VIRGINIA FIRE SERVICES BOARD

Fire Prevention & Control Committee
Thursday, October 1st, 2020
Virtual Meeting through Google Hangouts
1:00- 2:00pm

AGENDA

1. PLEDGE OF ALLEGIANCE & MOMENT OF SILENCE
2. CALL TO ORDER
3. ROLL CALL
4. SIGN-IN SHEET FOR GUESTS
5. CHANGES IN AGENDA
6. PUBLIC COMMENT
7. CONSENT AGENDA
    A. Approval of the minutes of the previous meeting
8. COMMENTS FROM COMMITTEE CHAIRMAN
9. UNFINISHED BUSINESS
    A. BHCD/VFSB Memorandum of Understanding
10. NEW BUSINESS
    A. Review and approval of the Virginia Statewide Fire Prevention Code edits from the Code and Standards Subcommittee
11. ADJOURNMENT

VIRGINIA FIRE SERVICES BOARD

Fire Prevention & Control Committee
Wednesday, June 10, 2020
Video Conference utilizing Google Hangouts
9:00am

A regular meeting of the Fire Prevention & Control Committee was held electronically through Google Hangouts because of the State of Emergency initiated by the Honorable Ralph Northam, Governor of Virginia. Ernie Little facilitated this meeting with a quorum present.

COMMITTEE MEMBERS PRESENT
Keith Johnson
Ernie Little
Walt Bailey
Scott Garber
Dennis Linaburg
Robert Farrell

BOARD MEMBERS PRESENT
James Moore Stokely

COMMITTEE MEMBERS ABSENT
Rick Gregory

GUESTS PRESENT
Larry Gwaltney
Andrew Milliken

AGENCY MEMBERS PRESENT

Travis Rickman
Mike Reilly
Robert Dube
Brook Pittinger
William Mackay

VIRGINIA FIRE SERVICES BOARD

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Wednesday, June 10, 2020
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9:00am

CHANGES IN THE AGENDA

No Changes

PUBLIC COMMENTS

There were no public comments made.

CONSENT AGENDA

No Changes to the previous meeting minutes member Keith Johnson moved to approve the previous minutes with a second from Scott Garber and the previous minutes were approved.

COMMENTS FROM THE COMMITTEE CHAIR

The Chairman discussed how it was great to see everyone due to the COVID pandemic we have not been able to meet for a while. He stated that there were some items that we will be discussing today that are very important to us and was excited to be able to meet virtually.

UNFINISHED BUSINESS

1. **Topic:** BHCD/ VFSB Memorandum of Understanding

   Motion: N/A

   Topic Discussion: The Chairman discussed how the current MOU has not been updated since 2012 and that the Fire Voice is weakened by this current MOU. The Committee discussed how this process should not be done in a vacuum and wanted more information relating to the MOU. The clerk pointed out that both current BHCD and VFSB had a completely different makeup when the MOU was last updated. The Chairman wants to see a more cooperative effort to make sure that this is a joint effort with the Board of Housing and Community Development.

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Motion Action: The Chairman wants to have the committee look at the current MOU and make suggestions. The get together soon to gather a working document to bring forward to suggest to BHCD. The Chairman asked the members of the committee to send all proposed changes to the clerk of the committee to be compiled into a document.

NEW BUSINESS

1. **Topic:** Review and approval of Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 38, and 39 edits of the Virginia Statewide Fire Prevention Code

   Motion: Member Keith Johnson made the motion to approve the Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 38, and 39 edits of the Virginia Statewide Fire Prevention Code and send it to the full board for final approval. The motion was properly seconded by Dennis Linaburg.

   Topic Discussion: Andrew Milliken spoke to the committee and talked about the Hundreds of edits that have been worked on by the Code and Standards Subcommittee. The Chairman thanked Andrew for all of his work

   Vote: Unanimous

   Motion Action: Present it to the full board meeting on Friday, June 12th 2020 for full board approval.

2. **Topic:** Amendment to the VFSB Rules of Procedures

   Motion: To approve the amendment of "a majority" to "5" and send to the full board for final approval was made by Keith Johnson and Seconded by Dennis Linaburg.

   Topic Discussion: The Chairman discussed the issue of the committee not being able to obtain a quorum and how that has resulted in the committee getting further behind on the DHCD code making process. The committee clerk clarified that this amendment will aid in making the subcommittee more accessible to all members which currently

reside all over the state. The Chairman stressed the importance of this amendment and believed that this would help the subcommittee get more done and help the fire service remain proactive with the code making process. The Chairman did make it clear that Walt Bailey the VFSB Chairman is supportive of this measure and appreciated all that the subcommittee currently does for the board.

Vote: Unanimous

Motion Action: Present it to the full board meeting on Friday, June 12th, 2020 for full board approval.

FINAL COMMENTS: The committee Clerk along with the Chairman highlighted two future meetings that will be taking place regarding the promulgation of the Statewide Fire Prevention Code.

June 26th Joint Public Hearing of the VFSB and BHCD.
June 11th DHCD Workgroup Meeting

ADJOURNMENT

Committee had a motion to adjourn by Keith Johnson motion properly seconded by Dennis Linaburg, the committee adjourned at 9:35am

Clerk of the Committee
Travis Rickman

REVIEWED BY:

Brook Pittinger

Memorandum of Agreement

Between the
Virginia Board of Housing and Community Development
and the
Virginia Fire Services Board

Development of the Virginia Statewide Fire Prevention Code

Purpose and Scope
The purpose of this agreement is to establish mutually acceptable procedures, for joint use by the two Boards, in the adoption and amendment of the Virginia Statewide Fire Prevention Code. Section 27-97 of the Code of Virginia directs the Virginia Board of Housing and Community Development to adopt a fire prevention code which will be "cooperatively developed" with the Virginia Fire Services Board, pursuant to procedures agreed to by the two Boards.

This agreement is entered into by the Virginia Board of Housing and Community Development and the Virginia Fire Services Board in fulfillment of the requirements that joint procedures agreed to by the two Boards be developed.

Joint Procedures
Coordination between the Board of Housing and Community Development and the Virginia Fire Service Board for the development of the Statewide Fire Prevention Code will be as follows:

Notification and Preliminary Drafts
The Board of Housing and Community Development shall notify the Virginia Fire Services Board of its intent to publish a Notice of Intended Regulatory Action. Preliminary drafts of the proposed and the final regulatory changes to the Statewide Fire Prevention Code shall be distributed to both Boards and the State Fire Prevention Code Development Committee.

Statewide Fire Prevention Code Development Committee
A committee shall be appointed consisting of three members of the Board of Housing and Community Development and three members of the Virginia Fire Services Board. The committee chair shall be appointed by the Chairman of the Board of Housing and Community Development. The committee shall review and consider all submitted proposed amendments to the Statewide Fire Prevention Code and shall work to develop code change recommendations to the Board of Housing and Community Development's Codes and Standards Committee.

The Statewide Fire Prevention Code Development Committee shall formally meet prior to the adoption of the proposed regulations to review all submitted SFPC code changes and to consider testimony by proponents and opponents. The committee shall meet prior

to the adoption of the final regulations to consider final code changes to the SFPC and to consider testimony by proponents and opponents.

Public Hearings
The Virginia Board of Housing and Community Development shall set a date for the public hearing(s) on proposed amendments to the Statewide Fire Prevention Code and shall notify the Virginia Fire Services Board not less than 30 days before the public hearing date. The members of both Boards will sit as a body at the public hearing for the proposed Statewide Fire Prevention Code. The hearing will be chaired by the Chairman of the Board of Housing and Community Development or the Chairman's designated representative. The public hearing shall be held in accordance with the Administrative Process Act and the Public Participation Guidelines adopted by the Board of Housing and Community Development. The preparation of the record of public comments will be the responsibility of the Board of Housing and Community Development. When completed, copies will be furnished to the Virginia Department of Fire Programs for distribution to all members of the Virginia Fire Services Board.

Action on comments of Governor and legislature
Resolution of such comments received from the Governor and/or the General Assembly regarding the Statewide Fire Prevention Code will be considered by the Statewide Fire Prevention Code Development Committee and their recommendations submitted to the Boards in general conformity with the process described above.

Final Adoption
The Boards will hold a joint meeting to consider the recommendations of the Statewide Fire Prevention Code Development Committee, public comments received on the Statewide Fire Prevention Code and any comments regarding this regulation received from the Governor and the General Assembly. The purpose of the meeting will be to agree on final regulations or amendments prior to the final adoption of the SFPC by the Board of Housing and Community Development. In case of any disagreements, the Board of Housing and Community Development will make the final determination.

9/17/2012

Anthony Clatterbuck, BHCD Chairman ***Date***

9-17-12

Richard E. Burch, Jr., VFSB Chairman ***Date***

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This agreement is entered into by the Virginia Board of Housing and Community Development and the Virginia Fire Services Board in fulfillment of the requirements that joint procedures agreed to by the two Boards be developed.

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The Board of Housing and Community Development shall notify the Virginia Fire Services Board of its intent to publish a Notice of Intended Regulatory Action. Preliminary drafts of the proposed and the final regulatory changes to the Statewide Fire Prevention Code shall be distributed to both Boards and the State Fire Prevention Code Development Committee.

Statewide Fire Prevention Code Development Committee

A committee shall be appointed consisting of three members of the Board of Housing and Community Development and three members of the Virginia Fire Services Board. The committee chair shall be appointed by the Chairman of the Board of Housing and Community Development. The committee shall review and consider all submitted proposed amendments to the Statewide Fire Prevention Code and shall work to develop code change recommendations to the Board of Housing and Community Development's

Codes and Standards Committee pursuant to the agreed upon Statewide Fire Prevention Code Development Committee Rules of Procedures.

The Statewide Fire Prevention Code Development Committee shall formally meet prior to the adoption of the proposed regulations to review all submitted SFPC code changes and to consider testimony by proponents and opponents. The committee shall meet prior to the adoption of the final regulations to consider final code changes to the SFPC and to consider testimony by proponents and opponents.

Public Hearings

The Virginia Board of Housing and Community Development shall set a date for the public hearing(s) on proposed amendments to the Statewide Fire Prevention Code and shall notify the Virginia Fire Services Board not less than 30 days before the public hearing date. The members of both Boards will sit as a body at the public hearing for the proposed Statewide Fire Prevention Code. The hearing will be chaired by the Chairman of the Board of Housing and Community Development or the Chairman's designated representative. The public hearing shall be held in accordance with the Administrative Process Act and the Public Participation Guidelines adopted by the Board of Housing and Community Development. The preparation of the record of public comments will be the responsibility of the Board of Housing and Community Development. When completed, copies will be furnished to the Virginia Department of Fire Programs for distribution to all members of the Virginia Fire Services Board.

Action on comments of Governor and Legislature

Resolution of such comments received from the Governor and/or the General Assembly regarding the Statewide Fire Prevention Code will be considered by the Statewide Fire Prevention Code Development Committee and their recommendations submitted to the Boards in general conformity with the process described above.

Final Adoption

The Boards will hold a joint meeting to consider the recommendations of the Statewide Fire Prevention Code Development Committee, public comments received on the Statewide Fire Prevention Code and any comments regarding this regulation received from the Governor and the General Assembly. The purpose of the meeting will be to agree on final regulations or amendments prior to the final adoption of the SFPC by the Board of Housing and Community Development.

In case of any disagreements, the Board of Housing and Community Development and the Virginia Fire Services Board will cooperatively establish a compromise and modify language within the limits of the disagreement.

Review of Memorandum

This Memorandum is effective on the date last signed. The Parties agree to review the Memorandum at least every two (2) years. All changes shall be agreed to mutually in writing.

_____ _____

Helen Hardiman , BHCD Chairman ***Date***

_____ _____

Walt Bailey, VFSB Chairman ***Date***

Board of Housing and Community Development

and

Virginia Fire Services Board

Statewide Fire Prevention Code Development Committee Rules of Procedures

This document serves as an agreement between the Virginia Board of Housing and Community Development and the Virginia Fire Services Board to outline operations for the development of the Virginia Statewide Fire Prevention Code and operations of the Statewide Fire Prevention Code Development Committee.

Table of Contents

Article I
Name

Section 1.1 **Name.** The name of the organization shall be the Statewide Fire Prevention Code Development Committee.

Article II
Purpose, Powers and Duties

Section 2.1 **Purpose, Powers and Duties.** The Statewide Fire Prevention Code Development Committee shall meet to review and consider all submitted proposed amendments to the Statewide Fire Prevention Code and shall work to cooperatively develop code change recommendations in concurrence with § 27-97. Adoption of Fire Prevention Code. These recommendations will then be sent to the Board of Housing and Community Development's Codes and Standards Committee.

Article III
Members

Section 3.1 **Members.** Members shall be appointed by each full board consisting of three members of the Board of Housing and Community Development and three members of the Virginia Fire Services Board. The committee chair shall be appointed by the Chairman of the Board of Housing and Community Development.

Article IV
Officers

Section 4.1 **Duties and Authorities.** The officers shall perform specified duties and shall have the power to exercise specific authorities as provided by these Rules of Procedure.

Section 4.2 **Chairman.** The Chairman shall be appointed by the Chairman of the Board of Housing and Community Development.

Article V
Meetings

Section 5.1 **Regular Meetings.** The Statewide Fire Prevention Code Development Committee shall formally meet prior to the adoption of the proposed regulations to review all submitted Statewide Fire Prevention Code changes and to consider testimony by proponents and opponents. The committee shall meet prior to the adoption of the final regulations to consider final code changes to the SFPC and to consider testimony by proponents and opponents.

Section 5.2 **Voting.** Each member of the Virginia Fire Services Board shall have the sole privilege of voting on all matters submitted to them at all regular, annual and special meetings. Each member shall cast one (1) vote at meetings where they are present. There shall be no proxy votes or votes by designees or substitutes.

Article VI
Non-Consensus

Section 6.1 **Amendments.** In any case of a tie resulting in non-consensus the Statewide Fire Prevention Code Development Committee may develop amendments to reach consensus. That are promulgated by both participating parties, before a final vote is taken to avoid non-consensus and a committee of conference.

Section 6.2 **Disagreements.** In any case the committee cannot reach consensus, the particular conflicting code changes must be identified and brought forward as non-consensus item. When such a situation arises a committee of conference shall be called by the chairman to cooperatively develop a compromise to be recommended from the Committee of Conference.

Article VII
Committees of Conference

Section 7.1 **Call of Committee.** Committees of Conference shall be called by the Chairman of the Statewide Fire Prevention Code Development Committee when a vote is taken and there is a tie among the voting members of the committee and non-consensus is determined.

Section 7.2 **Members.** The committee of conference shall consist of two members or their designee consisting of one member of the Board of Housing and Community Development and one from the Virginia Fire Services Board.

Section 7.3 **Duties of committee.** The two members shall meet to develop a compromise and work cooperatively on any non-consensus items disputed within the Statewide Fire Prevention Code Development Committee meeting. Every effort should be taken to reach consensus by both parties.

Article VIII
Parliamentary Authority

Section 8.1 **Purpose.** The purpose for parliamentary authority shall be to provide for the orderly conduct of business

Section 8.2 **Application.** At all meetings of the Statewide Fire Prevention Code Development Committee parliamentary procedure shall apply. Parliamentary procedure requires treatment of one matter at a time, extending courtesy and fairness to all members of the committee and letting the majority rule while guaranteeing the right of the minority.

Section 8.3 **Parliamentary Authority.** The parliamentary authority for the Statewide Fire Prevention Code Development Committee shall be the rules contained in the current edition of *Robert's Rules of Order Newly Revised*. The parliamentary authority shall be the governing authority in all cases to which they are applicable.

Article IX
Changes to the Rules of Procedure

Section 9.1 **Review.** The Parties agree to review these Rules of Procedures at least every two (2) years in concurrence with the Memorandum of Agreement between the Board of Housing and Community Development and the Virginia Fire Services Board. All changes shall be agreed to mutually in writing.

VIRGINIA FIRE SERVICES BOARD

Codes and Standards Subcommittee

Thursday, June 16th 2020

An electronic meeting of the Codes and Standards Subcommittee was held utilizing Google Hangouts at 10:00 am. The Code Subcommittee Chair, Andrew Milliken facilitated this meeting.

COMMITTEE MEMBERS PRESENT
Andrew C. Milliken, Chair
Garret Dyer
Perry Weller
Linda Hale
Anthony Barrero
Joshua Davis
Ernie Little
James Moss
Steven Sites

COMMITTEE MEMBERS ABSENT
Maurice Wilson
Henry Rosenbaum
Kris Bridges
Neil Holland
Mike Perdue

GUESTS PRESENT

AGENCY MEMBERS PRESENT

Travis Rickman

UNFINISHED BUSINESS
N/A

NEW BUSINESS

1. **Topic:** FP101 and BU101- Tall Wood Building Appendix

   Motion: Linda Hale Moved and Steven Sites Seconded to report the use of Tall Wood Building Appendix in the construction code and moving the use in the fire prevention code to the main body of the document.

   Topic Discussion: The committee discussed the pros and cons to having the appendix in the construction code anf the statewide fire prevention code.

   Vote: Unanimous

   Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

2. **Topic:** FP107.2- Permit for Commercial Cooking Hoods

   Motion: Linda Hale motioned to move forward with the recommendation as written, Perry Weller Seconded the motion

   Topic Discussion: Perry asked where this would be enforced and Linda responded by the smaller fast food establishments.

   Vote: Unanimous

3. **Topic:** FP107.2.1 - SRCFs

   Motion: Perry Weller motioned to support this measure as written and it was properly seconded by Ernie Little

   Topic Discussion: The State Fire Marshall discussed that his office is currently trying to calculate the current impacts that this proposal would have on the state fire marshal's office.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

4. **Topic:** FP112.5- Application for appeal

   Motion: Linda Hale Motioned to move forward with section as proposed, this was seconded by Ernie Little.

   Topic Discussion: N/A

   Vote: Unanimous

   Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

5. **Topic:** FP202(4)- Definition of cooking tent

   Motion: Linda Hale motioned and Anthony Barrero seconded to move the definition proposal forward as written.

   Topic Discussion: Linda brought up the reasoning for the change and it was discussed about the language on canopies and how we are regulating those. It was brought up to amend the section with a separate motion to improve the intent by striking the language in 3107.12.5 to strike "with side walls or drops" It was discussed how to move the proposal forward Andrew volunteered to bring the code change as a separate code change.

   Vote: Unanimous

   Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

6. **Topic:** New Code Change proposal in 3107.12.5

Motion: Ernie Little made the motion to submit the new code change, it was seconded by Perry Weller.

Topic Discussion: During the previous discussion on the definition of cooking tents it was suggested there be a separate code proposal made to remove the language in 3107.12.5 "with side walls or drops" from the definition in Chapter 31. Andrew said he would submit the change.

Vote: Unanimous

Motion Action: To submit a new proposal to DHCD to strike " with side walls or drops" from the definition in Chapter 31 dealing with cooking tents and send the proposal forward to the full committee for approval.

7. **Topic:** FP319.1.1 - Mobile Food Prep Vehicles

   Motion: Linda Hale Motioned and Perry Weller Seconded to move the proposal forward as written

   Topic Discussion: Linda Hale discussed the proposal and how individuals are not practicing safe distances when it comes to this kind of food prep vehicles. Steven Sites asked why the distance was set at 10 feet away from a structure instead of 20 feet like food prep tents. The Perry Weller that he will have trouble enforcing this because he already has instances that the distance requirement is not being followed.

   Vote: Unanimous

   Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

8. **Topic:** FP319.2.1 - Mobile Food Prep Vehicles

   Motion: Ernie Little motioned to support with the amendments adding "Virginia" in front of local government and for out of state to be the state Fire Marshal's office or local jurisdiction, which was seconded by Andrew Milliken

Topic Discussion: This is the other food preparation vehicles proposal from Linda Hale. Steven Sites discussed an amendment and Linda Hale discussed adding "Virginia" in front of local government and reference the State Fire Marshal's Office for any out-of-state vendors.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

9. **Topic:** FP405.2- Evacuation Drills in R-2

Motion: Ernie Little moved to amend the proposal to include the language "R-2's that are designed or developed and marketed to seniors citizens 55 years of age or older" and Perry Weller Seconded

Topic Discussion: It was discussed why the section was changed in the previous versions. It was asked by Perry Weller who would be regulating the drill schedule and Andrew brought up that it would be the property owners burden to do so four times a year. Andrew brought up the suggestion to change the requirement to a one time a year requirement instead of the proposed four. The committee then discussed the age limit and how we are determining the 55 or older majority. Andrew agreed that there needed to be clarity and the committee came up with further language included in the motion above.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

10. **Topic:** FP407.2- SDS Documentation

Motion: Perry Weller Motioned to move the proposal forward as written Steven Sites Seconded.

Topic Discussion: It was clarified that this item was language clean up.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

11. **Topic:** FP604.8- Emergency lights and Exit signs

Motion: Garrett Dyer Motion to **not** support this proposal, Steven Sites Seconded the motion

Topic Discussion: It was clarified that the proposal changed the language from equipment to building to get back to the original intent. But the committee discussed that the language allows for when equipment is updated for it to be tested.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

12. **Topic:** FP609.2- Cooking with grease vapors

Motion: Andrew Milliken motioned to amend the proposal to include, "Where provided or required in accordance with the applicable building code, cooking operations shall be conducted with approved ventilation."

Topic Discussion: Andrew discussed how it was written only to apply to mobile food preparation vehicles and wants to address all grease vapors and ventilation issues. It was asked what parts of this proposal would not be supported in the building code community.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

13. **Topic:** FP807.5.4- Decorative materials in Group I-3

    Motion: Garrett Dyer motioned to approve the proposal as written and Ernie Little Seconded

    Topic Discussion: It was discussed who was going to make sure this requirement is being followed. It was stated that this is probably already being practiced and that this should move forward.

    Vote: Unanimous

    Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

14. **Topic:** FP2403.2.1.3- Spray Area Classification

    Motion: Perry Weller made the motion to move the proposal forward as written, it was seconded by Ernie Little.

    Topic Discussion: It was discussed how we are currently trying to regulate and it was discussed that we don't think this causes any issues.

    Vote: Unanimous

    Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

15. **Topic:** FP5003.1.1- Adds exception for unlimited A1 and A2L refrigerants

    Motion: Motion by Andrew Milliken and second by Linda to move forward with no opinion.

Topic Discussion: Andrew stated that this proposal is somewhat irrelevant the committee stated that they really had no opinion on this matter and wanted to move forward with that recommendation to be prepared to discuss during the work groups session. It was discussed that this proposal with allow for the removal of refrigerants into other containers.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

16. **Topic:** FP5707.1- Mobile Fueling

Motion: Linda Hale motioned to move the proposal forward as written and this was seconded by Andrew Milliken

Topic Discussion: Linda Hale discussed the change and how we will have plenty of further discussions on the topic in the future.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

17. **Topic:** B202(4)- Definition of Building

Motion: Ernie Little motioned to move the proposal forward as written, the motion was seconded by Linda Hale.

Topic Discussion: Ernie Little discussed the intent and change of the proposal and how the main intent is to ensure that all of the codes are reading and interpreting the same across the board. We just want to ensure that in the work groups that this is made apparent that it should be the same across the board.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

18. **Topic:** B307.1(1)- Deletion of permissible fireworks vs consumer fireworks in table 307.1

    Motion: Perry Weller Motioned to keep the permissible language and strike the consumer by supporting the intent of the proposal and propose a friendly amendment. The committee will support with friendly amendment.

    Topic Discussion: It was discussed if consumer fireworks are currently defined Linda stated the NFPA defines it. Steven Sites stated that it is important to maintain the same definition that is currently held. Steven said that he would support it if there was language added in the code of Virginia relating to permissible fireworks. It was concluded that the committee should not support the proposal but propose a friendly amendment to keep permissible fireworks and strike consumer fireworks in the table since consumer fireworks are not properly defined in the Code of Virginia.

    Vote: Unanimous

    Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

19. **Topic:** B310.1- Residential Use Subworkgroup

    Motion:

    Topic Discussion:

    Vote: Unanimous

    Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

20. **Topic:** B404.5- Exception to smoke control in atriums

    Motion: Perry Weller Motioned to **oppose** this measure and it was properly seconded by Ernie Little.

Topic Discussion: It was discussed as how do you know that an atrium is less of a fire risk.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

21. Topic: B713.8- Penetrations of Fire Barriers

Motion: Perry Weller motioned and Linda Hale seconded to **not** support the proposal as written.

Topic Discussion: This item was discussed as it relates to penetrations in a shaft. The Chairman stated that this was a bad proposal and that the committee should not support.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

22. Topic: B713.11- Deletion of fire dampers

Motion: James Moss motioned to not support the proposal as written and it was seconded by Linda Hale

Topic Discussion: The committee discussed how this proposal deals with an enclosure at the bottom of a shaft. This proposal came from VBCOA, and the committee did not see where this section was previously confusing and don't really understand the change that is currently proposed.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

23. **Topic:** B903.2.6- Sprinklers in Group I

Motion: Ernie Little motioned to not support the proposal as written, it was seconded by Steven Sites

Topic Discussion: The committee discussed how the proposal eliminates the size restriction for open sided or chain link sided buildings and overhangs. The discussion was about multiple different scenarios and items within the area that could catch fire. The committee concluded that you can go over the limit on the size but there are fiscal impacts that are associated with going over the current allowable square feet.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

24. **Topic:** B916.1- In Building Emergency Communication

Motion: Linda Hale motioned to move the proposal forward with the committee support, seconded by Ernie Little.

Topic Discussion: The committee did agree that this proposal is needed, but it is a large ask that needs to at least be discussed. We should also make sure to come prepared with other proposals ask a back up to improve on radio coverage for emergency responders.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

25. **Topic:** B905.5.3- Removing Code Official Determination Authority from the VCC

Motion: Ernie Little motioned to **not** support the proposal as written, this was seconded by Perry Weller.

Topic Discussion: The committee believed that this change goes too far and makes to many significant changes.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

26. **Topic:** B1004.3- Occupant load signs for large mercantile

Motion: Steven Sites motioned to support this proposal a written, Ernie Little Seconded the motion

Topic Discussion: The Chairman explained the intent of the proposal and no further discussion or questions were asked.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

27. **Topic:** B1010.1.9.6- Egress Locking in I-1 and I-2

Motion: Linda Hale motioned to **not** support the proposal as written, which was seconded by Steve Sites.

Topic Discussion: Linda Hale highlighted the fact that this proposal would allow for places to hold dementia patients into rooms without proper means of egress. Steven Sites discussed that if this proposal is not put into NFPA Standards that hospitals would not be Medicaid or Medicare eligible.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

28. **Topic:** EB704.1- Standpipes in Existing Buildings

    Motion: Andrew motioned to **Not** support this proposal, seconded by Ernie Little

    Topic Discussion: The committee discussed that this proposal

    Vote: Unanimous

    Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

29. **Topic:** EB504.1.6- Repair or replacement of smoke alarms in existing buildings

    Motion: Andrew Milliken motioned to move the proposal forward as written, it was seconded by Perry Weller.

    Topic Discussion: The committee discussed that this is a standard that is becoming normalized in other states such as Maryland. The question was asked by Perry Weller what about localities that give out free smoke alarms. But the committee agreed that this was a good proposal to move forward. The committee also discussed the possibility of an effective date that may be discussed later on during workgroups.

    Vote: Unanimous

    Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

30. **Topic:** EB1101.18- Fire Sprinklers in Existing High rise buildings

    Motion: Steven Sites Motioned to support the measure as written, which was seconded by Perry Weller.

Topic Discussion: The committee agreed that this is a large ask but believed that this is extremely important. Moving this issue forward was important to the committee because it will help to keep people safe into the future and bring older buildings safer living spaces. Steven Sites asked about where the written notice would come from and the chairman responded that it would come from the building official.

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

31. **Topic:** EB1101.18.1- Compliance Schedule

Motion: Perry Weller Motioned to not support the proposal as written, which was seconded by Erie Little

Topic Discussion: The committee found that this proposal looks to remove the requirements from the fire code and have it only in the Building code

Vote: Unanimous

Motion Action: To move the proposal forward to bring forward in the DHCD workgroup sessions and send to the full committee for full approval.

Adjournment:

Ernie Little motioned to adjourn the committee which was seconded by Perry Weller and the committee adjourned.

REVIEWED BY:

Meeting minutes approved by — June 30, 2020
Andrew Milliken, Committee Chair — Date

Enclosure 1: Spreadsheet

FP609.2-18

VFC: (N) 609.2

Proponents: Andrew Milliken (amilliken@staffordcountyva.gov)

2015 Virginia Statewide Prevention Fire Code

(N) 609.2 Where required. Cooking operations producing grease laden vapors shall only be conducted where provided with approved ventilation in accordance with the applicable building code. A Type I hood shall be installed at or above all commercial cooking appliances and domestic cooking appliances used for commercial purposes that produce grease vapors in *mobile food preparation vehicles*.

> **Exception:** A Type I hood shall not be required for an electric cooking appliance where an *approved* testing agency provides documentation that the appliance effluent contains 5 mg/m^3 or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m^3/s) in accordance with UL 710B.

Reason Statement: This proposal restores a key enforcement tool for ensuring proper ventilation during cooking operations while directing the user to the applicable building code and ultimately the building official for the proper type of ventilation. This proposal provides the bridge between the fire code official and the building code official to effectively manage the single leading cause of fires.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency

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

FP101-18

VFC: A (New)

Proponents: John Catlett (catlettcodeconsulting@gmail.com)

2015 Virginia Statewide Prevention Fire Code

Add new text as follows:

A
New Appendix(IFC) Appendix P – Tall Wood Buildings

Add new text as follows:

IFC APPENDIX P

TALL WOOD BUILDINGS

P101 GENERAL

P101.1 Purpose. The purpose of this appendix is to provide criteria for three new mass timber construction types: Type IV-A, Type IV-B, and Type IV-C. These building types expand the allowable use of mass timber construction to larger areas and greater heights than allowed for Type IV-HT construction.

P101.2 Scope. The provisions in this appendix are in addition to or replace the sections in the 2018 International Fire Code where Types IV-A, IV-B, and IV-C construction are used. Where building Types IV-A, IV-B, or IV-C are not used, this appendix does not apply.

P102 AMENDMENTS TO THE INTERNATIONAL FIRE CODE

CHAPTER 7

FIRE AND SMOKE PROTECTION FEATURES

Revise as follows:

701.6 Owner's responsibility. The *owner* shall maintain an inventory of all required *fire-resistance-rated* construction, construction installed to resist the passage of smoke and the construction included in Sections 703 through 707 and Section 602.4.1 and 602.4.2 of the International Building Code. Such construction shall be visually inspected by the *owner* annually and properly repaired, restored or replaced where damaged, altered, breached or penetrated. Records of inspections and repairs shall be maintained. Where concealed, such elements shall not be required to be visually inspected by the *owner* unless the concealed space is accessible by the removal or movement of a panel, access door, ceiling tile or similar movable entry to the space.

CHAPTER 9

FIRE PROTECTION AND LIFE SAFETY SYSTEMS

Revise as follows:

914.3.1.2 Water supply to required fire pumps. In all buildings that are more than 420 feet (128 m) in *building height* , and buildings of Type IV-A and IV-B construction that are more than 120 feet *in building height* , required fire pumps shall be supplied by connections to not fewer than two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: Two connections to the same main shall be permitted provided that the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through not fewer than one of the connections.

CHAPTER 33

FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

Add new text as follows:

3308.4 Fire safety requirements for buildings of Types IV-A, IV-B, and IV-C construction. Buildings of Types IV-A, IV-B, and IV-C construction designed to be greater than six stories above grade plane shall comply with the following requirements during construction unless otherwise approved by the fire code official.

1. Standpipes shall be provided in accordance with Section 3313.

2. A water supply for fire department operations, as approved by the fire code official and the fire chief.

3. Where building construction exceeds six stories above grade plane, at least one layer of noncombustible protection where required by Section 602.4 of the International Building Code shall be installed on all building elements more than 4 floor levels, including mezzanines, below active mass timber construction before erecting additional floor levels.

Exception: Shafts and vertical exit enclosures shall not be considered a part of the active mass timber construction.

4. Where building construction exceeds six stories above grade plane required exterior wall coverings shall be installed on all floor levels more than 4 floor levels, including mezzanines, below active mass timber construction before erecting additional floor level.

Exception: Shafts and vertical exit enclosures shall not be considered a part of the active mass timber construction.

Reason Statement: This proposal brings in the companion code provisions that are required for the maintenance of tall wood buildings for continued protection from fire once constructed. A VCC proposal (BU101-18) has been submitted to create an appendix in the 2018 VCC with the 2021 Tall Wood building code package approved by the IBC General Committee by a 13 to 1 vote. It is to be included in the main body of the 2021 ICC building code (not an appendix). Subsequent approvals by all other ICC Code Committees that had Group A and Group B code responsibilities related to Tall Wood buildings, also referred to as Mass Timber.
Although there were intense efforts by industries that would potentially be negatively affected by approval of these proposals, Tall Wood building provisions gained approval at the ICC Public Comment Hearings held in Richmond during October of 2018 by nearly a unanimous floor vote. These proposals were approved through online voting in cdpAccess by a nearly the same margin.

Virginia localities have already been approached by designers and building owners regarding the potential use of tall wood materials. This proposal

brings in the code language as an appendix a code cycle earlier (2018) so code officials, fire officials, and designers have guidance as to the requirements developed through over two years of work by the ICC Tall Wood Buildings Ad hoc committee appointed by the ICC Board of Directors in 2015.

Background:

The Ad Hoc Committee on Tall Wood Buildings (TWB) was created by the ICC Board to explore the science of tall wood buildings and take action on developing code changes for tall wood buildings. The TWB created several code change proposals with respect to the concept of tall buildings of mass timber and the background information is at the end of this Statement. Within the statement are important links to information, including documents and videos, used in the deliberations which resulted in these proposals.

The TWB and it various WGs held meetings, studied issues and sought input from various expert sources around the world. The TWB posted those documents and input on its website for interested parties to follow its progress and to allow those parties to, in turn, provide input to the TWB.

At its first meeting, the TWB discussed a number of performance objectives to be met with the proposed criteria for tall wood buildings:

- No collapse under reasonable scenarios of complete burn-out of fuel without automatic sprinkler protection being considered.

- No unusually high radiation exposure from the subject building to adjoining properties to present a risk of ignition under reasonably severe fire scenarios.

- No unusual response from typical radiation exposure from adjacent properties to present a risk of ignition of the subject building under reasonably severe fire scenarios.

- No unusual fire department access issues.

- Egress systems designed to protect building occupants during the design escape time, plus a factor of safety.

- Highly reliable fire suppression systems to reduce the risk of failure during reasonably expected fire scenarios. The degree of reliability should be proportional to evacuation time (height) and the risk of collapse.

The comprehensive package of proposals from the TWB meet these performance objectives. The TWB also determined that fire testing was necessary to validate these concepts. At its first meeting, members discussed the nature and intention of fire testing so as to ensure meaningful results for the TWB and, more specifically, for the fire service. Subsequently a test plan was developed. The fire tests consisted of one-bedroom apartments on two levels, with both apartments having a corridor leading to a stair. The purpose of the tests was to address the contribution of mass timber to a fire, the performance of connections, the performance of joints, and to evaluate conditions for respondingfire personnel. The Fire WG then refined the test plan, which was implemented with a series of five, full-scale, multiple-story building tests at the Alcohol, Tobacco and Firearms (ATF) laboratories in Beltsville, MD. The results of those tests, as well as testing conducted by others, helped form the basis upon which the Codes WG developed its code change proposals. These code change proposals are the ones developed and approved by the TWB that were approved for the 2021 code.

To review a summary of the fire tests, please visit:

http://bit.ly/ATF-firetestreport

http://bit.ly/ATF-firetestvideos

Both of these links were confirmed active on 12/27/17

Additional Background Information:

The ICC Board approved the establishment of an ad hoc committee for tall wood buildings in December of 2015. The purpose of the ad hoc committee is to explore the science of tall wood buildings and to investigate the feasibility and take action on developing code changes for tall wood buildings. The committee is comprised of a balance of stakeholders with additional opportunities for interested parties to participate in the four Work Groups established by the ad hoc committee, namely: Code; Fire; Standards/Definitions; and Structural. For more information, be sure to visit the ICC website

https://www.iccsafe.org/codes-tech-support/cs/icc-ad-hoc-committee-on- tall-wood-buildings/

(link active and up to date as of 12/27/17).

As seen in the “Meeting Minutes and Documents” and “Resource Documents” sections of the committee web page, the ad hoc committee reviewed

a substantial amount of information in order to provide technical justification for code proposals.

The ad hoc committee developed proposals for the followings code sections. The committee believes this package of code changes will result in regulations that adequately address the fire and life safety issues of tall mass timber buildings.

In addition, fire tests designed to simulate the three new construction types (Types IVA, IVB and IVC) in the ad hoc committee proposals were conducted at the Alcohol Tobacco and Firearms test lab facility. The TWB was involved in the design of the tests, and many members witnessed the test in person or online. The results of the series of 5 fire tests provide additional support for these proposals and validate the fire performance for each of the types of construction proposed by the committee. The fire tests consisted of one-bedroom apartments on two levels, with both apartments having a corridor leading to a stair. The purpose of the tests was to address the contribution of mass timber to a fire, the performance of connections, the performance of through-penetration fire stops, and to evaluate conditions for responding fire personnel.

To review a summary of the fire tests, please visit

http://bit.ly/ATF-firetestreport

To watch summary videos of the fire tests, which are accelerated to run in 3 ½ minutes, please visit:

http://bit.ly/ATF-firetestvideos

Both of these links were confirmed active on 12/27/17.

A PDF of additional information is attached to this proposal.

Resiliency Impact Statement: This proposal will increase Resiliency
Reason statement to follow

Cost Impact: The code change proposal will not increase or decrease the cost of construction
This is a new construction method and new code language developed for the 2021 IBC. No cost impact.

B307.1(1)-18

VCC: TABLE 307.1(1); VFC: TABLE 5003.1.1(1)

Proponents: Glenn Dean (gad.pompier@gmail.com)

2015 Virginia Construction Code

TABLE 307.1(1)

MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[a, j, m, n, p]

MATERIAL	CLASS	GROUP WHENTHE MAXIMUMALLOWABLEQUANTITY ISEXCEEDED	STORAGE[b]			
			Solidpounds(cubic feet)	Liquidgallons(pounds)	Gas cubicfeet at NTP	Solidpo (cubic
Combustible dust	NA	H-2	SeeNote q	NA	NA	SeeNc
Combustible fiber[q]	LooseBaled[o]	H-3	(100)(1,000)	NA	NA	(100)(1
Combustible liquid[c, i]	IIIIIAIIIB	H-2 or H-3H-2 or H-3NA	NA	120[d, e] 330[d, e] 13,200[e, f]	NA	NA
Consumer fireworks	1.4G	H-3	125[e, l]	NA	NA	NA
Cryogenic flammable	NA	H-2	NA	45[d]	NA	NA
Cryogenic inert	NA	NA	NA	NA	NL	NA
Cryogenic oxidizing	NA	H-3	NA	45[d]	NA	NA
Explosives	Division 1.1Division 1.2Division 1.3Division 1.4Division 1.4GDivision 1.5Division 1.6	H-1H-1H-1 or H-2H-3H-3H-1H-1	1[e, g] 1[e, g] 5[e, g] 50[e, g] 125[d, e, l] 1[e, g] 1[e, g]	(1)[e, g] (1)[e, g] (5)[e, g] (50)[e, g] NA(1)[e, g] NA	NA	0.25[g] 0.2 50[g] NA(NA
Flammable gas	GaseousLiquefied	H-2	NA	NA(150)[d, e]	1,000[d, e] NA	NA
Flammable liquid[c]	IAIB and IC	H-2or H-3	NA	30[d, e] 120[d, e]	NA	NA
Flammable liquid,combination(IA, IB, IC)	NA	H-2 or H-3	NA	120[d, e, h]	NA	NA
Flammable solid	NA	H-3	125[d, e]	NA	NA	125
Inert gas	GaseousLiquefied	NANA	NANA	NANA	NLNL	NAN
Organic peroxide	UDIIIIIIIVV	H-1H-2H-3H-3NANA	1[e, g] 5[d, e] 50[d, e] 125[d, e] NLNL	(1)[e, g] (5)[d, e] (50)[d, e] (125)[d, e] NLNL	NA	0.25[g] 1 125[d] N
Oxidizer	43[k] 21	H-1H-2 or H-3H-3NA	1[g] 10[d, e] 250[d, e] 4,000[e, f]	(1)[e, g] (10)[d, e] (250)[d, e] (4,000)[e, f]	NA	0.25[g] 2[d] 4,00
Oxidizing gas	GaseousLiquefied	H-3	NA	NA(150)[d, e]	1,500[d, e] NA	NA
~~*Permissible fireworks*~~	~~1.4G~~	~~H-3~~	~~125[d, e, l]~~	~~N/A~~	~~N/A~~	~~N/A~~
Pyrophoric	NA	H-2	4[e, g]	(4)[e, g]	50[e, g]	1[g]
Unstable (reactive)	4321	H-1H-1 or H-2H-3NA	1[e, g] 5[d, e] 50[d, e] NL	(1)[e, g] (5)[d, e] (50)[d, e] NL	10[e, g] 50[d, e] 750[d, e] NL	0.25[g] 1 NL
Water reactive	321	H-2H-3NA	5[d, e] 50[d, e] NL	(5)[d, e] (50)[d, e] NL	NA	5[d] 50[d]

For SI: 1 cubic foot = 0.028 m^3, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

NL = Not Limited; NA = Not Applicable; UD = Unclassified Detonable.

a. For use of control areas, see Section 414.2.

b. The aggregate quantity in use and storage shall not exceed the quantity listed for storage.

c. The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited provided the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable, shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.

d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied accumulatively.

e. Maximum allowable quantities shall be increased 100 percent when stored in approved storage cabinets, day boxes, gas cabinets, gas rooms or exhausted enclosures or in *listed* safety cans in accordance with Section 5003.9.10 of the International Fire Code. Where Note d also applies, the increase for both notes shall be applied accumulatively.

f. Quantities shall not be limited in a *building* equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

g. Allowed only in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

h. Containing not more than the maximum allowable quantity per *control area* of Class IA, IB or IC flammable liquids.

i. The maximum allowable quantity shall not apply to fuel oil storage complying with Section 603.3.2 of the International Fire Code.

j. Quantities in parenthesis indicate quantity units in parenthesis at the head of each column.

k. A maximum quantity of 200 pounds of solid or 20 gallons of liquid Class 3 oxidizers is allowed when such materials are necessary for maintenance purposes, operation or sanitation of *equipment* when the storage containers and the manner of storage are approved.

l. Net weight of the pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks, including packaging, shall be used.

m. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2 of the International Fire Code.

n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 414.2.5, see Tables 414.2.5(1) and 414.2.5(2).

o. Densely packed baled cotton that complies with the packing requirements of ISO 8115 shall not be included in this material class.

p. The following shall not be included in determining the maximum allowable quantities:

1. Liquid or gaseous fuel in fuel tanks on vehicles.
2. Liquid or gaseous fuel in fuel tanks on motorized *equipment* operated in accordance with the International Fire Code .
3. Gaseous fuels in piping systems and fixed appliances regulated by the International Fuel Gas Code .
4. Liquid fuels in piping systems and fixed appliances regulated by the International Mechanical Code .
5. Alcohol-based hand rubs classified as Class I or II liquids in dispensers that are installed in accordance with Sections 5705.5 and 5705.5.1 of the International Fire Code. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the *construction* documents.

q. Where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3.

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

TABLE 5003.1.1(1)

MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[a, j, m, n, p]

	MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[b]			USE-CLOSED SYSTEMS[b]			USE-OPEN SYSTEMS[b]	
				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)
	Combustible dust	NA	H-2	See Note q	NA	NA	See Note q	NA	NA	See Note q	NA
	Combustible fibers[q]	Loose	H-3	(100)	NA	NA	(100)	NA	NA	(20)	NA
		Baled[o]		(1,000)			(1,000)			(200)	
	Combustible liquid[c, i]	II	H-2 or H-3		120[d, e]			120[d]			30[d]
		IIIA	H-2 or H-3	NA	330[d, e]	NA	NA	330[d]	NA	NA	80[d]
		IIIB	NA		13,200[e, f]			13,200[f]			3,300[f]
	Consumer *fireworks*	1.4G	H-3	125[e, l]	NA	NA	NA	NA	NA	NA	NA
	Cryogenic Flammable	NA	H-2	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
	Cryogenic Inert	NA	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Cryogenic Oxidizing	NA	H-3	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
	Explosives	Division 1.1	H-1	1[e, g]	(1)[e, g]		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
		Division 1.2	H-1	1[e, g]	(1)[e, g]		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
		Division 1.3	H-1 or H-2	5[e, g]	(5)[e, g]		1[g]	(1)[g]		1[g]	(1)[g]
		Division 1.4	H-3	50[e, g]	(50)[e, g]	NA	50[g]	(50)[g]	NA	NA	NA
		Division 1.4G	H-3	125[d, e, l]	NA		NA	NA		NA	NA
		Division 1.5	H-1	1[e, g]	(1)[e, g]		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
		Division 1.6	H-1	1[e, g]	NA		NA	NA		NA	NA
	Flammable gas	Gaseous	H-2	NA	NA	1,000[d, e]	NA	NA	1,000[d, e]	NA	NA
		Liquefied			(150)[d, e]	NA		(150)[d, e]	NA		
	Flammable liquid[c]	IA	H-2		30[d, e]			30[d]			10[d]
			or	NA		NA	NA		NA	NA	
		IB and IC	H-3		120[d, e]			120[d]			30[d]
	Flammable liquid, combination (IA, IB, IC)		H-2								
		NA	or	NA	120[d, e, h]	NA	NA	120[d, h]	NA	NA	30[d, h]
			H-3								
	Flammable solid	NA	H-3	125[d, e]	NA	NA	125[d]	NA	NA	25[d]	NA
	Inert Gas	Gaseous	NA	NA	NA	NL	NA	NA	NL	NA	NA
➡		Liquefied	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Organic	UD	H-1	1[e, g]	(1)[e, g]		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
		I	H-2	5[d, e]	(5)[d, e]		1[d]	(1)[d]		1[d]	(1)[d]
		II	H-3	50[d, e]	(50)[d, e]		50[d]	(50)[d]		10[d]	(10)[d]

	Organic peroxide	II	H-3	50	(50)	NA	50	(50)	NA	10	(10)
		III	H-3	125[d, e]	(125)[d, e]		125[d]	(125)[d]		25[d]	(25)[d]
		IV	NA	NL	NL		NL	NL		NL	NL
		V	NA	NL	NL		NL	NL		NL	NL
	Oxidizer	4	H-1	1[g]	(1)[e, g]	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
		3[k]	H-2 or H-3	10[d,e]	(10)[d, e]		2[d]	(2)[d]		2[d]	(2)[d]
		2	H-3	250[d, e]	(250)[d, e]		250[d]	(250)[d]		50[d]	(50)[d]
		1	NA	4,000[e, f]	(4,000)[e, f]		4,000[f]	(4,000)[f]		1,000[f]	(1,000)[f]
	Oxidizing gas	Gaseous	H-3	NA	NA	1,500[d, e]	NA	NA	1,500[d, e]	NA	NA
		Liquefied			(150)[d, e]	NA		(150)[d, e]	NA		
	~~Permissible fireworks~~	~~1.4G~~	~~H-3~~	~~125[d, e, l]~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~	~~NA~~
	Pyrophoric	NA	H-2	4[e, g]	(4)[e, g]	50[e, g]	1[g]	(1)[g]	10[e, g]	0	0
	Unstable (reactive)	4	H-1	1[e, g]	(1)[e, g]	10[e, g]	0.25[g]	(0.25)[g]	2[e, g]	0.25[g]	(0.25)[g]
		3	H-1 or H-2	5[d, e]	(5)[d, e]	50[d, e]	1[d]	(1)[d]	10[d, e]	1[d]	(1)[d]
		2	H-3	50[d, e]	(50)[d, e]	750[d, e]	50[d]	(50)[d]	750[d, e]	10[d]	(10)[d]
		1	NA	NL	NL	NL	NL	NL	NL	NL	NL
	Water reactive	3	H-2	5[d, e]	(5)[d, e]		5[d]	(5)[d]		1[d]	(1)[d]
		2	H-3	50[d, e]	(50)[d, e]	NA	50[d]	(50)[d]	NA	10[d]	(10)[d]
		1	NA	NL	NL		NL	NL		NL	NL

For SI: 1 cubic foot = 0.02832 m^3, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

NA = Not Applicable, NL = Not Limited, UD = Unclassified Detonable.

a. For use of control areas, see Section 5003.8.3.

b. The aggregate quantity in use and storage shall not exceed the quantity listed for storage.

c. The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited providing the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuff or consumer products and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.

d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied accumulatively.

e. Maximum allowable quantities shall be increased 100 percent where stored in approved storage cabinets, day boxes, gas cabinets, gas rooms, exhausted enclosures or in listed safety cans in accordance with Section 5003.9.10. Where Note d also applies, the increase for both notes shall be applied accumulatively.

f. Quantities shall not be limited in a building equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

g. Allowed only in buildings equipped throughout with an approved automatic sprinkler system.

h. Containing not more than the maximum allowable quantity per control area of Class IA, Class IB or Class IC flammable liquids.

i. The maximum allowable quantity shall not apply to fuel oil storage complying with Section 603.3.2.

j. Quantities in parenthesis indicate quantity units in parenthesis at the head of each column.

k. A maximum quantity of 200 pounds of solid or 20 gallons of liquid Class 3 oxidizers is allowed where such materials are necessary for maintenance purposes, operation or sanitation of equipment where the storage containers and the manner of storage are approved.

l. Net weight of pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks including packaging shall be used.

m. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2.

n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 5003.11, see Table 5003.11.1.

o. Densely-packed baled cotton that complies with the packing requirements of ISO 8115 shall not be included in this material class.

p. The following shall not be included in determining the maximum allowable quantities:

1. Liquid or gaseous fuel in fuel tanks on vehicles.
2. Liquid or gaseous fuel in fuel tanks on motorized equipment operated in accordance with this code.
3. Gaseous fuels in piping systems and fixed appliances regulated by the International Fuel Gas Code .
4. Liquid fuels in piping systems and fixed appliances regulated by the International Mechanical Code .
5. Alcohol-based hand rubs classified as Class I or II liquids in dispensers that are installed in accordance with Sections 5705.5 and 5705.5.1. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the construction documents.

q. Where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 104.7.2.

Reason Statement: The deletion of line "permissible fireworks" is simply the removal of redundant language and values and reverts to model code language. Both "permissible fireworks" and "consumer fireworks" use the same pyrotechnic material in its content and have the same values listed in USBC Table 307.1(1) and SFPC Table 5003.1.1(1). Also, for transportation purposes, and because they are effectively one and the same, the Federal DOTn and Virginia Motor Carrier Safety Regulations have "permissible fireworks" and "consumer fireworks" listed as Explosives, Division 1.4G. As can be seen in USBC Table 307.1(1) and SFPC Table 5003.1.1(1), Explosives, Division 1.4G has the same Maximum Allowable Quantity (MAQ) (value) as "permissible fireworks" and "consumer fireworks". Hence, the same material is actually listed 3 times in each table.

Resiliency Impact Statement:
This proposal will neither increase or decrease resiliency.

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

FP807.5.4-18

VFC: 807.5.4

Proponents: William Hall, Virginia Dept of Corrections (william.hall@vadoc.virginia.gov)

2015 Virginia Statewide Prevention Fire Code

Revise as follows:

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

EXCEPTION

Cell areas in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 where a maximum 4 sq. ft. area has been demarcated on the wall for personal items 0.025 inch (0.64 mm) or less in thickness applied directly to and adhering to the wall.

Reason Statement: We are seeking to make this section more enforcable by permitting a very small amount of personal affects to be attached and adherred to the wall of an offenders cell space when fully protected by a sprinkler system. It is nearly impossible to keep offenders from attaching some type of combustible material to their personal cell walls. The risks associated with permitting a small amount material is greatly reduced by the presence of sprinklers and the placement of the demarcated area (away from other combustibles). The area can be better monitored and the demarcated space by visual inspection quickly insures the limit is not exceeded. We feel this change is warranted by the low occurence of I-3 fires, 24 hour staff monitoring, presense of sprinkler systems and typically smoke detection within the cell.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency
N/A

Cost Impact: The code change proposal will not increase or decrease the cost of construction
N/A

B903.2.6-18

VCC: [F] 903.2.6

Proponents: William Hall, Virginia Dept of Corrections (william.hall@vadoc.virginia.gov)

2015 Virginia Construction Code

Revise as follows:

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

Exceptions:

1. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1 Condition 1 facilities.
2. An *automatic sprinkler system* is not required where Group I-4 day care facilities are at the *level of exit discharge* and where every room where care is provided has not fewer than one exterior exit door.
3. In buildings where Group I-4 day care is provided on levels other than the *level of exit discharge*, an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of *exit discharge*, and all floors below the *level of exit discharge* other than areas classified as an open parking garage.
4. An automatic sprinkler system shall not be required for open-sided or chain link-sided buildings and overhangs over exercise yards ~~200 square feet (18.58 m^2) or less~~ in Group I-3 facilities, provided such buildings and overhangs are of noncombustible *construction*.

Reason Statement: This code change from last cycle actually has the potential to make the cost of construction more expensive. Section 903.3.1.1.1 (exc #4) already allows for the exemption of sprinklers in areas which have non-combustible construction and which the contents are wholly non-combustible. This section, as currently written would limit that exception to 200 sq. ft. due to more specific language. This will cause the AJH to require sprinkler protection when they exceed 200 sq. ft. DOC is installing exterior recreation pens designed to give offenders the opportunity to go outside for a period of time everyday. Building multiple pens with only a maximum of 200 sq. ft. is cost prohibitive as well providing a weather protected (dry system) sprinkler system to protect an area with no potential to burn. We ask that this section be modified to permit the construction of recreation pens without limits of size and without un-needed sprinkler protection as presently allowed in Section 903.3.1.1.1.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency
N/A

Cost Impact: The code change proposal will decrease the cost of construction
The current section increased the cost of construction, this revision will reduce the cost of construction by not requiring sprinkler protection for outdoor enviroment locations.

FP407.2-18

VFC: 407.2

Proponents: Aaron Engi

2015 Virginia Statewide Prevention Fire Code

407.2 ~~Material~~ Safety Data Sheets. ~~Material~~ Safety Data Sheets ~~(MSDS)~~ (SDS) for all hazardous materials shall be either readily available on the premises as a paper copy ~~,~~ or ~~where *approved*, shall be permitted to be~~ readily retrievable by electronic access.

Reason Statement: OSHA accepted electronic MSDS programs as early as July 1989 when fax-on-demand programs were just beginning. 30 years later, as technology has improved, it's now faster and safer for someone to receive an SDS (or database of SDSs) over email or a smartphone app or speaking with a knowledgeable person over a phone than it is to send somebody into a building to retrieve a paper copy from a binder. Some companies manage such programs internally, but others use time-tested 3rd party providers such as ChemTel, Infotrac, Verisk 3E, or KHA to name a few.

Electronic versions can also be updated near instantaneously as changes in products and inventories are made, while paper copies have to be pulled, new ones printed, and then reinserted into the binder. This ease of use not only helps electronic users be compliant, but also helps ensure first responders have a faster, more accurate, and up to date SDS list to review in hazardous times.

Allowing for both paper and electronic SDS programs inherently, rather than electronic programs only when *approved* by Authorities Having Jurisdiction, will be for the betterment of businesses, communities, and first responders.

Resiliency Impact Statement: This proposal will increase Resiliency
By limiting the time necessary to find and retrieve SDS binders, first responders can use the business' SDS-on-demand program to retrieve applicable SDS information, therefore hastening response time and the safety of responders and the nearby community. This will help to minimize damages and the business/community to recover quicker as a result.

Cost Impact: The code change proposal will not increase or decrease the cost of construction
This change will have no impact on construction cost.

FP604.8-18

VFC: 604.8

Proponents: William Hall (william.hall@vadoc.virginia.gov)

2015 Virginia Statewide Prevention Fire Code

604.8 Testing of battery powered emergency lights and exit signs. Required emergency lighting utilizing battery powered emergency lights or exit signs, or both, shall be tested annually. The emergency lights and exit signs shall be tested for proper operation for the time period established in the building code in effect when the ~~equipment~~ building was ~~installed.~~ constructed. Written records of tests shall be retained by the owner of the building for a minimum of 2 years after the test is conducted and shall be made available to the *fire code official* upon request.

Reason Statement: This section as written creates a conflict within the code. The VA SFPC is a maintenance code and in accordance with section 102.3 *"Buildings and structures constructed under any edition of the USBC shall comply with the maintenance requirements of the SFPC to the extent that equipment, systems, devices, and safeguards which were provided and approved when constructed shall be maintained."* The requirement in section 604.8, conflicts with section 102.3 in that it requires compliance with the code in effect when the equipment was installed. Once replaced, the equipment now goes under another code edition. Battery life in previous codes permitted battery power that lasted for 60 minutes. newer codes now require 90 mins. This represents a retro-fit requirement in that fixtures with batteries having a greater capacity must now be procured and tested to the 90 mins. The biggest issue with the testing, is that the batteries are drained so much after the test, they typically will not last 90 mins again, thereby requiring the battery or in most cases the entire fixture to be replaced.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency
N/A

Cost Impact: The code change proposal will not increase or decrease the cost of construction
N/A

B404.5-18

IBC®: 404.5

Proponents: Christopher Campbell (christopher.campbell@arup.com); Raymond Grill (ray.grill@arup.com)

2018 International Building Code

404.5 Smoke control. A smoke control system shall be installed in accordance with Section 909.

Exception 1: In other than Group I-2, and Group I-1, Condition 2, smoke control is not required for *atriums* that connect only two stories.

Exception 2: In other than Group I-2 and Group I-1, Condition 2, smoke control is not required for *atriums* where all exit access above the lowest level of the atrium is separated from the *atrium* in accordance with Section 404.6 Exception 3 to Section 404.6 shall not apply.

Reason: In the event of a fire on the lowest level of the atrium, the atrium space will provide a heat and smoke sink that would enhance the safety of occupants at the base of the atrium. Heated products of combustion will rise and will allow more time for egress. The separation of upper levels in accordance with 404.6 precludes exposure to occupants on upper levels.

Smoke removal after the event can be performed in the same manner as in any other building without an atrium. There is no greater exposure presented. In other sections of the code, multiple interconnected levels are allowed without smoke control. Section 712.1.3.1 allows an unlimited number of levels in Group B and M occupancies to be interconnected by escalators when draft stops and sprinklers are provided around the floor opening. Section 1019.3 allows exit access stairs to interconnect an unlimited number of stories in Group B and M occupancies to be interconnected without shaft enclosures if draft stops and sprinklers are provided around the openings. The code allows escalators and exit access stairs to interconnect up to 4 stories in other occupancies without shaft enclosures provided draft stops and sprinklers are provided around the floor openings.

The proposed exception would present less of a fire safety risk than is currently allowed by the code.

Reason Statement:

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency

Cost Impact: The code change proposal will decrease the cost of construction
Eliminating the requirement for a smoke controls system will reduce the cost of construction, however, as explained previously, will maintain the level of life safety required by the code.

B1010.1.9.6-18

VCC: 1010.1.9.6

Proponents: John Mather (john@matherarchitects.com)

2015 Virginia Construction Code

1010.1.9.6 Controlled egress doors in Groups I-1 and I-2. ~~(Section deleted.)~~

Electric locking systems, including electro-mechanical locking systems and electromagnetic locking systems, shall be permitted to be locked in the means of egress in Group I-1, **Condition 2** , or I-2 occupancies where the clinical needs of persons receiving care require their containment. Controlled egress doors shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors are installed and operate in accordance with all of the following:

1. The door locks shall unlock on actuation of the automatic sprinkler system or automatic fire detection system.

2. The door locks shall unlock on loss of power controlling the lock or lock mechanism.

3. The door locking system shall be installed to have the capability of being unlocked by a switch located at the fire command center, a nursing station or other approved location. The switch shall directly break power to the lock.

4. A building occupant shall not be required to pass through more than one door equipped with controlled egress locking system before entering an exit.

5. The procedures for unlocking the doors shall be described and approved as part of the emergency planning and preparedness required by Chapter 4 of the International Fire Code.

6. All clinical staff shall have the keys, codes or other means necessary to operate the locking systems.

7. Emergency lighting shall be provided at the door.

8. The door locking system units shall be listed in accordance with UL 294.

Exceptions:

1. Items 1 through 4 shall not apply to doors to areas occupied by persons who, because of clinical needs, require restraint or containment as part of the function of a psychiatric treatment area, **nursing home or Dementia Care facility** .

2. Items 1 through 4 shall not apply to doors to areas where a listed egress control system is utilized to reduce the risk of child abduction from nursery and obstetric areas of a Group I-2 hospital.

Reason Statement: I am submitting this requested change in order to ensure the safety of those persons who reside in Dementia/Alzheimers care units. The current code does not allow "controlled egress" of such units which are classified as an I-1 Use Group. This is a common Use Group utilized to house such patients.
I believe that the 2015 IBC does a good job of addressing this situation by including Use Group I-1 in the provisions for "controlled egress". In the Commentary, they specifically reference this need for dementia and Alzheimers units and allows for a "balance between maintaining a safe and secure environment and providing for emergency egress".

I know of an actual incident here in the Shenandoah Valley where an Alzheimers resident, living in a specialized Memory Care wing of a well-know and respected Retirement community, was able to leave the facility after hitting the exit door hardware, which had delayed egress hardware. A staff member was busy with another resident and did not get to the door in time before the lock was released (typically 15 seconds). That resident then exited the facility and almost immediately feel down a set of concrete steps.

Any sort of egress that is not controlled is a very bad idea when dealing with Dementia and Alzheimers patients. Often times these folk are quite **physically** able to leave, but are not safe cognitively. This population in particular will try to "leave", since often in their minds they need to go somewhere or go "home", but is just is not safe at all.

Resiliency Impact Statement: This proposal will increase Resiliency
This proposal will add resiliency to facilities that provide care to Alzheimers patients in terms of not needing to constantly react to alarms which indicate that a patient is trying to leave the facility. Improved operations of facilities will result in improved care to patients.

Cost Impact: The code change proposal will decrease the cost of construction
Allowing "controlled egress" of doors leading out of Alzheimers/Dementia care areas will actually decrease the cost of construction, as it will allow the facility to avoid the cost of special alarms and related automatic door actuation hardware.

B202(4)-18

VEBC: ; VCC: ; VFC: [A]; IBC®: 503.1, 706.1

Proponents: Kenney Payne, AIA Virginia (kpayne@moseleyarchitects.com); Ronald Clements Jr (clementsro@chesterfield.gov)

2015 Virginia Existing Building Code

BUILDING.

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

~~For application of this code, each portion of a *building* that is completely separated from other portions by fire walls complying with Section 706 of the VCC shall be considered as a separate *building* (see Section 503.1 of the VCC).~~

BUILDING.

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

~~For application of this code, each portion of a *building* that is completely separated from other portions by fire walls complying with Section 706 shall be considered as a separate *building* (see Section 503.1).~~

[A] BUILDING. ~~Any structure used or intended for supporting or sheltering any use or occupancy.~~

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

503.1 General. Unless otherwise specifically modified in Chapter 4 and this chapter, *building height*, number of *stories* and *building area* shall not exceed the limits specified in Sections 504 and 506 based on the type of construction as determined by Section 602 and the occupancies as determined by Section 302 except as modified hereafter. *Building height*, number of *stories* and *building* area provisions shall be applied independently. For the purposes of determining area limitations, height limitations and type of construction, each portion of a building separated by one or more *fire walls* complying with Section 706 shall be considered to be a separate building.

706.1 General. *Fire walls* shall be constructed in accordance with Sections 706.2 through 706.11. The extent and location of such *fire walls* shall provide a complete separation. Where a *fire wall* separates occupancies that are required to be separated by a *fire barrier* wall, the most restrictive requirements of each separation shall apply.

Reason Statement:

This code change is needed to coordinate the USBC and SFPC definition of BUILDING with that of the 2018 IBC provisions as they relate to "separate buildings" (which was achieved by ICC code change G130-15 - attached). Since no code change has been proposed to revise the 2018 IBC in this regard, this proposal is needed. The 2018 IBC commentary summarizes the G130-15 reason statement. Note that though the definition of BUILDING is derived from the Code of Virginia (COV), the portion proposed for deletion is not part of the statutory definition; therefore, this proposal can be done through the regulatory process.

Per the 2018 IBC Commentary . . .

- *"Fire walls serve to create separate buildings for purposes of **allowable area, allowable height and type of construction requirements** (see the definition of 'Area, building' in Section 202). Using these provisions to control other building features or elements such as means of egress, building systems or building utilities **is not intended or implied by the provisions**."*

The definition in the SFPC should match those in the VCC and VEBC and how BUILDING is defined in the Code of Virginia - which this proposal does. Otherwise, the definition in the SFPC would not comport with that in the COV.

By incorporating the 2018 IBC *revised* versions of 503.1 and 706.1 (included for context only - no code changes are being proposed herein) into the 2018 VCC/VEBC/SFPC, the "extended portion" of the BUILDING definition without any changes may create unintended consequences and differing interpretations.

Current 2015 VCC text: (for comparison purposes to the new 2018 IBC text)

503.1 General. Unless otherwise specifically modified in Chapter 4 and this chapter, *building height*, number of stories and *building area* shall not exceed the limits specified in Sections 504 and 506 based on the type of construction as determined by Section 602 and the occupancies as determined by Section 302 except as modified hereafter. *Building height*, number of stories and *building* area provisions shall be applied independently. ~~Each portion of a building separated by one or more *fire walls* complying with Section 706 shall be considered to be a separate building~~. **[<--This sentence was changed in 2018 IBC to clarify it was for those purposes only - area limitations, height limitations and type of construction]**

706.1 General. ~~Each portion of a building separated by one or more *fire walls* that comply with the provisions of this section shall be considered a separate building.~~ **[<--This sentence was deleted in 2018 IBC]** The extent and location of such *fire walls* shall provide a complete separation. Where a *fire wall* separates occupancies that are required to be separated by a *fire barrier* wall, the most restrictive requirements of each separation shall apply.

Resiliency Impact Statement:
Will not increase or decrease resiliency.

Cost Impact:
Decrease cost of construction. If means of egress, building systems, and building utilities can extend from one side of a fire wall to the other and not have to be designed as independent systems/utilities and/or limit the flexibility of extending an otherwise compliant means of egress system through and beyond such fire walls, the cost of construction could potentially decrease.

FP5707.1-18

IFC®: 1 (New), SECTION 5707, 5707.1, 5707.1.1, 5707.2, 5707.3, 5707.3.1, 5707.3.2, 5707.3.3, 5707.4, 5707.4.1, 5707.4.2, 5707.5, 5707.5.1, 5707.5.2, 5707.5.3, 5707.5.4, 5707.6, 5707.6.1, 5707.6.2, 5707.6.3

Proponents: Irene Koulouris

2018 International Fire Code

Revise as follows:

~~7. Change Section 5707.1 and delete Sections 5707.1.1 through 5707.6.3:~~

~~5707.1 Mobile fueling operations. Delivery of Class 1, Class II, and Class III liquids to the fuel tank of a highway vehicle from a tank vehicle, a tank carried on a vehicle, or a nonportable container is prohibited.~~

~~Exceptions:~~

~~1. The refueling of highway vehicles in an emergency.~~

~~2. The refueling of vehicles in compliance with Sections 5706.5.4.1 through 5706.5.4.5.~~

~~3. Vehicles used for farm operations and machinery.~~

SECTION 5707
ON-DEMAND MOBILE FUELING OPERATIONS

5707.1 General. On-demand mobile fueling operations that dispense Class I, II and III liquids into the fuel tanks of motor vehicles shall comply with Sections 5707.1 through 5707.6.3.

Exception: Fueling from an *approved* portable container in cases of an emergency or for personal use.

5707.1.1 Approval required. Mobile fueling operations shall not be conducted without first obtaining a *permit* and approval from the *fire code official*. Mobile fueling operations shall occur only at *approved* locations.

5707.2 Mobile fueling vehicle. An on-demand mobile fueling vehicle shall be one of the following:

1. A vehicle that has chassis-mounted tanks or containers where the aggregate cargo capacity does not exceed 1200 gallons (4592 L). A mobile fueling vehicle with a mounted *tank* in excess of 110 gallons (415 L) shall comply with the requirements of Section 5706.6, Section 5707 and NFPA 385.
2. A vehicle that carries a maximum of 60 gallons (227 L) of motor fuel in metal safety cans *listed* in accordance with UL 30 or other *approved* metal containers, each not to exceed 5 gallons (19 L) in capacity. Containers shall be secured to the mobile fueling vehicle except when in use.

The mobile fueling vehicle shall comply with all local, state and federal requirements. The mobile fueling vehicle and its equipment shall be maintained in good repair.

5707.3 Required documents. Documents developed to comply with Sections 5707.3.1 through 5707.3.3 shall be updated as necessary by the *owner* of the mobile fueling operation and shall be maintained in compliance with Section 108.3.

5707.3.1 Safety and emergency response plan. Mobile fueling operators shall have an *approved* written safety and emergency response plan that establishes policies and procedures for fire safety, spill prevention and control, personnel training and compliance with other applicable requirements of this code.

5707.3.2 Training records. Mobile fueling vehicles shall be operated only by designated personnel who are trained on proper fueling procedures and the safety and emergency response plan. Training records of operators shall be maintained.

5707.3.3 Site plan. Where required by the *fire code official*, a site plan shall be developed for each location at which mobile fueling occurs. The site plan shall be in sufficient detail to indicate: all buildings, structures, *lot lines*, property lines and appurtenances on site and their use or function; all uses adjacent to the *lot lines* of the site; fueling locations, the locations of all storm drain openings and adjacent waterways or wetlands; information regarding slope, natural drainage, curbing, impounding and how a spill will be kept on the site property; and the scale of the site plan.

5707.4 Mobile fueling areas. Mobile fueling shall not occur on public streets, *public ways* or inside *buildings*. Fueling on the roof level of parking structures or other *buildings* is prohibited.

5707.4.1 Separation. Mobile fueling shall not take place within 25 feet (7620 mm) of buildings, property lines or combustible storage.

Exception: The *fire code official* shall be authorized to decrease the separation distance for dispensing from metal safety cans or other *approved* metal containers in accordance with Section 5707.2.

Where dispensing operations occur within 15 feet (4572 mm) of a storm drain, an *approved* storm drain cover or an *approved* equivalent method that will prevent any fuel from reaching the drain shall be used.

5707.4.2 Sources of ignition. Smoking, open flames and other sources of ignition shall be prohibited within 25 feet (7620 mm) of fuel dispensing activities. Signs prohibiting smoking or open flames within 25 feet (7620 mm) of the vehicle or the point of fueling shall be prominently posted on the mobile fueling vehicle. The engines of vehicles being fueled shall be shut off during fueling.

5707.5 Equipment. Mobile fueling equipment shall comply with Sections 5707.5.1 through 5707.5.4.

5707.5.1 Dispensing hoses and nozzles. Where equipped, the dispensing hose shall not exceed 50 feet (15 240 mm) in length. The dispensing nozzles and hoses shall be of an *approved* and *listed* type.

5707.5.2 Fuel limit. Mobile fueling vehicles shall be equipped with a fuel limit switch set to a maximum of 30 gallons (116 L) and a nozzle or other *approved* device that, when activated, immediately causes flow of fuel from the mobile fueling vehicle to cease.

5707.5.3 Fire extinguisher. An *approved* portable fire extinguisher complying with Section 906 with a minimum rating of 40-B:C shall be provided on the mobile fueling vehicle with signage clearly indicating its location.

5707.5.4 Spill kit. Mobile fueling vehicles shall contain a minimum 5-gallon (19 L) spill kit of an *approved* type.

5707.6 Operations. Mobile fueling vehicles shall be constantly attended during fueling operations with brakes set and warning lights in operation. Mobile fueling vehicles shall not obstruct emergency vehicle access roads.

5707.6.1 Dispensing hose. Where equipped, mobile fueling vehicles shall be positioned in a manner to preclude traffic from driving over the dispensing hose. The dispensing hose shall be properly placed on an *approved* reel or in an *approved* compartment prior to moving the mobile fueling vehicle.

5707.6.2 Drip control. Operators shall place a drip pan or an absorbent pillow under the nozzle and each fuel fill opening prior to and during dispensing operations to catch drips.

5707.6.3 Spill reporting. Spills shall be reported in accordance with Section 5003.3.1.

Reason Statement: We are cordially requesting the Virginia amendment to remove section 5707 of the International Fire Code be removed in order to allow mobile fueling to occur within the Commonwealth of Virginia per the Statewide Fire Prevention Code (SFPC). We understand that currently, the law would prohibit this from occurring and that even with a change to the SFPC, the General Assembly would still need to approve mobile fueling in Virginia. Specifically, we are asking for the Board of Housing and Community Development (BHCD) through the SFPC to allow the delivery of Class I, II, and III liquids into the fuel tanks of motor vehicles. Mobile fueling can promote many environmental benefits. Traditional gas stations utilizing underground storage tanks (USTs) frequently fail and pose a threat to drinking water supply and community health. Additionally, traditional gas stations are frequent sites of spills and additional vapor emissions. Small gasoline spills frequently occur at gasoline dispensing stations and each gas station spills approximately 40 gallons of fuel a year, which creates high risks for our communities. (Hilpert M. (2014). Infiltration and Evaporation of Small Hydrocarbon Spills at Gas Stations, Journal of Contaminant Hydrology, DOI). Mobile fueling, but specifically Booster Fuels, not only eliminates the need for USTs but also substantially reduces the risk of spills with Booster's hazmat endorsed and trained service professionals.

Additionally, mobile fueling can help the Commonwealth's elderly and disabled population. For our most vulnerable populations, access to traditional gas stations has proven to be extremely difficult and even impossible, despite the passage of the Americans with Disabilities Act (ADA). The ADA requires that self-serve gas stations provide equal access to their customers with disabilities through assistance if requested, either through honking or a button. However, even with the ADA, 15-million drivers with disabilities across the country still have difficulty getting gas at almost 160,000 stations according to U.S. House of Representatives Member Tammy Duckworth. Mobile fueling makes fuel safer and more accessible for everyone by delivering directly to the consumer.

Currently, mobile fueling is permitted in California, Washington, Oregon, Texas, Tennessee, and Maryland. Booster is permitted to operate in each of those locales.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency

Cost Impact: The code change proposal will not increase or decrease the cost of construction
With the proposed modification of the code, there shall not be an increase or decrease of the cost of construction as mobile fueling does not erect any new permanent locations which would need construction: mobile fueling utilizes existing buildings.

FP2403.2.1.3-18

VFC: (N) 2403.2.1.3

Proponents: Joseph Willis, Prince William County (jwillis@pwcgov.org); Haywood Kines, Prince Wiliam County (hkines@pwcgov.org)

2015 Virginia Statewide Prevention Fire Code

Revise as follows:

(N) ~~2403.2.1.3~~ 2403.2.1.3 Areas adjacent to spray booths. Electrical wiring and equipment located outside of, but within ~~5 feet (1524 mm)~~ 3 feet (915mm) horizontally and 3 feet ~~(914 mm)~~ (915mm) vertically of, openings in a spray booth or a spray room shall be *maintained* in accordance with the *applicable building code*.

Reason Statement: The purpose behind this code change is create consistency in defining the classified area outside of a spray booth. NFPA 70, NFPA 33 (Standard for Spray Application Using Flammable or Combustible Materials) and International Fire Code all list this area to be 3 feet horizontally from any opening and 3 feet vertically from any opening. The Virginia Statewide Fire Prevention Code still lists the classified area to be 5 feet horizontally and 3 feet vertically from any opening.
In order to avoid any potential conflicts in enforcement and maintenance provisions, I respectfully request The Virginia Statewide Fire Prevention Code be amended as noted to create consistency amongst the Codes and referenced standards.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency
There is no expected change to resiliency to this code change as the 3 foot horizontal dimension has been the standard by NFPA 70 since at least 1978.

Cost Impact: The code change proposal will decrease the cost of construction
The consistency amongst the codes to create a 3 feet area around the opening at the spray booth will potentially decrease the cost of construction by creating an equal standard of enforcement and maintenance amongst all the codes. In addition to the obvious cost savings of not having to use specialized electrical equipment and methods in that 3-5 foot range, this amendment will prevent potentially costly delays in construction and potential change orders.

B916-18

VCC: SECTION 916, 916.1, 916.1.1, 916.1.2, 916.1.3, 916.2, 916.2.1 (New); IBC®: NFPA Chapter 35 (New)

Proponents: Andrew Milliken (amilliken@staffordcountyva.gov)

2015 Virginia Construction Code

SECTION 916
IN-BUILDING EMERGENCY
COMMUNICATIONS COVERAGE

916.1 General. For localities utilizing public safety wireless communications, dedicated infrastructure to accommodate and perpetuate continuous in-building *emergency communication equipment* to allow *emergency public safety personnel* to send and receive emergency communications shall be provided in new buildings and structures in accordance with this section.

Exceptions:

1. Buildings of Use Groups A-5, I-4, within dwelling units of R-2, R-3, R-4, R-5, and U.
2. Buildings of Types IV and V *construction* without basements, that are not considered unlimited area buildings in accordance with Section 507.
3. Above grade single story buildings of less than 20,000 square feet (1858 m^2).
4. Buildings or leased spaces occupied by federal, state, or local governments, or the contractors thereof, with security requirements where the building official has approved an alternative method to provide *emergency communication equipment* for *emergency public safety personnel*.
5. Where the *owner* provides technological documentation from a qualified individual that the *structure* or portion thereof does not impede emergency communication signals.

916.1.1 Installation. ~~The building *owner* shall install radiating cable, such as coaxial cable or equivalent. The radiating cable shall be installed in dedicated conduits, raceways, plenums, attics, or roofs, compatible for these specific installations as well as other applicable provisions of this code. The~~ Buildings shall have approved radio coverage for emergency responders within the building based on the existing coverage levels of the public safety communication systems utilized by the jurisdiction, measured at the exterior of the building. This section shall not require improvement of the existing public safety communication systems. Where an emergency responder radio communication enhancement system is provided, installation shall be in accordance with NFPA 1221, NFPA 72 and this section.The *locality* shall be responsible for the installation of any additional communication *equipment* ~~required for the operation of the system.~~ beyond these minimum requirements.

916.1.2 ~~Operations.~~ System Monitoring. ~~The *locality* will assume all responsibilities for the operation and maintenance of the *emergency communication equipment*. The building *owner* shall provide sufficient operational space within the building to allow the *locality* access to and the ability to operate in-building *emergency communication equipment*.~~

Where provided, the emergency responder radio enhancement system shall be monitored by a listed fire alarm control unit and supervisory signals shall include the following:

1. Loss of normal AC power supply.
2. System battery charger(s) failure.
3. Malfunction of the donor antenna(s).
4. Failure of active RF-emitting device(s).
5. Low-battery capacity at 70-percent reduction of operating capacity.
6. Failure of critical system components.
7. The communications link between the fire alarm system and the emergency responder radio enhancement system.

916.1.3 Inspection. In accordance with Section 113.3, all installations shall be inspected prior to concealment.

916.2 Acceptance test. ~~Upon completion of installation, after providing reasonable notice to the *owner* or their representative, *emergency public safety personnel* shall have the right during normal business hours, or other mutually agreed upon time, to enter onto the property to conduct field tests to verify that the required level of radio coverage is present at no cost to the *owner*. Any noted deficiencies in the installation of the radiating~~

~~cable or operational space shall be provided in an inspection report to the *owner* or the *owner's* representative.~~

Where an emergency responder radio coverage system is provided, the system shall be tested and approved in accordance with NFPA 1221 and NFPA 72.

Revise as follows:

916.2.1 Critical Areas. Critical areas, including fire command centers, fire pump rooms, exit stairs, exit passageways, elevator lobbies, standpipe cabinets, sprinkler sectional valve locations, and other areas deemed critical by the AHJ, shall be provided with 99 percent floor area radio coverage prior to occupancy approval.

NFPA

National Fire Protection Association
1 Batterymarch Park
Quincy MA 02169-7471

1: NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, 2019 Edition

Reason Statement: The effectiveness and reliability of emergency responder communication is one of if not the most important aspect of successful emergency response and protection of public safety. In fact, as wireless technologies advance and community hazards expand, these public safety communication tools quickly become the backbone of incident response for not only fire and rescue personnel but also law enforcement and other first responders. Just as the water provided in building standpipes is critical to firefighting operations in large buildings, clear and dependable communications is vital to the safety of first responders in these buildings. This is in keeping with the philosophy inherent in the model codes that, when a facility grows too large or complex for effective fire response, fire protection features must be provided within the building. Building construction features and materials can absorb or block the radio frequency energy used to carry the signals inside or outside the building. Blockage or absorption of the radio frequency signal can prevent a critical message from an emergency responder from being received and acknowledged. Depending on the incident, this loss of information can place other emergency responders in greater danger or may prevent an injured or disoriented emergency responder from communicating for assistance.
The current VCC language requires the use of out-dated technology and in some cases the installation of equipment that may never be used. Unless meeting one of the exemption requirements, building owners are required to route hundreds of feet of likely disconnected cabling throughout the building including in areas where existing coverage may already be adequate. This proposal does NOT remove or modify any of the many exemptions currently indicated by the current code (VCC 916.1) so as to maintain consistency throughout Virginia. In addition, the current VCC language provides no recognition as to the current level of public safety communication strength currently on site. Without additional guidance, this could suggest that a building owner is responsible for providing a higher level of radio coverage than what currently is present in reality - a cost that is not fair to be burdened by the building owner or developer. The proposed language (ICC and NFPA model code language) ensures that the building is only required to maintain the existing level of public safety radio communication coverage available at the exterior of the building. Furthermore, just as building standpipe systems, fire hydrant systems, fire alarm systems and other fire protection systems are required to be provided as part of the building infrastructure for emergency responder use, the reliability and dependability of emergency radio enhancement systems demand that they be similarly connected to and monitored by the building fire alarm system. Finally, the current VCC language does not provide any reference standard for the installation or testing of such systems. This proposal includes a reference to NFPA 1221 for these details to ensure that they are capable, compatible and interoperable for emergency response at any time or location.

Resiliency Impact Statement: This proposal will increase Resiliency
As compared to the ineffective and in some cases unnecessarily burdensome code language currently present in the VCC, this proposal represents a tremendous increase in building and public safety resiliency. Ensuring that first responders are able to effectively communicate is invaluable to the successful outcome of emergency response incidents and the protection of lives and property. The assurance for emergency responder radio coverage that this proposal provides does so not only for the major, or once-in-a-lifetime catastrophes but also many times over in the daily smaller "routine" emergencies that occur throughout buildings.

Cost Impact: The code change proposal will not increase or decrease the cost of construction
Since this proposal does not remove or modify any of the current exemptions from providing in-building communication infrastructure, this proposal only applies to the same buildings where infrastructure is already required to be provided. In fact, this proposal provides the ability of building owners and developers to utilize cost-effective technology to accomplish the requirement with less labor and materials. Moreover, it also works to ensure that such technology is only provided where it is found to be needed and only to the level at which the public safety system currently provides at the exterior of the building. These cost-saving efforts are expected to equal or exceed any added cost to monitor such system by the building fire alarm system. Also, since the proposal is based on national and international standards that have been in place for years, most large construction projects already anticipate these costs for construction around the country.

EB504.1.6-18

VEBC: 504.1.6

Proponents: Andrew Milliken (amilliken@staffordcountyva.gov)

2015 Virginia Existing Building Code

Add new text as follows:

504.1.6 Smoke alarms. Repair or replacement of smoke alarms shall be with devices listed in accordance with UL217 and that are no more than ten years from the date of manufacture. Battery-only powered devices shall be powered by a 10-year sealed battery.

Reason Statement: Technology, including smoke alarms, has continued to progress to more effective and life-saving devices. The codes for replacement devices need to keep pace with these advancements in technology - particularly where it is known to save lives. This proposal reflects the movement towards eliminating nuisance activations as well as low-maintenance style smoke alarms (10-year devices) that last for the entire lifespan of the device (for battery only installations). The UL 217 requirements have been expanded to include technological advancements of smoke alarms and smoke detectors as well as to respond to new fire conditions.
For battery only devices, instead of installing a smoke alarm that requires the battery to be changed every few months, using 10-year devices allows the entire device to be properly powered until it is time to replace the entire device. This also means no costly battery replacements offering a cost-saving over the life of the alarm. Plus, since the battery pack is sealed, the batteries can't be removed from your smoke alarm or tampered with. Dead batteries or no batteries have been statistically noted to be a factor in numerous loss of life fire incidents in residential homes. Having smoke alarms that are quietly vigilant until they are needed - not chirping at 2 AM and then being removed from protection to just stop the chirp - increases the reliability that these devices will be ready and working if they are ever needed.

UL conducted research for the National Fire Protection Research Foundation that showed smoke characteristics are different between fast moving and smoldering polyurethane fires. Additional research found that fire dynamics in a home have changed over the last several decades. Newer synthetic materials in the home, more open layouts and lighter construction materials all burn hotter and faster, leading to escape times being reduced from an average of 17 minutes to three-to-four minutes.

According to the National Fire Protection Association (NFPA), nuisance alarms are the leading reason for disconnected smoke alarms. In order to enable manufacturers to produce more responsive alarms that don't introduce nuisance alarming during cooking, UL conducted a research project to develop data on smoke characteristics during normal cooking events. The research led to new test requirements for cooking alarm tests.

Many states including Maryland, North Carolina, Louisiana, New York, Oregon, and California already have such requirements for all smoke alarms. This proposal is only for the smoke alarms device itself and ensures that all existing wiring can continue to be used. It is important to remember: Three out of five home fire deaths result from fires in properties without working smoke alarms. More than one-third (38 percent) of home fire deaths result from fires in which no smoke alarms are present. The risk of dying in a home fire is cut in half in homes with working smoke alarms (Source: National Fire Protection Association).

Resiliency Impact Statement: This proposal will increase Resiliency

Cost Impact: The code change proposal will increase the cost of construction
The difference between the cost of legacy smoke alarms and those meeting the UL217 standard is at most $10. In battery-only device installations, the cost saving of replacement batteries over the life of the device makes this proposal cost-neutral.

FP107.2(1)-18

VFC: Table 107.2

Proponents: Andrew Milliken (amilliken@staffordcountyva.gov)

2015 Virginia Statewide Prevention Fire Code

Table 107.2

OPERATIONAL PERMIT REQUIREMENTS **(to be filled in by local jurisdiction)**

DESCRIPTION	PERMIT REQUIRED(yes or no)	PERMIT FEE	INSPECTION FEE
Aerosol products. An operational permit is required to manufacture, store or handle an aggregate quantity of Level 2 or Level 3 aerosol products in excess of 500 pounds (227 kg) net weight.			
Amusement buildings. An operational permit is required to operate a special amusement building.			
Aviation facilities. An operational permit is required to use a Group H or Group S occupancy for aircraft servicing or repair and aircraft fuel-servicing vehicles. Additional permits required by other sections of this code include, but are not limited to, hot work, hazardous materials and flammable or combustible finishes.			
Carnivals and fairs. An operational permit is required to conduct a carnival or fair.			
Cellulose nitrate film. An operational permit is required to store, handle or use cellulose nitrate film in a Group A occupancy.			
Combustible dust-producing operations. An operational permit is required to operate a grain elevator, flour starch mill, feed mill, or a plant pulverizing aluminum, coal, cocoa, magnesium, spices or sugar, or other operations producing combustible dusts as defined in Chapter 2.			
Combustible fibers. An operational permit is required for the storage and handling of combustible fibers in quantities greater than 100 cubic feet (2.8 m^3). **Exception:** An operational permit is not required for agricultural storage.			
Compressed gas. An operational permit is required for the storage, use or handling at normal temperature and pressure (NTP) of compressed gases in excess of the amounts listed below. **Exception:** Vehicles equipped for and using compressed gas as a fuel for propelling the vehicle.			
PERMIT AMOUNTS FOR COMPRESSED GASES			
Type of Gas / **Amount (cubic feet at NTP)**			
Corrosive: 200			
Flammable (except cryogenic fluids and liquefied petroleum gases): 200			
Highly toxic: Any Amount			
Inert and simple asphyxiant: 6,000			
Oxidizing (including oxygen): 504			
Pyrophoric: Any Amount			
Toxic: Any Amount			
For SI: 1 cubic foot = 0.02832 m^3.			
Covered and open mall buildings. An operational permit is required for: 1. The placement of retail fixtures and displays, concession equipment, displays of highly combustible goods and similar items in the mall.2. The display of liquid-fired or gas-fired equipment in the mall. 3. The use of open-flame or flame-producing equipment in the mall.			
Cryogenic fluids. An operational permit is required to produce, store, transport on site, use, handle or dispense cryogenic fluids in excess of the amounts listed below. **Exception:** Operational permits are not required for vehicles equipped for and using cryogenic fluids as a fuel for propelling the vehicle or for refrigerating the lading.			
PERMIT AMOUNTS FOR CRYOGENIC FLUIDS			
Type of CryogenicFluid / **Inside Building(gallons)** / **Outside Building(gallons)**			
Flammable: More than 1 / 60			
Inert: 60 / 500			
Oxidizing (includes oxygen): 10 / 50			
Physical or health hazard not indicated above: Any Amount / Any Amount			
For SI: 1 gallon = 3.785 L.			
Cutting and welding. An operational permit is required to conduct cutting or welding operations within the jurisdiction.			

Dry cleaning plants. An operational permit is required to engage in the business of dry cleaning or to change to a more hazardous cleaning solvent used in existing dry cleaning equipment.			
Exhibits and trade shows. An operational permit is required to operate exhibits and trade shows.			
Explosives, fireworks, and pyrotechnics. An operational permit is required for the storage, handling, sale or use of any quantity of explosive, explosive materials, *fireworks*, pyrotechnic special effects, or pyrotechnic special effects material within the scope of Chapter 56. **Exception:** Storage in Group R-3 or R-5 occupancies of smokeless propellant, black powder and small arms primers for personal use, not for resale, and in accordance with the quantity limitations and conditions set forth in Section 5601.1, Exceptions 4 and 12.			
Explosives, restricted manufacture. An operational permit is required for the restricted manufacture of explosives within the scope of Chapter 56.			
Explosives, unrestricted manufacture. An operational permit is required for the unrestricted manufacture of explosives within the scope of Chapter 56			
Fire hydrants and valves. An operational permit is required to use or operate fire hydrants or valves intended for fire suppression purposes that are installed on water systems and accessible to a fire apparatus access road that is open to or generally used by the public. **Exception:** An operational permit is not required for authorized employees of the water company that supplies the system or the fire department to use or operate fire hydrants or valves.			
Flammable and combustible liquids. An operational permit is required: 1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the offsite transportation in pipelines regulated by the U.S. Department of Transportation (DOTn) nor does it apply to piping systems. 2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following: 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the fire official, would cause an unsafe condition. 2.2. The storage or use of paints, oils, varnishes or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days. 3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil-burning equipment. 4. To remove Class I or Class II liquids from an underground storage tank used for fueling motor vehicles by any means other than the *approved*, stationary on-site pumps normally used for dispensing purposes. 5. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.6. To install, alter, remove, abandon, place temporarily out of service (for more than 90 days) or otherwise dispose of an underground, protected above-ground or above-ground flammable or combustible liquid tank. 7. To change the type of contents stored in a flammable or combustible liquid tank to a material that poses a greater hazard than that for which the tank was designed and constructed.8. To manufacture, process, blend or refine flammable or combustible liquids.			
Floor finishing. An operational permit is required for floor finishing or surfacing operations exceeding 350 square feet (33 m^2) using Class I or Class II liquids.			
Fruit and crop ripening. An operational permit is required to operate a fruit- or crop-ripening facility or conduct a fruit-ripening process using ethylene gas.			
Fumigation, thermal, and insecticidal fogging. An operational permit is required to operate a business of fumigation, thermal, or insecticidal fogging and to maintain a room, vault or chamber in which a toxic or flammable fumigant is used.			
Hazardous materials. An operational permit is required to store, transport on site, dispense, use or handle hazardous materials in excess of the amounts listed below.			

PERMIT AMOUNTS FOR HAZARDOUS MATERIALS	
Type of Material	**Amount**
Combustible liquids	See flammable and combustible liquids
Corrosive materials	
Gases	See compressed gases
Liquids	55 gallons
Solids	1000 pounds
Explosive materials	See explosives

Flammable materials	
Gases	See compressed gases
Liquids	See flammable and combustible liquids
Solids	100 pounds
Highly toxic materials	
Gases	See compressed gases
Liquids	Any amount
Solids	Any amount
Oxidizing materials	
Gases	See compressed gases
Liquids	
Class 4	Any amount
Class 3	1 gallon[a]
Class 2	10 gallons
Class 1	55 gallons
Solids	
Class 4	Any amount
Class 3	10 pounds[b]
Class 2	100 pounds
Class 1	500 pounds
Organic peroxides	
Liquids	
Class I	Any amount
Class II	Any amount
Class III	1 gallon
Class IV	2 gallons
Class V	No permit required
Solids	
Class I	Any amount
Class II	Any amount
Class III	10 pounds
Class IV	20 pounds
Class V	No permit required
Pyrophoric materials	
Gases	See compressed gases
Liquids	Any amount
Solids	Any amount
Toxic materials	
Gases	See compressed gases
Liquids	10 gallons
Solids	100 pounds
Unstable (reactive) materials	
Liquids	
Class 4	Any amount
Class 3	Any amount
Class 2	5 gallons

Class 1	10 gallons			
Solids				
Class 4	Any amount			
Class 3	Any amount			
Class 2	50 pounds			
Class 1	100 pounds			
Water reactive materials				
Liquids				
Class 3	Any amount			
Class 2	5 gallons			
Class 1	55 gallons			
Solids				
Class 3	Any amount			
Class 2	50 pounds			
Class 1	500 pounds			
For SI: 1 gallon = 3.785 L, 1 pound = 0.454 kg. a. Twenty gallons when Table 5003.1.1(1) Note k applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities of 20 gallons or less.b. Two hundred pounds when Table 5003.1.1(1) Note k applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities of 200 pounds or less.				
HPM facilities. An operational permit is required to store, handle or use hazardous production materials.				
High piled storage. An operational permit is required to use a building or portion thereof as a high-piled storage area exceeding 500 square feet (46 m^2).				
Hot work operations. An operational permit is required for hot work including, but not limited to: 1. Public exhibitions and demonstrations where hot work is conducted. 2. Use of portable hot work equipment inside a structure. **Exception:** Work that is conducted under a construction permit. 3. Fixed-site hot work equipment such as welding booths. 4. Hot work conducted within a hazardous fire area. 5. Application of roof coverings with the use of an open-flame device. 6. When *approved*, the fire official shall issue a permit to carry out a Hot Work Program. This program allows *approved* personnel to regulate their facility's hot work operations. The *approved* personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in this chapter. These permits shall be issued only to their employees or hot work operations under their supervision.				
Industrial ovens. An operational permit is required for operation of industrial ovens regulated by Chapter 30.				
Lumber yards and woodworking plants. An operational permit is required for the storage or processing of lumber exceeding 100,000 board feet (8,333 ft^3) (236 m^3).				
Liquid-fueled or gas-fueled vehicles or equipment in assembly buildings. An operational permit is required to display, operate or demonstrate liquid-fueled or gas-fueled vehicles or equipment in assembly buildings.				
LP-gas. An operational permit is required for: 1. Storage and use of LP-gas. **Exception:** An operational permit is not required for individual containers with a 500-gallon (1893 L) water capacity or less or multiple container systems having an aggregate quantity not exceeding 500 gallons (1893 L), serving occupancies in Group R-3.2. Operation of cargo tankers that transport LP-gas.				
Magnesium. An operational permit is required to melt, cast, heat treat or grind more than 10 pounds (4.54 kg) of magnesium.				
Miscellaneous combustible storage. An operational permit is required to store in any building or upon any premises in excess of 2,500 cubic feet (71 m^3) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork or similar combustible material.				
Mobile food preparation vehicles. A permit is required for *mobile food preparation vehicles* equipped with appliances that produce smoke or grease laden vapors. **Exception:** Recreational vehicles used for private recreation.				
Open burning. An operational permit is required for the kindling or maintaining of an open fire or a fire on any public street, alley, road, or other public or private ground. Instructions and stipulations of the permit shall be adhered to. **Exception:** Recreational fires.				

Open flames and candles. An operational permit is required to use open flames or candles in connection with assembly areas, dining areas of restaurants or drinking establishments.			
Open flames and torches. An operational permit is required to remove paint with a torch, or to use a torch or open-flame device in a wildfire risk area.			
Organic coatings. An operational permit is required for any organic-coating manufacturing operation producing more than 1 gallon (4 L) of an organic coating in one day.			
Places of assembly. An operational permit is required to operate a place of assembly.			
Private fire hydrants. An operational permit is required for the removal from service, use or operation of private fire hydrants. **Exception:** An operational permit is not required for private industry with trained maintenance personnel, private fire brigade or fire departments to maintain, test and use private hydrants.			
Pyrotechnic special effects material. An operational permit is required for use and handling of pyrotechnic special effects material.			
Pyroxylin plastics. An operational permit is required for storage or handling of more than 25 pounds (11 kg) of cellulose nitrate (pyroxylin) plastics and for the assembly or manufacture of articles involving pyroxylin plastics.			
Refrigeration equipment. An operational permit is required to operate a mechanical refrigeration unit or system regulated by Chapter 6.			
Repair garages and service stations. An operational permit is required for operation of repair garages and automotive, marine and fleet service stations.			
Rooftop heliports. An operational permit is required for the operation of a rooftop heliport.			
SRCFs. An operational permit is required for the operation of a State-Regulated Care Facility where inspection by the fire official is required by state licensing regulations.			
Spraying or dipping. An operational permit is required to conduct a spraying or dipping operation utilizing flammable or combustible liquids or the application of combustible powders regulated by Chapter 24.			
Storage of scrap tires and tire byproducts. An operational permit is required to establish, conduct or maintain storage of scrap tires and tire byproducts that exceeds 2,500 cubic feet (71 m^3) of total volume of scrap tires and for indoor storage of tires and tire byproducts.			
Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure or a tent. **Exceptions:** 1. Tents used exclusively for recreational camping purposes. 2. Tents and air-supported structures that cover an area of 900 square feet (84 m^2) or less, including all connecting areas or spaces with a common means of egress or entrance and with an occupant load of 50 or less persons.			
Tire-rebuilding plants. An operational permit is required for the operation and maintenance of a tire-rebuilding plant.			
Waste handling. An operational permit is required for the operation of wrecking yards, junk yards and waste material-handling facilities.			
Wood products. An operational permit is required to store chips, hogged material, lumber or plywood in excess of 200 cubic feet (6 m^3).			

Reason Statement: This proposal adds an additional operational permit for localities to consider using to protect their State Regulated Care Facilities (SCFRs) and recover costs from state-mandated inspections. Administrative regulation changes in the Department of Social Services and other agencies regulating SRCFs have recently changed to require inspection of childcare and other facilities by the local fire official (22VAC40-185-260 - https://www.dss.virginia.gov/family/cc/index.cgi). Prior to this change, such requests were less frequent and most localities simply preformed this inspection without cost recovery. Given the increasing demands on local agency staff and limited budgets, it is important to provide these agencies a means for cost recovery of this mandated service. This proposal intends to provide communities with the ability for cost recovery while making sure that these hazards are being properly operated and maintained.

Resiliency Impact Statement: This proposal will increase Resiliency

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

B1004.3-18

VCC: 1004.3; VEBC: 1101.15; VFC: (N) 1004.3, 403.1.1

Proponents: Andrew Milliken (amilliken@staffordcountyva.gov)

2015 Virginia Construction Code

1004.3 Posting of occupant load. Every room or space that is an assembly or mercantile occupancy and where the *occupant load* of that room or space is 50 or more shall have the *occupant load* of the room or space posted in a conspicuous place, near the main *exit* or *exit access doorway* from the room or space. Posted signs shall be of an *approved* legible permanent design and shall be maintained by the *owner* or the *owner's* authorized agent.

1101.15 Posting of occupant load. Every room or space that is an assembly or mercantile occupancy, and where the occupant load of that room or space is 50 or more, shall have the occupant load of the room or space as determined by the building official posted in a conspicuous place, near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or owner's authorized agent.

(N) 1004.3 Posting of occupant load. Every room or space that is an assembly or mercantile occupancy and where the *occupant load* of that room or space is 50 or more shall have the occupant load of the room or space posted in a conspicuous place near the main *exit* or *exit access* doorway from the room or space. Posted signs shall be of an *approved* legible permanent design and shall be *maintained* by the owner or the owner's authorized agent.

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

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

Reason Statement: This proposal intends to unify the occupant load posting requirements for consistency across the three Virginia Building and Fire Codes that have similar sections - VCC, VEBC, and the VSFPC. This proposal also intends to add a requirement that large mercantile stores post the maximum occupant load for reference. Over the past two decades, injuries and deaths have occurred during overcrowding conditions in these mercantile occupancies. In fact, many jurisdictions and retailers have made significant efforts to incorporate crowd management techniques during seasonal shopping events. This proposal provides consistency throughout the Commonwealth and aids stores and localities in managing safe crowd activities.

Resiliency Impact Statement: This proposal will increase Resiliency

Cost Impact: The code change proposal will not increase or decrease the cost of construction
The only physical requirement that this proposal mandates is that a maximum occupant load sign be posted for reference.

FP107.2(2)-18

VFC: Table 107.2

Proponents: Andrew Milliken (amilliken@staffordcountyva.gov)

2015 Virginia Statewide Prevention Fire Code

Table 107.2

OPERATIONAL PERMIT REQUIREMENTS **(to be filled in by local jurisdiction)**

DESCRIPTION	PERMIT REQUIRED(yes or no)	PERMIT FEE	INSPECTION FEE
Aerosol products. An operational permit is required to manufacture, store or handle an aggregate quantity of Level 2 or Level 3 aerosol products in excess of 500 pounds (227 kg) net weight.			
Amusement buildings. An operational permit is required to operate a special amusement building.			
Aviation facilities. An operational permit is required to use a Group H or Group S occupancy for aircraft servicing or repair and aircraft fuel-servicing vehicles. Additional permits required by other sections of this code include, but are not limited to, hot work, hazardous materials and flammable or combustible finishes.			
Carnivals and fairs. An operational permit is required to conduct a carnival or fair.			
Cellulose nitrate film. An operational permit is required to store, handle or use cellulose nitrate film in a Group A occupancy.			
Combustible dust-producing operations. An operational permit is required to operate a grain elevator, flour starch mill, feed mill, or a plant pulverizing aluminum, coal, cocoa, magnesium, spices or sugar, or other operations producing combustible dusts as defined in Chapter 2.			
Combustible fibers. An operational permit is required for the storage and handling of combustible fibers in quantities greater than 100 cubic feet (2.8 m^3). **Exception:** An operational permit is not required for agricultural storage.			
Commercial Cooking. An operational permit is required for the operation of commercial cooking appliances in occupancies other than assembly occupancies.			
Compressed gas. An operational permit is required for the storage, use or handling at normal temperature and pressure (NTP) of compressed gases in excess of the amounts listed below. **Exception:** Vehicles equipped for and using compressed gas as a fuel for propelling the vehicle.			
PERMIT AMOUNTS FOR COMPRESSED GASES			
Type of Gas	**Amount (cubic feet at NTP)**		
Corrosive	200		
Flammable (except cryogenic fluids and liquefied petroleum gases)	200		
Highly toxic	Any Amount		
Inert and simple asphyxiant	6,000		
Oxidizing (including oxygen)	504		
Pyrophoric	Any Amount		
Toxic	Any Amount		
For SI: 1 cubic foot = 0.02832 m^3.			
Covered and open mall buildings. An operational permit is required for: 1. The placement of retail fixtures and displays, concession equipment, displays of highly combustible goods and similar items in the mall.2. The display of liquid-fired or gas-fired equipment in the mall. 3. The use of open-flame or flame-producing equipment in the mall.			
Cryogenic fluids. An operational permit is required to produce, store, transport on site, use, handle or dispense cryogenic fluids in excess of the amounts listed below. **Exception:** Operational permits are not required for vehicles equipped for and using cryogenic fluids as a fuel for propelling the vehicle or for refrigerating the lading.			
PERMIT AMOUNTS FOR CRYOGENIC FLUIDS			
Type of CryogenicFluid	**Inside Building(gallons)**	**Outside Building(gallons)**	
Flammable	More than 1	60	
Inert	60	500	
Oxidizing (includes oxygen)	10	50	
Physical or health hazard not indicated above	Any Amount	Any Amount	
For SI: 1 gallon = 3.785 L.			

Cutting and welding. An operational permit is required to conduct cutting or welding operations within the jurisdiction.			
Dry cleaning plants. An operational permit is required to engage in the business of dry cleaning or to change to a more hazardous cleaning solvent used in existing dry cleaning equipment.			
Exhibits and trade shows. An operational permit is required to operate exhibits and trade shows.			
Explosives, fireworks, and pyrotechnics. An operational permit is required for the storage, handling, sale or use of any quantity of explosive, explosive materials, *fireworks*, pyrotechnic special effects, or pyrotechnic special effects material within the scope of Chapter 56. **Exception:** Storage in Group R-3 or R-5 occupancies of smokeless propellant, black powder and small arms primers for personal use, not for resale, and in accordance with the quantity limitations and conditions set forth in Section 5601.1, Exceptions 4 and 12.			
Explosives, restricted manufacture. An operational permit is required for the restricted manufacture of explosives within the scope of Chapter 56.			
Explosives, unrestricted manufacture. An operational permit is required for the unrestricted manufacture of explosives within the scope of Chapter 56			
Fire hydrants and valves. An operational permit is required to use or operate fire hydrants or valves intended for fire suppression purposes that are installed on water systems and accessible to a fire apparatus access road that is open to or generally used by the public. **Exception:** An operational permit is not required for authorized employees of the water company that supplies the system or the fire department to use or operate fire hydrants or valves.			
Flammable and combustible liquids. An operational permit is required: 1. To use or operate a pipeline for the transportation within facilities of flammable or combustible liquids. This requirement shall not apply to the offsite transportation in pipelines regulated by the U.S. Department of Transportation (DOTn) nor does it apply to piping systems. 2. To store, handle or use Class I liquids in excess of 5 gallons (19 L) in a building or in excess of 10 gallons (37.9 L) outside of a building, except that a permit is not required for the following: 2.1. The storage or use of Class I liquids in the fuel tank of a motor vehicle, aircraft, motorboat, mobile power plant or mobile heating plant, unless such storage, in the opinion of the fire official, would cause an unsafe condition. 2.2. The storage or use of paints, oils, varnishes or similar flammable mixtures when such liquids are stored for maintenance, painting or similar purposes for a period of not more than 30 days. 3. To store, handle or use Class II or Class IIIA liquids in excess of 25 gallons (95 L) in a building or in excess of 60 gallons (227 L) outside a building, except for fuel oil used in connection with oil-burning equipment. 4. To remove Class I or Class II liquids from an underground storage tank used for fueling motor vehicles by any means other than the *approved*, stationary on-site pumps normally used for dispensing purposes. 5. To operate tank vehicles, equipment, tanks, plants, terminals, wells, fuel-dispensing stations, refineries, distilleries and similar facilities where flammable and combustible liquids are produced, processed, transported, stored, dispensed or used.6. To install, alter, remove, abandon, place temporarily out of service (for more than 90 days) or otherwise dispose of an underground, protected above-ground or above-ground flammable or combustible liquid tank. 7. To change the type of contents stored in a flammable or combustible liquid tank to a material that poses a greater hazard than that for which the tank was designed and constructed.8. To manufacture, process, blend or refine flammable or combustible liquids.			
Floor finishing. An operational permit is required for floor finishing or surfacing operations exceeding 350 square feet (33 m^2) using Class I or Class II liquids.			
Fruit and crop ripening. An operational permit is required to operate a fruit- or crop-ripening facility or conduct a fruit-ripening process using ethylene gas.			
Fumigation, thermal, and insecticidal fogging. An operational permit is required to operate a business of fumigation, thermal, or insecticidal fogging and to maintain a room, vault or chamber in which a toxic or flammable fumigant is used.			
Hazardous materials. An operational permit is required to store, transport on site, dispense, use or handle hazardous materials in excess of the amounts listed below.			

PERMIT AMOUNTS FOR HAZARDOUS MATERIALS	
Type of Material	**Amount**
Combustible liquids	See flammable and combustible liquids
Corrosive materials	
Gases	See compressed gases
Liquids	55 gallons

Solids	1000 pounds
Explosive materials	See explosives
Flammable materials	
Gases	See compressed gases
Liquids	See flammable and combustible liquids
Solids	100 pounds
Highly toxic materials	
Gases	See compressed gases
Liquids	Any amount
Solids	Any amount
Oxidizing materials	
Gases	See compressed gases
Liquids	
Class 4	Any amount
Class 3	1 gallon[a]
Class 2	10 gallons
Class 1	55 gallons
Solids	
Class 4	Any amount
Class 3	10 pounds[b]
Class 2	100 pounds
Class 1	500 pounds
Organic peroxides	
Liquids	
Class I	Any amount
Class II	Any amount
Class III	1 gallon
Class IV	2 gallons
Class V	No permit required
Solids	
Class I	Any amount
Class II	Any amount
Class III	10 pounds
Class IV	20 pounds
Class V	No permit required
Pyrophoric materials	
Gases	See compressed gases
Liquids	Any amount
Solids	Any amount
Toxic materials	
Gases	See compressed gases
Liquids	10 gallons
Solids	100 pounds
Unstable (reactive) materials	
Liquids	
Class 4	Any amount

Class 3	Any amount			
Class 2	5 gallons			
Class 1	10 gallons			
Solids				
Class 4	Any amount			
Class 3	Any amount			
Class 2	50 pounds			
Class 1	100 pounds			
Water reactive materials				
Liquids				
Class 3	Any amount			
Class 2	5 gallons			
Class 1	55 gallons			
Solids				
Class 3	Any amount			
Class 2	50 pounds			
Class 1	500 pounds			
For SI: 1 gallon = 3.785 L, 1 pound = 0.454 kg. a. Twenty gallons when Table 5003.1.1(1) Note k applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities of 20 gallons or less.b. Two hundred pounds when Table 5003.1.1(1) Note k applies and hazard identification signs in accordance with Section 5003.5 are provided for quantities of 200 pounds or less.				
HPM facilities. An operational permit is required to store, handle or use hazardous production materials.				
High piled storage. An operational permit is required to use a building or portion thereof as a high-piled storage area exceeding 500 square feet (46 m^2).				
Hot work operations. An operational permit is required for hot work including, but not limited to: 1. Public exhibitions and demonstrations where hot work is conducted. 2. Use of portable hot work equipment inside a structure. **Exception:** Work that is conducted under a construction permit. 3. Fixed-site hot work equipment such as welding booths. 4. Hot work conducted within a hazardous fire area. 5. Application of roof coverings with the use of an open-flame device. 6. When *approved*, the fire official shall issue a permit to carry out a Hot Work Program. This program allows *approved* personnel to regulate their facility's hot work operations. The *approved* personnel shall be trained in the fire safety aspects denoted in this chapter and shall be responsible for issuing permits requiring compliance with the requirements found in this chapter. These permits shall be issued only to their employees or hot work operations under their supervision.				
Industrial ovens. An operational permit is required for operation of industrial ovens regulated by Chapter 30.				
Lumber yards and woodworking plants. An operational permit is required for the storage or processing of lumber exceeding 100,000 board feet (8,333 ft^3) (236 m^3).				
Liquid-fueled or gas-fueled vehicles or equipment in assembly buildings. An operational permit is required to display, operate or demonstrate liquid-fueled or gas-fueled vehicles or equipment in assembly buildings.				
LP-gas. An operational permit is required for: 1. Storage and use of LP-gas. **Exception:** An operational permit is not required for individual containers with a 500-gallon (1893 L) water capacity or less or multiple container systems having an aggregate quantity not exceeding 500 gallons (1893 L), serving occupancies in Group R-3.2. Operation of cargo tankers that transport LP-gas.				
Magnesium. An operational permit is required to melt, cast, heat treat or grind more than 10 pounds (4.54 kg) of magnesium.				
Miscellaneous combustible storage. An operational permit is required to store in any building or upon any premises in excess of 2,500 cubic feet (71 m^3) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork or similar combustible material.				
Mobile food preparation vehicles. A permit is required for *mobile food preparation vehicles* equipped with appliances that produce smoke or grease laden vapors. **Exception:** Recreational vehicles used for private recreation.				
Open burning. An operational permit is required for the kindling or maintaining of an open fire or a fire on				

Open burning. An operational permit is required for the kindling or maintaining of an open fire or a fire on any public street, alley, road, or other public or private ground. Instructions and stipulations of the permit shall be adhered to. **Exception:** Recreational fires.			
Open flames and candles. An operational permit is required to use open flames or candles in connection with assembly areas, dining areas of restaurants or drinking establishments.			
Open flames and torches. An operational permit is required to remove paint with a torch, or to use a torch or open-flame device in a wildfire risk area.			
Organic coatings. An operational permit is required for any organic-coating manufacturing operation producing more than 1 gallon (4 L) of an organic coating in one day.			
Places of assembly. An operational permit is required to operate a place of assembly.			
Private fire hydrants. An operational permit is required for the removal from service, use or operation of private fire hydrants. **Exception:** An operational permit is not required for private industry with trained maintenance personnel, private fire brigade or fire departments to maintain, test and use private hydrants.			
Pyrotechnic special effects material. An operational permit is required for use and handling of pyrotechnic special effects material.			
Pyroxylin plastics. An operational permit is required for storage or handling of more than 25 pounds (11 kg) of cellulose nitrate (pyroxylin) plastics and for the assembly or manufacture of articles involving pyroxylin plastics.			
Refrigeration equipment. An operational permit is required to operate a mechanical refrigeration unit or system regulated by Chapter 6.			
Repair garages and service stations. An operational permit is required for operation of repair garages and automotive, marine and fleet service stations.			
Rooftop heliports. An operational permit is required for the operation of a rooftop heliport.			
Spraying or dipping. An operational permit is required to conduct a spraying or dipping operation utilizing flammable or combustible liquids or the application of combustible powders regulated by Chapter 24.			
Storage of scrap tires and tire byproducts. An operational permit is required to establish, conduct or maintain storage of scrap tires and tire byproducts that exceeds 2,500 cubic feet (71 m^3) of total volume of scrap tires and for indoor storage of tires and tire byproducts.			
Temporary membrane structures and tents. An operational permit is required to operate an air-supported temporary membrane structure or a tent. **Exceptions:** 1. Tents used exclusively for recreational camping purposes. 2. Tents and air-supported structures that cover an area of 900 square feet (84 m^2) or less, including all connecting areas or spaces with a common means of egress or entrance and with an occupant load of 50 or less persons.			
Tire-rebuilding plants. An operational permit is required for the operation and maintenance of a tire-rebuilding plant.			
Waste handling. An operational permit is required for the operation of wrecking yards, junk yards and waste material-handling facilities.			
Wood products. An operational permit is required to store chips, hogged material, lumber or plywood in excess of 200 cubic feet (6 m^3).			

Reason Statement: This proposal adds an additional operational permit for localities to consider using to protect their restaurant and commercial cooking businesses. The numbers speak for themselves regarding the hazard and financial impact that theses fires have in communities throughout the Commonwealth and nation. According to the NFPA, approximately 61% of all restaurant fires between 2010 and 2014 were caused by cooking – with cooking equipment or materials being the most frequent items initially ignited and therefore the cause of the fire. This makes up three out of five fires and 38% of direct property damage. Approximately 22% of these fires were a result of failure to clean, 14% electrical failure or malfunction, 12% mechanical failure or malfunction and 8% unattended equipment. Deep fryers were involved in one of five fires (21%), ranges or cooktops in 14% of fires, cooking grills in 6%, and ovens or rotisserie ovens in 5%. These fires resulted in direct property damage of $165 million annually. Although permits are already required for locations that have occupant loads of more than 50 persons (Assembly), there are numerous cooking operations that are not routinely inspected to ensure that proper cleaning and maintenance is being completed. In fact, even food trucks with commercial cooking equipment with grease-laden vapors are subject to permits and inspections but similar operations in "brick and mortar" businesses that are often attached to other occupied spaces have no such requirement. This proposal intends to provide communities with the ability to ensure that these hazards are being properly operated and maintained.

Resiliency Impact Statement: This proposal will increase Resiliency

Cost Impact: The code change proposal will not increase or decrease the cost of construction
This proposal applies to existing cooking operations and does not require construction.

EB1101.18(1)-18

VEBC: 1101.18, 1101.18.1 (New)

Proponents: Andrew Milliken (amilliken@staffordcountyva.gov)

2015 Virginia Existing Building Code

Revise as follows:

~~**1101.17**~~ **1101.18** ~~**Standards for replacement glass.**~~ **High-Rise Fire Sprinklers** ~~In accordance with § 36-99.2 of the Code of Virginia, any replacement glass installed in *buildings* constructed prior to the first edition of the USBC shall meet the quality and installation standards for glass installed in new *buildings* as are in effect at the time of installation. In addition, as a requirement of this code, the installation or replacement of glass in *buildings* constructed under any edition of the USBC shall be as required for new installations.~~

As of no later than March 1, 2031, all existing high-rise buildings with standpipe systems shall be equipped throughout with an NFPA 13 automatic fire sprinkler system or hold an approved compliance schedule in accordance with 1101.18.1

Exceptions:

1.Airport traffic control towers.

2.Open parking structures.

3.Group U occupancies.

4.Occupancies in Group F-2.

1101.18.1 Compliance Schedule Building owners shall file a compliance schedule with the building official not later than 365 days after receipt of a written notice of violation. The compliance schedule shall not exceed 12 years for an automatic sprinkler system retrofit.

Reason Statement: NOTE: This proposal is not intended to delete or remove 1101.17 but rather just create a new 1101.18 and subsection. This proposal is based on the 2018 International Fire Code, NFPA 1 and NFPA 101. Modern fire and building codes require complete automatic fire sprinkler protection and a variety of other safety features in new high-rise construction. Many older high-rise buildings lack automatic fire sprinkler protection and other basic fire protection features necessary to protect occupants, emergency responders, and the structure itself. Without complete automatic fire sprinkler protection, fire departments cannot provide the level of protection that high-rise buildings demand.

Existing high-rise buildings that are not protected with fire sprinklers represent a significant hazard to occupants and fire fighters. Additionally, high-rise fires can significantly impact a community's infrastructure and economic viability.

Between 2009 and 2013, there was an average of 14,500 reported structure fires in high-rise buildings annually. These incidents resulted in 40 civilian deaths, 520 civilian injuries, and $154 million in direct property damage per year.

By their very nature, high-rise fires present unique fire-fighting challenges that are extremely difficult for fire fighters to mitigate without the presence of automatic sprinkler systems. Some of these challenges include:

- •High-rise structure fires require significantly more resources, such as personnel and equipment, to extinguish than do fires in other types of occupancies. This further strains the responding fire department and fire fighters.
- •Due to their height, smoke movement in high-rise structures is very different from that of other structures. Temperature gradients result in varying pressures throughout the structure, which can allow for the rapid, uncontrolled movement of smoke and flame (known as the "stack effect"). By design, exits from high-rise structures are limited. In an emergency, the movement of people out of a building is particularly difficult. A prime example of this hazard is the One Meridian Plaza fire. This fire occurred on the 22nd floor of the 38-story Meridian Bank Building and was reported to the Philadelphia Fire Department on February 23, 1991 and burned for more than 19 hours. The fire caused three firefighter fatalities and injuries to 24 fire fighters. The 12 alarms brought 51 engine companies, 15 ladder companies, 11 specialized units, and more than 300 fire fighters to the scene. It was the largest high-rise office building fire in modern American history, completely consuming eight floors of the building, and was only controlled only when it reached a floor that was protected by automatic sprinklers. In 1999, the building was torn down amidst a storm of litigation.
- •The HVAC and other utilities in some high-rises service multiple levels and can facilitate the spread of smoke and flame through a building.
- •Due to the height of the building, response times for the fire department to reach the actual fire itself are extended, contributing to larger fire growth and more extensive smoke spread.

This proposal provides model code text to require existing high-rise buildings to be retrofitted with fire sprinklers over a very long compliance duration. In fact, by the time that this section would become official effective, high-rise buildings that were not otherwise required by the USBC to

have fire sprinklers will be at least 50 years old. Also, this proposal recognizes the importance of existing standpipe systems (adequate water supply infrastructure) to make this retrofit provision reasonable. Therefore, any existing high-rise without a building standpipe system would not be subject to this requirement. The proposal contains the basic automatic sprinkler system requirements and provides reasonable timeframes for building owners to meet such requirements. The requirement for the retroactive installation of a sprinkler system in a high-rise building is one that is costly and often a disruption to the use of the building. This is understood and flexibility is built into the appendix to ease the burden and recognize such installations cannot occur overnight. Instead, it provides some reasonable limits as to when a compliance schedule is to be provided to a jurisdiction (1 year after the receipt of a written notice of violation). Additionally, this section allows up to 12 years for the installation process to be completed. The owners may prioritize based, for example, on changing tenants or planned renovations as to which portion of the building will be retrofitted first.

Fires in high-rise buildings “are extremely challenging for occupants to not only escape, but to know what to do, in regards to exiting or staying in place,” according to the National Fire Sprinkler Association, adding that “high-rise fires are especially challenging to firefighters.”

There were an average of 40 deaths and 520 injuries in high-rise building fires per year between 2009 and 2013 in the U.S., according to the National Fire Protection Association.Nationally, the civilian death rate of 1.4 per 1,000 reported fires was 81 percent lower from 2010 to 2014 in residences with sprinklers, including apartments, compared to residences that didn’t have them, said another report from the National Fire Protection Association.

Resiliency Impact Statement: This proposal will increase Resiliency

Cost Impact: The code change proposal will not increase or decrease the cost of construction
This proposal is a retrofit requirement, not applicable to new construction. Furthermore, it would only apply to buildings already equipped with the majority of the infrastructure required for fire sprinkler systems (it only applies to high-rise buildings that are already equipped with standpipe systems). In addition, in 2017 Congress passed legislation that provides federal tax incentives to retrofit buildings with fire sprinklers (https://nfsa.org/taxreform/)

B905.5.3-18

IBC®: [F] 905.5.3, [F] 909.7, [F] 909.8, 909.12.1, [F] 912.2.1, [F] 912.2.2, [F] 912.4, [F] 912.4.2, 1004.5, 1004.7, 1004.8, 1013.1

Proponents: Kenney Payne, AIA Virginia (kpayne@moseleyarchitects.com)

2018 International Building Code

[F] 905.5.3 Class II system 1-inch hose. A minimum 1-inch (25 mm) hose shall be allowed to be used for hose stations in light-hazard occupancies where investigated and *listed* for this ~~service and where *approved* by the fire code official.~~ service.

[F] 909.7 Airflow design method. ~~Where *approved* by the fire code official, smoke~~ Smoke migration through openings fixed in a permanently open position, which are located between smoke control zones by the use of the airflow method, shall be permitted. The design airflow shall be in accordance with this section. Airflow shall be directed to limit smoke migration from the fire zone. The geometry of openings shall be considered to prevent flow reversal from turbulent effects. Smoke control systems using the airflow method shall be designed in accordance with NFPA 92.

[F] 909.8 Exhaust method. ~~Where *approved* by the fire code official, mechanical~~ Mechanical smoke control for large enclosed volumes, such as in atriums or malls, shall be permitted to utilize the exhaust method. Smoke control systems using the exhaust method shall be designed in accordance with NFPA 92.

909.12.1 Verification. Control systems for mechanical smoke control systems shall include provisions for verification. Verification shall include positive confirmation of actuation, testing, manual override and the presence of power downstream of all disconnects. A preprogrammed weekly test sequence shall report abnormal conditions audibly, visually and by printed report. The preprogrammed weekly test shall operate all devices, equipment and components used for smoke control.

Exception: Where verification of individual components tested through the preprogrammed weekly testing sequence will interfere with, and produce unwanted effects to, normal building operation, such individual components are permitted to be bypassed from the preprogrammed weekly testing, ~~where *approved* by the building official and in~~ when in accordance with both of the following:

1. Where the operation of components is bypassed from the preprogrammed weekly test, presence of power downstream of all disconnects shall be verified weekly by a listed control unit.
2. Testing of all components bypassed from the preprogrammed weekly test shall be in accordance with Section 909.20.6 of the International Fire Code.

[F] 912.2.1 Visible location. Fire department connections shall be located on the street side of buildings or facing approved fire apparatus access roads, fully visible and recognizable from the street, fire apparatus access road or nearest point of fire department vehicle access or as otherwise *approved* by the *fire code official*~~.~~. **[<--APPROPRIATE USE]**

Delete without substitution:

~~**[F] 912.2.2 Existing buildings.** On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an *approved* sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall be subject to the approval of the *fire code official.*~~

[F] 912.4 Access. Immediate access to fire department connections shall be ~~maintained at all times and without~~ provided without obstruction by fences, bushes, trees, walls or any other fixed or moveable ~~object. Access to fire department connections shall be *approved* by the *fire code official.*~~ object.

Exception: Fences, where provided with an access gate equipped with a sign complying with the legend requirements of this section and a means of emergency ~~operation. The gate and the means of emergency operation shall be *approved* by the *fire code official* and maintained operational at all times.~~ operation.

[F] 912.4.2 Clear space around connections. A working space of not less than 36 inches (762 mm) in width, 36 inches (914 mm) in depth and 78 inches (1981 mm) in height shall be ~~provided and maintained in~~ provided in front of and to the sides of wall-mounted fire department connections and around the circumference of free-standing fire department ~~connections, except as otherwise required or *approved* by the *fire code official.*~~ connections.

1004.5 Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.5. For areas without *fixed seating*, the *occupant load* shall be not less than that number determined by dividing the floor area under consideration by the *occupant load* factor assigned to the function of the space as set forth in Table 1004.5. Where an intended function is not *listed* in Table 1004.5, the *building official* shall establish a function based on a *listed* function that most nearly resembles the intended function.

Exception: ~~Where *approved* by the *building official*, the~~ The actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation, shall be permitted to be used in the determination of the design *occupant load*.

1004.7 Outdoor areas. *Yards*, patios, occupied roofs, *courts* and similar outdoor areas accessible to and usable by the building occupants shall be provided with *means of egress* as required by this chapter. The *occupant load* of such outdoor areas shall be ~~assigned by the *building official*~~ determined in accordance with the anticipated use. Where outdoor areas are to be used by persons in addition to the occupants of the building, and the path of egress travel from the outdoor areas passes through the building, *means of egress* requirements for the building shall be based on the sum of the *occupant loads* of the building plus the outdoor areas.

Exceptions:

1. Outdoor areas used exclusively for service of the building need only have one *means of egress*.
2. Both outdoor areas associated with Group R-3 and individual dwelling units of Group R-2.

1004.8 Concentrated business use areas. The occupant load factor for concentrated business use shall be applied to telephone call centers, trading floors, electronic data processing centers and similar business use areas with a higher density of occupants than would normally be expected in a typical business occupancy environment. ~~Where approved by the *building official*, the~~ The actual occupant load for concentrated business use areas shall be ~~the actual *occupant load*~~ permitted, but not less than one occupant per 50 square feet (4.65 m^2) of gross occupiable floor space.

1013.1 Where required. Exits and *exit access* doors shall be marked by an *approved* exit sign readily visible from any direction of egress travel. The path of egress travel to *exits* and within *exits* shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening *means of egress* doors within *exits* shall be marked by exit signs. Exit sign placement shall be such that any point in an *exit access corridor* or *exit passageway* is within 100 feet (30 480 mm) or the *listed* viewing distance of the sign, whichever is less, from the nearest visible exit sign.

Exceptions:

1. Exit signs are not required in rooms or areas that require only one exit or *exit access*.
2. Main exterior exit doors or gates that are obviously and clearly identifiable as *exits* need not have exit ~~signs where *approved* by the building official.~~ signs.
3. Exit signs are not required in occupancies in Group U and individual *sleeping units* or *dwelling units* in Group R-1, R-2 or R-3.
4. Exit signs are not required in dayrooms, sleeping rooms or dormitories in occupancies in Group I-3.
5. In occupancies in Groups A-4 and A-5, exit signs are not required on the seating side of vomitories or openings into seating areas where exit signs are provided in the concourse that are readily apparent from the vomitories. Egress lighting is provided to identify each vomitory or opening within the seating area in an emergency.

Reason Statement:
Unless specifically addressed in Chapter 1 or by state amendment, all exceptions, exemptions, allowances, options, etc. are available to the owner or its representative(s). If such language was left in, we would no longer have a "Uniform" "Statewide" building code because every code/fire official could either allow its use or not.

The below was provided by Vernon Hodge trying to address the subject where the code says "Subject to the approval of the code official, " or similar language:

- *Anyway, all administrative language in a model code or standard used as part of our state codes is superseded to the extent that it is different from our state administrative language. That's set out in Section 101.7 of the VCC. The phrase "subject to the approval of the building official" used the way it is used is administrative language that permits a building official to say that you cannot use the exception. For that to be valid administrative language, there has to be authorization in Chapter 1 of the VCC allowing a building official to exclude the use of a part of the code. There is no such language in Chapter 1. All provisions of the code, exceptions, exemptions, allowances, etc. are perfectly valid and may be used. There is no authorization for a building official to decide that a code provision may not be used.* ***Therefore, language such as "subject to the approval of the building official" in a model code or standard is unenforceable under the VCC and VRC.***

  However, if that language is used in a state amendment to the model codes or standards, then Section 101.7 of the VCC permits it to be enforceable. Therefore, to get final resolution to the issue, the Board of Housing and Community Development could decide whether they want to use the model code idea that [such provisions] *should be controlled by whether a building official will permit it. There is a special section in Chapter 1 of the VCC (Section 103.9) where the board authorizes the use of certain administrative provisions of the model codes and standards. They could authorize the use of the language "subject to the approval of the building official" there, although I believe they would be very reluctant to do that, as it* ***would lead to non-uniform enforcement of the codes****.*

912.2.2 belongs in the VEBC. Addressed in a separate code proposal.

912.4 and 912.4.2: References to maintenance belongs in the Virginia Maintenance Code.

1004.7: Building official should not be the entity to "determine" the occupant load - they have the authority to "approve" (or not) the occupant load established by the owner or its representative(s).

1004.8: Revised to similar language used in 1004.5, Exception - "permitted."

Resiliency Impact Statement:
Will not increase or decrease resiliency.

Cost Impact:
In most cases, where the "actual" occupant load could be used in lieu of the table, it would result in a DECREASE in the cost of construction, depending on the situation and comparison between complying with the exception or not.

For example, take a typical classroom of 800 SF. Per the Table, that would result in 40 occupants. However, most school districts limit the number of students by policy to 20-30. Now, say this was a high school wit 100 classrooms. Per the Table, that would result in **4,000 occupants** for just the classrooms (not counting the gym, auditorium, cafeteria, media center, etc.) compared to say **3,000 occupants** (using 30 as the cap). The reduction in plumbing fixtures alone would amount to a lot of savings.

The same could be said about the other code provisions if a code/fire official requires something MORE than is required by code.

EB1101.18(2)-18

IBC®: [F] 502.1, [F] 912.2.2; VEBC: 1101.18 (New), 1101.19 (New)

Proponents: Kenney Payne, AIA Virginia (kpayne@moseleyarchitects.com)

2018 International Building Code

[F] 502.1 Address identification. ~~New and existing buildings~~ New buildings shall be provided with *approved* address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of $^1/_2$ inch (12.7 mm). Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure. ~~Address identification shall be maintained.~~

Delete without substitution:

~~**[F] 912.2.2 Existing buildings.** On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an *approved* sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall be subject to the approval of the *fire code official*.~~

Add new text as follows:

1 1101.18 New Code Section Address identification. Where required by the fire code official, existing buildings shall be provided with *approved* address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of $^1/_2$ inch (12.7 mm). Address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure.

Revise as follows:

1101.19 Fire department connection sign. On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an *approved* sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location.

Reason Statement: Both provisions in the IBC deal with existing buildings and thus should be located in the VEBC.
It was located in the retrofit chapter since such signs can be requested by the fire official essentially at any time it is deemed necessary. Otherwise, it could be located in Chapter 3, but that implies that some other work (repairs, alterations, addition, change of occupancy) is occurring.

The language, "Such signs shall be subject to the approval of the fire code official" is redundant and not needed since such signs must be "approved" in the first place.

Resiliency Impact Statement:
Will not increase or decrease resiliency.

Cost Impact:
Will not increase or decrease cost of construction. Remember - it is in the code NOW!

B713.11-18

IBC®: 713.11; IMC®: [BF] 607.5.5.1

Proponents: Richard Grace, VPMIA/VBCOA (richard.grace@fairfaxcounty.gov)

2018 International Building Code

Revise as follows:

713.11 Enclosure at the bottom. Shafts that do not extend to the bottom of the building or structure shall comply with one of the following:

1. They shall be enclosed at the lowest level with construction of the same *fire-resistance rating* as the lowest floor through which the shaft passes, but not less than the rating required for the shaft enclosure.
2. They shall terminate in a room having a use related to the purpose of the shaft. The room shall be separated from the remainder of the building by *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both. The *fire-resistance rating* and opening protectives shall be not less than the protection required for the shaft enclosure.

~~3. They shall be protected by *approved fire dampers* installed in accordance with their listing at the lowest floor level within the shaft enclosure.~~

Exceptions:

1. The fire-resistance-rated room separation is not required, provided that the only openings in or penetrations of the shaft enclosure to the interior of the building occur at the bottom. The bottom of the shaft shall be closed off around the penetrating items with materials permitted by Section 718.3.1 for draftstopping, or the room shall be provided with an *approved automatic sprinkler system*.
2. A shaft enclosure containing a waste or linen chute shall not be used for any other purpose and shall discharge in a room protected in accordance with Section 713.13.4.
3. The fire-resistance-rated room separation and the protection at the bottom of the shaft are not required provided that there are no combustibles in the shaft and there are no openings or other penetrations through the shaft enclosure to the interior of the building.

[BF] 607.5.5.1 Enclosure at the bottom. Shaft enclosures that ~~do not extend~~ terminate in a room having a use related to the ~~bottom~~ purpose of the ~~building or structure~~ shaft shall be permitted to be protected in accordance with Section 713.11 , Item 2 of the ~~International Building~~ Virginia Construction Code.

Reason Statement: VCC 713.11 states that where a shaft doesn't extend to the bottom of the structure, **one** of the following shall apply. If you apply Item 1, does Item 3 not apply or vice versa? It is written in such a way. Item 3 is also confusing in that it states the fire damper shall be installed "at the lowest floor level within the shaft enclosure." If the floor isn't rated and the shaft passes through the floor (as permitted by Item 1), why should the fire damper be installed at the floor level inside the shaft? Penetrations of a shaft by ducts and air transfer openings are already covered by 713.10, which sends you to Section 717. Section 717.5.3 provides provisions for duct penetrations into shaft enclosures, whether that be a penetration into the side, the top or the bottom of the shaft enclosure. Lastly, Item 3 requires only a fire damper whereas VCC 717.5.3 requires a fire damper and a smoke damper. This Item 3 conflict eliminates the smoke damper requirement.
VMC 706.5.5.1 - This companion change will align the two code sections and still permit a duct contained within a shaft to terminate in a room having a use related to the purpose of the shaft without requiring the installation of a fire damper.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency

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

B713.8-18

IBC®: 713.8

Proponents: Dennis Hart, VPMIA/VBCOA (dennis.hart@fairfaxcounty.gov); Richard Grace (richard.grace@fairfaxcounty.gov)

2018 International Building Code

Revise as follows:

713.8 Penetrations. Penetrations in a shaft enclosure shall be protected in accordance with Section ~~714 as required for *fire barriers*.~~ 714. Structural elements, such as beams or joists, where protected in accordance with Section 714 shall be permitted to penetrate a shaft enclosure.

Reason Statement: IBC 713.8 provides direction for shaft penetration protection of pipes, tubes, conduits and such. It states “Penetrations in a shaft enclosure shall be protected in accordance Section 714 as required for fire barriers”(emphasis added). Section 713.2 states that a shaft shall be constructed as fire barriers or horizontal assemblies or both. What about penetrations of a horizontal assembly used in a shaft enclosure? Does this mean that penetrations are not permitted in the horizontal assembly portion of the shaft or is the intent to use penetration requirements for fire barriers on horizontal assemblies? I don’t think the intent was either. This proposal eliminates that question by sending you to Section 714.3 for penetrations of fire barriers and Section 714.4 for penetrations of horizontal assemblies.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency

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

FP405.2-18

VFC: TABLE 405.2

Proponents: Andrew Milliken (amilliken@staffordcountyva.gov)

2015 Virginia Statewide Prevention Fire Code

Revise as follows:

TABLE 405.2
FIRE AND EVACUATION DRILL FREQUENCY AND PARTICIPATION

GROUP OR OCCUPANCY	FREQUENCY	PARTICIPATION
Group A	Quarterly	Employees
Group B[b]	Annually	All occupants
Group B[b], [c] (Ambulatory care facilities)	Annually	Employees
Group B[b] (Clinic, outpatient)	Annually	Employees
Group E	Monthly[a]	All occupants
Group F	Annually	Employees
Group I-1	Semiannually on each shift[a]	All occupants
Group I-2	Quarterly on each shift[a]	Employees
Group I-3	Quarterly on each shift[a]	Employees
Group I-4	Monthly on each shift[a]	All occupants
Group R-1	Quarterly on each shift	Employees
Group R-2[d]	Four annually	All occupants
Group R-4	Semiannually on each shift[a]	All occupants
SRCF	Monthly	All occupants

a. In severe climates, the *fire code official* shall have the authority to modify the emergency evacuation drill frequency.

b. Emergency evacuation drills are required in Group B buildings having an *occupant load* of 500 or more persons or more than 100 persons above or below the lowest *level of exit discharge*.

c. Emergency evacuation drills are required in ambulatory care facilities in accordance with Section 403.3.

d. Emergency evacuation drills in Group R-2 college and university buildings shall be in accordance with Section 403.10.2.1. Emergency evacuation drills are required in Group R-2 occupancies with a majority of residents 55 years of age or older. Other Group R-2 occupancies do not require routine emergency evacuation drills but shall be in accordance with Section 403.10.2.2.

Reason Statement: The 2015 IFC (and therefore the 2015 VSFPC) brought in a new requirement that mandates evacuation drills for all R-2 occupancies 4 times annually. The code and commentary are not clear if this was intended to apply so broadly however when reading it as currently written, the 2018 IFC would do the same. This proposal does two things. First, it looks to clear up the confusion about which R-2 occupancies require evacuation drills 4 times per year. It also intends to highlight and start to address an increasing population risk in our communities by focusing attention on the ability of occupants to physically evacuate during an emergency. By requiring these evacuation drills for a building where the majority of residents are 55 years of age or older, ambulatory ability concerns can be identified prior to an actual emergency incident. According to the National Fire Protection Association, at age 65 or older, people are twice as likely to be killed or injured by fires compared to the population at large. In fact they indicate that over half of all fire deaths in residential buildings from 2011-2015 were those who are 55 years of age or older. This proposal is intended to correct the recent confusion about broadly required R-2 occupancy evacuation drills as well as focus the requirement on an increasing hazard area within our communities.

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

EB704.1-18

VEBC: SECTION 704, 704.1, 704.2, 704.3, 704.3 (New)

Proponents: Kenney Payne, AIA Virginia (kpayne@moseleyarchitects.com)

2015 Virginia Existing Building Code

SECTION 704
FIRE PROTECTION

704.1 Fire protection systems. Fire protection systems shall be provided in accordance with Sections 704.2 and 704.3.

Revise as follows:

704.2 Fire sprinkler system. Where a *building* undergoes a *change of occupancy* that requires an automatic fire sprinkler system to be provided based on the new occupancy in accordance with ~~Chapter 9~~ Section 903 of the VCC, such automatic fire sprinkler system shall be provided throughout the area where the *change of occupancy* occurs.

704.3 Fire alarm and detection system. Where a *building* undergoes a *change of occupancy* that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with ~~Chapter 9~~ Section 907 of the VCC, such fire alarm and detection system shall be provided throughout the area where the *change of occupancy* occurs. Existing alarm notification appliances shall be automatically activated throughout the *building*. Where the *building* is not equipped with a fire alarm system, alarm notification appliances shall be provided throughout the area where the *change of occupancy* occurs in accordance with Section 907 of the VCC as required for new construction.

704.3 Standpipe system. Where a building undergoes a change of occupancy that requires a standpipe system to be provided based on the new occupancy in accordance with Section 905 of the VCC, such standpipe system shall be provided to serve the area where the change of occupancy occurs.

Reason Statement: Clarification is needed to avoid misinterpretations of the intended requirements.
It appears a number of plan reviewers are interpreting that VEBC Section 704 requires compliance with the *entire* Chapter 9 of the VCC. This would also bring in standpipe systems, portable fire extinguishers, emergency alarm systems, smoke control systems, smoke and heat removal, etc. That is not the intent of VEBC Section 704.

When the VEBC sends one to another iCode (e.g., the VCC or VPC) it is only for that specific requirement and then you go back to the VEBC.
In this case, VEBC 704.2 requires you to go to VCC Chapter 9 to see if the new occupancy would require a sprinkler system. THAT'S IT! It is to get a 'yes' or 'no' answer. If the answer is 'yes' (that the new occupancy would require a sprinkler system per VCC 903), then you go back to the VEBC to see *where* it is located - only where the change of occupancy occurs.

It is the same process for 704.3 regarding fire alarms and detection systems.

It is not the intent of VEBC Section 704 to require you to comply with everything in VCC Chapter 9 - it requires only for you to see if a sprinkler system and/or fire alarm system would be required based on the new occupancy.

Example:

- Existing building (or portion thereof) is 'B'
- Change of occupancy to 'R-2' (or portion thereof)
- VEBC 704 says to go to VCC Chapter 9 to see if a sprinkler and/or fire alarm system is required for the new portions with the 'R-2' occupancy
  - You go to VCC 903.2.8 to see if a sprinkler system is required for 'R-2'
    - If you meet any of the exceptions - the answer is NO
    - If you do not meet the exceptions - the answer is YES
    - However, do not forget about VEBC 702.1 which requires you to also look at VCC Chapter 4 - specifically Section 420.5; but since it sends you back to the same 903.2.8, the exceptions would still apply for the 'R-2'
  - You go to VCC 907.2.9 to see if a fire alarm and detection system is required for 'R-2'
    - If you meet any of the exceptions - the answer is NO
    - If you do not meet any of the exceptions - the answer is most likely YES
    - However, do not forget about VEBC 702.1 which requires you to also look at VCC Chapter 4 - specifically Section 420.6; in which case you would need to evaluate each of those sections - and only those sections - to determine if you get a 'yes' or 'no'
- If the answers are YES for sprinklers and/or YES for fire alarms, you go back to VEBC 704 to find out *where* they are to be installed
  - In each case, it is only where the change of occupancy occurs
- There is nothing in that process that requires you to evaluate the other sections of VCC Chapter 9 - including Section 905 for standpipe systems

By deleting the reference to the entire Chapter 9 and substituting the specific section within Chapter 9; hopefully, this will clarify the intent and there will no longer be any misinterpretations as it relates to VEBC Section 704.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency

Cost Impact:
If code enforcement officials are requiring standpipes and/or any of the other systems that VCC Chapter 9 covers - this proposal would **DECREASE** the cost of construction, because there would be no need for such systems to be added based on Section 704.

If Section 704 is interpreted as intended, then this proposal would not affect the cost of construction.

FP202(4)-18

IFC®: 202 (New)

Proponents: Linda Hale (Linda.Hale@Loudoun.gov)

2018 International Fire Code

Add new text as follows:

202 Cooking Tent Definition Cooking Tent. A structure, enclosure or shelter, with or with-out sidewalls or drops, constructed of fabric or pliable material supported by any manner except by air or the contents that it protects and which contains cooking equipment that utilize open flames or produce smoke or grease laden vapors for the purpose of preparing and serving food to the public.

Reason Statement: Section 3104.15.5 cooking tents requires no less than 20 feet of separation to be provided from a cooking tent to other tents or membrane structures. This section does refer to "cooking" in the definition, but there is no definition or specifics of what this might entail. This has created conflicts with the health department's requirement to have any "cooking" surface covered from the sky. And what the specifics of cooking entails. The definition of cooking is to "to prepare (food) for eating by applying heat." By this technical definition a sterno can on a steam table is cooking as it applies heat to keep the water bath warm. I do not believe that was the intended rational for separating a "cooking tent". This definition is need to assure there is a clear understanding of what "cooking" specifically is for a tent that drives the separation.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency

Cost Impact: The code change proposal will not increase or decrease the cost of construction
So long as individuals have been requiring the separation that was previously required.

FP319.2.1-18

VFC: 319.2 (New), 319.2.1 (New)

Proponents: Linda Hale (Linda.Hale@Loudoun.gov)

2015 Virginia Statewide Prevention Fire Code

319.2
Permit required

Add new text as follows:

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

Reason Statement: A locality in which the food truck is identified for personal property tax payment is the only jurisdiction that may require a permit. There must be some guidance on who may require a permit for a mobile food preparation vehicle. This does not stop a locality or the SFMO from conduction a life safety inspection when a MFPV is parked with the intention of operating or is operating within their jurisdiction. But a food vendor should not be forced to drive 4 hours to an AHJ so that they may conduct an inspection and garner a permit so that the vendor may return later for a venue in which they are participating. The locality is welcome to conduct an inspection on the day of the venue but not require a permit, fee and forced road trip

Resiliency Impact Statement: This proposal will increase Resiliency

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

FP112.5-18

VFC: 112.5

Proponents: Linda Hale (Linda.Hale@Loudoun.gov)

2015 Virginia Statewide Prevention Fire Code

Revise as follows:

112.5 Application for appeal. A person who has status and standing that their owned or occupied property, structure or business shall be directly affected by the issuance of a permit under this code, or The owner of a structure, the owner's agent or any other person involved in the maintenance of the structure, or activity, may appeal a decision of the fire official concerning the application of the SFPC or the fire official's refusal to grant modification under Section 106.5 to the provisions of the SFPC. The appeal shall first lie to the *LBFPCA* and then to the *State Review Board* except that appeals concerning the application of the SFPC or refusal to grant modifications by the *State Fire Marshal* shall be made directly to the *State Review Board*. The appeal shall be submitted to the *LBFPCA* within 14 calendar days of the application of the SFPC. The application shall contain the name and address of the owner of the structure and the person appealing if not the owner. A copy of the written decision of the fire official shall be submitted along with the application for appeal and *maintained* as part of the record. The application shall be stamped or otherwise marked by the *LBFPCA* to indicate the date received. Failure to submit an application for appeal within the time limit established by this section shall constitute acceptance of the fire official's decision.**Note:** In accordance with § 27-98 of the Code of Virginia, any local fire code may provide for an appeal to a local board of appeals. If no local board of appeals exists, the *State Review Board* shall hear appeals of any local fire code violation.

Reason Statement: As written the application for appeal is limited to structures. The SFPC permits and enforces fire and life safety activities outside of a structure. For example, blasting, fireworks, and open burning. The application for appeal as written does not indicate who may challenge a decision by the fire official in any of these permitted actions. Case in point, an aerial firework permit in a residential community. Does a homeowner within 50 feet of a fire work venue have standing to appeal the code enforcement decisions of the Fire Official? As written they may not. I do not believe that was the intention of this section. The IFC does not limit who an appellant may be except to state that it must be a claim that the intent of this code or the rules legally adopted hereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equivalent method of protection of safety is proposed. The SFPC is too restrictive in this case.
"Standing" is a legal term used in connection with lawsuits and a requirement of Article III of the United States Constitution. In simple terms, courts use "standing" to ask, "Does this party have a 'dog in this fight?'" Standing limits participation in lawsuits and asks whether the person(s) bringing a lawsuit, or defending one, has enough cause to "stand" before the court and advocate, since not anyone can go to court for any reason. To have standing, a party must show an "injury in fact" or in this case a potential injury in fact to their own legal interests. If the party cannot show the potential harm, the party does not have standing and is not the right party to be appearing before the court.

Resiliency Impact Statement: This proposal will increase Resiliency

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

FP319.1.1-18

IFC®: 319.1 (New), 319.1.1 (New), 319.1.2 (New)

Proponents: Linda Hale (Linda.Hale@Loudoun.gov)

2018 International Fire Code

319.1
General

Add new text as follows:

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

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

Reason Statement: Mobile Food Preparation Vehicles have become a common commodity for venues seeking to serve hot food either inside or outside. But which do not desire to install a commercial kitchen in compliance with the USBC or a restaurant as defined in Section 35.1-1 of the Code of Virginia and licensed as such by the Board of Health. These vehicles typically use LPG or solid fuel to heat and cook the food. As such they should minimally maintain the same separation distance as any open flame cooking device such as a charcoal burner or LPG grill from buildings or other combustible construction. We have found non-road worthy MFPV located on unprotected loading docks set up against the structure and under the loading dock canopy, attached to buildings, or daisy chained together. These are hazards that the building was not designed to withstand, and create an increased hazard to the occupants

Resiliency Impact Statement: This proposal will increase Resiliency

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

FP5003.1.1(1)-18

IFC®: TABLE 5003.1.1(1)

Proponents: Julius Ballanco (JBENGINEER@aol.com)

2018 International Fire Code

Revise as follows:

TABLE 5003.1.1(1)

MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[a, j, m, n, p]

	MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[b]			USE-CLOSED SYSTEMS[b]			USE-OPEN SYSTEMS[b]	
				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)
	Combustible dust	NA	H-2	See Note q	NA	NA	See Note q	NA	NA	See Note q	NA
	Combustible fibers[q]	Loose	H-3	(100)	NA	NA	(100)	NA	NA	(20)	NA
		Baled[o]		(1,000)			(1,000)			(200)	
➡	Combustible liquid[c, i]	II	H-2 or H-3	NA	120[d, e]	NA	NA	120[d]	NA	NA	30[d]
		IIIA	H-2 or H-3		330[d, e]			330[d]			80[d]
		IIIB	NA		13,200[e, f]			13,200[f]			3,300[f]
	Cryogenic Flammable	NA	H-2	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
	Cryogenic Inert	NA	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Cryogenic Oxidizing	NA	H-3	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
	Explosives	Division 1.1	H-1	1[e, g]	(1)[e, g]	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
		Division 1.2	H-1	1[e, g]	(1)[e, g]		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
		Division 1.3	H-1 or H-2	5[e, g]	(5)[e, g]		1[g]	(1)[g]		1[g]	(1)[g]
		Division 1.4	H-3	50[e, g]	(50)[e, g]		50[g]	(50)[g]		NA	NA
		Division 1.4G	H-3	125[e, l]	NA		NA	NA		NA	NA
		Division 1.5	H-1	1[e, g]	(1)[e, g]		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
		Division 1.6	H-1	1[e, g]	NA		NA	NA		NA	NA
	Flammable gas[r]	Gaseous	H-2	NA	NA	1,000[d,e]	NA	NA	1,000[d,e]	NA	NA
		Liquefied			(150)[d,e]	NA		(150)[d,e]	NA		
	Flammable liquid[c]	IA	H-2 or H-3	NA	30[d, e]	NA	NA	30[d]	NA	NA	10d
		IB and IC			120[d, e]			120[d]			30d
	Flammable liquid, combination (IA, IB, IC)	NA	H-2 or H-3	NA	120[d, e, h]	NA	NA	120[d, h]	NA	NA	30[d, h]
	Flammable solid	NA	H-3	125[d, e]	NA	NA	125[d]	NA	NA	25[d]	NA
	Inert Gas	Gaseous	NA	NA	NA	NL	NA	NA	NL	NA	NA
		Liquefied	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Organic peroxide	UD	H-1	1[e, g]	(1)[e, g]	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
		I	H-2	5[d, e]	(5)[d, e]		1[d]	(1)[d]		1[d]	(1)[d]
		II	H-3	50[d, e]	(50)[d, e]		50[d]	(50)[d]		10[d]	(10)[d]
		III	H-3	125[d, e]	(125)[d, e]		125[d]	(125)[d]		25[d]	(25)[d]
		IV	NA	NL	NL		NL	NL		NL	NL

		V	NA	NL	NL		NL	NL		NL	NL
	Oxidizer	4	H-1	1[g]	(1)[e, g]	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
		3[k]	H-2 or H-3	10[d, e]	(10)[d, e]		2[d]	(2)[d]		2[d]	(2)[d]
		2	H-3	250[d, e]	(250)[d, e]		250[d]	(250)[d]		50[d]	(50)[d]
		1	NA	4,000[e, f]	(4,000)[e, f]		4,000[f]	(4,000)[f]		1,000[f]	(1,000)[f]
	Oxidizing gas	Gaseous	H-3	NA	NA	1,500[d,e]	NA	NA	1,500[d,e]	NA	NA
		Liquefied			(150)[d, e]	NA		(150)[d,e]	NA		
	Pyrophoric	NA	H-2	4[e, g]	(4)[e, g]	50[e, g]	1[g]	(1)[g]	10[e, g]	0	0
	Unstable (reactive)	4	H-1	1[e, g]	(1)[e, g]	10[e, g]	0.25[g]	(0.25)[g]	2[e, g]	0.25[g]	(0.25)[g]
		3	H-1 or H-2	5[d, e]	(5)[d, e]	50[d, e]	1[d]	(1)[d]	10[d, e]	1[d]	(1)[d]
		2	H-3	50[d, e]	(50)[d, e]	750[d, e]	50[d]	(50)[d]	750[d, e]	10[d]	(10)[d]
		1	NA	NL	NL	NL	NL	NL	NL	NL	NL
	Water reactive	3	H-2	5[d, e]	(5)[d, e]	NA	5[d]	(5)[d]	NA	1[d]	(1)[d]
		2	H-3	50[d, e]	(50)[d, e]		50[d]	(50)[d]		10[d]	(10)[d]
		1	NA	NL	NL		NL	NL		NL	NL

For SI: 1 cubic foot = 0.02832 m^3, 1 pound = 0.454 kg, 1 gallon = 3.785 ~~L.NA~~ L.NA = Not Applicable, NL = Not Limited, UD = Unclassified Detonable.

a. For use of control areas, see Section 5003.8.3.

b. The aggregate quantity in use and storage shall not exceed the quantity listed for storage.

c. The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited providing the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuff or consumer products and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.

d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e applies, the increase for both notes shall be applied accumulatively.

e. Maximum allowable quantities shall be increased 100 percent where stored in approved storage cabinets, day boxes, gas cabinets, gas rooms, exhausted enclosures or in listed safety cans in accordance with Section 5003.9.10. Where Note d applies, the increase for both notes shall be applied accumulatively.

f. Quantities shall not be limited in a building equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

g. Allowed only in buildings equipped throughout with an approved automatic sprinkler system.

h. Containing not more than the maximum allowable quantity per control area of Class IA, Class IB or Class IC flammable liquids.

i. The maximum allowable quantity shall not apply to fuel oil storage complying with Section 603.3.2.

j. Quantities in parenthesis indicate quantity units in parenthesis at the head of each column.

k. A maximum quantity of 220 pounds of solid or 22 gallons of liquid Class 3 oxidizers is allowed where such materials are necessary for maintenance purposes, operation or sanitation of equipment where the storage containers and the manner of storage are approved.

l. Net weight of pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks including packaging shall be used.

m. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2.

n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 5003.11, see Table 5003.11.1.

o. Densely-packed baled cotton that complies with the packing requirements of ISO 8115 shall not be included in this material class.

p. The following shall not be included in determining the maximum allowable quantities:

1. Liquid or gaseous fuel in fuel tanks on vehicles.
2. Liquid or gaseous fuel in fuel tanks on motorized equipment operated in accordance with this code.
3. Gaseous fuels in piping systems and fixed appliances regulated by the *International Fuel Gas Code*.
4. Liquid fuels in piping systems and fixed appliances regulated by the *International Mechanical Code*.
5. Alcohol-based hand rubs classified as Class I or II liquids in dispensers that are installed in accordance with Sections 5705.5 and 5705.5.1. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the construction documents.

q. Where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 104.7.2

r. The maximum allowable refrigerant gas classified as Group A1 or A2L by ASHRAE 34 stored in DOT containers complying with 49 CFR Part 178 shall be unlimited.

Reason Statement: Group A1 refrigerants have long been considered unlimited for storage in warehouses. However, the definition of flammable gas in the Fire Code results in many Group A1 refrigerants being classified as flammable gases, thus subject to the limitations of Table 5003.1.1(1). ASHRAE 34 classifies Group A1 refrigerants as “no flame propagation” and Group A2L as “lower flammability.” Neither group of refrigerants falls into the classification of nonflammable when tested to ASTM E 681. The storage in warehouses of these refrigerants is in DOT containers. These containers are safe for shipping and safe for storage in a warehouse. There is no explosion hazard associated with storage of these tanks in a warehouse. This change will recognize the accepted practice of allowing unlimited storage of Group A1 refrigerants and the storage of the newer low GWP Group A2L refrigerants. The allowance would require the storage to be in DOT containers complying with Federal Regulations 49 CFR Part 178.

Resiliency Impact Statement: This proposal will neither increase nor decrease Resiliency
This change has no impact on the resiliency of refrigerant storage.

Cost Impact: The code change proposal will decrease the cost of construction
This change will all the common practice of permitting unlimited storage of Group A1 refrigerants. It will also allow the unlimited storage of Group A2L refrigerants. The refrigerant storage would not have to be classified as a high hazard building.

FP5003.1.1(1)-18 Part II

IFC®: TABLE 5003.1.1(1)

Proponents: Julius Ballanco (JBENGINEER@aol.com)

2018 International Fire Code

Revise as follows:

TABLE 5003.1.1(1)

MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[a, j, m, n, p]

	MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[b]			USE-CLOSED SYSTEMS[b]			USE-OPEN SYSTEMS[b]	
				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)
	Combustible dust	NA	H-2	See Note q	NA	NA	See Note q	NA	NA	See Note q	NA
	Combustible fibers[q]	Loose	H-3	(100)	NA	NA	(100)	NA	NA	(20)	NA
		Baled[o]		(1,000)			(1,000)			(200)	
➡	Combustible liquid[c, i]	II	H-2 or H-3	NA	120[d, e]	NA	NA	120[d]	NA	NA	30[d]
		IIIA	H-2 or H-3		330[d, e]			330[d]			80[d]
		IIIB	NA		13,200[e, f]			13,200[f]			3,300[f]
	Cryogenic Flammable	NA	H-2	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
	Cryogenic Inert	NA	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Cryogenic Oxidizing	NA	H-3	NA	45[d]	NA	NA	45[d]	NA	NA	10[d]
	Explosives	Division 1.1	H-1	1[e, g]	(1)[e, g]	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
		Division 1.2	H-1	1[e, g]	(1)[e, g]		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
		Division 1.3	H-1 or H-2	5[e, g]	(5)[e, g]		1[g]	(1)[g]		1[g]	(1)[g]
		Division 1.4	H-3	50[e, g]	(50)[e, g]		50[g]	(50)[g]		NA	NA
		Division 1.4G	H-3	125[e, l]	NA		NA	NA		NA	NA
		Division 1.5	H-1	1[e, g]	(1)[e, g]		0.25[g]	(0.25)[g]		0.25[g]	(0.25)[g]
		Division 1.6	H-1	1[e, g]	NA		NA	NA		NA	NA
	Flammable gas[r]	Gaseous	H-2	NA	NA	1,000[d,e]	NA	NA	1,000[d,e]	NA	NA
		Liquefied			(150)[d,e]	NA		(150)[d,e]	NA		
	Flammable liquid[c]	IA	H-2 or H-3	NA	30[d, e]	NA	NA	30[d]	NA	NA	10d
		IB and IC			120[d, e]			120[d]			30d
	Flammable liquid, combination (IA, IB, IC)	NA	H-2 or H-3	NA	120[d, e, h]	NA	NA	120[d, h]	NA	NA	30[d, h]
	Flammable solid	NA	H-3	125[d, e]	NA	NA	125[d]	NA	NA	25[d]	NA
	Inert Gas	Gaseous	NA	NA	NA	NL	NA	NA	NL	NA	NA
		Liquefied	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Organic peroxide	UD	H-1	1[e, g]	(1)[e, g]	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
		I	H-2	5[d, e]	(5)[d, e]		1[d]	(1)[d]		1[d]	(1)[d]
		II	H-3	50[d, e]	(50)[d, e]		50[d]	(50)[d]		10[d]	(10)[d]
		III	H-3	125[d, e]	(125)[d, e]		125[d]	(125)[d]		25[d]	(25)[d]
		IV	NA	NL	NL		NL	NL		NL	NL

		V	NA	NL	NL		NL	NL		NL	NL
	Oxidizer	4	H-1	1[g]	(1)[e, g]	NA	0.25[g]	(0.25)[g]	NA	0.25[g]	(0.25)[g]
		3[k]	H-2 or H-3	10[d, e]	(10)[d, e]		2[d]	(2)[d]		2[d]	(2)[d]
		2	H-3	250[d, e]	(250)[d, e]		250[d]	(250)[d]		50[d]	(50)[d]
		1	NA	4,000[e, f]	(4,000)[e, f]		4,000[f]	(4,000)[f]		1,000[f]	(1,000)[f]
	Oxidizing gas	Gaseous	H-3	NA	NA	1,500[d,e]	NA	NA	1,500[d,e]	NA	NA
		Liquefied			(150)[d, e]	NA		(150)[d,e]	NA		
	Pyrophoric	NA	H-2	4[e, g]	(4)[e, g]	50[e, g]	1[g]	(1)[g]	10[e, g]	0	0
	Unstable (reactive)	4	H-1	1[e, g]	(1)[e, g]	10[e, g]	0.25[g]	(0.25)[g]	2[e, g]	0.25[g]	(0.25)[g]
		3	H-1 or H-2	5[d, e]	(5)[d, e]	50[d, e]	1[d]	(1)[d]	10[d, e]	1[d]	(1)[d]
		2	H-3	50[d, e]	(50)[d, e]	750[d, e]	50[d]	(50)[d]	750[d, e]	10[d]	(10)[d]
		1	NA	NL	NL	NL	NL	NL	NL	NL	NL
	Water reactive	3	H-2	5[d, e]	(5)[d, e]	NA	5[d]	(5)[d]	NA	1[d]	(1)[d]
		2	H-3	50[d, e]	(50)[d, e]		50[d]	(50)[d]		10[d]	(10)[d]
		1	NA	NL	NL		NL	NL		NL	NL

For SI: 1 cubic foot = 0.02832 m^3, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

NA = Not Applicable, NL = Not Limited, UD = Unclassified Detonable.

a. For use of control areas, see Section 5003.8.3.

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q. Where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 104.7.2.

r. The maximum allowable refrigerant gas classified as Group A1 or A2L by ASHRAE 34 stored during a repair or replacement in a pressure vessel complying with ASME BPVC Section VIII located inside a machinery room shall be unlimited.

Virginia Fire Service's Board 2020 Meeting Schedule

Date	Time	Meeting	Location	Link:
10/01/2020	10:00am-10:50am	VFSB- Administration, Policy and Finance Committee	Virtual Meeting through Google Hangouts	Meeting ID: https://meet.google.com/oxu-zegu-zze Call-in Phone Numbers (US): +1 318-565-6392 PIN: 696 563 320#
10/01/2020	11:00am-12:00pm	VFSB- Live Structure Committee	Virtual Meeting through Google Hangouts	Meeting ID Link: https://meet.google.com/uec-jzrr-stk Call-in Phone Numbers: (US) +1 567-331-1487 PIN: 369 717 061#
10/01/2020	1:00pm-2:00pm	VFSB- Fire Prevention and Control Committee	Virtual Meeting through Google Hangouts	Meeting Link ID: https://meet.google.com/gpd-yzag-uff Call-in Phone Numbers (US): +1 407-720-4662 PIN: 928 925 215#
10/01/2020	2:30pm-3:30pm	VFSB- Fire Education and Training Committee	Virtual Meeting through Google Hangouts	Meeting Link ID: https://meet.google.com/hbr-tswn-axy Phone Numbers (US): +1 317-798-0442 PIN: 453 154 304#
10/02/2020	10:00am	Virginia Fire Service's Board Meeting	Virtual Meeting through Google Hangouts	Meeting Link ID: https://meet.google.com/ftw-zmsn-rdz Phone Numbers (US): +1 225-414-2887 PIN: 154 067 487#
10/19/2020	TBD	Statewide Fire Prevention Code Development Committee 3 and 3 with BHCD	TBD	
12/14/2020	TBD	Joint Meeting of The VFSB and BHCD	TBD	

Links will be generated and distributed through Commonwealth Calendar and Virginia Department of Fire Programs Website.

This is a public meeting of the Virginia Fire Services Board committee on Administration, Policy and Finance. This public meeting will be conducted electronically, via Google Hangouts Meeting platform, pursuant to Executive Order 51 (2020), as issued and amended by the Governor due to the current state of emergency declared in the Commonwealth of Virginia. Please see the meeting information below to join:

This schedule is Tentative based upon changes to the agendas once they have been developed and finalized by Virginia Fire Services Board Committee Chairs.