **a)** deleting the energy chapter of the 2009 IRC (Chapter 11) and replacing it with a reference to the 2009 IECC, or **b)** by strengthening the 2009 IRC through the adoption of the amendments laid out in this DOE analysis available at http://www.energycodes.gov/news/irc_iecc_arra.stm.

Building energy efficiency should be a central component of Virginia's efforts to secure a stable and prosperous energy future. BCAP welcomes the opportunity to work with the Commonwealth's appropriate agencies in any way we can to support Virginia's incorporation of the 2009 IECC for residential and nonresidential construction. We offer our assistance to plan training and other implementation activities, should you so desire.

Regards,



Aleisha Khan
Executive Director
202-530-2211
akhan@ase.org

Explanatory Statement on Section 410, Recovery Act by National Building Community Stakeholders (November 18, 2009)

Since the passage of the American Recovery and Reinvestment Act (Recovery Act) in February 2009, State Energy Program (SEP) funding tied to building energy code adoption and enforcement has been the subject of much discussion and debate. The objective of this statement is to clarify the intention of the statute and to offer assistance to state and local governments to advance building energy efficiency codes, including code adoption, training in the operation of the codes and efforts at compliance and enforcement. We recognize that success in this area will not be easy but we have joined together to help. In an effort to provide accurate, understandable, and actionable information to states, local governments and the organizations and entities that support greater energy efficiency in the built environment, the undersigned groups offer the following information about Section 410, of the Recovery Act.

The actual statutory provision is as follows:

Section 410 (a) (2)

The State, or the applicable units of local government that have authority to adopt building codes, will implement the following:

(A) A building energy code (or codes) for residential buildings that meets or exceeds the most recently published International Energy Conservation Code, or achieves equivalent or greater energy savings.

(B) A building energy code (or codes) for commercial buildings throughout the State that meets or exceeds the ANSI/ASHRAE/IESNA Standard 90.1-2007, or achieves equivalent or greater energy savings.

(C) A plan for the jurisdiction achieving compliance with the building energy code or codes described in subparagraphs (A) and (B) within 8 years of the date of enactment of this Act in at least 90 percent of new and renovated residential and commercial building space. Such plan shall include active training and enforcement programs and measurement of the rate of compliance each year.

Some of the descriptions of this statutory language provided by third parties have resulted in inaccurate information and confusion among those who are involved in meeting the requirements of this Act.

The key points are as follows:

1) **Conditions for Acceptance of Recovery Act funding**. All 50 state governors have submitted letters to the Department of Energy, providing assurances that their states would comply with the terms of Section 410. All 50 states have accepted SEP funds that were conditioned on these assurances. Therefore, all 50 states have committed to do three things:
   a. Adopt a building energy code for residential buildings that meets or exceeds the 2009 IECC;[1]

[1] U.S. DOE has determined that the 2009 International Residential Code (IRC) does not meet the energy provisions of the 2009 International Energy Conservation Code (IECC).

b. Adopt a building energy code for commercial buildings that meets or exceeds the ANSI/ASHRAE/IESNA Standard 90.1-2007, and;
c. Develop and implement a plan, including active training and enforcement provisions, to achieve 90% compliance with the target codes by 2017, including measuring current compliance each year.

2) **Achieving 90% Compliance in 8 Years Requires Prompt State Code Adoption.** While the Recovery Act, out of respect for the variations in state and local adoption procedures, includes no specific date by which states must adopt compliant building energy codes, the legislation does specify that State plans for demonstrating 90% compliance with the codes should be designed to achieve that compliance level within 8 years from passage of the Recovery Act, *i.e.*, 2017. In order to ensure compliance with the law, it is in a State's best interest to begin the process of adopting target codes (or better) as soon as possible. The measurement of compliance "each year" means states will need to begin assessing their rate of compliance with the target codes in February 2010.

3) **Code Adoption Integral to Compliance.** While there is not yet a published common means of measuring and reporting compliance with the target codes, we recommend assessing compliance with the existing codes. DOE is currently developing these common means. It is clear that unless a compliant building energy code addressing both residential and commercial buildings is adopted in the state, it will be extremely difficult to provide compliance statistics that are based on the target codes.

4) **A Long Way to Go.** As of this writing, only a few states have adopted codes that "meet or exceed" the target codes.

5) **Training & Enforcement Essential to State Compliance**. To achieve the required levels of compliance, training and enforcement must match the adopted state code or codes, so the process of adopting these codes in tandem with the development of such training and enforcement provisions is critical.

6) **Funding Available for Enforcement and Training.** Funding for enforcement and training can come from fees imposed for inspections, from grants (including SEP and the Energy Efficiency and Conservation Block Grant (EECBG)), from existing state and federal energy efficiency funds and from new funding supported by the groups who are working together to increase building code-related funding in the pending climate and energy bills.

7) **The First Recovery Act Compliance Deadline is Approaching.** The Department of Energy will begin requesting that states report their rate of compliance with the target energy codes in the near future, and we expect DOE to require regular reporting in conjunction with Recovery Act compliance.

8) **Funding Opportunities For Jurisdictions** Congress is considering tying future funding for states to progress towards satisfaction of the assurances made in accepting Recovery Act funds.

The undersigned groups are committed to providing support to any requesting state and local government to achieve adoption of the target codes, to develop workable plans for training and enforcement, and to assist them in developing a plan to address the measurement and reporting of annual compliance with the target codes.

Supporting

Alliance to Save Energy

American Council for an Energy Efficient Economy

The American Institute of Architects

American Society of Heating, Refrigerating and Air-Conditioning Engineers

Building Codes Assistance Project

Building Energy Efficient Codes Network

International Code Council

National Association of State Energy Officials

Natural Resources Defense Council

Northwest Energy Efficiency Alliance

Midwest Energy Efficiency Alliance

Southeast Energy Efficiency Alliance

Southwest Energy Efficiency Project

U.S. Green Building Council

RECA

RESPONSIBLE ENERGY CODES ALLIANCE

1850 M Street, NW, Suite 600
Washington, DC 20036

(PH) 202-339-6366
(FAX) 202-342-0807

eric@reca-codes.com
www.reca-codes.com

January 22, 2010

VIA E-MAIL

Stephen W. Calhoun
Regulatory Coordinator
Department of Housing and Community Development
600 East Main Street
Richmond, VA 23219

Re: Comments of the Responsible Energy Codes Alliance Supporting the Proposed Adoption of the 2009 *IRC* and *IECC*

Dear Mr. Calhoun:

We are writing to support the Department of Housing and Community Development's update to the Virginia Uniform Statewide Building Code (VUSBC), including the adoption of the 2009 International Energy Conservation Code (*IECC*) as proposed in the September 28, 2009 Virginia Register of Regulations. As we understand the proposal, Virginia would adopt the 2009 International Residential Code (*IRC*) for the construction of all one- and two-family dwellings, and the *IECC* for all other construction. Although we recommend that the provisions of the *IRC* which are substantively weaker than the provisions of the *IECC* be amended to meet the stringency level of the *IECC* in order to comply with the American Recovery and Reinvestment Act, we recognize that the regulatory process is nearly complete, and we urge the Department to move quickly to adopt the proposed changes to the VUSBC.

The Responsible Energy Codes Alliance (RECA) is a broad coalition of energy efficiency professionals, regional organizations, product and equipment manufacturers, trade associations, and environmental organizations that promote the adoption and implementation of the *IECC* nationwide. A list of RECA members is enclosed with this letter. RECA members have been involved in the development of the *IECC* since its inception. For over a decade, RECA has been aggressively pursuing the adoption and implementation of the *IECC* nationwide.

We support the Department's proposal to update the VUSBC by referencing the 2009 editions of the International Codes, including the *IECC*. These actions will help

Virginia meet its commitments under the American Recovery and Reinvestment Act of 2009. In a March 20, 2009 letter to the Department of Energy, Governor Kaine committed to meet the terms of the Recovery Act as a condition for receiving State Energy Program grants up to $70,001,000.00.[1] In fact, as a result of Governor Kaine's commitments, Virginia has already received over $35 million of these funds.[2] The Recovery Act requirements include: (A) adopting the 2009 *IECC* or equivalent for residential construction; (B) adopting ASHRAE 90.1-2007 or equivalent for commercial construction; and (C) implementing a plan to achieve 90 percent compliance with these codes within 8 years.

The U.S. Department of Energy has determined that Chapter 11 of the 2009 *IRC* (Energy Efficiency) contains provisions that are weaker than the requirements of the 2009 *IECC*.[3] The most reasonable solution to this potential inconsistency is to replace *IRC* Chapter 11 with a direct reference to the requirements of the 2009 *IECC*. This will ensure that a uniform energy standard will be applied statewide, regardless of whether a builder uses the *IECC* or *IRC*. However, we recognize that Virginia has historically adopted Chapter 11 of the *IRC* as the energy code for one- and two-family dwellings, and if this approach is continued, we recommend making the minor adjustments outlined in the U.S. Department of Energy's determination on the *IRC*.[4]

By implementing and enforcing the 2009 *IECC*, Virginia will help ensure that every buyer of a new home gets a reasonably efficient home. The 2009 *IECC* has been found to be a substantial improvement over the 2006 *IECC*. A study by the widely recognized international energy consulting firm, ICF International, concluded that the residential provisions of the 2009 *IECC* would result in 11.6% energy cost savings over the 2006 *IECC* in Virginia's climate zone. Some of the specific improvements incorporated into the 2009 *IECC* include the following:

- Ducts must be tested to ensure reasonable tightness, or in the alternative, all ducts must be located within conditioned space;
- Air leakage must also be tested or must undergo a rigorous visual inspection by a code official or other approved party;
- A more efficient window U-factor (0.35) is required for Virginia's climate zone;
- For buildings that meet the simulated performance alternative (Section 405), improvements include the elimination of trade-offs of longer-lived envelope and other measures for mechanical system improvements and more realistic assumptions of fenestration area.
- Similarly, substantial improvements to the commercial provisions of the *IECC* are also incorporated into the 2009 version.

Virginia and its citizens stand to benefit from the adoption of the 2009 *IECC* in many ways.

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[1] http://www.energy.gov/media/Kaine_Virginia.pdf
[2] http://apps1.eere.energy.gov/state_energy_program/recovery_act_awards.cfm
[3] http://www.energycodes.gov/news/pdfs/2009_IRCvsIECC_ARRA_23Sep09.pdf
[4] http://www.energycodes.gov/news/pdfs/2009_IRCvsIECC_ARRA_23Sep09.pdf

- The 2009 *IECC* is the final product of a code development process that involves the nation's leading experts in energy efficiency, building design and product performance, state and local code officials, product manufacturers, and homebuilders.
- By adopting the 2009 *IECC*, Virginia will stay on track with statewide energy efficiency goals and will guarantee homeowner benefits for many years. New construction is the most cost-effective time to install good insulation, quality windows and doors, and efficient heating and cooling equipment. Construction costs will be reduced through economies of scale, as suppliers and retailers may reduce inventories and streamline production to meet more consistent energy targets.
- The adoption of the 2009 *IECC* will facilitate compliance and enforcement of the code, and will allow builders and code officials to take advantage of free Department of Energy trainings, the latest free compliance software like REScheck, and other programs. These programs do not apply to the *IRC* or any state-created energy codes.

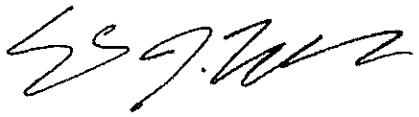
Builder Compliance Guides

I am enclosing a draft 2009 *IECC* Builder Compliance Guide for Virginia. RECA makes these guides available free of charge for use as compliance aids, training material, or quick reference for builders. A complete selection of guides for all fifty states is available on our website, www.reca-codes.com. We have worked with various states to develop guides to fit specific needs, and we are willing to work with you to meet your training and compliance needs.

Conclusion

RECA strongly supports adoption of the 2009 *IECC* without substantive weakening amendments and offers its assistance and its experience in energy code adoption and implementation to you and the Commonwealth of Virginia as you work to maximize energy efficiency measures in the VUSBC. We hope that you will not hesitate to draw on RECA's support and willingness to help. Please contact me at (202) 339-6366 if you have any questions or would like to discuss how RECA can be of assistance.

Sincerely,



Eric Lacey
Chairman

RECA

RESPONSIBLE ENERGY CODES ALLIANCE

RECA is a broad-based consortium of energy efficiency professionals, product and equipment manufacturers, and trade associations with expertise in the adoption, implementation and enforcement of building energy codes nationwide. RECA is dedicated to improving the energy efficiency of homes in Virginia and throughout the U.S. through greater use of energy efficient practices and building products. It is administered by the Alliance to Save Energy, a non-profit coalition of business, government, environmental and consumer leaders that supports energy efficiency as a cost-effective energy resource under existing market conditions and advocates energy-efficiency policies that minimize costs to society and individual consumers.

Air Barrier Association of America

Alliance to Save Energy

American Chemistry Council

American Council for an Energy-Efficient Economy

Cardinal Glass Industries, Inc.

CertainTeed Corporation

Chemical Industry Council of Illinois

Guardian Industries Corporation

Johns Manville Corporation

Knauf Insulation

National Fenestration Rating Council

Northeast Energy Efficiency Partnerships, Inc.

North American Insulation Manufacturers Association

Owens Corning

Pactiv Corporation

Polyisocyanurate Insulation Manufacturers Association

PPG Industries, Inc.

Sierra Club

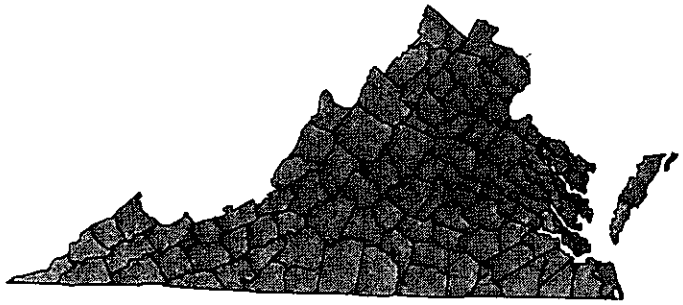
Southwest Energy Efficiency Project

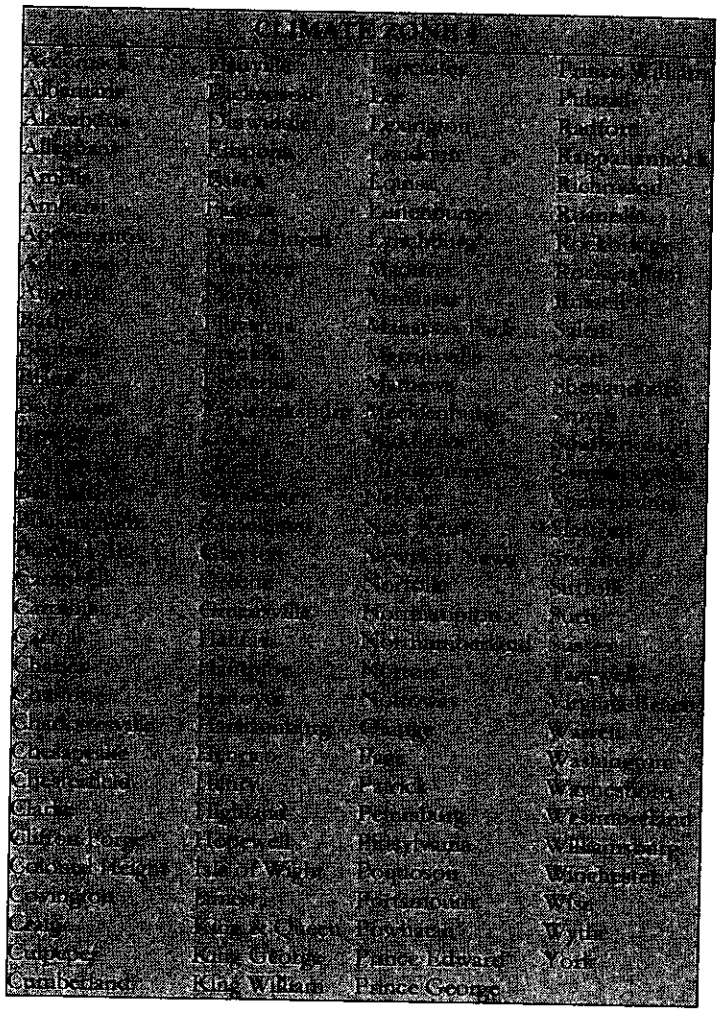
IECC Compliance Guide for Homes in Virginia

Code: 2009 International Energy Conservation Code

Step-by-Step Instructions

1. Use the simplified table of IECC building envelope requirements shown below to determine the basic thermal envelope requirements associated with the jurisdiction.
2. Use the "Outline of 2009 IECC Requirements" printed on the back of this sheet as a reference or a categorized index to the IECC requirements. Construct the building according to the requirements of the IECC and other applicable code requirements.





The 2009 International Energy Conservation Code

The 2009 IECC was developed by the International Code Council (ICC) and is currently available to states for adoption. The IECC is the national model standard for energy-efficient residential construction recognized by federal law. The American Recovery and Reinvestment Act of 2009 makes funds available to jurisdictions, like Virginia, that have committed to adopt and implement the 2009 IECC. Users of this guide are strongly recommended to obtain a copy of the IECC and refer to it for any questions and further details on compliance. IECC compliance training is also available from many sources. To obtain a copy of the 2009 IECC, contact the ICC or visit www.iccsafe.org.

Limitations

This guide is an energy code compliance aid for Virginia based upon the simple prescriptive option of the 2009 IECC. It does not provide a guarantee for meeting the IECC. This guide is not designed to reflect the actual energy code, with amendments, if any, adopted in Virginia and does not, therefore, provide a guarantee for meeting the state energy code. For details on the energy code adopted by Virginia, including how it may differ from the IECC, please contact your local building code official.

	Windows			Insulation				Foundation		
	Fenestration U-Factor	Skylight U-Factor	Glazed Fenestration SHGC	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Slab R-Value and Depth	Crawl Space Wall R-Value
Zone 4	0.35	0.60	NR	38	13	8/13	19	10/13	10, 2 ft	10/13

NR indicates No Requirement

Outline of 2009 IECC Requirements for Virginia Homes

The simplified table of building envelope requirements (on the previous page) applies to new residential buildings, as defined in the IECC, with wood framing and/or mass walls. For steel-framed buildings, the same window requirements apply; however, refer to IECC section 402.2.5 for specific ceiling, wall and floor insulation R-value requirements. The table also applies to all additions, alterations and replacement windows. The table is based upon the thermal envelope requirements in the 2009 IECC's prescriptive compliance option for the appropriate climate zones (Table 402.1.1) and does not reflect any state-specific amendments to the IECC.

Fenestration (IECC sections 303.1.3, 402.3, 402.5)

- Fenestration (including all windows and doors) and Skylight U-factor and Glazed Fenestration SHGC values are maximum acceptable levels. The Glazed Fenestration maximum applies to all windows, skylights and glazed doors. An area-weighted average of fenestration products is permitted to satisfy these requirements.
- Window, door and skylight U-factors and SHGCs must be determined from a National Fenestration Rating Council (NFRC) rating that is independently certified and set forth on a label on the product or from a limited table of product default values in the IECC. See www.nfrc.org for more details on the NFRC rating system.
- Windows must also be labeled in a manner to show that they meet the IECC's air infiltration requirements.
- Up to 15 square feet of glazed fenestration is permitted to be exempt from the U-factor and SHGC requirements. One side-hinged opaque door assembly up to 24 square feet is exempted from the Fenestration U-factor requirement. These exceptions apply in the prescriptive path only. Special exceptions may apply for fenestration U-factor requirements in thermally isolated sunrooms. (see IECC section 402.3.5)

Insulation (IECC sections 303.1.4 and 402)

- Insulation R-values are minimum acceptable levels and must be determined according to FTC rule.
- R-values for walls represent the sum of cavity insulation plus insulated sheathing, if any. The second R-value for mass walls applies when more than half the insulation is on the interior of the mass wall.
- The insulation for basement walls must be from the top of the wall down 10 feet below grade or to the basement floor, whichever is less. Basement wall insulation is not required in warm-humid locations as defined in IECC Figure 301.1 and Table 301.1. Insulation requirements for crawl space walls are further specified in IECC section 402.2.9.
- Floor insulation must be installed to maintain contact with the underside of the subfloor decking.
- Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weatherstripped and insulated to a level equivalent to the insulation on the surrounding surfaces.
- Insulation requirements for slab on grade floors is further specified in IECC section 402.2.8. R-5 shall be added to the required slab edge R-values for heated slabs.
- Special Insulation exceptions related to ceilings with attic spaces, ceilings without attic spaces, masonry veneer and thermally isolated sunrooms are set forth in IECC section 402.

Ducts (IECC section 403.2)

- Ducts must be tested for tightness, as specified in IECC section 403.2.2, except where the air handler and all ducts are located within conditioned space.
- Supply ducts in attics shall be sealed and insulated to a minimum of R-8. All other ducts shall be sealed and insulated to a minimum of R-6. Ducts or portions thereof located completely inside the building thermal envelope are exempted from the insulation requirement. Air handlers, filter boxes and building cavities used as ducts must also be properly sealed.

Air Sealing (IECC section 402.4)

- The building envelope is required to be properly sealed to limit air infiltration. Air tightness and insulation installation must be demonstrated either by testing or visual inspection. Recessed lighting must also be sealed to limit air leakage.

Documentation (IECC sections 103, 303.3, 401.3)

- The appropriate construction documents and preventative maintenance information must be provided, along with a permanent certificate listing certain insulation, window and HVAC performance information.

Systems (IECC Section 403 and IRC section M1401.3)

- HVAC system must be properly sized using a procedure like ACCA Manual J.
- Temperature controls must be installed, including a programmable thermostat where required.
- Mechanical system piping must be insulated to a minimum of R-3.
- Specific requirements apply to circulating hot water systems, mechanical ventilation, snow melt systems, and pools.

Lighting (IECC Sections 202 and 404.1.1)

- A minimum of 50% of lamps in permanently installed fixtures must be high-efficacy as defined in the IECC.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: E-1301 (402.4.2)(C)

Proponent Information (Check one): ☐ Individual ☒ Government Entity ☐ Company

Name: Guy Tomberlin

Representing: VPMIA/VBCOA PMG Code Committees

Mailing Address: 12055 Government Center Parkway, Suite 630, Fairfax VA 22030

Email Address: mailto:guy.tomberlin@fairfaxcounty.gov

Telephone Number: 703-324-1611

Proposal Information

Code(s) and Section(s): IECC Section 403.2.2 and IRC Section N1103.2.2.1 amended by the 2006 VUSBC

Proposed Change (including all relevant section numbers, if multiple sections):
Add new IECC Section 403.2.2.1 and IRC Section N1103.2.2.1(below the exceptions) to read as follows:

IECC 403.2.2.1. Testing shall be performed by approved qualified individuals, testing agencies or contractors. Testing and results shall be as prescribed in Section 403.2.2 and approved recognized industry standards. Test results shall be submitted to the code official prior to occupancy.

IRC N1103.2.2.1 Test Testing shall be performed by approved qualified individuals, testing agencies or contractors. Testing and results shall be as prescribed in Section N1103.2.2 and approved recognized industry standards. Test results shall be submitted to the code official prior to occupancy.

Supporting Statement (including intent, need, and impact of the proposal):
This will permit the installing contractor or any other approved testing agency to test as required by the IECC and IRC. This proposal is specifically submitted to replace and delete other proposals that would permit any type of random testing. There is no fair, uniform, reasonable method to implement random, testing. The code official cannot be put into the position of determining when testing occurs, neither can the contractor. What if it was decided that every 3 permits issued requires testing? Would it be in a 12 month period? What about the custom home builder who only builds 3 homes a year? Is it acceptable to allow 2 custom homes to be turned over to the owners without required testing? What about the track builder that builds 100 houses per year? They only have to test 33.3%? What if they use multiple sub contractors? Do they just use the best subs on the ones they know are going to require testing? The whole concept behind the testing is to assure energy conservation measures have been incorporated into the buildings construction. Random testing has the potential to completely negate energy conservation assurance. We need to focus on the intent and assurance that each building has complied with the requirements outlined in the energy code, random testing would be cheating virtually all the home buyers who didn't have the required test performed. The answer is what we have proposed here and that is to incorporate the allowance for any qualified person/company to do the test, not to create more burdensome provisions such as specialty contractors or 3rd party certifications that some feel are needed to perform these test.

Submittal Information

Date Submitted: Jan. 21, 2010.

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
Main Street Centre
600 E. Main St., Ste. 300
Richmond, VA 23219

Email Address: tsu@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

C-1301 (402.4.2)

From: Roger Slate, Chesterfield, Virginia

Representing: Energy Conservation Committee, Virginia Building Code Officials Association

USBC Amendment Proposal: Virginia Construction Code Change Nos. C-1301 (402.4.2) (a) (b) and (c)

Subject: Random Sampling of Residential Construction to test for Duct Leakage and Building Air Leakage

C-1301(402.4.2) (a) HBAV proposal

The Committee does not support this change proposal which would allow random sampling of residentia construction to test for duct leakage or building air leakage. If random testing were allowed, this would cause great uncertainty in the industry as to when such testing is required and why. This would put the Code Official in a situation were he/she would be heavily scrutinized as how they decided what buildings were actually selected for duct or whole house ("blower door") leakage. A uniform, across the board application used for testing requirements will eliminate any questions as to when, where, and why testing shall be done and remove any doubt or suspicion that may be present.

C-1301(402.4.2) (c) VBCOA/VPMIA PM & G Committee proposal

This Committee supports this change as it will allow the installing contractor or approved agency to perform the duct or blower door test required by both the IRC and the IECC. Solely relying on third party inspections will eliminate the installing contractors' ability to certify their own work. A third party inspection program is a common practice and has worked well for RDPs to perform special inspections a required on their own work/design, so this principle should apply to duct and blower door testing as well. Random testing of houses and systems for air leakage only fosters an environment for unscrupulous activities, such as favoritism, kickbacks and payoffs. Officials do not need to be placed in any situation where the public will possibly scrutinize their behavior in these matters.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

USBC – Virginia Maintenance Code
Code Change No. M-105.1.1

Nature of Change:

To add specific criteria for when a structure is unsafe or unfit for human occupancy.

Proponent: Sean Farrell, Prince William County Building Department, representing the VBCOA Property Maintenance Committee

Staff Comments:

The proposal was not received in time for review by the workgroups; however, it was discussed at one meeting of staff with representatives of VBCOA. The original proposal was not correlated with the current definitions of unsafe structure and structure unfit for human occupancy in the Virginia Maintenance Code. The proposal was modified to make the necessary correlations with the current definitions. One public comment concerning the proposal was received for the January 25, 2010 public hearing and is included with the proposal.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT REGULATORY CHANGE FORM

(Use this form to submit changes to building and fire codes)

Address to submit to:
DHCD, the Jackson Center
501 North Second Street
Richmond, VA 23219-1321
Tel. No. (804) 371 – 7150
Fax No. (804) 371 – 7092
Email: bhcd@dhcd.state.va.us

Document No. M-105.1.1
Committee Action: _____
BHCD Action: _____

Submitted by: Property Maintenance Committee Representing: VBCOA
Address: _____ Phone No.: _____
Regulation Title: Unsafe or Unfit Conditions Section No(s): 105

Proposed Change:

Insert 105.1.1: **Unsafe or Unfit Conditions:**

For the purpose of this code, any structure that has any of the conditions or defects described below shall be considered unsafe and/or unfit for human habitation:

1. A door, emergency escape window, aisle, passageway, stairway, exit or other means of egress element not maintained as originally constructed.

2. A walking surface, guard, railing, or enclosing element of any aisle, passageway, stairway, exit or other means of egress element that is warped, worn, decayed, dilapidated, loose, torn, blocked, or otherwise deficient so as to not provide a safe and adequate means of egress.

3. Damage from fire, earthquake, wind, flood, deterioration, neglect, abandonment, vandalism or by any other cause to such an extent that a structure is likely to partially or completely collapse, or to cause the structure's components to become detached or dislodged.

4. Any interior or exterior claddings, wall or ceiling finish materials, structural members, appurtenances or ornamentations where the attachment, anchorage, strength or stability of which is not sufficient to resist normally expected live or dead loads and is determined by the Code Official to be a threat to life or health, or a hazard for injury.

5. Structural elements including foundations that because of damage, dilapidation, deterioration, decay, faulty construction, the removal or movement of any bearing capacity, or for any other reason is likely to partially or completely collapse, fail or give way.

6. Failure to maintain or the removal of habitable space requirements, building systems, electrical systems, plumbing systems, mechanical systems, fuel/gas systems, and fire protection or detection systems to such an extent that it is determined by the Code Official to be a threat to life or health, or a hazard for injury or fire, or is likely to cause sickness or disease.

7. Any portion of a structure remaining on a site after the demolition or destruction of the structure.

8. A structure that is vacant, abandoned and unsecured against public entry or open to the elements.

9. Any conditions that, as determined by the Code Official, may exist as specifically described in

Sections 304.1.1, 305.1.1, or 306.

10. Where any other conditions exist that, as determined by the Code Official, pose a threat to the health, safety, or welfare of the occupants or public.

Modify Chapter 2 definitions as follows:

Structure unfit for human occupancy. An existing structure meeting criteria in Section 105.1.1 such that due to the degree to which the structure is unsafe, must be vacated and placarded and which cannot be occupied until the degree to which it is unsafe is corrected.

Unsafe structure. An existing structure meeting criteria in Section 105.1.1 that is determined by the code official to be dangerous to the health, safety and welfare of the occupants of the structure or the public.

Delete Chapter 2 definitions as follows:

Unsafe equipment

Supporting Statement:

By inserting these provisions we are able to capture very clear unsafe language contained in Chapter 1 of the IPMC which would have otherwise been deleted as part of the administrative deletion of Chapter 1. This language brings much clarity of the meaning of unsafe and in most cases identifies thresholds for making determinations. These provisions also provide a necessary link to the new Unsafe Conditions section contained in Chapter 3 of the IPMC which otherwise might not be enforceable due to a lack of reference from VMC §105 to the IPMC. Secondly, all of this language gives the Maintenance Official the ability to more clearly explain, define and specify what is an Unsafe/Unfit structure and therefore provides for greater uniformity in application of these provisions across the State – a stated goal of DHCD and VBCOA.

Changing the definitions by removing the technical justification for making determinations of unsafe / unfit conditions removes any potential conflicts to the actual above provision. The technical justification is captured in the provisions above.

Unsafe Equipment is only used in the current definition of Unsafe structure and is therefore no longer needed as the concept is addressed in Section 105.1.1.6 of the listed unsafe provisions above.

COMMONWEALTH OF VIRGINIA
COUNTY OF HENRICO

GREGORY H. REVELS, CBO
Building Official

H. BOLMAN BOWLES, P.E.
Deputy Building Official

January 25, 2010

Thomas Fleury, Chairman
Board of Housing &
Community Development
Main Street Center
600 E. Main St., Suite 300
Richmond, Va. 23219
Fax: 804/371-7092

Re: Virginia Maintenance Code
VBCOA Unsafe Buildings Proposal
(Section 105.1.1)

Dear Mr. Fleury:

The proponent of this change indicates that the new text will bring clarity and uniformity to the enforcement of the code across the Commonwealth. The reality is that enforcement of any provision requires the code official to exercise discretion and judgment when evaluating whether a building or structure is unsafe. The use of discretion and judgment will not be substantially improved by the addition of this proposal. The proposal promotes enforcement decisions that contradict the legal basis for citing and prosecuting violations as criminal misdemeanors in accordance with State law. Lacking clear examples of the problem that this proposal is supposed to correct (other than to indicate that the proposed language implements text from the International Property Maintenance Code), and given the successful and long tenure of the unsafe provisions contained in the current and prior editions of the Virginia Maintenance Code, this proposal should not be approved.

The following examples are provided to describe a few of the specific concerns that exist with the proposed revisions submitted on behalf of the VBCOA Property Maintenance Committee.

1) Some provisions are written to eliminate any judgment as to whether a specific element is unsafe. For example, item 1 of Section 105.1.1 states that any egress door (i.e. any door that leads to or from a habitable space) is deemed unsafe if it is not maintained as originally installed. Thus even minor imperfections in a door (peeling paint, a small hole, etc.) are cause to declare a door unsafe rather than citing the defect as a maintenance violation.
2) The lead statement of Section 105.1.1 indicates that when ***any*** condition contained in the list exists then the structure shall be deemed unfit for human habitation.
3) Other provisions combine subjective and ambiguous phrases with statements similar to the example noted above. For example, at item 2 of section 105.1.1 any walking surface that is "worn" or "loose" or is "otherwise deficient" so as to not provide an "adequate" means of egress is deemed unsafe. This implies that 1 "worn" or "loose" floor tile along the edge of a wide corridor must be declared unsafe. Item 3 of Section 105.1.1 states that "damage....to such an extent that a structure is *likely* to ...collapse...". The term "likely" implies that a collapse also may not occur. The current Virginia Maintenance Code adequately addresses these conditions with text that is more appropriate to resolve immediate and imminent hazards founded on evidence that proves beyond a reasonable doubt that a violation exists rather than the basis that it may exist.
4) The text at item 6 of Section 105.1.1 requires the code official to declare unsafe "failure to maintain.....habitable space requirements.....to such an extent that it....is likely to cause sickness...". This provision brings into question whether the Virginia Maintenance Code intends to regulate mold or other similar substances. Mold occurs naturally throughout the environment (both inside and outside of buildings). To date, the USBC has not regulated mold but rather addresses the maintenance of building components that can result in mold growth and propagation (e.g. plumbing leaks, wall leaks, roof leaks, HVAC condensate leaks, etc.). Given the natural occurrence of mold this substance should not be regulated per the USBC.
5) Item 7 of Section 105.1.1 declares any portion of the building that remains on a site after demolition as unsafe. Section 105.1 of the current Virginia Maintenance Code already provides for the removal of demolished buildings and structures. This proposal offers no added benefit.

6) Item 9 of Section 105.1.1 authorizes the local code official to declare any conditions that "may" exist as described in Sections 304.1.1, 305.1.1 and 306 to be unsafe. Examples of items from these sections that "shall be determined as unsafe" include: an open joint between a window and siding that leaks air or water; a foundation that has a crack; a hole in an exterior wall; a roof leak; flooring with defects that affect serviceability; concrete garage floor slabs that have cracks or are spalling; rusted aluminum siding or flashing; joint cracks between bricks, etc. While these items can represent maintenance violations, the text provides no guidance to explain the extent of any discretion or judgment the code official should use to determine when such violations become "unsafe". The text is confusing at best and excessive at worst.
7) Localities that do not choose to enforce the Virginia Maintenance Code are obligated to enforce the unsafe building provisions upon the filing of a complaint by a tenant of a rental property. How will these proposed changes be uniformly administered in those communities that only used the Virginia Maintenance Code intermittently to address unsafe conditions?
8) Item 10 authorizes the code official to declare any condition whether previously listed or not, to be declared unsafe. This item provides far less clarity than the current Virginia Maintenance Code and provides the code official a blank check to declare anything unsafe on a whim.

Clearly, the BHCD has never intended such extreme and burdensome application of the Virginia Maintenance Code as written into this proposal. I would urge that the BHCD retain the unsafe building provisions as they currently exist within the Virginia Maintenance Code.

Please call me at 804/501-4374 if you have any questions regarding this matter.

Sincerely,

Gregory H. Revels
Building Official

M-105.1.1

COUNTY OF PRINCE WILLIAM
5 County Complex Court, Suite 280
Prince William, Virginia 22192-5308
703-792-7018 Metro 703-631-1703 Fax 703-792-5969

DEPARTMENT OF
PUBLIC WORKS
NEIGHBORHOOD SERVICES
PROPERTY CODE
ENFORCEMENT

Thomas Bruun
Director

March 22, 2010

TO: The Honorable Thomas Fleury
Chairman, BHCD

THRU: Emory Rodgers
Deputy Director, DHCD

FROM: Sean Farrell
Chief Property Code Enforcement Inspector

RE: Code Change M-105.1.1 Rebuttal Response and Points of Clarification

This correspondence serves to provide further clarification and testimonial with regards to M-105.1.1; which includes specific rebuttal to the Public Comment(s) received to date.

First point of clarification: The threshold for determining minimum safe conditions should not be a moving target in Virginia. With our ambiguous code that exists today, what is deemed unsafe in one locality may not be deemed unsafe at all in another locality. This does not promote uniform application of the unsafe provisions of the code which the legislative body intended. This proposal introduces thresholds for determinations so that application of our unsafe provisions can be more uniform in nature.

Second point of clarification: This code proposal does not remove sound judgment or discretion from the Code Official. In fact the proposal improves it by ensuring that a determination of unsafe is warranted. Unsafe is a threshold but the level of impact of the unsafe condition(s) is a spectrum and determining where on the spectrum the impact falls is where the Code Official's judgment and discretion is paramount.

Third point of clarification: Just because a set of facts are collectively deemed to be unsafe, it does not require the Code Official to take overly drastic actions to facilitate abatement. The Code Official has a number of available options and remedies to deal with unsafe determinations. An unsafe determination is simply one that requires greater and swifter attention on behalf of the owner to ensure the safety of the occupants/public. Are the unsafe conditions at a minor level where a simple Unsafe Notice and Order to Repair will suffice? Are the unsafe conditions to a degree that a portion of the structure needs to be vacated and secured? Are the unsafe conditions so bad that the entire structure needs to be vacated and secured? Or is it unsafe to such a degree that the structure should be demolished in the best interest in health, safety and welfare of the citizens of Virginia?

Fourth point of clarification: Our legal representatives prosecuting violations of the VMC prefer to cite directly from the code. This proposal does just that and therefore provides ease of judicial intervention when having to invoke this tool to ensure the health, safety and welfare of the citizens of Virginia.

The following items are intended to be a direct response to the public comment examples provided by the commentor. I would also state for the record that by providing the examples and specific interpretations of the proposed cite, the commentor has proven my point as to why this proposal is essential.

1) This code language does not restrict the Code Official from applying reason and the unsafe spectrum. The code language implies that if the exit path or emergency escape is not maintained as constructed (designed and built to permit safe evacuation) then the situation is unsafe. The very narrow and strict interpretation of the commentor regarding this text is a perfect example of why this proposal is necessary to foster uniformity.
2) The idea behind the proposal is to specifically scope out Virginia's unsafe provisions and place as much meaning and clarity within the scope as possible.
3) Again, the narrow interpretation of this language begs for needed clarification. The "safe and adequate egress" must be evaluated concurrently with the level of deficiency. So in the commentor's example, if the floor tile presents a tripping hazard where one or more occupants could get injured in the immediate and sudden evacuation of the building, then the condition should be deemed unsafe. Does that mean the Code Official immediately shuts the building down – of course not. If the tile does not present such hazard, normal enforcement protocol is appropriate. Additionally, the CURRENT definition of Unsafe Structure in the VMC contains the exact same language "collapse is likely". So I am unclear as to the commentor's second point.
4) The Code Official's responsibility is the health, safety and welfare of the occupants and public within the realm of the USBC. This provision does not expand that responsibility outside of the scope of the USBC. If mold is determined to pose a serious and imminent threat to the occupants, the Code Official does have the authority and duty to act. That does not necessarily mean the code regulates mold.
5) There are many jurisdictions in the State of VA that do not read or interpret the VMC as having authority to remove debris piles from properties. Once again, the commentor justifies the need for clarification and this code proposal provides it specifically.
6) This code cite was structured in such a way as to provide the Code Official with the ability of using text located outside of Section 105 (Unsafe Structures) to make a determination of unsafe. The code cite does not specifically identify unsafe thresholds because it uses "as determined by the code official" language specifically in the text.
7) Unsafe is unsafe and should be applied uniformly across Virginia as the legislative body intended.
8) Because our list was inclusive, the committee felt that should an unsafe situation emerge that was not specifically identified, there needed to be a provision that would allow the Code Official to take the appropriate action to ensure the health, safety and welfare of the citizens of Virginia. This language does just that.

Fifth point of clarification: It is evident that this proposal will bring significant clarification to what unsafe is and establish some thresholds for making unsafe determinations. This will foster uniform application of the code and facilitate a much clearer understanding and aptitude for the code. This proposal in no way contradicts the legal basis for citation and prosecution of the VMC. In fact it seeks to add objective criteria (legal basis) and remove subjective ambiguity (selective enforcement) from the code. Lastly, if this proposal improves the Code Official's ability to enforce unsafe standards in a more uniform manner across Virginia, then clearly it is better then what exists today and therefore should be codified.

Thank you for your consideration of this testimony and clarification.

Sean P. Farrell

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

SFPC – Virginia Statewide Fire Prevention Code
Code Change No. F-106.3

Nature of Change:

To add administrative language to the SFPC for conditions which constitute a clear and distinct threat or hazard.

Proponent: Robby Dawson, representing the Virginia Fire Services Board

Staff Comments:

The proposal was not received in time to be considered by the workgroups. The language proposed is somewhat nebulous and open-ended instead of specifically identifying conditions which are considered to be violations of the code. In addition, Section 111.1 (for violations of the SFPC) already provides that if any violation is discovered, the required abatement is necessary to render the structure or premises safe and secure. In addition, the matters not provided for provision appears to equate lack of maintenance with unsafe conditions or fire hazards. Typically, and especially under the Virginia Maintenance code, the lack of maintenance of a building is a lesser category of violation not rising to the level of an unsafe situation. In the SFPC, there is already a specific provision for unsafe conditions and fire hazards, in Section 110.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CODE CHANGE FORM

Address to submit to: DHCD, The Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.virginia.gov		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: Robby Dawson Representing: Fire Services Board

Address: 1005 Technology Park Drive, Glen Allen, VA 23059 Phone No. 804-717-6838

Regulation Title: SFPC – *REVISED 3/31/2010* Section No(s): 106.6

Proposed Change:
Change Section 106.3 and add Section 110.2 to read:

Section 106.0. Duties and powers of the fire official.

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

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

106.3. Inspections: The fire official is authorized to conduct such inspections as are deemed necessary to determine the extent of compliance with the provisions of this code and to approve reports of inspection by approved agencies or individuals. All reports of such inspections by approved agencies and individuals shall be prepared and submitted in writing for review and approval. Inspection reports shall be certified by a responsible officer of such approved agency or by the responsible individual. The fire official is authorized to engage such expert opinion as deemed necessary to report upon unusual, detailed or complex technical issues in accordance with local policies. If during the inspection of a premises, a building or structure or any building system, in whole or in part, constitutes a clear and distinct threat to human life, safety or health, the fire official shall issue such notice or orders to remove or remedy the conditions in violation of this code as ~~shall be deemed~~ necessary for compliance with the intent of this code.

106.3.1. Observations: When, during an inspection, the fire official or an authorized representative

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

106.4. Alternatives: The SFPC provisions are not intended to prevent the use of any safeguards used to protect life and property from the hazards of fire or explosion that are not specifically prescribed by the SFPC, provided that such alternative safeguards comply with the intent of the SFPC. The alternative safeguard offered shall be, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.
Add new Section 110.2 to read:

110.2 Maintenance of safeguards and matters not provided for. Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, or any other feature or condition is required for compliance with the provisions of this code, or otherwise installed, such device, equipment, system, condition, arrangement, level of protection, or other feature shall thereafter be continuously maintained in accordance with this code and applicable referenced standards. When in the opinion of the fire official, failure to maintain any device, equipment, system, condition, arrangement, level of protection, or any other feature or condition required for compliance with the provisions of this code, that creates conditions that constitute a clear and distinct hazard to building, structures or occupants thereof may be deemed a fire hazard and unsafe within the meaning of this code.

(Renumber subsequent sections.)

Supporting Statement:

The revised wording noted in 106.3 is in response to feedback received at the Work Group Meeting March 25, 2010.

The objective is based upon evolving technology that sometimes results in a situation or circumstance that the code does not readily address. The reasonable application of the code to such hazardous, unforeseen conditions is provided for through this change. Clearly, such a section is needed and the fire code official's experience and judgment must be used. The section, however, does not override requirements that may be preferred when the code provides alternative methods. Additionally, the section can be used to better implement or enforce the code's intention and any general performance-oriented language contained in the code when specificity is absent from the code.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

SFPC – Virginia Statewide Fire Prevention Code
Code Change No. F-106.6

Nature of Change:

To authorize the use of other nationally recognized fire safety standards when public safety concerns exist.

Proponent: Robby Dawson, representing the Virginia Fire Services Board

Staff Comments:

The proposal was not received in time to be considered by the workgroups. The proposed language would authorize the use of standards which are not part of the SFPC. This would essentially extend the scope of the SFPC without the benefit of going through the regulatory process to accept comment on the incorporation of standards for use with the code. Staff would have to check with legal counsel to see if there is statutory authority to add a provision of this nature to the SFPC.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CODE CHANGE FORM

Address to submit to: DHCD, The Jackson Center 501 North Second Street Richmond, VA 23219-1321 Tel. No. (804) 371 – 7150 Fax No. (804) 371 – 7092 Email: bhcd@dhcd.virginia.gov		Document No. _____ Committee Action: _____ BHCD Action: _____

Submitted by: Robby Dawson Representing: Fire Services Board

Address: 1005 Technology Park Drive, Glen Allen, VA 23059 Phone No. 804-717-6838

Regulation Title: SFPC Section No(s): 106.6

Proposed Change:

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

106.1.1 Matters not provided for. When violations create an unsafe condition as defined in section 110 of this code, and those conditions are ~~Requirements, notices and orders that are essential for the public safety of an existing or proposed activity, substances or products, building or structure, or for the safety of the occupants thereof, which are~~ not specifically provided for by this code ~~shall be determined by the fire code official and~~ corrective actions may be based upon other nationally recognized fire safety standards.

Supporting Statement:

The objective for changing Section 106.6 and is based upon evolving technology that sometimes results in a situation or circumstance that the code does not readily address. The reasonable application of the code to such hazardous, unforeseen conditions is provided for in this section. Clearly, such a section is needed and the fire code official's experience and judgment must be used. However, this would not override requirements that may be preferred when the code provides alternative methods. Additionally, the section can be used to better implement or enforce the code's intention and any general performance-oriented language contained in the code when specificity is absent from the code.

Submitted: 12/16/09

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

SFPC – Virginia Statewide Fire Prevention Code
Code Change No. F-107.14

Nature of Change:

To establish a fee for inspections conducted by the State Fire Marshal's Office for state regulated care facilities.

Proponent: Ed Altizer, State Fire Marshal, representing the Virginia State Fire Marshal's Office

Staff Comments:

The proposal was not received in time to be considered by the workgroups. Staff will consult with legal counsel to assure statutory authority exists for this proposal. Currently, state law appears to only provide for fees to be charged by the State Fire Marshal's Office for enforcement activities in areas where there is no local enforcement of the SFPC. This proposal would authorize the State Fire Marshal's Office to charge fees in both areas where there is local enforcement and areas where there is no local enforcement. In addition, staff believes the term "state regulated care facilities" or "SRCF," which is already a defined term in the SFPC, encompasses the facilities listed in the proposal, so either the term SRCF should be deleted, or the list of facilities should be replaced with the term "SRCF."

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: F-107.14

Proponent Information (Check one): ☐ Individual X Government Entity ☐ Company

Name: Ed Altizer Representing: State Fire Marshal's Office

Mailing Address: 1005 Technology Park Drive, Glen Allen, VA 23059

Email Address: ed.altizer@vdfp.virginia.gov Telephone Number: 804-371-7170

Proposal Information

Code(s) and Section(s): SFPC Section 107.14

Proposed Change (including all relevant section numbers, if multiple sections):

Add #'s 5 and 6 to Section 107.14 to read:

107.14 State annual inspection permit fees. Annual fees for inspection permits issued by the State Fire Marshal's Office for the inspection of buildings shall be as follows:

5. Child Day Care Centers, SRCF, Assisted Living Facilities and Adult Day Care Centers licensed by the Virginia Department of Social Services based on licensed capacity.
   - 5.1. $50 for 1 to 8 licensed occupants.
   - 5.2. $75 for 9 to 20 licensed occupants.
   - 5.3. $100 for 21 to 50 licensed occupants.
   - 5.4. $200 for 51 to 100 licensed occupants.
   - 5.5. $400 for 101 or more licensed occupants.

Supporting Statement (including intent, need, and impact of the proposal):

Given its current staffing and fiscal resources, statutory responsibility and direction, the SFMO is no longer able to sustain the present inspection program without supplemental or augmented revenue support.

Workload assignments, SFMO regional boundaries, travel time, administrative time, re-prioritization of what is inspected, inspection frequencies are among some of the aspects the SFMO has examined towards maximizing efficiency given what little resource and staffing remains; all with an eye towards avoiding the implementation of additional permits and fee schedule and still meet its responsibility and direction. Through its most recent review none of the above items, singularly or in combination, have yielded sufficient means or opportunity to avoid the introduction of this code change for additional permits and permit fees and still continue its current service level. Even with the implementation of these permits and fees, the SFMO is not going to be able to increase its current service level or the number of inspections being performed. This change is to help ensure the maintenance of current levels and numbers.

The authority to institute such permits and fees is found in § 27-98 of the Code of Virginia allowing the SFMO to "...charge a fee to recover the actual cost of administering and enforcing of the Code in jurisdictions for which he serves

as the enforcing authority."

As an aside, through a coordinated effort based on statutory directives, these inspections are required by other state agencies such as the Virginia Department of Mental Health and Behavioral Services, formerly known as the Department of Mental Health, Mental Retardation and Substance Abuse Services, and the Virginia Department of Social Services.

While all inspections performed by the SFMO are important and of high priority, these facilities contain some of the Commonwealth's most vulnerable occupants and helps ensures the SFMO continues to be positioned to meet all its statutory responsibilities and direction for ensuring these fire safe facilities continue to exist.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

SFPC – Virginia Statewide Fire Prevention Code
Code Change No. F-506.1

Nature of Change:

To require key boxes to comply with a national standard.

Proponent: Robby Dawson, representing the Virginia Fire Services Board

Staff Comments:

The proposal was not received in time to be considered by the workgroups. This proposal was accepted in the first round of hearings for the 2012 International Fire Code. It is not known whether any public comment or challenges were received at the national level for this change. The proponent did not provide a copy of the new standard in the proposal. In addition, staff notes that operational provisions of the SFPC are retroactive; therefore without some limiting language, if this change were approved, it would apply to all existing key boxes.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: F-506.1

Proponent Information (Check one): ☐ Individual X Government Entity ☐ Company

Name: Robby Dawson Representing: Virginia Fire Services Board

Mailing Address: 1005 Technology Park Drive, Glen Allen, VA 23059

Email Address: dawsonj@chesterfield.gov Telephone Number: 804-717-6838

Proposal Information

Code(s) and Section(s): SFPC Section 506

Proposed Change (including all relevant section numbers, if multiple sections):

Change existing and add new text as follows:

SECTION 506
KEY BOXES

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037 and shall contain keys to gain necessary access as required by the fire code official.

506.1.1 Locks. An approved lock shall be installed on gates or similar barriers when required by the fire code official.

506.1.2 Non-standard fire service elevator keys. Key boxes provided for non-standard fire service elevator keys shall comply with Section 506.1 and items 1 through 6 of this section.

Add new standard to Chapter 47

ANSI/UL 1037 Standard for Antitheft alarms and devices.

Supporting Statement (including intent, need, and impact of the proposal):

This proposal is a companion to a proposal calling for the standardization of fire service elevator keys to provide for rapid access to fire service access elevators and elevators with Phase I or Phase II emergency recall operation. That proposal includes a provision to allow placement of a non-standard fire service elevator key in a key box if there is a practical difficulty in providing a standardized key.

This proposal sets outs standards for the key boxes intended to be used for the elevator key and provides for compatibility with existing rapid entry systems; labeling of the key box; height and location of the key box(s); use of the key box for other items; and an exception to use a key box installed near a fire command center or for other purposes.

The proposal also provides for a level of security for the key box. The fire code currently provides the fire code official with the authority to require a key box within which will be keys that will provide access to secured facilities and/or locations at those facilities. There is an obligation to make sure the key box required by (or approved by) the fire code official is secure to prevent the key box from becoming a security threat.

This proposal addresses this issue of security by requiring an approved key box to be listed in accordance with UL standard 1037, The Standard for Antitheft alarms and devices. The major key box manufacturers have their rapid entry devices listed under this standard.

In preparing this proposal, statewide regulations requiring standardized fire service elevator keys (or Master Elevator Keys) from Florida, Louisiana and New Jersey were reviewed. Since some states and local jurisdictions have already begun to address this issue with the adoption of regulations and other states and jurisdictions are considering this topic it is beneficial to building owners and code officials to have a standard set of requirements contained within the model codes.

This proposed change, designated as F19-09/10, was accepted (modified) by the ICC Fire Code Committee at the recent Code Change hearings held in Baltimore. The Committee vote was 12 to 0 in favor of "As Modified".

Submittal Information

Date Submitted: 12/16/2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

SFPC – Virginia Statewide Fire Prevention Code
Code Change No. F-506.3

Nature of Change:

To require elevator fire service keys to be standardized.

Proponent: Robby Dawson, representing the Virginia Fire Services Board

Staff Comments:

The proposal was not received in time to be considered by the workgroups. This proposal was accepted in the first round of hearings for the 2012 International Fire Code. It is not known whether any public comment or challenges were received at the national level for this change. It should be noted that operational provisions of the SFPC are retroactive; therefore without some limiting language, if this change were approved, it would apply to all existing elevator keys.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: _____

Proponent Information (Check one): ☐ Individual X Government Entity ☐ Company

Name: Robby Dawson Representing: Virginia Fire Services Board

Mailing Address: 1005 Technology Park Drive, Glen Allen, VA 23059

Email Address: dawsonj@chesterfield.gov Telephone Number: 804-717-6838

Proposal Information

Code(s) and Section(s): New SFPC Section 506.3 and New USBC Section 3003.2.1

Proposed Change (including all relevant section numbers, if multiple sections):

Add Section 506.3 to read

SECTION 506
KEY BOXES AND ELEVATOR FIRE SERVICE KEYS

506.3 Standardized fire service elevator keys. All buildings with elevators equipped with Phase I Emergency Recall, Phase II emergency in-car operation, or a Fire Service Access or an Occupant Evacuation Elevator shall be equipped to operate with a standardized fire service key approved by the fire code official.

Exception: Where ~~there is a practical difficulty to~~ providing a standardized key is not possible due to the existing non standard elevator equipment, the owner shall place the building's non-standardized fire service elevator keys in a key box installed in accordance with Section 506.1.

506.3.1 Requirements for Standardized fire service keys.

1. All fire service elevator keys within the jurisdiction shall be uniform and specific for the jurisdiction. Keys shall be cut to a uniform key code.
2. Fire service elevator keys shall be a patent protected design to prevent unauthorized duplication.
3. Fire service elevator keys shall be factory restricted by the manufacturer to prevent the unauthorized distribution of key blanks. No uncut key blanks shall be permitted to leave the factory
4. Fire service elevator keys subject to these rules shall be engraved with "DO NOT DUPLICATE".

506.3.2 Access to standardized fire service keys. Access to standardized fire service elevator keys shall be restricted to the following:

1. Elevator owners or their authorized agents;
2. Elevator contractors.
3. Elevator Inspectors of the jurisdiction.
4. Fire code officials of the jurisdiction.
5. The fire department and other emergency response agencies designated by the fire code official.

506.3.3 Duplication or distribution of keys. No person may duplicate a standardized fire service elevator key or issue, give, or sell a duplicated key unless in accordance with this code.

506.3.4 Responsibility to provide keys. The building owner shall provide up to three (3) standardized fire service keys if required by the fire code official, upon installation of a standardized fire service key switch or switches in the building.

Add new USBC text as follows:

3003.2.1 Standardized fire service keys. Where a key is required to operate the emergency function of an elevator, the key shall be a standardized fire service key in accordance with the Statewide Fire Prevention Code.

Supporting Statement (including intent, need, and impact of the proposal):

When fire departments and other public agencies respond to emergencies the ability to quickly access the location of the emergency can be the deciding factor of a successful response. Elevators are increasingly being relied upon for emergency operations and their importance has been highlight by recent additions to the International Building Code requiring the installation of fire service access elevators and providing requirements for the installation of occupant evacuation elevators.

One of the difficulties the fire service and other emergency response agencies have when accessing facilities and attempting to use elevators is the increasing number of non-standardized keys which may not be available at the time of response. Even when emergency responders are provided the necessary keys in case of response, the correct key may have to be identified from a large collection of keys for any one building. In larger jurisdictions the shear number of keys makes the possession of the keys unwieldy for the emergency responders.

The purpose first part of this proposal is to provide for a standardized fire service elevator key to reduce the number of keys necessary for accessing elevators in an emergency. As drafted this section will only apply to those buildings that have elevators with Phase I or Phase II emergency service or to those buildings with a fire service access elevator.

The proposal also provides for a level of security for the standardized key. Access to the key that can take control of an elevator is an existing area of vulnerability for buildings and one that was not addressed in the past with simple key designs being utilized. Since this proposal will create a standardized key, it also includes rules for the safeguarding of that key.

The second part in adding language to the USBC included and intended to simply place a pointer in the USBC should the first part is approved.

In preparing this proposal, statewide regulations requiring standardized fire service elevator keys (or Master Elevator Keys) from Florida, Louisiana and New Jersey were reviewed. Since some states and local jurisdictions have already begun to address this issue with the adoption of regulations and other states and jurisdictions are considering this topic it is beneficial to building owners and code officials to have a standard set of requirements contained within the model codes.

This proposed change, designated as F20-09/10, was accepted by the ICC Fire Code Committee at the recent Code Change hearings held in Baltimore. The Committee vote was 13 to 0 in favor of "As Submitted".

Submittal Information

Date Submitted: 12/16/2009

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

SFPC – Virginia Statewide Fire Prevention Code
Code Change No. F-2209.2.1

Nature of Change:

To update to new requirements for hydrogen dispensing and generating operations.

Proponent: Robby Dawson, representing the Virginia Fire Services Board

Staff Comments:

The proposal was not received in time to be considered by the workgroups. The proponent states that the proposal was approved in the first round of hearings at ICC for the 2012 IFC. The supporting statement also indicates that a companion proposal is necessary to Chapter 35 of the IFC. It is unknown whether this action will be challenged at the national level and the Chapter 35 modifications appear to be missing from the proposal. Staff would suggest that it may be premature to consider this proposal for the 2009 SFPC.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: F - 2209.2.1

Proponent Information (Check one): ☐ Individual X Government Entity ☐ Company

Name: Robby Dawson Representing: Virginia Fire Services Board

Mailing Address: 1005 Technology Park Drive, Glen Allen, VA 23059

Email Address: dawsonj@chesterfield.gov Telephone Number: 804-717-6838

Proposal Information

Code(s) and Section(s): SFPC Chapter 22

Proposed Change (including all relevant section numbers, if multiple sections):

Revise 2209.2.1 as follows:

2209.2.1 Approved equipment. Cylinders, containers and tanks; pressure relief devices, including pressure valves; hydrogen vaporizers; pressure regulators; and piping used for gaseous hydrogen systems shall be designed and constructed in accordance with ~~Section 3003, 3203 or NFPA 55~~ Chapters 30, 32 and 35.

Revise 2209.3 as follows:

2209.3 Location on property. In addition to the requirements of Section 2203.1, ~~Generation, compression, storage and~~ dispensing equipment shall be located in accordance with Sections 2209.3.1 through Section 2209.3.3.

Delete the following sections:

~~**2209.3.1 Separation from outdoor exposure hazards.**~~
~~**Table 2209.3.1 MINIMUM SEPARATION FOR GASEOUS HYDROGEN DISPENSERS, COMPRESSORS, GENERATORS AND STORAGE VESSELS**~~
~~**2209.3.1.1 Barrier wall construction gaseous hydrogen.**~~
~~**2209.3.1.2 Location of equipment.**~~

Add new 2209.3.1 text:

2209.3.1 Location of dispensing devices. Dispensing devices shall be located above ground. In addition to the requirements of Section 2203.1, dispensing shall be located in accordance with the following:

1. Ten feet (3048 mm) or more from the nearest public street or sidewalk.
2. Ten feet (3048 mm) from the nearest rail of any railroad main track.
3. Dispensing equipment shall be allowed under weather protection in accordance with the requirements of Section 2704.13 and constructed in a manner that prevents the accumulation of hydrogen gas.

Revise 2209.3.2 and 2209.3.2.1 text as follows:

2209.3.2 Location of ~~dispensing~~ operations and equipment. Generation, compression, storage and dispensing equipment shall be located in accordance with Sections 2209.3.2.1 through 2209.3.2.6.3.

2209.3.2.1 Outdoors. Generation, compression, or storage ~~or dispensing~~ equipment shall be allowed outdoors in accordance with ~~Section 2209.3.1~~ Chapter 35.

Delete section:

~~2209.3.2.2 Weather protection.~~
(Renumber remaining sections 2029.3.2.3 through 2209.3.2.5)

Delete the following sections:

~~2209.3.2.5.1 Location on property.~~
~~2209.3.2.5.1.1 Barrier wall construction–liquefied hydrogen.~~
~~2209.3.2.5.1.2 Location of equipment.~~

Delete the following sections:

~~2209.5.4 Venting of hydrogen systems.~~
~~2209.5.4.1 Location of discharge.~~
~~2209.5.4.2 Pressure relief devices.~~
~~2209.5.4.2.1 Minimum rate of discharge.~~
~~2209.5.4.3 Vent pipe.~~
~~2209.5.4.3.1 Materials of construction.~~
~~2209.5.4.3.2 Structural support.~~
~~2209.5.4.3.3Obstructions.~~
~~2209.5.4.3.4 Height of vent and separation.~~
~~TABLE 2209.5.4.3.4~~
~~FIGURE 2209.5.4.3.4~~
~~2209.5.4.3.5 Maximum flow rate.~~
~~2209.5.4.3.6 Alternative venting systems.~~
~~TABLE 2209.5.4.3.6(1)~~
~~TABLE 2209.5.4.3.6(2)~~

Supporting Statement (including intent, need, and impact of the proposal):

This proposal is intended to provide correlation with changes to Chapter 35 contained within a separate proposal that will update references to NFPA 55 to apply updated separation distances tables added to that standard. When the separation distances were added to Chapter 22 the proponents at the ICC level of code development indicated in the written reason and testimony that the distances provided were the best that could be developed at that time and that once better distances were determined through research and analysis the fire code would be updated. This proposal will assist in fulfilling that intent.

Section 2209 addresses issues specific to dispensing operations.

The change to 2209.2.1 eliminates an incorrect "or" phrase in applicability and replaces the language with references

to the relevant chapters to correlate with references to each of the chapters found in the remaining portions of 2209.

Deleting the struck text from Section 2209.3 and 2209.5.4 clarifies applicability of Section 2209.

Replacing the current section 2209.3.1 with the proposed text clarifies that the separation required is from the dispensing equipment and not from the storage system. The storage system separation distances are addressed in Chapter 35. The weather protection for equipment found at Section 2209.3.2.2 has been added to the new 2209.3.1 language for the dispenser.

Deleting Table 2209.3.1 and replacing it with the text proposed for 2209.3.1 correlates the fire code with NFPA 52 Table 9.3.1.4 in the 2010 edition per approved ROP-81. The two separation distances listed in the proposed text for 2209.3.1 are the only ones that need to be added to the requirements of 2203.1 in order to achieve correlation with NFPA 52 Table 9.3.1.4 (2010 edition per ROP-81). See below for an image of the draft NFPA 52 Table 9.3.1.4 for convenience. The 1st row in table establishes a separation distance requirement between dispensing equipment and buildings. This NFPA 52 requirement corresponds to the existing text in Section 2203.1. The next two items are not currently in the fire code and are added to 2209.3.1 by this proposal.

The remaining deletions are of language that is no longer required due to the application of modifications to Chapter 35 of the fire code and the updated reference to NFPA 55.

The change at 2209.3.2.5 is a terminology correlation that has already been made to Chapter 32,

Approval of this proposal will simplify the application of the SFPC to the outdoor storage of hydrogen and continue the efforts of providing improved levels of safety in the application of new hydrogen technology and hydrogen as an alternative fuel.

This proposed change, designated as F174-09/10, was accepted (modified) by the ICC Fire Code Committee at the recent Code Change hearings held in Baltimore. The Committee vote was 12 to 0 in favor of "As Modified".

Table 9.3.1.4 Separation Distances for Outdoor Gaseous Hydrogen Dispensing Systems [ROP-81]

System Component	Exposure	Required Separation ft	Required Separation m
Dispensing equipment	Nearest important building or line of adjoining property that can be built upon or from any source of ignition	10	3.1
Dispensing Equipment	Nearest public street or public sidewalk	10	3.1
Dispensing equipment	Nearest rail of any railroad main track	10	15.2
Point of transfer	Any important building other than buildings of Type I or Type II construction with exterior walls having a fire resistance rating of not less than not less than 2 hours	10	3.1
Point of transfer	Buildings of Type I or II construction with exterior walls having a fire resistance rating of not less than 2 hours or walls constructed of concrete or masonry or of other material having a fire resistance rating of not less than 2 hours	No limit	
Point of transfer	Storage containers	3	1.0

Addressed by IFC 2203.1.

Added correlation text to IFC 2209.3.1

[[ROP

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

SFPC – Virginia Statewide Fire Prevention Code
Code Change No. F-3301.2.2

Nature of Change:

To specifically prohibit the sale of permissible fireworks on sidewalks, public property or in assembly or educational buildings.

Proponent: Robby Dawson, representing the Virginia Fire Services Board

Staff Comments:

The proposal was not received in time to be considered by the workgroups. Staff will need to consult with legal counsel concerning this proposal as state law currently states that the SFPC does not apply to the sale of permissible fireworks or the use of permissible fireworks on private property with the consent of the owner. There has been some debate over whether the "sale" provision in the law also applies to private property with the consent of the owner, but an opinion of the Attorney General under the former law indicated that it did not. When the law was moved to the SFPC area of state law, there was no indication that there was any intent to change or limit the wording concerning the sale of permissible fireworks or to tie it into the use provision.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: F- 3301.2.2

Proponent Information (Check one): ☐ Individual X Government Entity ☐ Company

Name: Robby Dawson Representing: Virginia Fire Services Board

Mailing Address: 1005 Technology Park Drive, Glen Allen, VA 23059

Email Address: dawsonj@chesterfield.gov Telephone Number: 804-717-6838

Proposal Information

Code(s) and Section(s): SFPC Section 3301.2.2

Proposed Change (including all relevant section numbers, if multiple sections):

3301.2.2 Sale and retail display. Except for the Armed Forces of the United States, Coast Guard, National Guard, federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities, explosives shall not be sold, given, delivered, or transferred to any person or company not in possession of a valid permit. The holder of a permit to sell explosives shall make a record of all transactions involving explosives in conformance with Section 3303.2 and include the signature of any receiver of the explosives. No person shall construct a retail display nor offer for sale explosives, explosive materials, permissible fireworks, or fireworks upon highways, sidewalks, public property, or in assembly or educational occupancies.

Supporting Statement (including intent, need, and impact of the proposal):

This is to correct an un-intended omission that has occurred over the years and is based on the model code provisions. Where allowed, a negative impact is not expected and no changes will occur for present and future vendors of permissible fireworks. It simply formalizes where retail sales are already occurring, which is typically in a parking lot of a department store or from roadside stands. It's not been offered or identified where permissible fireworks are being sold from schools, from stands located on land of the local library or government complex. This change will preclude that from happening.

Submittal Information

Date Submitted:

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

SFPC – Virginia Statewide Fire Prevention Code
Code Change No. F-3301.2.3.1

Nature of Change:

To establish standards for the certification of fireworks display personnel by the State Fire Marshal's Office

Proponent: Ed Altizer, State Fire Marshal, representing the Virginia State Fire Marshal's Office

Staff Comments:

The proposal was not received in time to be considered by the workgroups. At the current time, there is no statutory authority for implementing this proposal. However, there is pending legislation before the 2010 General Assembly to authorize it. Should the legislation pass and become effective, this proposal could be considered. If the law is not effective in time for the final regulations for the 2009 SFPC, a interim code change cycle could be initiated to implement the proposal before the 2012 code change cycle begins.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number:_____

Proponent Information (Check one): ☐ Individual X Government Entity ☐ Company

Name: Ed Altizer Representing: State Fire Marshal's Office

Mailing Address: 1005 Technology Park Drive, Glen Allen, VA 23059

Email Address: Telephone Number: 804-371-0220

Proposal Information

Code(s) and Section(s): SFPC Chapter 33 **SUBSTITUTE V2_1**

Proposed Change (including all relevant section numbers, if multiple sections):

Change Section 107.2 to read:

107.2 Permits required: Permits may be required by the fire official as permitted under the SFPC in accordance with Table 107.2, except that the fire official shall require permits for the manufacturing, storage, handling, use, and sale of explosives. In accordance with Section 3301.2.3.1, an application for a permit to manufacture, store, handle, use, or sell explosives shall only be made by ~~an individual certified as a blaster in accordance with Section 3301.4, or by a person who has been issued a background clearance card in accordance with Section 3301.2.3.1~~*a designated individual*.

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

Add the following definitions to Section 202 of the SFPC to read:

"Designated Individual". See Section 3302.1.

"Pyrotechnician" (Firework Operator). See Section 3302.1.
"Pyrotechnician, Aerial". See Section 3302.1.
"Pyrotechnician, Proximate". See Section 3302.1.

"Responsible management". See Section 3302.1.

"Sole proprietor". See Section 3302.1.

Change Sections 3301.2.3.1 and 3301.2.3.1.1 to read:

3301.2.3.1 Permit applicants. ~~The~~As a condition of permit as provided for in Section 107.5 of the SFPC, the fire official shall not issue a permit to manufacture, store, handle, use or sell explosives or blasting agents to any

~~individual~~ applicant who has not provided on the permit application the name and signature of a *designated individual* as representing the applicant~~is not certified by the SFMO as a blaster in accordance with Sections 3301.4.1, or who is not in the possession of a Background Clearance Card or to designated persons representing an applicant that is not an individual and who is not in possession of a Background Clearance Card issued in accordance with Section 3301.2.3.1.1~~. When, as provided for in Section 107.2 or 107.6, a permit is required to conduct a fireworks display, as a condition of permit as provided for in Section 107.5, the fire official shall not issue a permit to *design*, setup or conduct a fireworks display to any applicant who has not provided on the permit application the name and signature of a *designated individual* as representing the applicant.

If the applicant's *designated individual* changes or becomes no longer qualified to represent the applicant as *responsible management* or *designated individual*, the applicant shall notify the fire official who issued the permit on the change of status of the *designated individual*. The notice is to be made prior to the use of any explosives or conducting a fireworks display but in no case shall the notification occur more than seven (7) days after the change of status and shall provide the name of another *designated individual*. The fire official may revoke or require the re-issuance of a permit based on a change of permit conditions or status or inability to provide another *designated individual*.

~~The SFMO shall process all applications for a Background Clearance Card for compliance with § 27-97.2 of the Code of Virginia and will be the sole provider of Background Clearance Cards.~~

3301.2.3.1.1 Background Clearance Card: The SFMO shall process all applications for a *Background Clearance Card* (BCC) for compliance with § 27-97.2 of the Code of Virginia and will be the sole provider of a *Background Clearance Card*. Using forms provided by the SFMO, ~~A~~a ~~Background Clearance Card~~BCC may be applied for and issued ~~upon completion of the following requirements:~~ to any person who submits to the completion of a background investigation by providing fingerprints and personal descriptive information to the SFMO. The SFMO shall forward the fingerprints and personal descriptive information to the Central Criminal Records Exchange for submission to the Federal Bureau of Investigation for the purpose of obtaining a national criminal history records check regarding such applicant.

~~1. Any firm or company manufacturing, storing, using or selling explosives in the Commonwealth shall provide the name of a designated person or persons who will be a representative of the company and be responsible for (i) ensuring compliance with state law and regulations relating to blasting agents and explosives and (ii) applying for permits from the fire official.~~

~~2. Using a form provided by the SFMO, all individual applicants and all designated persons representing an applicant that is not an individual, shall submit to a background investigation, to include a national criminal history record check, for a permit to manufacture, store, handle, use or sell explosives, and for any applicant for certification as a blaster.~~

~~3. Each such applicant shall submit fingerprints and provide personal descriptive information to the SFMO to be forwarded through the Central Criminal Records Exchange to the Federal Bureau of Investigation for the purpose of obtaining a national criminal history record check regarding such applicant.~~

Change Section 3301.2.4.2 to read:

3301.2.4.2 Fireworks display. The permit holder shall furnish a bond or certificate of insurance in an amount deemed adequate by the legal department of the jurisdiction for the payment of all potential damages to a person or persons or to property by reason of the permitted display, and arising from any acts of the permit holder, the agent, employees or subcontractors but in no case shall the value of the coverage be less than $500,000.

Change Section 3301.4.1 through 3301.4.5 to read:

3301.4.1 Certification of blasters and Pyrotechnicians. Certificates as a *Restricted Blaster*, ~~or~~ *Unrestricted Blaster*, or *Pyrotechnician* will be issued upon proof of successful completion of an examination approved by the SFMO commensurate to the certification sought and completion of a background investigation for compliance with § 27-97.2 of the Code of Virginia. The applicant for certification shall submit proof to the SFMO of the following

experience:

1. For certification as a *Restricted Blaster*, at least one year under direct supervision by a certified *unrestricted blaster*, certified *restricted blaster* or other person(s) approved by the SFMO.
2. For certification as an *Unrestricted Blaster*, at least one year under direct supervision by a certified *unrestricted blaster* or other person(s) approved by the SFMO.
3. For certification as a *Pyrotechnician, Aerial,* or *Pyrotechnician, Proximate,* applicant was in responsible charge of, or has assisted in the documented *design*, setup and conducting of a fireworks display on at least 6 occasions within the 24 months immediately preceding the application for certification.

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

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

3301.4.2 Certification issuance. The issuance of a certification as a *blaster* or *pyrotechnician* shall be denied if the applicant has been convicted of any felony, whether such conviction occurred under the laws of the Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof, unless his civil rights have been restored by the Governor or other appropriate authority, or has not provided acceptable proof or evidence of the experience required in Section 3301.4.1, or has not provided acceptable proof or evidence of the continued training or education required in Section 3301.4.5.

3301.4.3 Fee for certification. The fee for obtaining or renewing a *blaster* or *pyrotechnician* certificate from the SFMO shall be $150 plus any additional fees charged by other agencies for fingerprinting and for obtaining a national criminal history record check through the Central Criminal Records Exchange to the Federal Bureau of Investigation.

3301.4.4 Revocation of a *blaster* or *pyrotechnician* certification. After issuance of a *blaster* or *pyrotechnician* certification, subsequent conviction of a felony will be grounds for immediate revocation of a *blaster* or *pyrotechnician* certification, whether such conviction occurred under the laws of the Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof. The certification card shall be returned to the SFMO immediately. An individual may subsequently reapply for his *blaster* or *pyrotechnician* certification if his civil rights have been restored by the Governor or other appropriate authority.

3301.4.5 Expiration and renewal of a *background clearance card, blaster* or *pyrotechnician* certification. A certificate for an *unrestricted blaster* or *restricted blaster*, or *pyrotechnician,* shall be valid for three years from the date of issuance. A *background clearance card* shall be valid for three years from the date of issuance. Renewal of the *unrestricted blaster* certificate will be issued upon proof of at least 16 accumulated hours of continued training or education in the use of explosives within three consecutive years and a background investigation for compliance with §27-97.2 of the Code of Virginia. Renewal of the *restricted blaster* certificate will be issued upon proof of at least ~~eight~~8 accumulated hours of continued training or education in the use of explosives within three consecutive years and a background investigation for compliance with §27-97.2 of the Code of Virginia. Renewal of the *pyrotechnician* certificate will be issued upon proof of at least 12 accumulated hours of continued training or education in the subject areas of explosives storage, the *design*, setup, or conduct of a fireworks display within three consecutive years and a background investigation for compliance with §27-97.2 of the Code of Virginia. The continued training or education required for renewal of a *blaster* or *pyrotechnician* certificate shall be obtained during the three years immediately prior to the certificate's published expiration date. Failure to renew a *blaster* or *pyrotechnician* certificate in accordance with this section shall cause an individual to obtain another ~~blaster~~ certificate upon compliance with Section 3301.4.1 to continue engaging in the unsupervised use of explosives or conducting fireworks displays.

SECTION 3302
DEFINITIONS

3302.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this

code, have the meanings shown herein.

Change the following definitions in Section 3302.1 to read:

Background Clearance Card. An identification card issued to an individual that is not a certified blaster or pyrotechnician and is ~~representing himself or acting as a representative~~*responsible management* or an employee of a company, corporation, firm or other entity, solely for the purpose of submitting an application to the fire official for a permit to manufacture, use, handle, store, or sell explosive materials, or conduct a fireworks display. A person to whom a Background Clearance Card has been issued can fulfill the role of a *designated individual* on an application for permit to manufacture, use, handle, store, or sell explosive materials, or on an application for permit to *design*, setup and conduct a fireworks display.

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

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

Add the following definitions to Section 3302.1:

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

"Designated Individual". A person in possession of a *Background Clearance Card* (BCC) issued by the SFMO, or is certified by the SFMO as a *Pyrotechnician*, or is a *Restricted* or *Unrestricted Blaster*, any of whom are responsible for (i) ensuring compliance with state law and regulations relating to blasting agents and explosives, (ii) applying for explosives or firework permits, (iii) is at least 21 years of age, and (iv) shall demonstrate the capability to effectively communicate safety messages verbally and in writing in the English language.

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

"Pyrotechnician, Aerial" means a person supervising or engaged in the *design*, setup or conducting of a outdoor aerial fireworks display performed in accordance with the regulations as set forth in the SFPC and NFPA 1123, a reference standard for "Fireworks Display".

"Pyrotechnician, Proximate" means a person supervising or engaged in the *design*, setup or conducting of a fireworks display, either inside a building or outdoors, performed in accordance with the regulations as set forth in the SFPC and NFPA 1126, a reference standard for the "Use of Pyrotechnics Before a Proximate Audience".

"Responsible management". A person who is:

1. The *sole proprietor* of a sole proprietorship;
2. The partners of a general partnership;
3. The managing partners of a limited partnership;
4. The officers of a corporation;

5. The managers of a limited liability company;
6. The officers or directors of an association or both; and
7. Individuals in other business entities recognized under the laws of the Commonwealth as having a fiduciary responsibility to the firm.

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

SECTION 3308
FIREWORKS DISPLAY

3308.2 Permit application. Prior to issuing permits for fireworks display, plans for the display, inspections of the display site, and demonstrations of the display operations shall be approved. A plan establishing procedures to follow and actions to be taken in the event that a shell fails to ignite in, or discharge from, a mortar or fails to function over the fallout area or other malfunctions shall be provided to the fire code official.

~~In localities that do not have a local fire official appointed in accordance with Section 105.1.1 of the SFPC, only *pyrotechnicians* certified by the SFMO shall be allowed to design, setup and conduct a fireworks display within the counties, cities and towns that have the authority to issue permits as provided for in § 15.2-974 of the Code of Virginia for the display of fireworks by fair associations, amusement parks, or by any organization or group of individuals. Such permit shall be under the minimum terms and conditions set forth in this code and any additional terms and conditions as may be prescribed by the locality. Any association, organization, or group that has been issued such permit may purchase and make use of fireworks under the terms and conditions of the permit.~~

In addition to the requirements of Section 3301.2.3.1, a permit to conduct a fireworks display shall not be issued to any applicant without the applicant identifying on the application the *pyrotechnician* who will be in responsible charge of the fireworks display and who is appropriately certified as a *pyrotechnician* in accordance with Section 3301.4.1.

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

3308.3 Approved fireworks displays. *Approved* fireworks displays shall include only the *approved* fireworks 1.3G, fireworks 1.4G, fireworks 1.4S and pyrotechnic articles~~,~~ 1.4G~~, which shall be handled by an *approved*, competent operator~~. The *design*, setup, conducting or direct on-site supervision of the *design*, setup and conducting of any fireworks display, either inside a building or outdoors, shall be performed only by persons properly certified by the SFMO in accordance with Section 3301.4.1 as a *pyrotechnician* (firework operator)~~,~~ or shall be supervised on-site by a person properly certified by the SFMO as a *pyrotechnician*. The *approved* fireworks shall be arranged, located, discharged and fired in a manner that will not pose a hazard to property or endanger any person.

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

Supporting Statement (including intent, need, and impact of the proposal):

There are multiple objectives to this proposal.

Recent legislation provides that the SFMO is to certify pyrotechnicians or fireworks operators. To accomplish this, the SFMO is employing a program that parallels that which is used to certify blasters. It's a combination of documented or

confirmed experience and examination. In the near future, the SFMO will undergo the development of a minimum competency exam for the demonstration of the knowledge needed to design, setup and conduct a fireworks display. Also, like with Blasters, a criminal history records check will be incorporated into the certification process.

For this first objective, the definition of "pyrotechnician" is proposed for Section 3302.1; a proof of experience component inserted in Section 3301.4.1 (new item #3); a continuing education requirement is inserted in Section 3301.4.5 for the renewal of a certification; a statement that only certified persons may operate or supervise the design, setup or conduct firework displays is proposed for Section 3308.3 along with an exception for permissible fireworks.

In those localities that have authority as provided for in § 15.2-974 of the Code of Virginia to issue permits (see change to Section 3308.2), the SFMO will seek to coordinate the distribution of the information through VACO and VML that pyrotechnician certification will be a statewide minimum requirement.

Another objective is to clearly establish a conditional link between the entity that seeks and receives a permit for explosives or fireworks display, and the person that represents that entity.

The catalyst for this change is a criminal case that recently went to trial. For that case, the individual who made application was acting as sole proprietor in a small scale explosive manufacturing operation and had been charged with a felonious act. Under the current regulations, if this individual were to be convicted of the felony for which he's charged (He has since been convicted of the felony.), under Section 3301.2.3.1.4 for a Background Clearance Card, or Section 3301.4.4 for a Blaster or Pyrotechnician Certification, the card provided allowing them to apply for permit is to be revoked and they're to return the card to the SFMO immediately. But what happens to the permit that was issued? Unless there is some clear link between the individual who made application and the continued validity of the permit, there's no clear basis to revoke or suspend the permit and this change is to provide that clear, enforceable link. There have been other infrequent situations of a similar nature that could have raised this prospect before but this more recent case is more intense and has raised the question and need to a greater level of concern and importance.

When reading § 27-97.2 of the Code of Virginia, as it appears in the recently legislatively amended version, it appears the SFPC in its current form is not fully compliant with the intent of the statutory directive. To paraphrase that COV section, the applicant is to provide to the enforcing agency the name of a representative responsible for applying for permits, and if the "designated person" has become convicted of a felony, the issuing authority is to deny an application for permit. The question is raised again as to what happens to the permit that may have been issued prior to the conviction. This same COV section states this representative is to ensure "compliance with state law and regulations relating to blasting agents and explosives" and "applying for permits". If that representative is no longer qualified to provide that assurance or apply for permits, the permit should be revoked unless another qualified individual can be named.

The change links fireworks and pyrotechnicians in the same manner as explosives and blasters since, by definition, fireworks are explosives.

This part of the change for "designated individual" is modeled after the existing regulations promulgated by the Department of Professional and Occupational Regulation, Board for Contractors who've incorporated a similar linkage to contractor licensing.

The change to Section 107.2 also eliminates an error in referencing Section 3301.4 when in actuality the reference should have been to Section 3301.4.1. This change as proposed renders that error moot.

The bond or insurance requirement of Section 3301.2.4.2 brings the firework permit holder inline with the same requirements as blasting operations; the pyrotechnician certification fee in Section 3301.4.2 equals that of Blasters since the process is essentially the same SFMO administrative path; the proposed language in Section 3301.4.2 for denying of a certification based on the lack of educational requirement codifies what has been in practice for the past 15+ years for

blasters and apply it also to pyrotechnicians.

The word change from "possess" to "demonstrate" within Section 3301.4 is to revert to model code language. The examination to certify pyrotechnicians allows this change since the successful completion of the exam is the knowledge demonstration *"of all safety precautions related to the storage, handling or use of explosives, explosives materials or fireworks."*

Certain aspects have been kept in mind when developing these proposed changes. Typically, for a blasting operation, explosive shots are not intended to attract public attention. When using explosives such as dynamite, aerial explosives, and other high and low explosives (Division 1.1 through 1.6) in construction projects, the Statewide Fire Prevention Code sets out regulations to protect life and property from the effects of using such explosives. That's been enhanced by ensuring that only minimally qualified (certified) persons design and execute these explosive shots.

As it relates to firework displays and the use of Division 1.3 and 1.4 explosives, the fireworks are intended to attract public attendance. And because most firework shows are conducted in proximity to the spectators or audience, they're also deserving of the same consideration of having only knowledgeable and competent pyrotechnicians involved in the design, setup and conducting a fireworks display.

By tying the designated individual and the certified blaster and/or pyrotechnician to the permit(s) provides an accumulative assurance that only knowledgeable persons are involved in the manufacture, storage, sale, and use of explosives and fireworks and the activities for which those permits were applied for and issued. With that, it's projected there's a zero monetary impact other than what it may cost to send an email or written letter via USPS. It's not seen as adding any additional cost to applying for permits, or adding any additional regulatory layers in the form of new requirements. The same people who apply or may apply for permits will be the same people who can act as designated individuals. There are no additional costs above the known costs normally associated with obtaining a BCC or certification.

The only group that could be negatively impacted, if it can be looked upon as a negative, are the fire officials. Based on a February 22nd email survey of a geographically diverse group of fire officials, the concept was put before them with questions on how this could affect their operations and what kind of changes would it cause. There were NO negative comments on the concept. While a couple fire officials did say that it would cause them to modify their local applications or procedures somewhat, those modifications would be minor in nature. At the same time they stated that this is a needed and desirable change and that "we" need to move in this direction.

Submittal Information

Date Submitted: _____

The proposal may be submitted by email as an attachment, by fax, by mail, or by hand delivery.

Please submit the proposal to:

DHCD DBFR TASO (Technical Assistance and Services Office)
The Jackson Center
501 N. 2nd Street
Richmond, VA 23219-1321

Email Address: taso@dhcd.virginia.gov
Fax Number: (804) 371-7092
Phone Numbers: (804) 371-7140 or (804) 371-7150

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

2009 Code Change Cycle – Code Change Evaluation Form

SFPC – Virginia Statewide Fire Prevention Code
Code Change No. F-3308.4

Nature of Change:

To specify distances away from spectators for fireworks displays.

Proponent: Robby Dawson, representing the Virginia Fire Services Board

Staff Comments:

The proposal was not received in time to be considered by the workgroups; however, the proposal has been vetted with the fire service representatives and fireworks operators and was submitted at the end of the 2006 code change cycle to be carried over to this cycle and appears to be a consensus proposal.

Codes and Standards Committee Action:

_____ Approve as presented. _____ Disapprove.

_____ Approve as modified (specify):

_____ Carry over to next cycle. _____ Other (specify):

VIRGINIA DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
DIVISION OF BUILDING AND FIRE REGULATION

Code Change Form for the 2009 Code Change Cycle

Code Change Number: F-3308.4

Proponent Information (Check one): ☐ Individual X Government Entity ☐ Company

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Proposal Information

Code(s) and Section(s): SFPC Section 3308.4

Proposed Change (including all relevant section numbers, if multiple sections):

Change Section 3308.4 to read:

3308.4 Clearance. Spectators, spectator parking areas, and dwellings, buildings or structures shall not be located within the display site. The site for the outdoor land or water display shall have at least 100-ft/in. (31-m/2.5 mm) radius of internal mortar diameter of the largest shell to be fired as shown in Table 3308.4.

Table 3308.4 Distances for Outdoor Fireworks Display Sites: Minimum Separation Distances from Mortars to Spectators for Land or Water Displays

Mortar Size[1]		Minimum Secured Diameter of Site		Vertical Mortars[2]		Angled Mortars[3] 1/3 offset		Mortars to Special Hazards[4]	
in.	mm	ft	m	ft	m	ft	m	ft	m
<3	<76	300	92	150	46	100	31	300	92
3	76	600	183	300	92	200	61	600	183
4	102	800	244	400	122	266	81	800	244
5	127	1000	305	500	152	334	102	1000	305
6	152	1200	366	600	183	400	122	1200	366
7	178	1400	427	700	213	467	142	1400	427
8	203	1600	488	800	244	534	163	1600	488
10	254	2000	610	1000	305	667	203	2000	610
12	305	2400	732	1200	366	800	244	2400	732
>12	Requires the approval of the fire official.								

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

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

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

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

Exceptions:

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

Supporting Statement (including intent, need, and impact of the proposal):

This change was originally submitted by a Virginia based, professional fireworks display vendor for inclusion in the '06 editions of the SFPC. The original submission was declared to late in arriving for inclusion in the '06 code adoption cycle. Regardless, at the time broad based support was realized within Virginia's Fire Service and is reflective of what many localities require or encourage as a matter of routine. Therefore it's found to be valuable enough for submission again but with some additional quasi-technical justification.

Firework displays are fired from elevated sites and/or from intentionally angled mortars. Aside from that, there are other ballistic factors to be considered. These additional considerations are not necessarily addressed in the field. Reliance is placed upon the minimum table of distances in the referenced standard, NFPA 1123 which do not necessarily accommodate the added ballistic factors. These factors include shell shape (spherical or cylindrical), shell mass or weight, air density, humidity, temperature, altitude, etc.

To expand on how some of these factors, singularly or in combination, may affect performance for the given minimum required distances contained in the standard, the following are offered:

1. High humidity and low altitude (at the beach) seems to prevent a shell from reaching its full desired height above the mortar tube while at a mountain ski resort experiencing less humidity, the shell obtains a greater height above the mortar tube. Conversely, a shell fired at low altitude and low humidity may obtain the same height above the mortar tube as the shell fired at high altitude and high humidity.
2. A cylindrical shell will not fly the same way as a spherical shell. The cylindrical shell is more apt to tumble or fly crooked. A spherical shell has a lower drag coefficient and therefore has a greater range than do cylindrical shells of the same mass and weight. For purposes of the required minimum distance, if the cylindrical shells are viewed as the lowest common denominator, and 90% of the shells fired are spherical, then it stands to reason the current minimum distance requirement may not be adequate for the greater range of the spherical shells.
3. Given an equal amount of propellant, a light weight 3-inch shell may obtain a greater height above the mortar tube as compared to a heavy weight 3-inch shell. Muzzle velocity could be as little as 330 feet per second and up to 400 feet per second.
4. The higher the temperature the less dense the air is and is less resistant to the shell passing through.

The standard contains language that requires consideration and adjustment based on wind speed and direction. There are two basic ways this can be addressed. The first is to have the mortar tubes located at the center of the display site but angled slightly into the wind. The second also involves angling the mortar tubes slightly into the wind but also moving them upwind (off-center) within the display site to a point that the tubes are now one-third of the required distance closer to the spectators. The desired result either way is to still have the shell burst over the center point of the firing site.

Having stated that, now bring into play the other ballistic factors. Will any of the above factors allow the shell to travel towards the spectators? What if there's a reduction in wind speed? More importantly, what if a shell does not function? Ballistics may allow it to travel all the way to the spectator area.

Currently the minimum distance between spectators and the firing site is 70 feet per 1-inch diameter of the largest shell to be fired. Increasing the minimum distance to 100 feet is a 42% increase in the safety zone without a significant reduction in a spectator's field of view. The proposed table is based on the values contained in NFPA 1123, the current standard for setting up and conducting aerial firework displays.

Submittal Information

Date Submitted: _____