



# VIRGINIA

## REGISTER OF REGULATIONS

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### TABLE OF CONTENTS

<b>Register Information Page</b> .....	1611
<b>Publication Schedule and Deadlines</b> .....	1612
<b>Petitions for Rulemaking</b> .....	1613
<b>Regulations</b> .....	1614
13VAC5-31. Virginia Amusement Device Regulations (Final) .....	1614
13VAC5-51. Virginia Statewide Fire Prevention Code (Final) .....	1617
13VAC5-63. Virginia Uniform Statewide Building Code (Final) .....	1744
13VAC5-91. Virginia Industrialized Building Safety Regulations (Final) .....	1962
18VAC120-30. Regulations Governing Polygraph Examiners (Final) .....	1966
18VAC150-20. Regulations Governing the Practice of Veterinary Medicine (Final) .....	1966
<b>Governor</b> .....	1969
<b>General Notices/Errata</b> .....	1971

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# VIRGINIA REGISTER INFORMATION PAGE

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**THE VIRGINIA REGISTER OF REGULATIONS** is an official state publication issued every other week throughout the year. Indexes are published quarterly, and are cumulative for the year. The *Virginia Register* has several functions. The new and amended sections of regulations, both as proposed and as finally adopted, are required by law to be published in the *Virginia Register*. In addition, the *Virginia Register* is a source of other information about state government, including petitions for rulemaking, emergency regulations, executive orders issued by the Governor, and notices of public hearings on regulations.

## **ADOPTION, AMENDMENT, AND REPEAL OF REGULATIONS**

An agency wishing to adopt, amend, or repeal regulations must first publish in the *Virginia Register* a notice of intended regulatory action; a basis, purpose, substance and issues statement; an economic impact analysis prepared by the Department of Planning and Budget; the agency's response to the economic impact analysis; a summary; a notice giving the public an opportunity to comment on the proposal; and the text of the proposed regulation.

Following publication of the proposal in the *Virginia Register*, the promulgating agency receives public comments for a minimum of 60 days. The Governor reviews the proposed regulation to determine if it is necessary to protect the public health, safety and welfare, and if it is clearly written and easily understandable. If the Governor chooses to comment on the proposed regulation, his comments must be transmitted to the agency and the Registrar no later than 15 days following the completion of the 60-day public comment period. The Governor's comments, if any, will be published in the *Virginia Register*. Not less than 15 days following the completion of the 60-day public comment period, the agency may adopt the proposed regulation.

The Joint Commission on Administrative Rules (JCAR) or the appropriate standing committee of each house of the General Assembly may meet during the promulgation or final adoption process and file an objection with the Registrar and the promulgating agency. The objection will be published in the *Virginia Register*. Within 21 days after receipt by the agency of a legislative objection, the agency shall file a response with the Registrar, the objecting legislative body, and the Governor.

When final action is taken, the agency again publishes the text of the regulation as adopted, highlighting all changes made to the proposed regulation and explaining any substantial changes made since publication of the proposal. A 30-day final adoption period begins upon final publication in the *Virginia Register*.

The Governor may review the final regulation during this time and, if he objects, forward his objection to the Registrar and the agency. In addition to or in lieu of filing a formal objection, the Governor may suspend the effective date of a portion or all of a regulation until the end of the next regular General Assembly session by issuing a directive signed by a majority of the members of the appropriate legislative body and the Governor. The Governor's objection or suspension of the regulation, or both, will be published in the *Virginia Register*. If the Governor finds that changes made to the proposed regulation have substantial impact, he may require the agency to provide an additional 30-day public comment period on the changes. Notice of the additional public comment period required by the Governor will be published in the *Virginia Register*.

The agency shall suspend the regulatory process for 30 days when it receives requests from 25 or more individuals to solicit additional public comment, unless the agency determines that the changes have minor or inconsequential impact.

A regulation becomes effective at the conclusion of the 30-day final adoption period, or at any other later date specified by the promulgating agency, unless (i) a legislative objection has been filed, in which event the regulation, unless withdrawn, becomes effective on the date specified, which shall be after the expiration of the 21-day objection period; (ii) the Governor exercises his authority to require the agency to provide for additional public comment, in which event the regulation,

unless withdrawn, becomes effective on the date specified, which shall be after the expiration of the period for which the Governor has provided for additional public comment; (iii) the Governor and the General Assembly exercise their authority to suspend the effective date of a regulation until the end of the next regular legislative session; or (iv) the agency suspends the regulatory process, in which event the regulation, unless withdrawn, becomes effective on the date specified, which shall be after the expiration of the 30-day public comment period and no earlier than 15 days from publication of the readopted action.

A regulatory action may be withdrawn by the promulgating agency at any time before the regulation becomes final.

## **FAST-TRACK RULEMAKING PROCESS**

Section 2.2-4012.1 of the Code of Virginia provides an exemption from certain provisions of the Administrative Process Act for agency regulations deemed by the Governor to be noncontroversial. To use this process, Governor's concurrence is required and advance notice must be provided to certain legislative committees. Fast-track regulations will become effective on the date noted in the regulatory action if no objections to using the process are filed in accordance with § 2.2-4012.1.

## **EMERGENCY REGULATIONS**

Pursuant to § 2.2-4011 of the Code of Virginia, an agency, upon consultation with the Attorney General, and at the discretion of the Governor, may adopt emergency regulations that are necessitated by an emergency situation. An agency may also adopt an emergency regulation when Virginia statutory law or the appropriation act or federal law or federal regulation requires that a regulation be effective in 280 days or less from its enactment. The emergency regulation becomes operative upon its adoption and filing with the Registrar of Regulations, unless a later date is specified. Emergency regulations are limited to no more than 18 months in duration; however, may be extended for six months under certain circumstances as provided for in § 2.2-4011 D. Emergency regulations are published as soon as possible in the *Register*. During the time the emergency status is in effect, the agency may proceed with the adoption of permanent regulations through the usual procedures. To begin promulgating the replacement regulation, the agency must (i) file the Notice of Intended Regulatory Action with the Registrar within 60 days of the effective date of the emergency regulation and (ii) file the proposed regulation with the Registrar within 180 days of the effective date of the emergency regulation. If the agency chooses not to adopt the regulations, the emergency status ends when the prescribed time limit expires.

## **STATEMENT**

The foregoing constitutes a generalized statement of the procedures to be followed. For specific statutory language, it is suggested that Article 2 (§ 2.2-4006 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia be examined carefully.

## **CITATION TO THE VIRGINIA REGISTER**

The *Virginia Register* is cited by volume, issue, page number, and date. **34:8 VA.R. 763-832 December 11, 2017**, refers to Volume 34, Issue 8, pages 763 through 832 of the *Virginia Register* issued on December 11, 2017.

*The Virginia Register of Regulations* is published pursuant to Article 6 (§ 2.2-4031 et seq.) of Chapter 40 of Title 2.2 of the Code of Virginia.

Members of the Virginia Code Commission: **John S. Edwards**, Chair; **Gregory D. Habeeb**; **Jay Leftwich**; **Ryan T. McDougle**; **Robert L. Calhoun**; **Rita Davis**; **Leslie L. Lilley**; **E.M. Miller, Jr.**; **Thomas M. Moncure, Jr.**; **Christopher R. Nolen**; **Charles S. Sharp**; **Samuel T. Towell**; **Mark J. Vucci**.

Staff of the Virginia Register: **Karen Perrine**, Acting Registrar of Regulations; **Anne Bloomsburg**, Assistant Registrar; **Alexandra Stewart**, Regulations Analyst; **Rhonda Dyer**, Publications Assistant; **Terri Edwards**, Operations Staff Assistant.

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# PUBLICATION SCHEDULE AND DEADLINES

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This schedule is available on the *Register's* Internet home page (<http://register.dls.virginia.gov>).

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## April 2018 through April 2019

<u>Volume: Issue</u>	<u>Material Submitted By Noon*</u>	<u>Will Be Published On</u>
34:18	April 11, 2018	April 30, 2018
34:19	April 25, 2018	May 14, 2018
34:20	May 9, 2018	May 28, 2018
34:21	May 23, 2018	June 11, 2018
34:22	June 6, 2018	June 25, 2018
34:23	June 20, 2018	July 9, 2018
34:24	July 3, 2018 ( <b>Tuesday</b> )	July 23, 2018
34:25	July 18, 2018	August 6, 2018
34:26	August 1, 2018	August 20, 2018
35:1	August 15, 2018	September 3, 2018
35:2	August 29, 2018	September 17, 2018
35:3	September 12, 2018	October 1, 2018
35:4	September 26, 2018	October 15, 2018
35:5	October 10, 2018	October 29, 2018
35:6	October 24, 2018	November 12, 2018
35:7	November 7, 2018	November 26, 2018
35:8	November 19, 2018 ( <b>Monday</b> )	December 10, 2018
35:9	December 5, 2018	December 24, 2018
35:10	December 14, 2018 ( <b>Friday</b> )	January 7, 2019
35:11	January 2, 2019	January 21, 2019
35:12	January 16, 2019	February 4, 2019
35:13	January 30, 2019	February 18, 2019
35:14	February 13, 2019	March 4, 2019
35:15	February 27, 2019	March 18, 2019
35:16	March 13, 2019	April 1, 2019
35:17	March 27, 2019	April 15, 2019
35:18	April 10, 2019	April 29, 2019

\*Filing deadlines are Wednesdays unless otherwise specified.

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# PETITIONS FOR RULEMAKING

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## TITLE 18. PROFESSIONAL AND OCCUPATIONAL LICENSING

### BOARD OF PHARMACY

#### Agency Decision

Title of Regulation: **18VAC110-20. Regulations Governing the Practice of Pharmacy.**

Statutory Authority: § 54.1-2400 of the Code of Virginia.

Name of Petitioner: Judy Lifland Dietrick.

Nature of Petitioner's Request: To amend the requirement for retention of records beyond two years to include records of vaccine administration.

Agency Decision: Request denied.

Statement of Reason for Decision: The petition was published March 5, 2018, with comment requested until March 27, 2018. At its meeting on March 29, 2018, the board considered the petition and public comment in support and in opposition. The board concluded that it will not take action to amend its regulations. However, the board has referred the matter to its Regulation Committee for further study of the Virginia Immunization Information System (VIIS) to determine what would be involved in requiring all practitioners who administer immunizations to report to the VIIS database.

Agency Contact: Elaine J. Yeatts, Regulatory Coordinator, Department of Health Professions, 9960 Mayland Drive, Suite 300, Richmond, VA 23233, telephone (804) 367-4688, or email [elaine.yeatts@dhp.virginia.gov](mailto:elaine.yeatts@dhp.virginia.gov).

VA.R. Doc. No. R18-23; Filed March 29, 2018, 1:57 p.m.

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# REGULATIONS

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For information concerning the different types of regulations, see the Information Page.

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## Symbol Key

Roman type indicates existing text of regulations. Underscored language indicates proposed new text. Language that has been stricken indicates proposed text for deletion. Brackets are used in final regulations to indicate changes from the proposed regulation.

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## TITLE 13. HOUSING

### BOARD OF HOUSING AND COMMUNITY DEVELOPMENT

#### Final Regulation

**REGISTRAR'S NOTICE:** The Board of Housing and Community Development is claiming an exemption from Article 2 of the Administrative Process Act pursuant to § 2.2-4006 A 12 of the Code of Virginia, which excludes regulations adopted by the Board of Housing and Community Development pursuant to the Statewide Fire Prevention Code (§ 27-94 et seq.), the Industrialized Building Safety Law (§ 36-70 et seq.), the Uniform Statewide Building Code (§ 36-97 et seq.), and § 36-98.3 of the Code of Virginia, provided the board (i) provides a Notice of Intended Regulatory Action in conformance with the provisions of § 2.2-4007.01, (ii) publishes the proposed regulation and provides an opportunity for oral and written comments as provided in § 2.2-4007.03, and (iii) conducts at least one public hearing as provided in § 2.2-4009 and 36-100 prior to the publishing of the proposed regulations.

**Title of Regulation:** **13VAC5-31. Virginia Amusement Device Regulations (amending 13VAC5-31-40, 13VAC5-31-50, 13VAC5-31-75, 13VAC5-31-210).**

**Statutory Authority:** § 36-98.3 of the Code of Virginia.

**Effective Date:** September 4, 2018.

**Agency Contact:** Elizabeth O. Rafferty, Policy and Legislative Director, Department of Housing and Community Development, Main Street Centre, 600 East Main Street, Suite 300, Richmond, VA 23219, telephone (804) 371-7011, FAX (804) 371-7090, TTY (804) 371-7089, or email elizabeth.rafferty@dhcd.virginia.gov.

#### **Summary:**

*The amendments to the Virginia Amusement Device Regulations are as follows:*

*13VAC5-31-40 and 13VAC5-31-210: Updates the referenced standards for amusement devices to the latest editions available.*

*13VAC5-31-50: The Virginia Certification Standards (13VAC5-21) (VCS), also a regulation under the authority of the board, was amended and became effective in September of 2014. It sets out periodic training and continuing education requirements for maintaining inspector certificates issued by the board. Prior to the*

*amendments to the VCS, the Virginia Amusement Device Regulations contained those requirements. Now that the VCS contains the requirements, those requirements are being deleted from the Virginia Amusement Device Regulations, and a reference to the VCS is added in place of the requirements.*

*13VAC5-31-75: Allows the full permit fee to be charged by the locality when the inspector is paid by the locality.*

#### **13VAC5-31-40. Incorporated standards.**

A. The following standards are hereby incorporated by reference for use as part of this chapter:

1. American National Standards Institute (ANSI) Standard No. B77.1-2011 for the regulation of passenger tramways; and
2. American Society for Testing and Materials (ASTM) Standard Nos. ~~F698-94~~, ~~F747-06~~ F747-15, ~~F770-11~~ F770-15, ~~F846-92~~ (2009), ~~F853-05~~, ~~F893-10~~, ~~F1159-11~~ F1159-15b, ~~F1193-06~~ F1193-16, F1957-99 (2011), F2007-12, ~~F2137-11~~ F2137-16, ~~F2291-11~~ F2291-15, F2374-10, F2375-09, ~~F2376-08~~ F2376-13, F2460-11, and ~~F2959-12~~ F2959-16, and F2974-15 for the regulation of amusement devices.

The standards referenced above may be procured from:

ANSI	ASTM
25 W 43rd Street	100 Barr Harbor Dr.
New York, NY 10036	West Conshohocken,
	PA 19428-2959

B. The provisions of this chapter govern where they are in conflict with any provisions of the standards incorporated by reference in this chapter.

C. The following requirements supplement the provisions of the ASTM standards incorporated by reference in this chapter:

1. The operator of an amusement device shall be at least 16 years of age, except when the person is under the supervision of a parent or guardian and engaged in activities determined not to be hazardous by the Commissioner of the Virginia Department of Labor and Industry;
2. The amusement device shall be attended by an operator at all times during operation except that (i) one operator is permitted to operate two or more amusement devices provided they are within the sight of the operator and operated by a common control panel or station and (ii) one

operator is permitted to operate two small mechanical rides with separate controls provided the distance between controls is no more than 35 feet and the controls are equipped with a positive pressure switch; and

3. The operator of an amusement device shall not be (i) under the influence of any drugs which may affect the operator's judgment or ability to assure the safety of the public or (ii) under the influence of alcohol.

D. Where an amusement device was manufactured under previous editions of the standards incorporated by reference in this chapter, the previous editions shall apply to the extent that they are different from the current standards.

**13VAC5-31-50. Certification of amusement device inspectors.**

A. Any person, including local building department personnel, inspecting an amusement device relative to a certificate of inspection shall possess certification as an amusement device inspector in accordance with the Virginia Certification Standards (13VAC5-21).

~~B. Local building department personnel enforcing this chapter and private inspectors shall attend periodic maintenance training as designated by DHCD. In addition to the periodic maintenance training required above, local building department personnel and private inspectors shall attend 16 hours of continuing education every two years as approved by DHCD. If local building department personnel or private inspectors possess more than one BHCD certificate, the 16 hours shall satisfy the continuing education requirement for all BHCD certificates.~~

Note: Continuing education and periodic training requirements for DHCD certifications are set out in the Virginia Certification Standards (13VAC5-21).

[ Part II

Enforcement, Permits and Certificates of Inspection

**13VAC5-31-75. Local building department.**

A. In accordance with §§ 36-98.3 and 36-105 of the Code of Virginia, the local building department shall be responsible for the enforcement of this chapter and may charge fees for such enforcement activity. The total amount charged for any one permit to operate an amusement device or devices or the renewal of such permit shall not exceed the following, except that when a private inspector is used by the owner or operator of the device, the fees shall be reduced by 75%:

1. \$35 for each small mechanical ride or inflatable amusement device covered by the permit;
2. \$55 for each circular ride or flat-ride less than 20 feet in height covered by the permit;
3. \$75 for each spectacular ride covered by the permit that cannot be inspected as a circular ride or flat-ride in

subdivision 2 of this subsection due to complexity or height;

4. \$200 for each coaster covered by the permit that exceeds 30 feet in height; and

5. The local building department may charge an additional fee for permits and inspections of generators and associated wiring for amusement device events. Generators subject to these fees are those used exclusively with amusement devices and that are inspected by the local building department. The fee per event shall not exceed \$165 and shall not exceed the actual cost to perform the inspection or inspections.

Exception: Small portable generators serving only cord and plug connected equipment loads are not subject to the fee.

Notwithstanding the ~~above fee limitations established in this section~~, the local building department shall be permitted to increase the fees up to 50% when requested to perform weekend or after-hour inspections.

B. Notwithstanding the provisions of subsection A of this section, when an amusement device is constructed in whole or in part at a site for permanent operation at that site and is not intended to be disassembled and moved to another site, then the local building department may utilize permit and inspection fees established pursuant to the USBC to defray the cost of enforcement. This authorization does not apply to an amusement device that is only being reassembled, undergoing a major modification at a site or being moved to a site for operation.

C. A permit application shall be made to the local building department at least five days before the date in which the applicant intends to operate an amusement device. The application shall include the name of the owner, operator or other person assuming responsibility for the device ~~or devices~~, a general description of the device ~~or devices~~ including any serial or identification numbers available, the location of the property on which the device ~~or devices~~ will be operated, and the length of time of operation. The permit application shall indicate whether a private inspector will be ~~utilized~~ used. If a private inspector is not ~~utilized~~ used, the applicant shall give reasonable notice when an inspection is sought and may stipulate the day such inspection is requested provided it is during the normal operating hours of the local building department. In addition to the information required on the permit application, the applicant shall provide proof of liability insurance of an amount not less than ~~\$1,000,000~~ \$1 million per occurrence or proof of equivalent financial responsibility. The local building department shall be notified of any change in the liability insurance or financial responsibility during the period covered by the permit.

D. Notwithstanding the provisions of subsection C of this section, a permit application is not required for a small mechanical ride or an inflatable amusement device that has a

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# Regulations

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certificate of inspection issued by any local building department in this Commonwealth either a six-month period for small mechanical rides or within a one-year period for inflatable amusement devices prior to the dates the small mechanical ride or inflatable amusement device is to be used, regardless of whether the device has been disassembled and moved to a new site. In such cases, the local building department shall be notified at least three days prior to the operation of the small mechanical ride or the inflatable amusement device and the information required on a permit application as listed in subsection C of this section shall be provided to the local building department. In addition, and notwithstanding the provisions of subsection A of this section, the local building department shall be permitted to charge a \$50 inspection fee per event to the person notifying the local building department of an event where an inflatable amusement device is operating, if the local building department chooses to inspect any or all of the inflatable amusement devices operating at that event. An inspection report shall be provided to the person notifying the local building department of the event if such an inspection is conducted.

E. Local building department personnel shall examine the permit application within five days and issue the permit if all requirements are met. A certificate of inspection for each amusement device shall be issued when the device has been found to comply with this chapter by a private inspector or by an inspector from the local building department. It shall be the responsibility of the local building department to verify that the private inspector possesses a valid certificate of competence as an amusement device inspector from the Virginia Board of Housing and Community Development. In addition, local building department personnel shall be responsible for assuring that the certificate of inspection is posted or affixed on or in the vicinity of the device in a location visible to the public. Local building department personnel shall post or affix such certificates or permit the certificates to be posted or affixed by the private inspector. Permits shall indicate the length of time the device or devices will be operated at the site, clearly identify the device or devices to which it applies and the date of expiration of the permit. Permits shall not be valid for longer than one year, except that permits for small mechanical rides shall not be valid for longer than six months.

F. In addition to obtaining a certificate of inspection in conjunction with a permit application for amusement devices permanently fixed to a site, a new certificate of inspection shall also be obtained prior to the operation of an amusement device following a major modification, prior to each seasonal operation of a device, at least once during the operating season and prior to resuming the operation of a device following an order from a local building department to cease operation. This requirement shall not apply to small

mechanical rides meeting the conditions outlined in subsection D of this section.

G. For amusement devices manufactured prior to 1978, the owner or operator shall have the information required by ~~§§ 2-1 10.1~~ through ~~2-6 10.6~~ of ASTM ~~F698 F1193~~ available at the time of inspection. In addition, the operator of any amusement device shall be responsible for obtaining all manufacturer's notifications, service bulletins and safety alerts issued pursuant to ASTM ~~F853 F770~~ and the operator shall comply with all recommendations and requirements set out in those documents. A copy of all such documents shall be made available during an inspection.

H. In the enforcement of this chapter, local building department personnel shall have authority to conduct inspections at any time an amusement device would normally be open for operation or at any other time if permission is granted by the owner or operator, to issue an order to temporarily cease operation of an amusement device upon the determination that the device may be unsafe or may otherwise endanger the public and to accept and approve or deny requests for modifications of the rules of this chapter in accordance with the modification provisions of the USBC.

I. In accordance with subdivision 7 of § 36-137 of the Code of Virginia, the local building department shall collect a 2.0% levy of fees charged for permits under this chapter and transmit it quarterly to DHCD to support training programs of the Virginia Building Code Academy. Localities that maintain individual or regional training academies accredited by DHCD shall retain such levy.

J. In accordance with § 36-98.3 of the Code of Virginia and 13VAC5-31-10 B, the procedures for violations of this chapter shall be as prescribed in the USBC.

K. In accordance with § 36-98.1 of the Code of Virginia, the Virginia Department of General Services (DGS) shall function as the local building department for the application of this chapter to amusement devices located on state-owned property. In accordance with §§ 36-98.2 and 36-114 of the Code of Virginia, appeals of the application of this chapter by the DGS shall be made directly to the State Building Code Technical Review Board. Further, as a condition of this chapter, such appeals shall be filed within 14 calendar days after receipt of the decision of DGS.

## Part VI Artificial Climbing Walls

### **13VAC5-31-210. General requirements.**

In addition to other applicable requirements of this chapter, artificial climbing walls shall be operated, maintained and inspected in accordance with ASTM ~~F459 F1193~~.

Notwithstanding any requirements of this chapter to the contrary, an artificial climbing wall may be moved, setup and operated without obtaining a permit provided the wall has a

certificate of inspection issued by a local building department in this Commonwealth within the prior 90 days and the expiration date of the wire ropes used with the device does not expire within that 90-day period. ]

## DOCUMENTS INCORPORATED BY REFERENCE (13VAC5-31)

ANSI B77.1-2011, Passenger Ropeways – Aerial Tramways, Aerial Lifts, Surface Lifts, Tows and Conveyors – Safety Requirements, American National Standards Institute (ANSI), 25 West 43rd Street, 4th Floor, New York, NY 10036 (<http://www.ansi.org/>)

American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959; (<http://www.astm.org/>):

~~ASTM F698-94, Standard Specification for Physical Information to be Provided for Amusement Rides and Devices~~

~~ASTM F747-06~~ F747-15, Standard Terminology Relating to Amusement Rides and Devices

~~ASTM F770-11~~ F770-15, Standard Practice for Ownership ~~and~~, Operation, Maintenance, and Inspection of Amusement Rides and Devices

~~ASTM F846-92 (2009), Standard Guide for Testing Performance of Amusement Rides and Devices~~

~~ASTM F853-05, Standard Practice for Maintenance Procedures for Amusement Rides and Devices~~

~~ASTM F893-10, Standard Guide for Inspection of Amusement Rides and Devices~~

~~ASTM F1159-11~~ F1159-15b, Standard Practice for Design ~~and Manufacture of Patron Directed, Artificial Climbing Walls, Dry Slide, Coin Operated and Purposeful Water Immersion of Amusement Rides and Devices and Air-Supported Structures that are Outside the Purview of Other F24 Design Standards~~

~~ASTM F1193-06~~ F1193-16, Standard Practice for Quality, Manufacture, and Construction of Amusement Rides and Devices

ASTM F1957-99 (2011), Standard Test Method for Composite Foam Hardness-Durometer Hardness

ASTM F2007-12, Standard Practice for Classification, Design, Manufacture, and Operation of Concession Go-Karts and Facilities

~~ASTM F2137-11~~ F2137-16, Standard Practice for Measuring the Dynamic Characteristics of Amusement Rides and Devices

~~ASTM F2291-11~~ F2291-15, Standard Practice for Design of Amusement Rides and Devices

ASTM F2374-10, Standard Practice for Design, Manufacture, Operation, and Maintenance of Inflatable Amusement Devices

ASTM F2375-09, Standard Practice for Design, Manufacture, Installation and Testing of Climbing Nets and Netting/Mesh used in Amusement Rides, Devices, Play Areas and Attractions

~~ASTM F2376-08~~ F2376-13, Standard Practice for Classification, Design, Manufacture, Construction, and Operation of Water Slide Systems

ASTM F2460-11, Standard Practice for Special Requirements for Bumper Boats

~~ASTM F2959-12~~ F2959-16, Standard Practice for ~~Special Requirements for~~ Aerial Adventure Courses

ASTM F2974-15, Standard Guide for Auditing Amusement Rides and Devices

V.A.R. Doc. No. R16-4667; Filed April 9, 2018, 1:12 p.m.

## Final Regulation

**REGISTRAR'S NOTICE:** The Board of Housing and Community Development is claiming an exemption from Article 2 of the Administrative Process Act pursuant to § 2.2-4006 A 12 of the Code of Virginia, which excludes regulations adopted by the Board of Housing and Community Development pursuant to the Statewide Fire Prevention Code (§ 27-94 et seq.), the Industrialized Building Safety Law (§ 36-70 et seq.), the Uniform Statewide Building Code (§ 36-97 et seq.), and § 36-98.3 of the Code of Virginia, provided the board (i) provides a Notice of Intended Regulatory Action in conformance with the provisions of § 2.2-4007.01, (ii) publishes the proposed regulation and provides an opportunity for oral and written comments as provided in § 2.2-4007.03, and (iii) conducts at least one public hearing as provided in §§ 2.2-4009 and 36-100 prior to the publishing of the proposed regulations.

**Title of Regulation:** 13VAC5-51. Virginia Statewide Fire Prevention Code (amending 13VAC5-51-11 through 13VAC5-51-155; adding 13VAC5-51-144.5, 13VAC5-51-144.7, 13VAC5-51-144.8, 13VAC5-51-144.9, 13VAC5-51-154.9; repealing 13VAC5-51-146).

**Statutory Authority:** § 27-97 of the Code of Virginia.

**Effective Date:** October 16, 2018.

**Agency Contact:** Elizabeth O. Rafferty, Policy and Legislative Director, Department of Housing and Community Development, Main Street Centre, 600 East Main Street, Suite 300, Richmond, VA 23219, telephone (804) 371-7011, FAX (804) 371-7090, TTY (804) 371-7089, or email [elizabeth.rafferty@dhcd.virginia.gov](mailto:elizabeth.rafferty@dhcd.virginia.gov).



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# Regulations

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## Summary:

*The amendments to the Statewide Fire Prevention Code (SFPC) are as follows:*

*13VAC5-51-31 A: The 2015 edition of the International Fire Code (IFC) is incorporated by reference to replace the 2012 edition of the IFC.*

*13VAC5-51-51 K: The Virginia Certification Standards (13VAC5-21) (VCS), also a regulation under the authority of the Board of Housing and Community Development (BHCD), was amended and became effective in September 2014. The VCS sets out periodic training and continuing education requirements for maintaining inspector certificates issued by the BHCD. Prior to the amendments to the VCS, the SFPC contained those requirements. Now that the VCS has the requirements, they are deleted in the SFPC and replaced with a reference the VCS.*

*13VAC5-51-81 K: Adds language from § 27-98 of the Code of Virginia, regarding local fees from the 2012 Acts of Assembly.*

*13VAC5-51-121 B: Amends the requirement for local government appeals boards to meet annually even if there are no appeals. The Virginia Uniform Statewide Building Code (13VAC5-63) (USBC) was amended by a proposal from the State Building Code Technical Review Board to permit the local appeals boards to meet only when necessary to conduct business. This amendment provides language consistent with the USBC.*

*13VAC5-51-130: Adds new definitions necessary for substantive amendments to the technical requirements addressing college research laboratories in 13VAC5-51-145.*

*13VAC5-51-131 C, G, and K: Deletes provisions addressing sky lanterns and unoccupied tenant spaces in malls since comparable provisions are in the 2015 edition of the IFC being incorporated into the code in 13VAC5-51-31 A.*

*13VAC5-51-132: When the current SFPC was developed in 2013–2014, the 2015 edition of the IFC was already in process at the International Code Council (ICC) hearings and while the language was not finalized until 2015, many proposals had already been approved in the ICC process. The fire services community submitted a proposal to use the new language, which it was believed would be contained in the 2015 IFC for the SFPC at that time. Now that the 2015 IFC is being incorporated into the SFPC in this action, the language in the SFPC is no longer necessary since it is already in the 2015 edition of the IFC. Therefore, the language is deleted from the SFPC. The subject matter of the language is emergency planning and preparedness, and the requirements address the use of emergency evacuation plans and the use of crowd*

*managers for large events. There are no substantive changes to address since all requirements that are being deleted are contained in the 2015 IFC; however, since much existing language is being stricken, this summary is necessary as readers of the proposed regulations not familiar with the 2015 IFC would see much stricken text and not necessarily know that the requirements are not actually changing.*

*13VAC5-51-133 through 13VAC5-51-140: As explained in the summary of changes to 13VAC5-51-132, the changes in these sections are not substantive but are simply to delete amendments made in the last regulatory process adopting text that proponents of the proposals were confident would be in the 2015 edition of the IFC being developed through the ICC process. That in fact did happen, and now the changes to the SFPC may be deleted since the language is already in the 2015 IFC, and the 2015 IFC is being incorporated into the SFPC in 13VAC5-51-31 A.*

*13VAC5-51-144.8: Changes the IFC language for permits to reference the appropriate permit section in the SFPC. The permit sections in all other chapters of the IFC were addressed in the previous regulatory process for the SFPC, but this chapter (Chapter 37 Combustible Fibers) was inadvertently omitted. This amendment corrects the omission and makes all the permit requirements in the IFC consistent.*

*13VAC5- 51-145 E: In the previous regulatory process for the SFPC, where the 2012 edition of the IFC was incorporated, a proposal was approved to change the table in the IFC addressing the quantities of consumer fireworks that could be stored in a building based on whether the building had a sprinkler system. The 2012 IFC permitted a 100% increase in the amounts stored if there was a sprinkler system present, and that allowance was permitted through the use of a footnote "d" in the table that was referenced in the consumer fireworks entry in the table. A proposal approved during that regulatory process deleted the reference to the footnote for consumer fireworks, but left the reference to the footnote for permissible fireworks (a subset of consumer fireworks that do not lift from the ground when used). The 2015 edition of the IFC does not have the reference to footnote "d" in the table, therefore it is no longer necessary to show consumer fireworks entry in the table changed in the SFPC. The reference to the footnote remains for permissible fireworks.*

*13VAC5-51-145 F: Adds comprehensive new requirements for the safe use of hazardous materials in college research laboratories. DHCD staffed a workgroup of affected parties to develop these requirements, which in conjunction with changes to the USBC, addressing the safe use of materials in the constantly changing field of educational research laboratories. The requirements are*

consistent with a proposal developed in the ICC process for the 2018 IFC.

13VAC5-51-145 G: Adds a reference in the provisions of the SFPC addressing petroleum spills to the Virginia Petroleum Storage Tank Fund (§ 62.1-44.34:11 et seq. of the Code of Virginia).

13VAC5-51-155: Adds nationally recognized standards to the IFC that are used in the new provisions for college research laboratories in 13VAC5- 51-145 F.

Changes since publication of the proposed regulations include:

13VAC5-51-81: Subsection C adds restricted explosives manufacturing and unrestricted explosives manufacturing, related to reactive (exploding) targets, to the operational permit requirements table. Subsection L includes updates to the State Fire Marshal's Office permit fees.

13VAC5-51-130 A: Adds new definitions for applicable building code, maintained, explosives manufacturing, reactive (exploding) target, restricted explosives manufacture, and unrestricted explosives manufacture.

13VAC5-51-131: Subsection A provides opportunity for an owner to request a certificate of occupancy from the building official where one is not available for a building. Subsection N adds I-code language for mobile food preparation vehicles.

13VAC5-51-133 C 2: Provides exceptions from requiring fire hydrant system installations for in-fill developments of fewer than five detached single-family dwellings in existing residential developments and reconstruction or rehabilitation of detached single-family dwellings.

13VAC5-51-133.8: Subdivision A 2 allows the building owner to request a modified time period, greater than annually, for inspections of required fire-resistance rated construction elements. Subdivision B 3 clarifies testing requirements for opening protectives.

13VAC5-51-144.2 B 2 and B 3: Clarifies permit requirements for installations involving multiple tents.

13VAC5-51-151 E 1: Adds language to provide limitations on mobile fueling operations.

Part I  
General Regulations

**13VAC5-51-11. Chapter 1, Administration; Section 101.0. 101 Scope.**

A. 101.1- Title: These regulations shall be known as the Virginia Statewide Fire Prevention Code (SFPC), hereinafter referred to as "this code" or "SFPC." The term "chapter" means a chapter in the SFPC. The SFPC was cooperatively developed by the Virginia Fire Services Board and the Virginia Board of Housing and Community Development.

B. 101.2- Scope: The SFPC prescribes regulations affecting or relating to maintenance of structures, processes and premises and safeguards to be complied with for the protection of life and property from the hazards of fire or explosion and for the handling, storage and use of fireworks, explosives or blasting agents, and provides for the administration and enforcement of such regulations. The SFPC also establishes regulations for obtaining permits for the manufacturing, storage, handling, use, or sales of explosives. Inspections under the SFPC are a governmental responsibility.

C. 101.3- Purpose: The purposes of the SFPC are to provide for statewide standards to safeguard life and property from the hazards of fire or explosion arising from the improper maintenance of life safety and fire prevention and protection materials, devices, systems and structures, and the unsafe storage, handling, and use of substances, materials and devices, including explosives and blasting agents, wherever located.

D. 101.4- Validity: To the extent that any provisions of the SFPC or the referenced codes or standards are not within the scope of this chapter, those provisions are considered to be invalid. When any provision of the SFPC is found to be in conflict with the USBC, OSHA, or statute, that provision of the SFPC shall become invalid.

E. 101.5- Local regulations: Any local governing body may adopt fire prevention regulations that are more restrictive or more extensive in scope than the SFPC provided such regulations do not affect the manner of construction or materials to be used in the erection, alteration, repair, or use of a building or structure, as provided in the USBC, including the voluntary installation of smoke alarms and regulation and inspections thereof in commercial buildings where such smoke alarms are not required under the provisions of the SFPC.

F. 101.6- Nonresidential farm structures: Farm structures not used for residential purposes are exempt from the SFPC except when the inspection and enforcement provisions of the code are exercised by a warrant issued under the authority of §§ 27-98.2 through 27-98.5 of the Code of Virginia.

**13VAC5-51-21. Section 102.0. 102 Applicability.**

A. 102.1- General: The provisions of the SFPC shall apply to all matters affecting or relating to structures, processes and premises as set forth in Section 101.0. The SFPC shall supersede any fire prevention regulations previously adopted by a local government or other political subdivision.

B. 102.1.1- [Changes]: [Change of occupancy]. No change [of occupancy] shall be made in [the use any building] or [occupancy of any] structure [that would place the structure in a different division of the same group of occupancies,] unless such [building or] structure is made to

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# Regulations

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comply with the requirements of [ ~~this code and~~ ] the USBC [ ~~as determined by the building official~~ ].

C. 102.2- Application to pre-1973 buildings and structures: Buildings and structures constructed prior to the USBC (1973) 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. Such buildings and structures, if subject to the state fire and public building regulations (Virginia Public Building Safety Regulations, VR 394-01-05) in effect prior to March 31, 1986, shall also be maintained in accordance with those regulations.

D. 102.3- Application to post-1973 buildings and structures: 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.

E. 102.4- Referenced codes and standards: The codes and standards referenced in the IFC shall be those listed in Chapter 80 and considered part of the requirements of the SFPC to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

F. 102.5- State-owned buildings and structures: The SFPC shall be applicable to all state-owned buildings and structures in the manner and extent described in § 27-99 of the Code of Virginia and the State Fire Marshal shall have the authority to enforce this code in state-owned buildings and structures as is prescribed in §§ 27-98 and 27-99 of the Code of Virginia.

G. 102.6- Relationship to USBC: In accordance with §§ 27-34.4, 36-105.1 and 36-119.1 of the Code of Virginia, the USBC does not supersede the provisions of this code that prescribe standards to be complied with in existing buildings and structures, provided that this code shall not impose requirements that are more restrictive than those of the USBC under which the buildings or structures were constructed. Subsequent alteration, enlargement, rehabilitation, repair or conversion of the occupancy classification of such buildings and structures shall be subject to the construction and rehabilitation provisions of the USBC. Inspection of buildings other than state-owned buildings under construction and the review and approval of building plans for these structures for enforcement of the USBC shall be the sole responsibility of the appropriate local building inspectors.

Upon completion of such structures, responsibility for fire safety protection shall pass to the local fire marshal or official designated by the locality to enforce this code in those localities that enforce the SFPC or to the State Fire Marshal in those localities that do not enforce this code.

H. 102.7- Inspections for USBC requirements: The fire official shall require that existing structures subject to the

requirements of the applicable retrofitting provisions relating to the fire protection equipment and system requirements of the USBC, Part I, Construction, Section 103.7, comply with the provisions located therein.

## **13VAC5-51-31. Section ~~103.0.~~ 103 Incorporation by reference.**

A. 103.1- General: The following document is adopted and incorporated by reference to be an enforceable part of the SFPC:

The International Fire Code -- ~~2012~~ 2015 Edition, hereinafter referred to as "IFC," published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001-2070, 1-888 422-7233.

B. 103.1.1- Deletion: Delete IFC Chapter 1.

C. 103.1.2- Appendices: The appendices in the IFC are not considered part of the IFC for the purposes of Section 103.1.

Note: Section 101.5 references authority contained in the Code of Virginia for local fire prevention regulations that may be evaluated by localities to determine whether provisions in the IFC appendices may be considered for local fire prevention regulations.

D. 103.2- Amendments: All requirements of the referenced codes and standards that relate to fees, non-operational permits not specifically required by Section 107.2, unsafe notices, disputes, condemnation, inspections, scope of enforcement and all other procedural, and administrative matters are deleted and replaced by the provisions of Chapter 1 of the SFPC.

Exception: The scope of referenced codes and standards referenced by the SFPC that relate to the maintenance, testing and inspection requirements or limitations shall be enforceable.

E. 103.2.1- Other amendments: The SFPC contains provisions adopted by the Virginia Board of Housing and Community Development (BHCD), some of which delete, change or amend provisions of the IFC and referenced standards. Where conflicts occur between such changed provisions and the unchanged provisions of the IFC and referenced standards, the provisions changed by the BHCD shall govern.

Note [ 1 ]: The IFC and its referenced standards contain some areas of regulation outside of the scope of the SFPC, as established by the BHCD and under state law. Where conflicts have been readily noted, changes have been made to the IFC and its referenced standards to bring it within the scope of authority; however, in some areas, judgment will have to be made as to whether the provisions of the IFC and its referenced standards are fully applicable.

[ Note 2: Section numbers preceded by "(N)" indicate sections of the IFC that have been changed to remove construction-related provisions that are outside of the scope of the SFPC. ]

F. 103.3- International Fire Code. Retroactive fire protection system requirements contained in the IFC shall not be enforced unless specified by the USBC.

**13VAC5-51-41. Section ~~104.0~~, 104 Enforcement.**

A. 104.1- Local enforcement: Any local government may enforce the SFPC following official action by such body. The official action shall (i) require compliance with the provisions of the SFPC in its entirety or with respect only to those provisions of the SFPC relating to open burning, fire lanes, fireworks, and hazardous materials and (ii) assign enforcement responsibility to the local agency or agencies of its choice. Any local governing body may establish such procedures or requirements as may be necessary for the administration and enforcement of this code. If a local governing body elects to enforce only those provisions of the SFPC relating to open burning, it may do so in all or in any designated geographic areas of its jurisdiction. The terms "enforcing agency" and "fire official" are intended to apply to the agency or agencies to which responsibility for enforcement of the SFPC has been assigned. The terms "building official" or "building department" are intended to apply only to the local building official or local building department.

B. 104.1.1- Enforcement of fireworks provisions by law-enforcement officers: In accordance with § 27-100.1 of the Code of Virginia, law-enforcement officers who are otherwise authorized to enforce certain provisions of this code shall not be subject to the certification requirements of Section 105.2 or 105.3.2.

C. 104.2- State enforcement: In accordance with § 27-98 of the Code of Virginia, the State Fire Marshal shall also have the authority, in cooperation with any local governing body, to enforce the SFPC. The State Fire Marshal shall also have authority to enforce the SFPC in those jurisdictions in which the local governments do not enforce the SFPC and may establish such procedures or requirements as may be necessary for the administration and enforcement of the SFPC in such jurisdictions.

D. 104.3- State structures: Every agency, commission or institution of this Commonwealth, including all institutions of higher education, shall permit, at all reasonable hours, the fire official reasonable access to existing structures or a structure under construction or renovation, for the purpose of performing an informational and advisory fire safety inspection. The fire official is permitted to submit, subsequent to performing such inspection, his findings and recommendations, including a list of corrective actions necessary to ensure that such structure is reasonably safe from

the hazards of fire, to the appropriate official of such agency, commission, or institution and the State Fire Marshal. Such agency, commission or institution shall notify, within 60 days of receipt of such findings and recommendations, the State Fire Marshal and the fire official of the corrective measures taken to eliminate the hazards reported by the fire official. The State Fire Marshal shall have the same power in the enforcement of this section as is provided for in § 27-98 of the Code of Virginia. The State Fire Marshal may enter into an agreement as is provided for in § 9.1-208 of the Code of Virginia with any local enforcement agency that enforces the SFPC to enforce this section and to take immediate enforcement action upon verification of a complaint of an imminent hazard such as a chained or blocked exit door, improper storage of flammable liquids, use of decorative materials, and overcrowding.

**13VAC5-51-51. Section ~~105.0~~, 105 Enforcing agency.**

A. 105.1- Fire official: Each enforcing agency shall have an executive official in charge, hereinafter referred to as the "fire official."

Note: Fire officials are subject to sanctions in accordance with the Virginia Certification Standards (13VAC5-21).

B. 105.1.1- Appointment: The fire official shall be appointed in a manner selected by the local government having jurisdiction. After permanent appointment, the fire official shall not be removed from office except for cause after having been afforded a full opportunity to be heard on specific and relevant charges by and before the appointing authority.

C. 105.1.2- Notification of appointment: The appointing authority of the local governing body shall notify the DHCD and the State Fire Marshal's Office (SFMO) within 30 days of the appointment or release of the permanent or acting fire official.

D. 105.1.3- Qualifications: The fire official shall have at least five years of fire-related experience as a firefighter, fire officer, licensed professional engineer or architect, fire or building inspector, contractor or superintendent of fire protection-related or building construction or at least five years of fire-related experience after obtaining a degree in architecture or engineering, with at least three years in responsible charge of work. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The fire official shall have general knowledge of sound engineering practice with respect to the design and construction of structures, the basic principles of fire prevention and protection, the accepted requirements for means of egress and the installation of elevators and other service equipment necessary for the health, safety and general welfare of the occupants and the public. The local governing body may establish additional qualification requirements.

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# Regulations

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E. 105.2- Certification: The permanent or acting fire official shall obtain certification from the BHCD in accordance with the Virginia Certification Standards (13VAC5-21) within one year after permanent or acting appointment.

Exception: A fire official appointed prior to April 1, 1994, continuously employed by the same local governing body as the fire official shall comply with required DHCD training under the Virginia Certification Standards (13VAC5-21).

F. 105.2.1- Noncertified fire official: Except for a fire official exempt from certification under the exception to Section 105.2, any acting or permanent fire official who is not certified as a fire official in accordance with the Virginia Certification Standards (13VAC5-21) shall attend the core module of the Virginia Building Code Academy or an equivalent course in an individual or regional code academy accredited by DHCD within 180 days of appointment. This requirement is in addition to meeting the certification requirement in Section 105.2.

G. 105.3- Technical assistant: The local governing body or its designee may utilize one or more technical assistants who, in the absence of the fire official, shall have the powers and perform the duties of the fire official.

Note: Technical assistants are subject to sanctions in accordance with the Virginia Certification Standards (13VAC5-21).

H. 105.3.1- Notification: The fire official shall notify the DHCD within 60 days of the employment, contract or termination of all technical assistants for enforcement of the SFPC.

I. 105.3.2- Qualifications: A technical assistant shall have at least three years of experience and general knowledge in at least one of the following areas: fire protection, firefighting, electrical, building, plumbing or mechanical trades. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The locality may establish additional qualification requirements.

J. 105.3.3- Certification: All technical assistants employed by or under contract to an enforcing agency for enforcing the SFPC shall be certified in the appropriate subject area in accordance with the Virginia Certification Standards (13VAC5-21) within one and one-half years after permanent or acting appointment. When required by a locality to have two or more certifications, the remaining certifications shall be obtained within three years from the date of such requirement.

Exception: Any technical assistant continuously employed by or continuously under contract to the same enforcing agency for enforcing the SFPC since before April 1, 1994, shall be exempt from the provisions of this section; however, such exempt technical assistant shall comply with required

DHCD training under Virginia Certification Standards (13VAC5-21).

Note: Continuing education and periodic training requirements for DHCD certifications are set out in the Virginia Certification Standards (13VAC5-21).

~~K. 105.4- Continuing education: Fire officials and technical assistants enforcing the SFPC shall attend periodic training courses as designated by the DHCD.~~

~~L. 105.5- K. 105.4~~ Control of conflict of interest: The standards of conduct for officials and employees of the enforcing agency shall be in accordance with the provisions of the State and Local Government Conflict of Interests Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2 of the Code of Virginia.

## **13VAC5-51-61. Section ~~106.0-~~ 106 Duties and powers of the fire official.**

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

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

C. 106.3- Inspections: The fire official is authorized to conduct such inspections as are deemed necessary to determine the extent of compliance with the provisions of this code and to approve reports of inspection by approved agencies or individuals in accordance with the fire official's written policy. All reports of such inspections by approved agencies or individuals shall be prepared and submitted in writing for review and approval. Inspection reports shall be certified by a responsible officer of such approved agency or by the responsible individual. The fire official is authorized to engage such expert opinion as deemed necessary to report upon unusual, detailed or complex technical issues in accordance with local policies.

D. 106.3.1- Observations: When, during an inspection, the fire official or an authorized representative observes an apparent or actual violation of another law, ordinance or code not within the official's authority to enforce, such official shall report the findings to the official having jurisdiction in order that such official may institute the necessary measures.

E. 106.4- Alternatives: The SFPC provisions are not intended to prevent the use of any safeguards used to protect life and property from the hazards of fire or explosion that are not specifically prescribed by the SFPC, provided that such alternative safeguards comply with the intent of the SFPC. The alternative safeguard offered shall be, for the purpose intended, at least the equivalent of that prescribed in this code

in quality, strength, effectiveness, fire resistance, durability and safety.

F. 106.5- Modifications: The fire official may grant modifications to any provision of the SFPC upon application by the owner or the owner's agent provided the spirit and intent of the SFPC are observed and public health, welfare, and safety are assured.

Note: The current editions of many nationally recognized model codes and standards are referenced by the SFPC. Future amendments to such codes and standards do not automatically become part of the SFPC; however, the fire official should consider such amendments in deciding whether a modification request should be granted.

G. 106.5.1- Supporting data: The fire official shall require that sufficient technical data be submitted to substantiate the proposed use of any alternative. If it is determined that the evidence presented is satisfactory proof of performance for the use intended, the fire official shall approve the use of such alternative subject to the requirements of this code. The fire official may require and consider a statement from a professional engineer, architect or other competent person as to the equivalency of the proposed modification.

H. 106.5.2- Decision: The application for modification and the final decision of the fire official shall be in writing and shall be recorded in the permanent records of the local enforcing agency.

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

J. 106.7- Department records: The fire official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records or disposed of in accordance with General Schedule Number Ten available from The Library of Virginia.

**13VAC5-51-81. Section ~~107.0~~ 107 Permits and fees.**

A. 107.1- Prior notification: The fire official may require notification prior to (i) activities involving the handling, storage or use of substances, materials or devices regulated by the SFPC; (ii) conducting processes which produce conditions hazardous to life or property; or (iii) establishing a place of assembly.

B. 107.2- Permits required: Operational permits may be required by the fire official as permitted under the SFPC in accordance with Table 107.2, except that the fire official shall require permits for the manufacturing, storage, handling, use, and sale of explosives. In accordance with Section 5601.2.3.1, an application for a permit to manufacture, store, handle, use, or sell explosives shall only be made by a designated individual.

Exception: Such permits shall not be required for the storage of explosives or blasting agents by the Virginia Department of State Police provided notification to the fire official is made annually by the Chief Arson Investigator listing all storage locations.

C. Add Table 107.2 as follows:

Table 107.2. OPERATIONAL PERMIT REQUIREMENTS (to be filled in by local jurisdiction).			
Description	Permit Required (yes or no)	Permit Fee	Inspection Fee
Aerosol products. An operational permit is required to manufacture, store or handle an aggregate quantity of Level 2 or Level 3 aerosol products in excess of 500 pounds (227 kg) net weight.			
Amusement buildings. An operational permit is required to operate a special amusement building.			
Aviation facilities. An operational permit is required to use a Group H or Group S occupancy for aircraft servicing or repair and aircraft fuel-servicing vehicles. Additional permits required by other sections of this code include, but are not limited to, hot work, hazardous materials and flammable or combustible finishes.			

# Regulations

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.																			
<p>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<sup>3</sup>).</p> <p>Exception: An operational permit is not required for agricultural storage.</p>																			
<p>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.</p> <p>Exception: Vehicles equipped for and using compressed gas as a fuel for propelling the vehicle.</p> <p style="text-align: center;">Permit Amounts for Compressed Gases</p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Type of Gas</th> <th style="text-align: left;">Amount (cubic feet at NTP)</th> </tr> </thead> <tbody> <tr> <td>Corrosive</td> <td>200</td> </tr> <tr> <td>Flammable (except cryogenic fluids and liquefied petroleum gases)</td> <td>200</td> </tr> <tr> <td>Highly toxic</td> <td>Any Amount</td> </tr> <tr> <td>Inert and simple asphyxiant</td> <td>6,000</td> </tr> <tr> <td>Oxidizing (including oxygen)</td> <td>504</td> </tr> <tr> <td>Pyrophoric</td> <td>Any Amount</td> </tr> <tr> <td>Toxic</td> <td>Any Amount</td> </tr> </tbody> </table> <p>For SI: 1 cubic foot = 0.02832 m<sup>3</sup>.</p>	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			
Type of Gas	Amount (cubic feet at NTP)																		
Corrosive	200																		
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Highly toxic	Any Amount																		
Inert and simple asphyxiant	6,000																		
Oxidizing (including oxygen)	504																		
Pyrophoric	Any Amount																		
Toxic	Any Amount																		
<p>Covered and open mall buildings. An operational permit is required for:</p> <ol style="list-style-type: none"> <li>1. The placement of retail fixtures and displays, concession equipment, displays of highly combustible goods and similar items in the mall.</li> <li>2. The display of liquid-fired or gas-fired equipment in the mall.</li> <li>3. The use of open-flame or flame-producing equipment in the mall.</li> </ol>																			
<p>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.</p> <p>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.</p>																			

Permit Amounts for Cryogenic Fluids					
Type of Cryogenic Fluid	Inside Building (gallons)	Outside Building (gallons)			
Flammable	More than 1	60			
Inert	60	500			
Oxidizing (includes oxygen)	10	50			
Physical or health hazard not indicated above	Any Amount	Any Amount			
For SI: 1 gallon = 3.785 L.					
Cutting and welding. An operational permit is required to conduct cutting or welding operations within the jurisdiction.					
Dry cleaning plants. An operational permit is required to engage in the business of dry cleaning or to change to a more hazardous cleaning solvent used in existing dry cleaning equipment.					
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 [ <del>manufacture,</del> ] 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, exception numbers four and 12.					
<u>[ Explosives, restricted manufacture. An operational permit is required for the restricted manufacture of explosives within the scope of Chapter 56.</u>					
<u>Explosives, unrestricted manufacture. An operational permit is required for the unrestricted manufacture of explosives within the scope of Chapter 56. ]</u>					
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. ]					



# Regulations

<p>Department of Transportation (DOTn) nor does it apply to piping systems.</p> <p>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:</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>8. To manufacture, process, blend or refine flammable or combustible liquids.</p>			
<p>Floor finishing. An operational permit is required for floor finishing or surfacing operations exceeding 350 square feet (33 m<sup>2</sup>) using Class I or Class II liquids.</p>			
<p>Fruit and crop ripening. An operational permit is required to operate a fruit- ripening or crop-ripening facility or conduct a fruit-ripening process using ethylene gas.</p>			
<p>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.</p>			
<p>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.</p>			

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 <sup>a</sup>		
Class 2	10 gallons		
Class 1	55 gallons		
Solids			
Class 4	Any amount		
Class 3	10 pounds <sup>b</sup>		
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		

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# Regulations

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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			

<p>For SI: 1 gallon = 3.785 L, 1 pound = 0.454 kg.</p> <p>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.</p> <p>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.</p>			
<p>HPM facilities. An operational permit is required to store, handle or use hazardous production materials.</p>			
<p>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<sup>2</sup>).</p>			
<p>Hot work operations. An operational permit is required for hot work including, but not limited to:</p> <ol style="list-style-type: none"> <li>1. Public exhibitions and demonstrations where hot work is conducted.</li> <li>2. Use of portable hot work equipment inside a structure.</li> </ol> <p>Exception: Work that is conducted under a construction permit.</p> <ol style="list-style-type: none"> <li>3. Fixed-site hot work equipment such as welding booths.</li> <li>4. Hot work conducted within a hazardous fire area.</li> <li>5. Application of roof coverings with the use of an open-flame device.</li> <li>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.</li> </ol>			
<p>Industrial ovens. An operational permit is required for operation of industrial ovens regulated by Chapter 30.</p>			
<p>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<sup>3</sup>) (236 m<sup>3</sup>).</p>			
<p>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.</p>			
<p>LP-gas. An operational permit is required for:</p> <ol style="list-style-type: none"> <li>1. Storage and use of LP-gas.</li> </ol> <p>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.</p> <ol style="list-style-type: none"> <li>2. Operation of cargo tankers that transport LP-gas.</li> </ol>			

# Regulations

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 <sup>3</sup> ) gross volume of combustible empty packing cases, boxes, barrels or similar containers, rubber tires, rubber, cork or similar combustible material.			
[ <u>Mobile food preparation vehicles. A permit is required for mobile food preparation vehicles equipped with appliances that produce smoke or grease laden vapors.</u> <u>Exception: Recreational vehicles used for private recreation. ]</u>			
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 <sup>3</sup> ) 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 <sup>2</sup> ) 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 <sup>3</sup> ).			

D. 107.3- Application for permit: Application for a permit shall be made on forms prescribed by the fire official.

E. 107.4- Issuance of permits: Before a permit is issued, the fire official shall make such inspections or tests as are necessary to assure that the use and activities for which application is made comply with the provisions of this code.

F. 107.5- Conditions of permit: A permit shall constitute permission to store or handle materials or to conduct processes in accordance with the SFPC; and shall not be construed as authority to omit or amend any of the provisions of this code. Permits shall remain in effect until revoked or for such period as specified on the permit. Permits are not transferable.

G. 107.6- Annual: The enforcing agency may issue annual permits for the manufacturing, storage, handling, use, or sales of explosives to any state regulated public utility.

H. 107.7- Approved plans: Plans approved by the fire official are approved with the intent that they comply in all respects to this code. Any omissions or errors on the plans do not relieve the applicant of complying with all applicable requirements of this code.

I. 107.8- Posting: Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire official.

J. 107.9- Suspension of permit: A permit shall become invalid if the authorized activity is not commenced within six months after issuance of the permit; or if the authorized activity is suspended or abandoned for a period of six months after the time of commencement.

K. 107.10- Local fees: In accordance with § ~~27-97~~ 27-98 of the Code of Virginia, fees may be levied by the local governing body in order to defray the cost of enforcement and appeals under the SFPC. However, for the city of Chesapeake no fee charged for the inspection of any place of religious worship designated as Assembly Group A-3 shall exceed \$50. For purposes of this section, "defray the cost" may include the fair and reasonable costs incurred for such enforcement during normal business hours but shall not include overtime costs, unless conducted outside of the normal working hours established by the locality. A schedule of such costs shall be adopted by the local governing body in a local ordinance. A locality shall not charge an overtime rate for inspections conducted during the normal business hours established by the locality. Nothing herein shall be construed to prohibit a private entity from conducting such inspections, provided the private entity has been approved to perform such inspections

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# Regulations

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in accordance with the written policy of the fire official for the locality.

L. 107.11: State Fire Marshal's office permit fees for explosives, blasting agents, theatrical flame effects, and fireworks: ~~[ Except as modified herein, Complete permit ]~~ applications ~~[ for firework or pyrotechnic displays ]~~ shall be submitted to and received by the State Fire Marshal's ~~[ office Office ]~~ not less than 15 days prior to the planned ~~[ use or ]~~ event. ~~[ A \$500 expedited handling fee will be assessed on all permit applications submitted less than 15 days prior to the planned use or event. Inspection fees will be assessed at a rate of \$60 per staff member per hour during normal business hours (Monday through Friday, 8:30 a.m. to 4:30 p.m.) and at a rate of \$90 per hour at all other times (nights, weekends, holidays). ]~~ State Fire Marshal's Office permit fees shall be as follows:

- ~~1. [ \$150 per year per magazine to store explosives and blasting agents Storage of explosives and blasting agents, 12-month permit \$250 first magazine, plus \$150 per each additional magazine on the same site ].~~
- ~~2. [ \$250 per year per city or county to use explosives and blasting agents Use of explosives and blasting agents, nonfixed site, 6-month permit \$250 per site, plus inspection fees ].~~
- ~~3. [ \$200 per year to sell explosives and blasting agents Use of explosives and blasting agents, fixed site, 12-month permit \$250 per site ].~~
- ~~4. [ \$250 per year to manufacture explosives, blasting agents and fireworks Sale of explosives and blasting agents, 12-month permit \$250 per site ].~~
- ~~5. [ \$350 the first day of fireworks, pyrotechnics or proximate audience displays conducted in any state owned building and \$150 per day for each consecutive day for identical multi day events. If an application is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$550 the first day and \$150 per day for each consecutive day for identical multi day events. If an application is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$650 the first day and \$150 per day for each consecutive day for identical multi day events Manufacture explosives (unrestricted), blasting agents, and fireworks, 12-month permit \$250 per site ].~~
- ~~6. [ \$250 the first day of fireworks, pyrotechnics or proximate audience displays conducted out of doors on any state owned property and \$150 per day for each consecutive day for identical multi day events. If an application is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$550 the first day and \$150 per day for each consecutive day for identical multi day events. If an~~

application is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$650 the first day and \$150 per day for each consecutive day for identical multi day events Manufacture explosives (unrestricted), blasting agents, and fireworks, 12-month permit \$250 per site ].

~~7. [ \$100 per nonrenewable permit, valid for one week from the date of issuance, for the use of explosives in special operations or emergency conditions Fireworks display in or on state-owned property \$300 plus inspection fees ].~~

~~8. [ \$300 the first day for flame effects conducted in accordance with Section 308.3.2 indoors of any state-owned building or outdoors on state owned property and \$200 per day for each consecutive day for identical multi-day events, or, if conducted as part of a firework (pyrotechnic) display, \$150 the first day and \$125 per day for each consecutive day for identical multi day events. If an application for flame effects is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$550 the first day and \$200 per day for each consecutive day for identical multi-day events or, if conducted as part of a firework (pyrotechnic) display, \$200 the first day and \$100 per day for each consecutive day for identical multi day events. If an application is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$650 the first day and \$150 per day for each consecutive day for identical multi day events or, if conducted as part of a firework (pyrotechnic) display, \$300 the first day and \$125 per day for each consecutive day for identical multi day events Pyrotechnics or proximate audience displays in or on state-owned property \$300 plus inspection fees ].~~

~~[ 9. Flame effects in or on state-owned property \$300 plus inspection fees.~~

~~10. Flame effects incidental to a permitted pyrotechnics display \$150 (flame effects must be individual or group effects that are attended and manually controlled). ]~~

Exception: ~~[ Permits shall not be required for the storage of explosives or blasting agents by the Virginia Department of State Police provided notification to the State Fire Marshal is made annually by the Chief Arson Investigator listing all storage locations within areas where enforcement is provided by the State Fire Marshal's office Permit fees shall not be required for the storage of explosives or blasting agents by state and local law enforcement and fire agencies ].~~

M. 107.12: State annual compliance inspection fees: Fees for compliance inspections performed by the State Fire Marshal's office shall be as follows:

1. Nightclubs.

- 1.1. \$350 for occupant load of 100 or less.
  - 1.2. \$450 for occupant load of 101 to 200.
  - 1.3. \$500 for occupant load of 201 to 300.
  - 1.4. \$500 plus \$50 for each 100 occupants where occupant loads exceed 300.
2. Private college dormitories with or without assembly areas. If containing assembly areas, such assembly areas are not included in the computation of square footage.
- 2.1. \$150 for 3500 square feet or less.
  - 2.2. \$200 for greater than 3500 square feet up to 7000 square feet.
  - 2.3. \$250 for greater than 7000 square feet up to 10,000 square feet.
  - 2.4. \$250 plus \$50 for each additional 3000 square feet where square footage exceeds 10,000.
3. Assembly areas that are part of private college dormitories.
- 3.1. \$50 for 10,000 square feet or less provided the assembly area is within or attached to a dormitory building.
  - 3.2. \$100 for greater than 10,000 square feet up to 25,000 square feet provided the assembly area is within or attached to a dormitory building, such as gymnasiums, auditoriums or cafeterias.
  - 3.3. \$100 for up to 25,000 square feet provided the assembly area is in a separate or separate buildings such as gymnasiums, auditoriums or cafeterias.
  - 3.4. \$150 for greater than 25,000 square feet for assembly areas within or attached to a dormitory building or in a separate or separate buildings such as gymnasiums, auditoriums or cafeterias.
4. Hospitals.
- 4.1. \$300 for 1 to 50 beds.
  - 4.2. \$400 for 51 to 100 beds.
  - 4.3. \$500 for 101 to 150 beds.
  - 4.4. \$600 for 151 to 200 beds.
  - 4.5. \$600 plus \$100 for each additional 100 beds where the number of beds exceeds 200.
5. Facilities licensed by the Virginia Department of Social Services based on licensed capacity as follows:
- 5.1. \$50 for 1 to 8.
  - 5.2. \$75 for 9 to 20.
  - 5.3. \$100 for 21 to 50.

- 5.4. \$200 for 51 to 100.
- 5.5. \$300 for 101 to 150.
- 5.6. \$400 for 151 to 200.
- 5.7. \$500 for 201 or more.

Exception: Annual compliance inspection fees for any building or groups of buildings on the same site may not exceed \$2500.

6. Registered complaints.

- 6.1. No charge for first visit (initial complaint), and if violations are found.
- 6.2. \$51 per hour for each State Fire Marshal's office staff for all subsequent visits.

7. Bonfires (small and large) on state-owned property.

- 7.1. For a small bonfire pile with a total fuel area more than 3 feet in diameter and more than 2 feet in height, but not more than 9 feet in diameter and not more than 6 feet in height, the permit fee is \$50. If an application for a bonfire permit is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$100. If an application for a bonfire permit is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$150.
- 7.2. For a large bonfire pile with a total fuel area more than 9 feet in diameter and more than 6 feet in height, the permit fee is \$150. If an application for a bonfire permit is received by the State Fire Marshal's office less than 15 days prior to the planned event, the permit fee shall be \$300. If an application for a bonfire permit is received by the State Fire Marshal's office less than seven days prior to the planned event, the permit fee shall be \$450.

N. 107.13- Fee schedule: The local governing body may establish a fee schedule. The schedule shall incorporate unit rates, which may be based on square footage, cubic footage, estimated cost of inspection or other appropriate criteria.

O. 107.14- Payment of fees: A permit shall not be issued until the designated fees have been paid.

Exception: The fire official may authorize delayed payment of fees.

P. 107.14.1- State Fire Marshal's office certification and permit fees not refundable: No refund of any part of the amount paid as a permit or certification fee will be made where the applicant, permit or certification holder, for any reason, discontinued an activity, changed conditions, or changed circumstances for which the permit or certification was issued. However, the permit or certification fee submitted with an application will be refunded if the permit or certification is canceled, revoked, or suspended subsequent to



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# Regulations

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having been issued through administrative error, or if a permit being applied for is to be obtained from a locally appointed fire official.

## **13VAC5-51-85. Section 108.0. 108 Operational permits.**

A. 108.1- General. Operational permits shall be in accordance with Section 108. The fire official may require notification prior to (i) activities involving the handling, storage or use of substances, materials or devices regulated by the SFPC; (ii) conducting processes which produce conditions hazardous to life or property; or (iii) establishing a place of assembly.

B. 108.1.1- Permits required. Operational permits may be required by the fire official in accordance with Table 107.2. The fire official shall require operational permits for the manufacturing, storage, handling, use and sale of explosives. Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire official.

### Exceptions:

1. Operational permits will not be required by the State Fire Marshal except for the manufacturing, storage, handling, use and sale of explosives in localities not enforcing the SFPC.

2. Operational permits will not be required for the manufacturing, storage, handling or use of explosives or blasting agents by the Virginia Department of State Police provided notification to the fire official is made annually by the Chief Arson Investigator listing all storage locations.

### C. 108.1.2- Duration of operational permits.

An operational permit allows the applicant to conduct an operation or a business for which a permit is required by Section 108.1.1 for either:

1. A prescribed period.
2. Until renewed, suspended, or revoked.

D. 108.1.3- Operational permits for the same location. When more than one operational permit is required for the same location, the fire official is authorized to consolidate such permits into a single permit provided that each provision is listed in the permit.

E. 108.2- Application. Application for an operational permit required by this code shall be made to the fire official in such form and detail as prescribed by the fire official. Applications for permits shall be accompanied by such plans as prescribed by the fire official.

F. 108.2.1- Refusal to issue permit. If the application for an operational permit describes a use that does not conform to the requirements of this code and other pertinent laws and ordinances, the fire official shall not issue a permit, but shall

return the application to the applicant with the refusal to issue such permit. Such refusal shall, when requested, be in writing and shall contain the reasons for refusal.

G. 108.2.2- Inspection authorized. Before a new operational permit is approved, the fire official is authorized to inspect the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used to determine compliance with this code or any operational constraints required.

H. 108.2.3- Time limitation of application. An application for an operational permit for any proposed work or operation shall be deemed to have been abandoned six months after the date of filing, unless such application has been diligently prosecuted or a permit shall have been issued; except that the fire official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each if there is reasonable cause.

I. 108.2.4- Action on application. The fire official shall examine or cause to be examined applications for operational permits and amendments thereto within a reasonable time after filing. If the application does not conform to the requirements of pertinent laws, the fire official shall reject such application in writing, stating the reasons. If the fire official is satisfied that the proposed work or operation conforms to the requirements of this code and laws and ordinances applicable thereto, the fire official shall issue a permit as soon as practicable.

J. 108.3- Conditions of a permit. An operational permit shall constitute permission to maintain, store or handle materials; or to conduct processes in accordance with the SFPC, and shall not be construed as authority to omit or amend any of the provisions of this code.

Note: The building official issues permits to install equipment utilized in connection with such activities or to install or modify any fire protection system or equipment or any other construction, equipment installation or modification.

K. 108.3.1- Expiration. An operational permit shall remain in effect until reissued, renewed, or revoked for such a period of time as specified in the permit. Permits are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.

L. 108.3.2- Extensions. A permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The fire official is authorized to grant, in writing, one or more extensions of the time period of a permit for periods of not more than 90 days each. Such extensions shall be requested by the permit holder in writing and justifiable cause demonstrated.

M. 108.3.3- Annual. The enforcing agency may issue annual operational permits for the manufacturing, storage, handling, use, or sales of explosives to any state regulated public utility.

N. 108.3.4- Suspension of permit. An operational permit shall become invalid if the authorized activity is not commenced within six months after issuance of the permit, or if the authorized activity is suspended or abandoned for a period of six months after the time of commencement.

O. 108.3.5- Posting. Issued operational permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire official.

P. 108.3.6- Compliance with code. The issuance or granting of an operational permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. Operational permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid. The issuance of a permit based on other data shall not prevent the fire official from requiring the correction of errors in the provided documents and other data. Any addition to or alteration of approved provided documents shall be approved in advance by the fire official, as evidenced by the issuance of a new or amended permit.

Q. 108.3.7- Information on the permit. The fire official shall issue all operational permits required by this code on an approved form furnished for that purpose. The operational permit shall contain a general description of the operation or occupancy and its location and any other information required by the fire official. Issued permits shall bear the original or electronic signature of the fire official or other designee approved by the fire official.

R. 108.4- Revocation. The fire official is authorized to revoke an operational permit issued under the provisions of this code when it is found by inspection or otherwise that there has been a false statement or misrepresentation as to the material facts in the application or documents on which the permit or approval was based including, but not limited to, any one of the following:

1. The permit is used for a location or establishment other than that for which it was issued.
2. The permit is used for a condition or activity other than that listed in the permit.
3. Conditions and limitations set forth in the permit have been violated.
4. Inclusion of any false statements or misrepresentations as to a material fact in the application for permit or plans submitted or a condition of the permit.
5. The permit is used by a different person or firm than the person or firm for which it was issued.

6. The permittee failed, refused or neglected to comply with orders or notices duly served in accordance with the provisions of this code within the time provided therein.

7. The permit was issued in error or in violation of an ordinance, a regulation, or this code.

**13VAC5-51-91. Section ~~109.0~~, 109 Inspection.**

A. 109.1- Inspection~~;~~. The fire official may inspect all structures and premises for the purposes of ascertaining and causing to be corrected any conditions liable to cause fire, contribute to the spread of fire, interfere with firefighting operations, endanger life, or any violations of the provisions or intent of the SFPC.

Exception: Single family dwellings and dwelling units in two family and multiple family dwellings and farm structures shall be exempt from routine inspections. This exemption shall not preclude the fire official from conducting routine inspections in Group R-3 or Group R-5 occupancies operating as a commercial bed and breakfast as outlined in Section 310.3 of the USBC or inspecting under § 27-98.2 of the Code of Virginia for hazardous conditions relating to explosives, flammable and combustible conditions, and hazardous materials.

B. 109.1.1- Right to entry~~;~~. The fire official may enter any structure or premises at any reasonable time to inspect subject to constitutional restrictions on unreasonable searches and seizures. If entry is refused or not obtained, the fire official may pursue recourse as provided by law.

Note: Specific authorization and procedures for inspections and issuing warrants are set out in §§ 27-98.1 through 27-98.5 of the Code of Virginia and shall be taken into consideration.

C. 109.1.2- Credentials~~;~~. The fire official and technical assistants shall carry proper credentials of office when inspecting in the performance of their duties under the SFPC.

D. 109.2- Coordinated inspections~~;~~. The fire official shall coordinate inspections and administrative orders with any other state and local agencies having related inspection authority, and shall coordinate those inspections required by the USBC for new construction when involving provisions of the amended IFC, so that the owners and occupants will not be subjected to numerous inspections or conflicting orders.

Note: The USBC requires the building official to coordinate such inspections with the fire official.

E. 109.3- Other inspections~~;~~. In accordance with § 9.1-207 of the Code of Virginia, the State Fire Marshal, upon presenting proper credentials, shall make annual inspections for hazards incident to fire in all (i) residential care facilities licensed by any state agency, (ii) assisted living facilities licensed or subject to licensure pursuant to Chapter 18 (§ 63.2-1800 et seq.) of Title 63.2 of the Code of Virginia which are not inspected by a local fire marshal, (iii) student-

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# Regulations

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residence facilities owned or operated by the public institutions of higher education in the Commonwealth, and (iv) public schools in the Commonwealth which are not inspected by a local fire marshal. In the event that any such facility or residence is found to be nonconforming to the SFPC, the State Fire Marshal or local fire marshal may petition any court of competent jurisdiction for the issuance of an injunction.

## **13VAC5-51-101. Section ~~110.0~~, 110 Unsafe conditions.**

A. 110.1- General: The fire official shall order the following dangerous or hazardous conditions or materials to be removed or remedied in accordance with the SFPC:

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

B. 110.2- Maintenance: The owner shall be responsible for the safe and proper maintenance of any structure, premises or lot. In all structures, the fire protection equipment, means of egress, alarms, devices and safeguards shall be maintained in a safe and proper operating condition as required by the SFPC and applicable referenced standards.

C. 110.3- Occupant responsibility: If a building occupant creates conditions in violation of this code, by virtue of storage, handling and use of substances, materials, devices and appliances, such occupant shall be held responsible for the abatement of said hazardous conditions.

D. 110.4- Unsafe structures: All structures that are or shall hereafter become unsafe or deficient in adequate exit facilities or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or by reason of illegal or improper use, occupancy or maintenance or which have sustained structural damage by reason of fire, explosion, or natural disaster shall be deemed unsafe structures. A vacant structure, or portion of a structure, unguarded or open at door or window shall be deemed a fire hazard and unsafe within the meaning of this code. Unsafe structures shall be reported to the building official or building maintenance official who shall take appropriate action under the provisions of the USBC to secure abatement. Subsequently, the fire official may request the legal counsel of the local governing body to institute the appropriate proceedings for an injunction against the continued use and occupancy of the structure until such time as conditions have been remedied.

E. 110.5- Evacuation: When, in the fire official's opinion, there is actual and potential danger to the occupants or those in the proximity of any structure or premises because of unsafe structural conditions, or inadequacy of any means of egress, the presence of explosives, explosive fumes or vapors, or the presence of toxic fumes, gases or materials, the fire official may order the immediate evacuation of the structure or premises. All notified occupants shall immediately leave the structure or premises and no person shall enter until authorized by the fire official.

F. 110.6- Unlawful continuance: Any person who refuses to leave, interferes with the evacuation of other occupants or continues any operation after having been given an evacuation order shall be in violation of this code.

Exception: Any person performing work directed by the fire official to be performed to remove an alleged violation or unsafe condition.

## **13VAC5-51-111. Section ~~111.0~~, 111 Violations.**

A. 111.1- Notice: When the fire official discovers an alleged violation of a provision of the SFPC or other codes or ordinances under the fire official's jurisdiction, the fire official shall prepare a written notice citing the section allegedly violated, describing the condition deemed unsafe and specifying time limitations for the required abatements to be made to render the structure or premises safe and secure.

B. 111.1.1- Right of appeal: Notices of violation issued under Section 111.1 shall indicate the right of appeal by referencing the appeals section of this code.

Exceptions:

1. Summons issued in lieu of a notice of violation in accordance with Section 111.5 of this code.
2. Documents reflecting uncorrected violations in subsequent inspections to verify compliance.

C. 111.2- Service: The written notice of violation of this code shall be served upon the owner, a duly authorized agent or upon the occupant or other person responsible for the conditions under violation. Such notice shall be served either by delivering a copy of same to such persons by mail to the last known post office address, by delivering in person or by delivering it to and leaving it in the possession of any person in charge of the premises, or, in the case such person is not found upon the premises, by affixing a copy thereof in a conspicuous place at the entrance door or avenue of access. Such procedure shall be deemed the equivalent of personal notice.

D. 111.3- Failure to correct violations: If the notice of violation is not complied with within the time specified, the fire official shall request the legal counsel of the local governing body to institute the appropriate legal proceedings to restrain, correct, or abate such alleged violation.

E. 111.4- Penalty: Penalties upon conviction of violating the SFPC shall be as set out in § 27-100 of the Code of Virginia.

F. 111.5- Summons: When authorized and certified in accordance with § 27-34.2 of the Code of Virginia, the fire official may, subject to any limitations imposed by the local governing body, issue a summons in lieu of a notice of violation. Fire officials not certified in accordance with § 27-34.2 of the Code of Virginia may request the law-enforcement agency of the local governing body to make arrests for any alleged violations of the SFPC or orders affecting the immediate public safety.

**13VAC5-51-121. Section ~~112.0~~, 112 Appeals.**

A. 112.1- Local Board of Fire Prevention Code Appeals (~~BFPCA~~) (LBFPCA). Each local governing body which enforces the SFPC shall have a ~~BFPCA~~ LBFPCA to hear appeals as authorized herein or it shall enter into an agreement with the governing body of another county or municipality, with some other agency, or with a state agency approved by the DHCD to act on appeals. An appeal case decided by some other approved agency shall constitute an appeal in accordance with this section and shall be final unless appealed to the State ~~Building Code Technical Review Board (TRB)~~.

B. 112.2- Membership: The ~~BFPCA~~ LBFPCA shall consist of at least five members appointed by the local governing body and having terms of office established by written policy. Alternate members may be appointed to serve in the absence of any regular members and, as such, shall have the full power and authority of the regular members. Regular and

alternate members may be reappointed. Written records of current membership, including a record of the current chairman and secretary shall be maintained in the office of the local governing body. In order to provide continuity, the terms of the members may be of different length so that less than half will expire in any one-year period. The ~~BFPCA~~ LBFPCA shall meet ~~at least once annually~~ as necessary to assure a duly constituted board, appoint officers as necessary and receive such training on the code as may be appropriate or necessary from staff of the locality.

C. 112.2.1- Chairman: The ~~BFPCA~~ LBFPCA shall annually select one of its regular members to serve as chairman. In case of the absence of the chairman at a hearing, the members present shall select an acting chairman.

D. 112.2.2- Secretary: The local governing body shall appoint a secretary to the ~~BFPCA~~ LBFPCA to maintain a detailed record of all proceedings.

E. 112.3- Qualifications of members: ~~BFPCA~~ LBFPCA. members shall be selected by the local governing body on the basis of their ability to render fair and competent decisions regarding application of the SFPC and shall, to the extent possible, represent different occupational or professional fields relating to building construction or fire prevention. At least one member should be an experienced builder and one member a licensed professional engineer or architect. Employees or officials of the local governing body shall not serve as members of the ~~BFPCA~~ LBFPCA.

F. 112.4- Disqualification of member: A member shall not hear an appeal in which that member has conflict of interest in accordance with the State and Local Government Conflict of Interests Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2 of the Code of Virginia.

G. 112.5- Application for appeal: The owner of a structure, the owner's agent or any other person involved in the [ ~~design, construction or~~ ] 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 ~~local board of fire prevention code appeals (BFPCA)~~ LBFPCA and then to the ~~TRB 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 ~~TRB State Review Board~~. The appeal shall be submitted to the ~~BFPCA~~ 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 ~~BFPCA~~ LBFPCA to indicate the date received. Failure to submit an application for

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# Regulations

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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 ~~TRB~~ State Review Board shall hear appeals of any local fire code violation.

H. 112.6- Notice of meeting: The ~~BFPCA~~ LBFPCA shall meet within 30 calendar days after the date of receipt of the application for appeal. Notice indicating the time and place of the hearing shall be sent to the parties in writing to the addresses listed on the application at least 14 calendar days prior to the date of the hearing. Less notice may be given if agreed upon by the applicant.

I. 112.7- Hearing procedures: All hearings before the ~~BFPCA~~ LBFPCA shall be open to the public. The appellant, the appellant's representative, the local governing body's representative and any person whose interests are affected shall be given an opportunity to be heard. The chairman shall have the power and duty to direct the hearing, rule upon the acceptance of evidence and oversee the record of all proceedings.

J. 112.7.1- Postponement: When a quorum of the ~~BFPCA~~ LBFPCA is not present to hear an appeal, either the appellant or the appellant's representative shall have the right to request a postponement of the hearing. The ~~BFPCA~~ LBFPCA shall reschedule the appeal within 30 calendar days of the postponement.

K. 112.8- Decision: The ~~BFPCA~~ LBFPCA shall have the power to uphold, reverse or modify the decision of the fire official by a concurring vote of a majority of those present. Decisions of the ~~BFPCA~~ LBFPCA shall be final if no appeal is made therefrom and the appellant and the fire official shall act accordingly.

L. 112.8.1- Resolution: The ~~BFPCA's~~ LBFPCA's decision shall be [ ~~by resolution explained in writing.~~ ] signed by the chairman [ , ] and retained as part of the record by the ~~BFPCA~~ LBFPCA. The following wording shall be part of the [ ~~resolution written decision~~ ]: "Any person who was a party to the appeal may appeal to the State Building Code Technical Review Board (~~TRB~~) (State Review Board) by submitting an application to the ~~TRB~~ State Review Board within 21 calendar days upon receipt by certified mail of [ ~~this resolution the written decision~~ ]. Application forms are available from the Office of the ~~TRB~~ State Review Board, 600 East Main Street, Richmond, Virginia 23219, (804) 371-7150." Copies of the [ ~~resolution written decision~~ ] shall be furnished to all parties.

M. 112.9- Appeal to the ~~TRB~~ State Review Board. After final determination by the ~~BFPCA~~ LBFPCA, any person who was a party to the local appeal may appeal to the ~~TRB~~ State Review Board. Application shall be made to the ~~TRB~~ State

Review Board within 21 calendar days of receipt of the decision to be appealed. Application for appeal to the ~~TRB~~ State Review Board arising from the SFMO's enforcement of the code or from any local fire code violation if no local board of appeals exists shall be made to the ~~TRB~~ State Review Board within 14 calendar days of receipt of the decision to be appealed and shall be accompanied by copies of the inspection reports and other relevant information. Failure to submit an application for appeal within the time limit established by this section shall constitute an acceptance of the ~~BFPCA's~~ LBFPCA's resolution or fire official's decision.

N. 112.9.1- Information to be submitted: Copies of the fire official's decision and the [ ~~resolution~~ written decision ] of the ~~BFPCA~~ LBFPCA shall be submitted with the application for appeal. Upon request by the office of the ~~TRB~~ State Review Board, the ~~BFPCA~~ LBFPCA shall submit a copy of all inspection reports and all pertinent information from the record of the ~~BFPCA~~ LBFPCA.

O. 112.9.2- Decision of ~~TRB~~ State Review Board. Procedures of the ~~TRB~~ State Review Board are in accordance with Article 2 (§ 36-108 et seq.) of Chapter 6 of Title 36 of the Code of Virginia. Decisions of the ~~TRB~~ State Review Board shall be final if no appeal is made therefrom and the appellant and the code official shall act accordingly.

## 13VAC5-51-130. IFC Section ~~202-0~~, 202 Definitions.

A. Add the following definitions to read:

[ Applicable building code. The local or statewide building code and referenced standards in effect at the time the building or portion thereof was constructed, altered, renovated, or underwent a change of occupancy. See Section 103 for the application of the code. ]

Background clearance card or BCC: An identification card issued to an individual who is not a certified blaster or pyrotechnician and is responsible management or an employee of a company, corporation, firm, or other entity, solely for the purpose of submitting an application to the fire official for a permit to manufacture, use, handle, store, or sell explosive materials; or conduct a fireworks display. A person to whom a BCC has been issued can fulfill the role of a designated individual on an application for a permit to manufacture, use, handle, store, or sell explosive materials; or on an application for a permit to design, setup, and conduct a fireworks display.

Blaster, restricted: Any person engaging in the use of explosives or blasting agents utilizing five pounds (2.25 kg) or less per blasting operation and using instantaneous detonators. A certified restricted blaster can fulfill the role of a designated individual on an application for permit to manufacture, use, handle, store, or sell explosive materials.

**Blaster, unrestricted:** Any person engaging in the use of explosives or blasting agents without the limit to the amount of explosives or blasting agents or type of detonator. A certified unrestricted blaster can fulfill the role of a designated individual on an application for permit to manufacture, use, handle, store, or sell explosive materials.

**Chemical fume hood.** A ventilated enclosure designed to contain and exhaust fumes, gases, vapors, mists, and particulate matter generated within the hood.

**Design:** For the purposes of a fireworks display, either inside a building or structure or outdoors, it shall mean the pyrotechnician who will be in attendance and makes the final artistic determination for the placement of fireworks and ground display pieces suitable for the display site.

**Designated individual:** A person who is in possession of a BCC issued by the SFMO, certified by the SFMO as a pyrotechnician, or a restricted or unrestricted blaster, any of whom are responsible for ensuring compliance with state law and regulations relating to blasting agents and explosives and applying for explosives or firework permits; is at least 21 years of age; and demonstrates the capability to effectively communicate safety messages verbally and in writing in the English language.

**DHCD:** The Virginia Department of Housing and Community Development.

**[ Explosive manufacturing. Mixing, blending, extruding, assembling articles, disassembling, chemical synthesis, and other functions involved in making a product or device that is intended to explode. ]**

**Laboratory suite.** A fire-rated enclosed laboratory area that will provide one or more laboratory spaces, within a Group B educational occupancy, that are permitted to include ancillary uses such as offices, bathrooms, and corridors that are contiguous with the laboratory area and are constructed in accordance with Section 430.3 of the USBC, Part I, Construction.

**LBFPCA.** Local Board of Fire Prevention Code Appeals.

**Local government, local governing body or locality:** The governing body of any county, city, or town, other political subdivision and state agency in this Commonwealth charged with the enforcement of the SFPC under state law.

**[ Maintained. To keep unimpaired in an appropriate condition, operation, and continuance as installed in accordance with the applicable building code, or as previously approved, and in accordance with the applicable operational and maintenance provisions of this code.**

**Mobile food preparation vehicles.** Vehicles and enclosed trailers able to be occupied by persons during cooking operations that contain cooking equipment that utilize open

flames or produce smoke or grease laden vapors for the purpose of preparing and serving food to the public. Vehicles used for private recreation shall not be considered mobile food preparation vehicles. ]

**Night club:** Any building or portion thereof in which the main use is a place of public assembly that provides exhibition, performance or other forms of entertainment; serves alcoholic beverages; and provides music and space for dancing.

**Permissible fireworks:** Any sparklers, fountains, Pharaoh's serpents, caps for pistols, or pinwheels commonly known as whirligigs or spinning jennies.

**Pyrotechnician (firework operator):** Any person supervising or engaged in the design, setup, or conducting of any fireworks display, either inside a building or outdoors. A certified pyrotechnician can fulfill the role of a designated individual on an application for a permit for a fireworks display.

**Pyrotechnician, aerial:** A person supervising or engaged in the design, setup, or conducting of an outdoor aerial fireworks display performed in accordance with the regulations as set forth in this code and NFPA 1123, a referenced standard for fireworks displays.

**Pyrotechnician, proximate:** A person supervising or engaged in the design, setup, or conducting of a fireworks display, either inside a building or outdoors, performed in accordance with the regulations as set forth in this code and NFPA 1126, a referenced standard for the use of pyrotechnics before a proximate audience.

**[ Reactive target.** A target designator intended to be shot at with a firearm and is purchased or obtained through a commercial or retail outlet, is comprised of two or more components in presized quantities of 1 pound (0.453592 kg) or less that are advertised and sold together with instructions on how to combine the components or create a target that explodes upon impact. Also known as exploding targets. ]

**Responsible management:** A person who is any of the following:

1. The sole proprietor of a sole proprietorship.
2. The partners of a general partnership.
3. The managing partners of a limited partnership.
4. The officers or directors of a corporation.
5. The managers or members of a limited liability company.
6. The managers, officers or directors of an association.

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# Regulations

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7. Individuals in other business entities recognized under the laws of the Commonwealth as having a fiduciary responsibility to the firm.

[ Restricted explosives manufacturing. When an individual engaged in the incidental manufacture or production of explosive materials composed of commercially available components that are packaged or marketed for the purpose of producing explosive materials, including reactive targets, at a location not within the definition of unrestricted explosives manufacture; is for immediate use at the site of incidental explosives manufacturing or production without residual storage; and does not involve or include the bulk mixing and delivery vehicles that are within the scope of NFPA 495. ]

~~Sky lantern: An unmanned device with a fuel source that incorporates an open flame in order to make the device airborne.~~

Sole proprietor: A person or individual, not a corporation, who is trading under his own name or under an assumed or fictitious name pursuant to the provisions of §§ 59.1-69 through 59.1-76 of the Code of Virginia.

Special expert. An individual who has demonstrated qualifications in a specific area, outside the practice of architecture or engineering, through education, training, and experience.

State Fire Marshal: The State Fire Marshal as provided for by § 9.1-206 of the Code of Virginia.

State Regulated Care Facility (SRCF): A building with an occupancy in Group R-2, R-3, R-4, or R-5 occupied by persons in the care of others where program oversight is provided by the Virginia Department of Social Services, the Virginia Department of Behavioral Health and Developmental Services, the Virginia Department of Education or the Virginia Department of Juvenile Justice.

State Review Board. The Virginia State Building Code Technical Review Board as established under § 36-108 of the Code of Virginia.

Teaching and research laboratory. A building or portion of a building where hazardous materials are stored, used, and handled for the purpose of testing, analysis, teaching, research, or developmental activities on a nonproduction basis rather than in a manufacturing process.

Technical Assistant: Any person employed by or under an extended contract to a local enforcing agency for enforcing the SFPC. For the purposes of this definition, an extended contract shall be a contract with an aggregate term of 18 months or longer.

~~TRB: The Virginia State Building Code Technical Review Board.~~

[ Unrestricted explosives manufacturing. When any company, person, or group of persons engaged in the business of manufacturing or producing explosive materials at a fixed site or facility for the purpose of commercial sale, use, or distribution of explosives. ]

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

B. Add the following definition under the term "Occupancy Classification--Residential Group R" to read:

Residential Group R-5. Detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures. The terms "R-5" and "one and two-family dwelling" where used in this code shall be interchangeable.

C. Change the following definitions to read:

[ Approved. Acceptable to the authority having jurisdiction. ]

Automatic fire-extinguishing system: An approved system of devices and equipment that automatically detects a fire and discharges an approved fire-extinguishing agent onto or in the area of a fire. Such system shall include an automatic sprinkler system, unless otherwise expressly stated.

[ Change of occupancy. Either of the following shall be considered a change of occupancy where the current VCC requires a greater degree of accessibility, structural strength, fire protection, means of egress, ventilation, or sanitation than that which is existing in the current building or structure:

1. Any change in the occupancy classification of a building or structure.
2. Any change in the purpose of, or change in the level of activity within, a building or structure.

Note: The use and occupancy classification of a building or structure shall be determined in accordance with Chapter 3 of the VCC. ]

Fire code official: The officer or other designated authority charged with administration and enforcement of this code, or a duly authorized representative. For the purpose of this code, the terms "code official" and "fire official" shall have the same meaning as the term "fire code official" and, in addition, such official shall have the powers outlined in § 27-98.1 of the Code of Virginia.

Fireworks: Any firecracker, torpedo, skyrocket, or other substance or object, of whatever form or construction, that contains any explosive or inflammable compound or substance, and is intended, or commonly known, as fireworks and that explodes, rises into the air or travels

laterally, or fires projectiles into the air. Fireworks shall not include automobile flares, paper caps containing not more than the average of 0.25 grain (16 mg) of explosive content per cap or toy pistols, toy canes, toy guns, or other devices utilizing such caps and items commonly known as party poppers, pop rocks, and snap-n-pops. Fireworks may be further delineated and referred to as:

Fireworks, 1.4G (formerly known as Class C, Common Fireworks): Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion. Such 1.4G fireworks that comply with the construction, chemical composition, and labeling regulations of the [ U.S. Department of Transportation ] DOTn for Fireworks, UN0336, and the U.S. Consumer Product Safety Commission as set forth in CPSC 16 CFR Parts 1500 and 1507, are not explosive materials for the purpose of this code.

Fireworks, 1.3G (formerly Class B, Special Fireworks): Large fireworks devices, which are explosive materials, intended for the use in fireworks displays and designed to produce audible or visible effects by combustion, deflagration, or detonation. Such 1.3G fireworks include, but are not limited to, firecrackers containing more than 130 milligrams (2 grains) of explosive composition, aerial shells containing more than 40 grams of pyrotechnic composition, and other display pieces that exceed the limits for classification as 1.4G fireworks. Such 1.3G fireworks are also described as Fireworks, UN0335 by the DOTn.

Smokeless propellants: Solid propellants, commonly referred to as smokeless powders or any propellant classified by DOTn as a smokeless propellant in accordance with NA3178, Smokeless Powder for Small Arms, used in small arms ammunition, firearms, cannons, rockets, propellant-actuated devices, and similar articles.

**13VAC5-51-131. IFC Chapter 3- General Requirements.**

A. [ The following changes shall be made to Section 301, General:

1. ] Change Section 301.2 to read:

301.2- Permits. Permits shall be required as set forth in Section 107.2 for the activities or uses regulated by Sections 306, 307, 308, and 315.

[ ~~B. 2.~~ ] Add Section 301.3 to read:

301.3- Occupancy. The occupancy of a structure shall be continued as originally permitted under and in full compliance with the codes in force at the time of construction or alteration. The occupancy of a structure shall not change to another occupancy that will subject the structure to any special provisions of this code or the [ ~~USBC~~ applicable building code ] without the approval

of the building official. [ Where a certificate of occupancy is not available for a building, the owner or owner's agent may request that one be issued by the building official and retained on site for reference. ]

~~C. Add the following to the list of definitions in Section 302.1:~~

~~Sky lantern.~~

[ B. The following changes shall be made to Section 302, Definitions:

Change Section 302.1 to read:

302.1 Definitions. The following terms are defined in Chapter 2:

Bonfire.

Explosive manufacturing.

Hi-boy.

High-voltage transmission line.

Mobile food preparation vehicles.

Open burning.

Portable outdoor fireplace.

Powered industrial truck.

Reactive targets.

Recreational fire.

Restricted explosives manufacturing.

Sky lantern.

Unrestricted explosives manufacturing.

C. The following changes shall be made to Section 304, Combustible Waste Material:

1. Change Section 304.1.2 to read:

(N)304.1.2 Vegetation. Weeds, grass, vines, or other growth that is capable of being ignited and endangering property shall be cut down and removed by the owner or occupant of the premises.

2. Change Section 304.1.3 to read:

(N)304.1.3 Space underneath seats. Spaces underneath grandstand and bleacher seats shall be kept free from combustible and flammable materials unless approved by the applicable building code. ]

~~D. [ ~~C. 3.~~ ] Change Section 304.3.2 to read:~~

~~304.3.2- Capacity exceeding 5.88 cubic feet. Containers with a capacity exceeding 5.88 cubic feet (44 gallons) (0.17 m³) shall be provided with lids. Containers and lids~~



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# Regulations

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shall be constructed of noncombustible materials or approved combustible materials.

~~E.~~ ~~D.~~ 4. Change Section 304.3.3 to read:

304.3.3 Capacity exceeding 1.5 cubic yards. Dumpsters and containers with an individual capacity of 1.5 cubic yards (40.5 cubic feet (1.15 m<sup>3</sup>)) or more shall not be stored in buildings or placed within 5 feet (1524 mm) of combustible walls, openings or combustible roof eave lines.

Exceptions:

1. Dumpsters or containers in areas protected by an approved automatic sprinkler system installed throughout in accordance with the applicable building code.

2. Storage in a structure shall not be prohibited where the structure is of Type I or IIA construction, located not less than 10 feet (3048 mm) from other buildings, and used exclusively for dumpster or container storage.

5. Change Section 304.3.4 to read:

304.3.4 Capacity of 1.0 cubic yard or more. Dumpsters with an individual capacity of 1.0 cubic yard 200 gallons (0.76 m<sup>3</sup>) or more shall not be stored in buildings or placed within 5 feet (1524 mm) of combustible walls, openings or combustible roof eave lines unless the dumpsters are constructed of noncombustible materials or of combustible materials with a peak rate of heat release not exceeding 300 kW/m<sup>2</sup> where tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m<sup>2</sup> in the horizontal orientation.

Exceptions:

1. Dumpsters in areas protected by an approved automatic sprinkler system installed throughout in accordance with the applicable building code.

2. Storage in a structure shall not be prohibited where the structure is of Type I or IIA construction, located not less than 10 feet (3048 mm) from other buildings, and used exclusively for dumpster or container storage.

D. The following change shall be made to Section 306, Motion Picture Projection Rooms and Film:

Change Section 306.1 to read:

306.1 Motion picture projection rooms. Electric arc, xenon, or other light source projection equipment that develops hazardous gases, dust, or radiation and the projection of ribbon-type cellulose nitrate film, regardless of the light source used in projection, shall be operated within a motion picture projection room complying with the applicable building code.

E. The following changes shall be made to Section 307, Open Burning, Recreational Fires and Portable Outdoor Fireplaces:

1. ] Add an exception to Section 307.1 to read:

Exception: Approved outdoor live fire training using equipment or appliances accessible or available to the general public, and that complies with Section 307.4.

~~E.~~ [ ~~E.~~ 2. ] Change Section 307.2 to read:

307.2- Permit required. A permit shall be obtained from the fire code official in accordance with Section 107.2 prior to kindling a fire for recognized silvicultural or range or wildlife management practices, prevention or control of disease or pests, or a bonfire. Application for such approval shall only be presented by and permits issued to the owner of the land upon which the fire is to be kindled.

[ ~~F.~~ The following changes shall be made to Section 308, Open Flames: ]

~~G.~~ Add Section 308.1.6.3 to read:

~~308.1.6.3. Sky lanterns. No person shall release or cause to be released an untethered sky lantern.~~

~~H.~~ [ ~~F.~~ 1. ] Change Section 308.2 to read:

308.2- Permits required. Permits shall be obtained from the fire code official in accordance with Section 107.2 prior to engaging in the following activities involving open flame, fire, and burning:

1. Use of a torch or flame-producing device to remove paint from a structure.
2. Use of open flame, fire, or burning in connection with Group A or E occupancies.
3. Use or operation of torches and other devices, machines, or processes liable to start or cause fire in or upon wildfire risk areas.

[ 2. Change Section 308.3 to read:

308.3 Group A occupancies. Open-flame devices shall not be used in a Group A occupancy.

Exceptions:

1. Open-flame devices are allowed to be used in the following situations, provided approved precautions are taken to prevent ignition of a combustible material or injury to occupants:

1.1 Where necessary for ceremonial or religious purposes in accordance with Section 308.1.7.

1.2. On stages and platforms as a necessary part of a performance in accordance with Section 308.3.2.

1.3. Where candles on tables are securely supported on substantial noncombustible bases and the candle flames are protected.

2. Heat-producing equipment complying with Chapter 6 and the applicable building code.

3. Gas lights are allowed to be used provided adequate precautions satisfactory to the fire code official are taken to prevent ignition of combustible materials.

G. The following changes shall be made to Section 311, Vacant Premises: ]

F. [ ~~G. 1.~~ ] Change Section 311.1 to read:

311.1- General. Temporarily unoccupied buildings, structures, premises, or portions thereof, including tenant spaces, shall be safeguarded and maintained in accordance with Sections 311.1.1 through ~~311.5.6~~ 311.6.

[ 2. Change Section 311.1.1 to read:

311.1.1 Abandoned premises. Buildings, structures and premises for which an owner cannot be identified or located by dispatch of a certificate of mailing to the last known or registered address, which persistently or repeatedly become unprotected or unsecured, which have been occupied by unauthorized persons or for illegal purposes, or which present a danger of structural collapse or fire spread to adjacent properties shall be considered abandoned and unsafe until declared abated Virginia Maintenance Code or the applicable building code.

3. Change Section 311.2.3 to read:

311.2.3 Fire separation. Fire-resistance-rated partitions, fire barriers, and fire walls separating vacant tenant spaces from the remainder of the building shall be maintained. Protection of openings, joints, and penetrations in fire-resistance-rated assemblies shall be maintained in accordance with Chapter 7.

4. Change Section 311.3 to read:

311.3 Removal of combustibles. Persons owning, or in charge or control of, a vacant building or portion thereof shall remove therefrom all accumulations of combustible materials, flammable or combustible waste, or rubbish and shall securely lock or otherwise secure doors, windows, and other openings to prevent entry by unauthorized persons. The premises shall be maintained clear of waste or hazardous materials.

Exceptions:

1. Buildings or portions of buildings undergoing additions, alterations, repairs, or change of occupancy in accordance with the applicable building code where waste is controlled and removed as required by Section 304.

2. Seasonally occupied buildings. ]

J. [ ~~H. 5.~~ ] Add Section 311.5.6 to read:

311.5.6- Removal. Removal of placards posted in accordance with this section without the approval of the fire official shall be a violation of this code.

K. Add [ 6. Change Section 311.6 to read: ]

~~311.6.~~ [ (N)311.6 Unoccupied tenant spaces in mall buildings. Unoccupied tenant spaces in covered and open mall buildings shall be:

1. Kept free from the storage of any materials. ]

~~2. Separated from the remainder of the building by partitions of at least 0.5 inch thick (12.7 mm) gypsum board or an approved equivalent to the underside of the ceiling of the adjoining tenant spaces.~~

~~3.~~ [ 2. Without doors or other access openings other than one door that shall be kept key locked in the closed position except during that time when opened for inspection. ]

4. [ 3. Kept free from combustible waste and be broom swept clean.

H. The following changes shall be made to Section 313, Fueled Equipment:

Change Section 313.1 to read:

313.1 General. Fueled equipment including motorcycles, mopeds, lawn-care equipment, portable generators, and portable cooking equipment shall not be stored, operated, or repaired within a building.

Exceptions:

1. Buildings or rooms constructed for such use in accordance with the applicable building code.

2. Where allowed by Section 314.

3. Storage of equipment utilized for maintenance purposes is allowed in approved locations where the aggregate fuel capacity of the stored equipment does not exceed 10 gallons (38 L) and the building is protected throughout by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

I. The following changes shall be made to Section 314, Indoor Displays: ]

L. [ ~~I. 1.~~ ] Change Section 314.1 to read:

314.1- General. Indoor displays constructed within any building or structure shall comply with Sections 314.2 through 314.5.

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# Regulations

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~~M.~~ [ ~~J.~~ 2. ] Add Section 314.5 to read:

314.5- Smokeless powder and small arms primers. Venders shall not store, display, or sell smokeless powder or small arms primers during trade shows inside exhibition halls except as follows:

1. The amount of smokeless powder displayed by each vender is limited to the amount established in Section 5606.5.1.1.
2. The amount of smokeless powder each vender may store is limited to the storage arrangements and storage amounts established in Section 5606.5.2.1. Smokeless powder shall remain in the manufacturer's original sealed container, and the container shall remain sealed while inside the building. The repackaging of smokeless powder shall not be performed inside the building. Damaged containers shall not be repackaged inside the building and shall be immediately removed from the building in such manner to avoid spilling any powder.
3. There shall be at least 50 feet separation between vendors and 20 feet from any exit.
4. Small arms primers shall be displayed and stored in the manufacturer's original packaging and in accordance with the requirements of Section 5606.5.2.3.

[ J. The following changes shall be made to Section 315, General Storage: ]

~~N.~~ [ ~~K.~~ 1. ] Change Section 315.2 to read:

315.2- Permit required. A permit for miscellaneous combustible storage shall be required as set forth in Section 107.2.

[ 2. Change Section 315.3.4 to read:

(N)315.3.4 Attic, under-floor and concealed spaces. Attic, under-floor and concealed spaces shall not be used for storage of combustible materials unless approved or not prohibited by the applicable building code. ]

~~O.~~ [ ~~L.~~ 3. ] Change Section 315.4 to read:

315.4- Outside storage. Outside storage of combustible materials shall not be located within 10 feet (3048 mm) of a property line or other building on the site.

Exceptions:

1. The separation distance is allowed to be reduced to 3 feet (914 mm) for storage not exceeding 6 feet (1829 mm) in height.
2. The separation distance is allowed to be reduced when the fire official determines that no hazard to the adjoining property exists.

~~P.~~ [ ~~M.~~ 4. ] Change Section 315.4.1 to read:

315.4.1- Storage beneath overhead projections from buildings. To the extent required by the code the building was constructed under, when buildings are required to be protected by automatic sprinklers, the outdoor storage, display, and handling of combustible materials under eaves, canopies, or other projections or overhangs is prohibited except where automatic sprinklers are installed under such eaves, canopies, or other projections or overhangs.

[ 5. Change Section 315.6 to read:

(N)315.6 Storage in plenums. Storage shall not be permitted in plenums unless approved for such use by the applicable building code. Abandoned material in plenums shall be deemed to be storage and shall be removed. Where located in plenums, the accessible portion of abandoned cables that are not identified for future use with a tag shall be deemed storage and shall be removed.

K. The following changes shall be made to Section 316, Hazards to Fire Fighters:

Change Section 316.6.1 to read:

(N)316.6.1 Structures. Structures shall not be constructed within the utility easement beneath high-voltage transmission lines unless approved.

L. The following changes shall be made to Section 317, Rooftop Gardens and Landscaped Roofs:

1. Change Section 317.1 to read:

(N)317.1 General. Rooftop gardens and landscaped roofs shall be maintained in accordance with Sections 317.2 through 317.5.

2. Change Section 317.2 to read:

(N)317.2 Rooftop garden or landscaped roof size. Rooftop garden or landscaped roof areas shall not exceed the size approved in accordance with the applicable building code.

3. Change Section 317.3 to read:

(N)317.3 Rooftop structure and equipment clearance. For all vegetated roofing systems abutting combustible vertical surfaces, a Class A-rated roof system complying with ASTM E 108 or UL 790 for required structure and equipment clearances shall be achieved for a minimum 6-foot-wide (1829mm) continuous border placed around rooftop structures and all rooftop equipment including mechanical and machine rooms, penthouses, skylights, roof vents, solar panels, antenna supports, and building service equipment. Rooftop structure and equipment clearance shall be maintained as provided by the applicable building code.

4. Change Section 317.4 to read:

317.4 Vegetation. Vegetation shall be maintained in accordance with Sections 317.4.1 and 317.4.2.

M. The following changes shall be made to Section 318, Laundry Carts:

Change Section 318.1 to read:

318.1 Laundry carts with a capacity of 1 cubic yard or more. Laundry carts with an individual capacity of 1 cubic yard (200 gallons (0.76 m<sup>3</sup>)) or more used in laundries within Groups B, E, F-1, I, M and R-1 occupancies shall be constructed of noncombustible materials or materials having a peak rate of heat release not exceeding 300 kW/m<sup>2</sup> at a flux of 50 kW/m<sup>2</sup> where tested in a horizontal orientation in accordance with ASTM E 1354.

Exceptions:

1. Laundry carts in areas protected by an approved automatic sprinkler system throughout in accordance with the applicable NFPA 13 standard.

2. Laundry carts in coin-operated laundries.

N. Add Section 319, Mobile Food Preparation Vehicles.

Add Sections 319.1 through 319.11, including subsections, to read:

319.1 Mobile food preparation vehicles that are equipped with appliances that utilize open flames or produce smoke or grease laden vapors shall comply with this section.

319.2 Permit required. Permits shall be required as set forth in Section 107.2.

319.3 Seating. Seating for the public within any mobile food preparation vehicles is prohibited.

319.4 Exhaust hood. Cooking equipment that produces grease laden vapors shall be provided with a kitchen exhaust hood in accordance with NFPA 96, Annex B.

319.5 Fire protection. Fire protection shall be provided in accordance with Sections 319.5.1 through 319.5.2.

319.5.1 Fire protection for cooking equipment. Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with Section 904.3.

319.5.2 Fire extinguisher. Portable fire extinguishers shall be provided in accordance with Section 904.12.5.

319.6 Appliance connection to fuel supply. Gas cooking appliances shall be secured in place and connected to fuel supply piping with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with manufacturer's installation instructions. Movement of appliances shall be

limited by restraining devices installed in accordance with the connector and appliance manufacturer's instructions.

319.6.1 Construction and modifications. Following initial construction and any modifications of the fuel system, the system, including hoses, shall be proven free of leaks by performing a pressure test in accordance with NFPA 58 at not less than the normal operating pressure.

319.6.2 Leak detection. Gas systems shall be inspected prior to each use and following fuel tank replacement or refill in one of the following methods:

1. A water and soap solution shall be applied to every accessible connection or connection manipulated during the replacement or fueling and observed for evidence of gas leakage.

2. Pressure testing in accordance with Annex L of NFPA 58.

319.6.3 Leaks. When leaks are discovered during inspections and testing, the fuel supply shall be secured in the "off" position or disconnected from the appliance, and the appliance shall not be operated until serviced by a qualified person.

319.7 Cooking oil storage containers. Cooking oil storage containers within mobile food preparation vehicles shall have a minimum aggregate area volume not to exceed 120 gallons (454L) and shall be stored in such a way as to not be toppled or damaged during transport.

319.8 Cooking oil storage tanks. Cooking oil storage tanks within mobile food preparation vehicles shall comply with Sections 319.8.1 through 319.8.5.

319.8.1 Metallic storage tanks. Metallic cooking oil storage tanks shall be listed in accordance with UL 142 or UL 80, and shall be installed in accordance with the tank manufacturer's instructions.

319.8.2 Nonmetallic tanks. Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall also comply with all of the following:

1. Tanks shall be listed for use with cooking oil, including maximum temperature to which the tanks will be exposed to during use.

2. Tank capacity shall not exceed 200 gallons (757 L) per tank.

319.8.3 Cooking oil storage system components. Metallic and nonmetallic cooking oil storage system components shall include piping, connections, fittings, valves, tubing, hose, pumps, vents, and other related components used for the transfer of cooking oil.

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# Regulations

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319.8.4 Design criteria. The design, fabrication, and assembly of system components shall be suitable for the working pressures, temperatures, and structural stresses to be encountered by the components.

319.8.5 Tank venting. Normal and emergency venting shall be provided for cooking oil storage tanks.

319.8.5.1 Normal vents. Normal vents shall be located above the maximum normal liquid line and shall have a minimum effective area not smaller than the largest filling or withdrawal connection. Normal vents are not required to vent to the exterior.

319.8.5.2 Emergency vents. Emergency relief vents shall be located above the maximum normal liquid line and shall be in the form of a device that will relieve excessive internal pressure caused by an exposure fire. For nonmetallic tanks, the emergency relief vent shall be allowed to be in the form of construction. Emergency vents are not required to discharge to the exterior.

319.9 Liquefied petroleum gas (LP-gas) systems. Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with NFPA 58, Chapter 61 and Sections 319.9.1 through 319.9.5.

319.9.1 Maximum aggregate volume. The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds propane capacity.

319.9.2 Protection of container. LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement.

319.9.3 LP-gas container construction. LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.

319.9.4 Protection of system piping. LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

319.9.5 LP-gas alarms. A listed LP-gas alarm shall be installed with the vehicle in the vicinity of LP-gas system components, in accordance with manufacturer's instructions.

319.10 Compressed natural gas (CNG) systems. Where CNG systems provide fuel for cooking appliances, such systems shall comply with Sections 319.10.1 through 319.10.4.

319.10.1 CNG containers supplying only cooking fuel. CNG containers installed solely to provide fuel for cooking purposes shall be in accordance with Sections 319.10.1.1 through 319.10.1.3.

319.10.1.1 Maximum aggregate volume. The maximum aggregate capacity of CNG containers transported on the vehicle shall not exceed 1,300 pounds water capacity.

319.10.1.2 Protection of container. CNG containers shall be securely mounted and restrained to prevent movement. Containers shall not be installed in locations subject to direct vehicle impact.

319.10.1.3 CNG container construction. The construction of CNG containers shall be approved.

319.10.2 CNG containers supplying transportation and cooking fuel. Where CNG containers and systems are used to supply fuel for cooking purposes in addition to being used for transportation fuel, the installation shall be in accordance with NFPA 52.

319.10.3 Protection of system piping. CNG system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

319.10.4 Methane alarms. A listed methane gas alarm shall be installed within the vehicle in accordance with manufacturer's instructions.

319.11 Maintenance. Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 319.11.1 through 319.11.3.

319.11.1 Exhaust system. The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with Chapter 6.

319.11.2 Fire protection systems and devices. Fire protection systems and devices shall be maintained in accordance with Chapter 9.

319.11.3 Fuel-gas systems. LP-gas containers installed on the vehicle and fuel-gas piping systems shall be inspected annually by an approved inspection agency or a company that is registered with the U.S. Department of Transportation to requalify LP-gas cylinders to ensure that system components are free of damage, suitable for the intended service, and not subject to leaking. CNG containers shall be inspected every three years in a qualified service facility. CNG containers shall not be used past their expiration dates listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel-gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection. ]

## **13VAC5-51-132. IFC Chapter 4. Emergency Planning and Preparedness.**

A. [ The following change shall be made to Section 401, General: ]

Add Section 401.1.1 to read:

401.1.1- State Regulated Care Facilities. When a state license is required by the Virginia Department of Social Services; Virginia Department of Behavioral Health and Developmental Services; Virginia Department of Education; or Virginia Department of Juvenile Justice to operate, SRCF shall comply with this section and the provisions of Section ~~404.0~~ 404.

B. [ The following changes shall be made to Section 403, Emergency Preparedness Requirements:

1. ] Change Add Section 403 403.1.1 to read:

Section 403.

Emergency Preparedness Requirements.

~~403.1. General. In addition to the requirements of Section 401, occupancies, uses and outdoor locations shall comply with the emergency preparedness requirements set forth in Sections 403.2 through 403.11. Where a fire safety and evacuation plan is required by Sections 403.2 through 403.11, evacuation drills shall be in accordance with Section 405 and employee training shall be in accordance with Section 406.~~

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

~~403.2. Group A occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group A occupancies, other than those occupancies used exclusively for purposes of religious worship with an occupant load less than 2,000, and for buildings containing both a Group A occupancy and an atrium. Group A occupancies shall also comply with Sections 403.2.1 through 403.2.4.~~

~~403.2.1. Seating plan. In addition to the requirements of Section 404.2, the fire safety and evacuation plans for assembly occupancies shall include a detailed seating plan, occupant load and occupant load limit. Deviations from the approved plans shall be allowed provided the occupant load limit for the occupancy is not exceeded and the aisles and exit accessways remain unobstructed.~~

~~403.2.2. Announcements. In theaters, motion picture theaters, auditoriums and similar assembly occupancies in Group A used for noncontinuous programs, an audible announcement shall be made not more than 10 minutes prior to the start of each program to notify the occupants of the location of the exits to be used in the event of a fire or other emergency.~~

Exception: In motion picture theaters, the announcement is allowed to be projected upon the screen in a manner approved by the fire code official.

[ ~~C. 2.~~ ] Add Sections 403.2.2.1, 403.2.2.1.1, and 403.2.2.1.2 to read:

403.2.2.1- Night clubs. Night clubs shall comply with Sections 403.2.2.1.1 and 403.2.2.1.2.

403.2.2.1.1- Audible announcements. Audible announcements shall be made to the occupants no longer than 10 minutes prior to the start of the entertainment and at each intermission to notify the occupants of the location of the exits to be used in the event of a fire or other emergency.

403.2.2.1.2- Occupant load count. Upon request of the fire code official, the owner or operator, or both, will be required to keep a running count of the occupant load to provide to the fire code official during performance hours of operation, entertainment hours of operation, or both.

~~403.2.3. Fire watch personnel. Fire watch personnel shall be provided where required by Section 403.11.1.~~

~~403.2.4. Crowd managers. Crowd managers shall be provided where required by Section 403.11.3.~~

~~403.3. Group B occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for buildings containing a Group B occupancy where the Group B occupancy has an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.~~

~~403.4. Group E occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group E occupancies and for buildings containing both a Group E occupancy and an atrium. Group E occupancies shall also comply with Section 403.4.1.~~

~~403.4.1. Group E occupancies. Group E occupancies shall comply with 403.4.1.1 through 403.4.1.3.~~

~~403.4.1.1. First emergency evacuation drill. The first emergency evacuation drill of each school year shall be conducted within 10 days of the beginning of classes.~~

~~403.4.1.2. Time of day. Emergency evacuation drills shall be conducted at different hours of the day or evening, during the changing of classes, when the school is at assembly, during the recess or gymnastic periods, or during other times to avoid distinction between drills and actual fires.~~

~~403.4.1.3. Assembly points. Outdoor assembly areas shall be designated and shall be located a safe distance from the building being evacuated so as to avoid interference with fire department operations. The assembly areas shall be arranged to keep each class separate to provide accountability of all individuals.~~

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# Regulations

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~~403.5. Group F occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for buildings containing a Group F occupancy where the Group F occupancy has an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.~~

~~403.6. Group H occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group H occupancies. Group H 5 occupancies shall also comply with Section 403.6.1.~~

~~403.6.1. Group H 5 occupancies. Group H 5 occupancies shall comply with Sections 403.6.1.1 through 403.6.1.4.~~

~~403.6.1.1. Plans and diagrams. In addition to the requirements of Section 404 and Section 407.6, plans and diagrams shall be maintained in approved locations indicating the approximate plan for each area; the amount and type of HPM stored, handled and used; locations of shutoff valves for HPM supply piping; emergency telephone locations; and locations of exits.~~

~~403.6.1.2. Plan updating. The plans and diagrams required by Section 404, 403.6.1.1 and 407.6 shall be maintained up to date and the fire code official and fire department shall be informed of major changes.~~

~~403.6.1.3. Emergency response team. Responsible persons shall be designated as an on site emergency response team and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses; identifying locations where HPM is stored, handled and used; and be familiar with the chemical nature of such material. An adequate number of personnel for each work shift shall be designated.~~

~~403.6.1.4. Emergency drills. Emergency drills of the on-site emergency response team shall be conducted on a regular basis but not less than once every three months. Records of drills conducted shall be maintained.~~

~~403.7. Group I occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group I occupancies. Group I occupancies shall also comply with Sections 403.7.1 through 403.7.3.~~

~~403.7.1. Group I 1 occupancies. Group I 1 occupancies shall comply with Sections 403.7.1.1 through 403.7.1.6.~~

~~403.7.1.1. Fire safety and evacuation plan. The fire safety and evacuation plan required by Section 404 shall include special employee actions, including fire protection procedures necessary for residents, and shall be amended or revised upon admission of any resident with unusual needs.~~

~~403.7.1.2. Employee training. Employees shall be periodically instructed and kept informed of their duties~~

~~and responsibilities under the plan. Such instruction shall be reviewed by employees at intervals not exceeding two months. A copy of the plan shall be readily available at all times within the facility.~~

~~403.7.1.3. Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.~~

~~403.7.1.4. Drill frequency. Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation.~~

~~403.7.1.5. Drill times. Drills times are not required to comply with Section 405.4.~~

~~403.7.1.6. Resident participation in drills. Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point.~~

~~403.7.2. Group I 2 occupancies. Group I 2 occupancies shall comply with Sections 403.7.2.1 through 403.7.2.3.~~

~~403.7.2.1. Drill times. Drill times are not required to comply with Section 405.4.~~

~~403.7.2.2. Evacuation not required. During emergency evacuation drills, the movement of patients to safe areas or to the exterior of the building is not required.~~

~~403.7.2.3. Coded alarm signal. When emergency evacuation drills are conducted after visiting hours or when patients or residents are expected to be asleep, a coded announcement is allowed instead of audible alarms.~~

~~403.7.3. Group I 3 occupancies. Group I 3 occupancies shall comply with Sections 403.7.3.1 through 403.7.3.4.~~

~~403.7.3.1. Employee training. Employees shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment. Training of new employees shall be provided promptly upon entrance on duty. Refresher training shall be provided at least annually.~~

~~403.7.3.2. Employee staffing. Group I 3 occupancies shall be provided with 24 hour staffing. An employee shall be within three floors or 300 feet (91 440 mm) horizontal distance of the access door of each resident housing area. In Conditions 3, 4 and 5, as defined in "Occupancy Classification Institutional Group I 3" in Chapter 2, the arrangement shall be such that the employee involved can~~

start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within 2 minutes of an alarm.

Exception: An employee shall not be required to be within three floors or 300 feet (9144 mm) in areas in which all locks are unlocked remotely and automatically in accordance with Section 408.4 of the International Building Code.

~~403.7.3.3. Notification. Provisions shall be made for residents in Conditions 3, 4 and 5, as defined in "Occupancy Classification Institutional Group I-3" in Chapter 2, to readily notify an employee of an emergency.~~

~~403.7.3.4. Keys. Keys necessary for unlocking doors installed in a means of egress shall be individually identifiable by both touch and sight.~~

~~403.8. Group M occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for buildings containing a Group M occupancy, where the Group M occupancy has an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge, and for buildings containing both a Group M occupancy and an atrium.~~

[ 3. Change Section 403.8.3.2 to read:

403.8.3.2 Employee staffing. Group I-3 occupancies shall be provided with 24-hour staffing. An employee shall be within three floors or 300 feet (91 440 mm) horizontal distance of the access door of each resident housing area. In Group I-3 Conditions 3, 4, and 5, as defined in Chapter 2, the arrangement shall be such that the employee involved can start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within 2 minutes of an alarm.

Exception: An employee shall not be required to be within three floors or 300 feet (91 440 mm) horizontal distance of the access door of each resident housing area in areas in which all locks are unlocked remotely and automatically in accordance with the applicable building code.

~~D. 4. ] Change Section 403.10 to read:~~

~~403.9. 403.10 Group R occupancies. Group R occupancies shall comply with the provisions of this section applicable to the type of Group R occupancy Sections 403.10.1 through 403.10.4.~~

~~403.9.1. Group R 1 occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R 1 occupancies. Group R 1 occupancies shall also comply with Sections 403.9.1.1 through 403.9.1.3.~~

~~403.9.1.1. Evacuation diagrams. A diagram depicting two evacuation routes shall be posted on or immediately adjacent to every required egress door from each hotel or motel sleeping unit.~~

~~403.9.1.2. Emergency duties. Upon discovery of a fire or suspected fire, hotel and motel employees shall perform the following duties:~~

- ~~1. Activate the fire alarm system, where provided.~~
- ~~2. Notify the public fire department.~~
- ~~3. Take other action as previously instructed.~~

~~403.9.1.3. Fire safety and evacuation instructions. Information shall be provided in the fire safety and evacuation plan required by Section 404 to allow guests to decide whether to evacuate to the outside, evacuate to an area of refuge, remain in place, or any combination of the three.~~

~~403.9.2. Group R 2 occupancies. Group R 2 occupancies shall comply with Sections 403.9.2.1 through 403.9.2.3.~~

~~403.9.2.1. College and university buildings. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R 2 college and university buildings. Group R 2 college and university buildings shall also comply with Sections 403.9.2.1.1 and 403.9.2.1.2.~~

~~403.9.2.1.1. First emergency evacuation drill. The first emergency evacuation drill of each school year shall be conducted within 10 days of the beginning of classes.~~

~~403.9.2.1.2. Time of day. Emergency evacuation drills shall be conducted at different hours of the day or evening, during the changing of classes, when the school is at assembly, during the recess or gymnastic periods, or during other times to avoid distinction between drills and actual fires. One required drill shall be held during hours after sunset or before sunrise.~~

~~403.9.2.2. Emergency guide. Fire emergency guides shall be provided for Group R 2 occupancies. Guide contents, maintenance and distribution shall comply with Sections 403.9.2.2.1 through 403.9.2.2.3.~~

~~403.9.2.2.1. Guide contents. Fire emergency guides shall describe the location, function and use of fire protection equipment and appliances accessible to residents, including fire alarm systems, smoke alarms, and portable fire extinguishers. Guides shall also include an emergency evacuation plan for each dwelling unit.~~

~~403.9.2.2.2. Emergency guide maintenance. Emergency guides shall be reviewed and approved by the fire code official.~~



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# Regulations

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~~403.9.2.2.3. Emergency guide distribution. A copy of the emergency guide shall be given to each tenant prior to initial occupancy.~~

~~403.9.2.3. Evacuation diagrams for dormitories. A diagram depicting two evacuation routes shall be posted on or immediately adjacent to every required egress door from each dormitory sleeping unit. Evacuation diagrams shall be reviewed and updated as needed to maintain accuracy.~~

~~403.9.3. Group R 4 occupancies. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R 4 occupancies. Group R 4 occupancies shall also comply with Sections 403.9.3.1 through 403.9.3.6.~~

~~403.9.3.1. Fire safety and evacuation plan. The fire safety and evacuation plan required by Section 404 shall include special employee actions, including fire protection procedures necessary for residents, and shall be amended or revised upon admission of a resident with unusual needs.~~

~~403.9.3.2. Employee training. Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by employees at intervals not exceeding two months. A copy of the plan shall be readily available at all times within the facility.~~

~~403.9.3.3. Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.~~

~~403.9.3.4. Drill frequency. Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation.~~

~~403.9.3.5. Drill times. Drills are not required to comply with Section 405.4.~~

~~403.9.3.6. Resident participation in drills. Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point and shall provide residents with experience in exiting through all required exits. All required exits shall be used during emergency evacuation drills.~~

~~Exception: Actual exiting from windows shall not be required. Opening the window and signaling for help shall be an acceptable alternative.~~

[ ~~E. 5.~~ ] Add Section 403.10.4 to read:

~~403.9.4. 403.10.4 [ Group Groups ] R-3 and R-5 lodging facilities. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for [ Group Groups ] R-3 and R-5 bed and breakfast and other transient boarding facilities that are either proprietor or non-proprietor occupied.~~

[ ~~E. 6.~~ ] Change Section 403.11 to read:

~~403.10. 403.11 Special uses. Special uses shall comply with the provisions of this section applicable to the type of special use in accordance with Sections 403.11.1 through 403.11.5.~~

~~403.10.1. Covered and open mall buildings. Covered and open mall buildings shall comply with the requirements of Sections 403.10.1.1 through 403.10.1.6.~~

~~403.10.1.1. Malls and mall buildings exceeding 50,000 square feet. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for covered malls exceeding 50,000 square feet (4645 m<sup>2</sup>) in aggregate floor area and for open mall buildings exceeding 50,000 square feet (4645 m<sup>2</sup>) in aggregate area within perimeter line.~~

~~403.10.1.2. Lease plan. In addition to the requirements of Section 404.2.2, a lease plan that includes the following information shall be prepared for each covered and open mall building:~~

- ~~1. Each occupancy, including identification of tenant.~~
- ~~2. Exits from each tenant space.~~
- ~~3. Fire protection features, including the following:
  - ~~3.1. Fire department connections.~~
  - ~~3.2. Fire command center.~~
  - ~~3.3. Smoke management system controls.~~
  - ~~3.4. Elevators, elevator machine rooms and controls.~~
  - ~~3.5. Hose valve outlets.~~
  - ~~3.6. Sprinkler and standpipe control valves.~~
  - ~~3.7. Automatic fire extinguishing system areas.~~
  - ~~3.8. Automatic fire detector zones.~~
  - ~~3.9. Fire barriers.~~~~

~~403.10.1.3. Lease plan approval. The lease plan shall be submitted to the fire code official for approval, and shall be maintained on site for immediate reference by responding fire service personnel.~~

~~403.10.1.4. Lease plan revisions. The lease plans shall be revised annually or as often as necessary to keep them current. Modifications or changes in tenants or occupancies~~

shall not be made without prior approval of the fire code official and building official.

~~403.10.1.5. Tenant identification. Tenant identification shall be provided for secondary exits from occupied tenant spaces that lead to an exit corridor or directly to the exterior of the building. Tenant identification shall be posted on the exterior side of the exit or exit access door and shall identify the business name or address, or both, using plainly legible letters and numbers that contrast with their background.~~

~~Exception: Tenant identification is not required for anchor stores.~~

~~403.10.1.6. Unoccupied tenant spaces. The fire safety and evacuation plan shall provide for compliance with the requirements for unoccupied tenant spaces in Section 311.~~

~~403.10.2. High rise buildings. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for high rise buildings.~~

~~403.10.3. Underground buildings. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for underground buildings.~~

[ 7. Change Section 403.11.1.4 to read:

403.11.1.4 Lease plan revisions. The lease plans shall be revised annually or as often as necessary to keep them current. Modifications or changes in tenants or occupancies shall not be made without prior approval of the fire code official.

G. 8. ] Add Section 403.11.5 to read:

403.11.5 SRCF. An approved fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for SRCFs.

403.11. Special requirements for public safety. Special requirements for public safety shall be as required in this section.

~~403.11.1. Fire watch personnel. When, in the opinion of the fire code official, it is essential for public safety in a place of assembly or any other place where people congregate, because of the number of persons or the nature of the performance, exhibition, display, contest or activity, the owner, agent or lessee shall provide one or more fire watch personnel, as required and approved. Fire watch personnel shall comply with Sections 403.11.1.1 and 403.11.1.2.~~

~~403.11.1.1. Duty times. Fire watch personnel shall remain on duty during the times places requiring a fire watch are open to the public, or when an activity requiring a fire watch is being conducted.~~

~~403.11.1.2. Duties. On duty fire watch personnel shall have the following duties:~~

~~1. Keep diligent watch for fires, obstructions to means of egress and other hazards.~~

~~2. Take prompt measures for remediation of hazards and extinguishment of fires that occur.~~

~~3. Take prompt measures to assist in the evacuation of the public from the structures.~~

~~403.11.2. Public safety plan for gatherings. In other than Group A or E occupancies, where the fire code official determines that an indoor or outdoor gathering of persons has an adverse impact on public safety through diminished access to buildings, structures, fire hydrants and fire apparatus access roads or where such gatherings adversely affect public safety services of any kind, the fire code official shall have the authority to order the development of or prescribe a public safety plan that provides an approved level of public safety and addresses the following items:~~

~~1. Emergency vehicle ingress and egress.~~

~~2. Fire protection.~~

~~3. Emergency egress or escape routes.~~

~~4. Emergency medical services.~~

~~5. Public assembly areas.~~

~~6. The directing of both attendees and vehicles, including the parking of vehicles.~~

~~7. Vendor and food concession distribution.~~

~~8. The need for the presence of law enforcement.~~

~~9. The need for fire and emergency medical services personnel.~~

~~403.11.3. Crowd managers for gatherings exceeding 1,000 people. Where facilities or events involve a gathering of more than 1,000 people, crowd managers shall be provided in accordance with Section 403.11.3.1.~~

~~403.11.3.1. Number of crowd managers. The minimum number of crowd managers shall be established at a ratio of one crowd manager for every 250 persons.~~

~~Exception: Where approved by the fire code official, the number of crowd managers shall be permitted to be reduced where the facility is equipped throughout with an approved automatic sprinkler system or based upon the nature of the event.~~

~~403.11.3.2. Duties. The duties of crowd managers shall include, but not be limited to:~~

~~1. Conduct an inspection of the area of responsibility and identify and address any egress barriers.~~

~~2. Conduct an inspection of the area of responsibility and identify and mitigate any fire hazards.~~

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# Regulations

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~~3. Verify compliance with all permit conditions, including those governing pyrotechnics and other special effects.~~

~~4. Direct and assist the event attendees in evacuation during an emergency.~~

~~5. Assist emergency response personnel where requested.~~

~~6. Other duties required by the fire code official.~~

~~7. Other duties as specified in the fire safety plan.~~

~~403.11.3.3. Training. Training for crowd managers shall be approved.~~

C. Change Section 404 to read:

## Section 404.

### Fire Safety, Evacuation and Lockdown Plans.

~~404.1. General. Where required by Section 403, fire safety, evacuation and lockdown plans shall comply with Sections 404.2 through 404.4.1.~~

~~404.2. Contents. Fire safety and evacuation plan contents shall be in accordance with Sections 404.2.1 and 404.2.2.~~

~~404.2.1. Fire evacuation plans. Fire evacuation plans shall include the following:~~

~~1. Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.~~

~~2. Procedures for employees who must remain to operate critical equipment before evacuating.~~

~~3. Procedures for assisted rescue for persons unable to use the general means of egress unassisted.~~

~~4. Procedures for accounting for employees and occupants after evacuation has been completed.~~

~~5. Identification and assignment of personnel responsible for rescue or emergency medical aid.~~

~~6. The preferred and any alternative means of notifying occupants of a fire or emergency.~~

~~7. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.~~

~~8. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.~~

~~9. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.~~

~~404.2.2. Fire safety plans. Fire safety plans shall include the following:~~

~~1. The procedure for reporting a fire or other emergency.~~

~~2. The life safety strategy and procedures for notifying, relocating or evacuating occupants, including occupants who need assistance.~~

~~3. Site plans indicating the following:~~

~~3.1. The occupancy assembly point.~~

~~3.2. The locations of fire hydrants.~~

~~3.3. The normal routes of fire department vehicle access.~~

~~4. Floor plans identifying the locations of the following:~~

~~4.1. Exits.~~

~~4.2. Primary evacuation routes.~~

~~4.3. Secondary evacuation routes.~~

~~4.4. Accessible egress routes.~~

~~4.5. Areas of refuge.~~

~~4.6. Exterior areas for assisted rescue.~~

~~4.7. Manual fire alarm boxes.~~

~~4.8. Portable fire extinguishers.~~

~~4.9. Occupant use hose stations.~~

~~4.10. Fire alarm annunciators and controls.~~

~~5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.~~

~~6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.~~

~~7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.~~

~~404.2.3. Lockdown plans. Where facilities develop a lockdown plan, the lockdown plan shall be in accordance with Sections 404.2.3.1 through 404.2.3.3.~~

~~404.2.3.1. Lockdown plan contents. Lockdown plans shall be approved by the fire code official and shall include the following:~~

~~1. Initiation. The plan shall include instructions for reporting an emergency that requires a lockdown.~~

~~2. Accountability. The plan shall include accountability procedures for staff to report the presence or absence of occupants.~~

~~3. Recall. The plan shall include a prearranged signal for returning to normal activity.~~

~~4. Communication and coordination. The plan shall include an approved means of two way communication between a central location and each secured area.~~

~~404.2.3.2. Training frequency. The training frequency shall be included in the lockdown plan. The lockdown drills shall not substitute for any of the fire and evacuation drills required in Section 405.2.~~

~~404.2.3.3. Lockdown notification. The method of notifying building occupants of a lockdown shall be included in the plan. The method of notification shall be separate and distinct from the fire alarm signal.~~

~~404.3. Maintenance. Fire safety and evacuation plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy or the physical arrangement of the building.~~

~~404.4. Availability. Fire safety and evacuation plans shall be available in the workplace for reference and review by employees, and copies shall be furnished to the fire code official for review upon request.~~

[ ~~H. C.~~ The following change shall be made to Section 404, Fire Safety, Evacuation and Lockdown Plans: ]

Change Section 404.4.1 to read:

404.4.1. Distribution. The fire safety and evacuation plans shall be distributed to the tenants and building service employees by the owner or owner's agent. Tenants shall distribute to their employees applicable parts of the fire safety plan affecting the employees' actions in the event of a fire or other emergency. Fire safety and evacuation plans shall be made available by the proprietor of Group R-3 and R-5 bed and breakfast and other transient boarding facilities to transient guests upon their arrival or are present in each transient guest room.

[ ~~D.~~ The following changes shall be made to Section 405, Emergency Evacuation Drills ]

~~D.~~ [ ~~I. 1.~~ ] Change Section 405.1 to read:

405.1. General. Emergency evacuation drills complying with Sections 405.2 through 405.9 shall be conducted at least annually where fire safety and evacuation plans are required by Section 403 or when required by the fire code official. Drills shall be designed in cooperation with the local authorities.

Exception: Emergency evacuation drills shall not be conducted in school buildings during periods of mandatory testing required by the Virginia Board of Education.

~~E.~~ Delete the "High rise buildings" row in Table 405.2; add

[ ~~J. 2.~~ ] Add the following row to Table 405.2; and change footnotes "a," "b," and "d" of Table 405.2 to read:

Group or Occupancy	Frequency	Participation
SRCF	Monthly	All occupants
<del><sup>a</sup> In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency.</del> <del><sup>b</sup> Fire and evacuation drills in residential care assisted living facilities shall include complete evacuation of the premises in accordance with Section 403.9.3.6. Where occupants receive habilitation or rehabilitation training, fire prevention and fire safety practices shall be included as part of the training program.</del> <del><sup>d</sup> Applicable to Group R-2 college and university buildings in accordance with Section 403.9.2.1.</del>		

~~F.~~ [ ~~K. 3.~~ ] Add Section 405.2.1 to read:

405.2.1. High-rise buildings. Fire exit drills shall be conducted annually by building staff personnel or the owner of the building in accordance with the fire safety plan and shall not affect other current occupants.

~~G.~~ Change Item 4 of Section 405.5 to read:

~~4. Employees on duty and participating.~~

~~H.~~ Change Section 406.1 to read:

~~406.1. General. Where fire safety and evacuation plans are required by Section 403, employees shall be trained in fire emergency procedures based on plans prepared in accordance with Section 404.~~

~~I.~~ Change Section 406.3.3 to read:

~~406.3.3. Fire safety training. Employees assigned firefighting duties shall be trained to know the locations and proper use of portable fire extinguishers or other manual firefighting equipment and the protective clothing or equipment required for its safe and proper use.~~

~~J.~~ Delete Section 406.3.4.

~~K.~~ Add Section 406.4 to read:

406.4. Emergency lockdown training. Where a facility has a lockdown plan, employees shall be trained on their assigned duties and procedures in the event of an emergency lockdown.

~~L.~~ Delete Section 408 in its entirety.

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# Regulations

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## 13VAC5-51-133. IFC Chapter 5: Fire Service Features.

A. [ The following changes shall be made to Section 501, General:

1. ] Change Section 501.2 to read:

501.2- Permits. A permit shall be required as set forth in Section 107.2.

[ ~~B. 2. ] Delete Section 501.4.~~

[ B. The following changes shall be made to Section 503, Fire Apparatus Access Roads:

~~C. 1. ] Add exceptions to Section 503.1 to read:~~

Exceptions:

1. Fire apparatus access roads shall be permitted to be provided and maintained in accordance with written policy that establish fire apparatus access road requirements and such requirements shall be identified to the owner or his agent prior to the building official's approval of the building permit.

2. On construction and demolition sites fire apparatus access roads shall be permitted to be provided and maintained in accordance with Section 3310.1.

[ 2. Change Section 503.1.1 to read:

503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45,720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45,720 mm) where any of the following conditions occur:

1.1. The building is equipped throughout with an approved automatic sprinkler system in accordance with the applicable NFPA13, NFPA 13R, or NFPA13D standard.

1.2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades, or other similar conditions, and an approved alternative means of fire protection is provided.

1.3. There are not more than two Group R-3 or Group U occupancies.

2. Where approved by the fire code official, fire apparatus access roads shall be permitted to be exempted

or modified for solar photovoltaic power generation facilities.

~~D. 3. ] Add exception to Section 503.2.1 to read:~~

Exception: Fire apparatus access roads exclusively serving single family dwelling or townhouse developments that are fully sprinklered as provided for in Sections R313.1 or R313.2 of the International Residential Code shall have an unobstructed width of not less than 18 feet (5486 mm), exclusive of shoulders.

[ ~~E. 4. ] Add Section 503.7 to read:~~

503.7- Fire lanes for existing buildings. The fire code official is authorized to designate public and private fire lanes as deemed necessary for the efficient and effective operation of fire apparatus. Fire lanes shall comply with Sections 503.2 through 503.6.

[ C. The following changes shall be made to Section 504, Access to Building Openings and Roofs:

1. Change Section 504.1 to read:

504.1 Required access. Exterior doors and openings required by the applicable building code shall be maintained readily accessible for emergency access by the fire department. An approved access walkway leading from fire apparatus access roads to exterior openings shall be provided when required by the fire code official.

2. Change Section 504.3 to read:

(N)504.3 Stairway access to roof. Stairway access to the roof shall be maintained and marked at street and floor levels with a sign indicating that the stairway continues to the roof.

D. The following changes shall be made to Section 507, Fire Protection Water Supplies:

~~E. 1. ] Add Sections Section 507.3.1 and 507.3.2 to read:~~

507.3.1- Fire flow requirements for fully sprinklered residential developments. Notwithstanding Section 103.1.2, the fire flow requirements in Table ~~B105.1~~ B105.1(1) of Appendix B of the IFC, ~~as modified by Section 507.3.2,~~ shall be permitted to be used for determining fire flow in single family dwelling and townhouse developments which are fully sprinklered as provided for in Sections R313.1 or R313.2 of the International Residential Code.

~~507.3.2. Modifications to Table B105.1. The first six rows of columns five and six of Table B105.1 of Appendix B of the IFC shall be modified as shown below for the use of Table B105.1 in Section 507.3.1.~~

Type 5-B	Fire flow (gallons per minute)
0-5000	1000
5001-7200	1250
7201-8200	1500
8201-9500	1750
9501-11300	2000
11301-13000	2250

[ ~~G. 2.~~ ] Change Section 507.5.1 to read:

507.5.1. Where required, Fire hydrant systems shall be located and installed as directed by the fire department. Fire hydrant systems shall conform to the written standards of the jurisdiction and the fire department.

[ ~~H.~~ Exceptions:

1. For in-fill development of fewer than five detached single-family dwellings constructed in existing residential developments.

2. For the reconstruction or rehabilitation of detached single-family dwellings.

3. ] Add Section 507.5.1.2 to read:

507.5.1.2. Fire hydrant requirements for fully sprinklered residential developments. Notwithstanding Section 103.1.2, the number and distribution of fire hydrants in ~~Table C105.1~~ C102.1 of Appendix C of the IFC shall be permitted to be used in single family dwelling and townhouse developments which are fully sprinklered as provided for in Sections R313.1 or R313.2 of the International Residential Code, with the spacing and distances of fire hydrants indicated in ~~Table C105.1~~ C102.1 increased by 100%.

[ ~~I.~~ Change E. The following changes shall be made to Section 508, Fire Command Center:

1. Change Section 508.1 to read:

(N)508.1 General. Where required by the applicable building code or where otherwise provided, a fire command center for fire department operations shall comply with Sections 508.1.1 through 508.1.6.

2. Delete Section 508.1.1.

3. Change Section 508.1.2 to read:

(N)508.1.2 Separation. Fire-rated construction shall be maintained in accordance with Section 703 of this code.

4. Delete Section 508.1.3.

5. Change Section 508.1.4 to read:

(N)508.1.4 Layout approval. A layout of the fire command center and all features shall be submitted for approval prior to modification.

6. Change Section 508.1.6 to read:

(N) 508.1.6 Required features. In addition to the features required by the applicable building code, the fire command center shall contain the following:

1. A telephone for fire department use with controlled access to the public telephone system.

2. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, firefighter air-replenishment systems, firefighting equipment, and fire department access and the location of fire walls, fire barriers, fire partitions, smoke barriers, and smoke partitions.

3. An approved building information card that includes all of the following information:

3.1. General building information that includes property name, address, the number of floors in the building above and below grade, use and occupancy classification (for mixed uses, identify the different types of occupancies on each floor) and the estimated building population during the day, night and weekend;

3.2. Building emergency contact information that includes a list of the building's emergency contacts including building manager, building engineer, and their respective work phone numbers, cell phone numbers, and email addresses;

3.3. Building construction information that includes the type of building construction including floors, walls, columns, and roof assembly;

3.4. Exit access stairway and exit stairway information that includes number of exit access stairways and exit stairways in building; each exit access stairway and exit stairway designation and floors served; location where each exit access stairway and exit stairway discharges; interior exit stairways that are pressurized; exit stairways provided with emergency lighting; each exit stairway that allows reentry; exit stairways providing roof access; elevator information that includes: number of elevator banks, elevator bank designation, elevator car numbers, and respective floors that they serve; location of elevator machine rooms; control rooms and control spaces; location of sky lobby; and location of freight elevator banks;

3.5. Building services and system information that includes location of mechanical rooms, location of building management system, location and capacity of all

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# Regulations

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fuel oil tanks, location of emergency generator, and location of natural gas service;

3.6. Fire protection system information that includes location of standpipes, location of fire pump room, location of fire department connections, floors protected by automatic sprinklers, and location of different types of automatic sprinkler systems installed including dry, wet, and preaction; and

3.7. Hazardous material information that includes: location and quantity of hazardous material.

4. Work table.

F. The following changes shall be made to ] Section 510 [ to read: Maintenance of In-Building Emergency Communication Equipment:

Section 510-

Maintenance of In-Building Emergency Communication Equipment.

Change Sections 510.1 through 510.3 to read: ]

510.1- General. In-building emergency communication equipment shall be maintained in accordance with USBC and the provisions of this section.

510.2- Additional in-building emergency communications installations. If it is determined by the locality that increased amplification of their emergency communication system is needed, the building owner shall allow the locality access as well as provide appropriate space within the building to install and maintain necessary additional communication equipment by the locality. If the building owner denies the locality access or appropriate space, or both, the building owner shall be responsible for the installation and maintenance of these additional systems.

510.3- Field tests. After providing reasonable notice to the owner or ~~their~~ the owner's representative, the fire official, police chief, or their agents 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.

## **13VAC5-51-133.5. IFC Chapter 6- Building Services and Systems.**

A. [ The following changes shall be made to Section 601, General:

1. Change Section 601.1 to read:

601.1 Scope. The provisions of this chapter shall apply to the operation and maintenance of fuel-fired appliances and heating systems, emergency and standby power systems, electrical systems, and equipment, mechanical

refrigeration systems, elevator recall, stationary storage battery systems and commercial kitchen equipment.

2. ] Change Section 601.2 to read:

601.2- Permits. Permits shall be obtained for refrigeration systems, battery systems and solar photovoltaic power systems as set forth in Section 107.2.

B. [ The following changes shall be made to Section 603, Fuel-Fired Appliances:

1. Change Section 603.1 to read:

(N)603.1 Installation. The installation of nonportable fuel gas appliances and systems shall comply with the applicable building code. The use of all other fuel-fired appliances, other than internal combustion engines, oil lamps and portable devices such as blow torches, melting pots and weed burners, shall comply with this section.

2. Change Section 603.1.1 to read:

(N)603.1.1 Manufacturer's instructions. Appliances shall be maintained in accordance with the manufacturer's instructions and applicable federal, state, and local rules and regulations. Where it becomes necessary to change, modify, or alter a manufacturer's instructions in any way, written approval shall first be obtained from the manufacturer.

3. Delete Section 603.1.2.

4. Change Section 603.1.3 to read:

(N)603.1.3 Electrical wiring and equipment. Electrical wiring and equipment used in connection with oil-burning equipment shall be maintained in accordance with Section 605 and NFPA 70.

5. Change Section 603.1.5 to read:

(N)603.1.5 Access. Appliances shall be readily accessible for cleaning hot surfaces; removing burners; replacing motors, controls, air filters, chimney connectors, draft regulators, and other working parts; and for adjusting, cleaning, and lubricating parts.

6. Change Section 603.1.6 to read:

(N)603.1.6 Testing, diagrams and instructions. Following servicing or maintenance of oil-burning equipment, operation and combustion performance tests shall be conducted to determine that the burner is in proper operating condition and that all accessory equipment, controls, and safety devices function properly.

7. Change Section 603.1.6.1 to read:

(N)603.1.6.1 Diagrams. Two copies of diagrams showing the main oil lines and controlling valves shall be provided, one copy of which shall be posted at the oil-

burning equipment and another at an approved location that will be accessible in case of emergency.

8. Change Section 603.1.7 to read:

(N)603.1.7 Clearances. Working clearances between oil-fired appliances and electrical panelboards and equipment shall be in accordance with NFPA 70. Clearances between oil-fired equipment and oil supply tanks shall be in accordance with NFPA 31.

9. Change Section 603.2 to read:

(N)603.2 Chimneys. Masonry, metal, and factory-built chimneys shall be maintained in accordance with the applicable building code. and NFPA 211.

10. Change Section 603.3 to read:

(N)603.3 Fuel oil storage systems. Fuel oil storage systems shall be maintained as provided by the applicable building code.

11. Change Section 603.3.1 to read:

(N)603.3.1 Fuel oil storage in outside, aboveground tanks. Where connected to a fuel-oil piping system, the maximum amount of fuel oil storage allowed outside above ground without additional protection shall be 660 gallons (2498 L) unless otherwise installed in accordance with the applicable building code. The storage of fuel oil above ground in quantities exceeding 660 gallons (2498 L) shall comply be maintained in accordance with NFPA 31.

12. Change Section 603.3.2 to read:

(N)603.3.2 Fuel oil storage inside buildings. Fuel oil storage inside buildings shall be maintained in accordance with the applicable building code.

13. Change Section 603.3.2.1 to read:

(N)603.3.2.1 Quantity limits. The amount of fuel oil storage in fuel oil storage tanks inside buildings shall not exceed that amount approved under the applicable building code.

14. Change Section 603.3.2.2 to read:

(N)603.3.2.2 Restricted use and connection. Tanks subject to Section 603.3.2 shall be used only as approved under the applicable building code. Closed piping systems shall be maintained in accordance with the applicable building code.

15. Change Section 603.3.2.3 to read:

(N)603.3.2.3 Applicability of maximum allowable quantity and control area requirements. The quantity of combustible liquid stored in tanks subject to Section 603.3.2 shall not be counted toward the maximum allowable quantity set forth in Table 5003.1.1(1), and

such tanks shall not be required to be located in a control area when there are such allowances under the applicable building code.

16. Change Section 603.3.2.4 to read:

(N)603.3.2.4 Installation. Tanks and piping systems shall be maintained in accordance with the applicable building code.

17. Change Section 603.3.2.5 to read:

(N)603.3.2.5 Tanks in basements. Tanks in basements shall be maintained in accordance with the applicable building code.

18. Change Section 603.3.3 to read:

(N)603.3.3 Underground storage of fuel oil. The storage of fuel oil in underground storage tanks shall be maintained in accordance with the applicable building code.

19. Change Section 603.5 to read:

(N)603.5 Heating appliances. Heating appliances shall be maintained in accordance with the applicable building code.

20. Change Section 603.5.1 to read:

(N)603.5.1 Guard against contact. The heating element or combustion chamber guard shall be maintained so as to prevent accidental contact by persons or material to the extent required by the applicable building code.

21. Change Section 603.5.2 to read:

(N)603.5.2 Heating appliance installation and maintenance. Heating appliances shall be maintained in accordance with the applicable building code.

22. Change Section 603.6 to read:

(N)603.6 Chimneys and appliances. Chimneys, incinerators, smokestacks or similar devices for conveying smoke or hot gases to the outer air and the stoves, furnaces, fireboxes or boilers to which such devices are connected shall be maintained in accordance with the applicable building code.

23. Change Section 603.6.1 to read:

(N)603.6.1 Masonry chimneys. Masonry chimneys that, upon inspection, are found to be without a flue liner and that have open mortar joints that will permit smoke or gases to be discharged into the building or that are cracked as to be dangerous shall be repaired in accordance with the applicable building code.

24. Change Section 603.6.2 to read:

(N)603.6.2 Metal chimneys. Metal chimneys that are corroded shall be repaired or replaced.



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# Regulations

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25. Change Section 603.6.3 to read:

(N)603.6.3 Decorative shrouds. Decorative shrouds installed at the termination of factory-built chimneys shall be removed except where such shrouds are listed and labeled for use with the specific factory-built chimney system and are installed in accordance with the chimney manufacturer's instructions.

26. Change Section 603.6.4 to read:

(N)603.6.4 Factory-built chimneys. Existing factory-built chimneys that are corroded shall be repaired or replaced.

27. Change Section 603.6.5 to read:

(N)603.6.5 Connectors. Existing chimney and vent connectors that are damaged or corroded shall be repaired or replaced.

28. ] Add a note to Section 603.7 to read:

Note: The fire code official may request a copy of the latest certificate of inspection from the Virginia Department of Labor and Industry for boilers and pressure vessels subject to such requirements. When the certificate is not available, the fire code official shall notify the Department of Labor and Industry to ensure that the required maintenance and testing is performed in accordance the Virginia Boiler and Pressure Vessel Regulations (16VAC25-50).

[ ~~C~~ 29. Change Section 603.8 to read:

(N)603.8 Incinerators. Commercial, industrial and residential-type incinerators and chimneys shall be maintained as installed in accordance with the applicable building code.

30. Change Section 603.8.1 to read:

(N)603.8.1 Residential incinerators. Residential incinerators not regulated by the applicable building code shall be of an approved type.

31. Change Section 603.8.2 to read:

(N)603.8.2 Spark arrestor. Incinerators not regulated by the applicable building code shall be equipped with an effective means for arresting sparks.

32. Delete Section 608.8.6.

C. The following changes shall be made to Section 604, Emergency and Standby Power Systems:

1. Change Section 604.1 to read:

(N)604.1 General. Emergency power systems and standby power systems shall be maintained in accordance with the applicable building code.

2. Change Section 604.1.1 to read:

(N)604.1.1 Generators Emergency and standby power generators shall be listed.

3. Delete Section 604.1.2.

4. Change Section 604.1.3 to read:

(N)604.1.3 Load transfer. Emergency power systems shall automatically provide secondary power within 10 seconds after primary power is lost unless specified otherwise by the applicable building code. Standby power systems shall automatically provide secondary power within 60 seconds after primary power is lost unless specified otherwise by the applicable building code.

5. Change Section 604.1.4 to read:

(N)604.1.4 Load duration. Emergency power systems and standby power systems shall require power for a minimum duration of hours without being refueled or recharged, unless otherwise specified by the applicable building code.

6. Change Section 604.1.5 to read:

(N)604.1.5 Uninterruptable power source. An uninterrupted source of power shall be provided for equipment where required by the manufacturer's instructions, the listing, the applicable building code, or the applicable referenced standards.

7. Change Section 604.1.6 to read:

(N)604.1.6 Interchangeability. Emergency power systems shall be an acceptable alternative for installations that require standby power systems when permitted by the applicable building code.

8. Delete Section 604.1.7.

9. Change Section 604.1.8 to read:

604.1.8 Maintenance. Existing installations shall be maintained in accordance with the original approval and Section 604.4.

10. Change Section 604.2 to read:

(N)604.2 Specific equipment requirements. Emergency and standby power systems shall be maintained in accordance with Sections 604.2.1 through 604.2.16.

11. Change Section 604.2.1 to read:

(N)604.2.1 Elevators and platform lifts. Standby power shall be maintained in accordance with NFPA 72 for elevators and platform lifts required by the applicable building code.

12. Change Section 604.2.2 to read:

(N)604.2.2 Emergency alarm systems. Emergency power shall be maintained for emergency alarm systems as required by applicable building code.

13. Delete Section 604.2.3.

14. Change Section 604.2.4 to read:

(N)604.2.4 Emergency voice or alarm communication systems. Emergency power shall be maintained for emergency voice or alarm communication systems as required by the applicable building code. The system shall be capable of powering the required load for a duration of not less than 24 hours, as required in NFPA 72.

15. Change Section 604.2.5 to read:

(N)604.2.5 Exit signs. Emergency power for exit signs shall be capable of powering the required load for a duration of not less than 90 minutes unless otherwise specified by the applicable building code.

16. Change Section 604.2.6 to read:

(N)604.2.6 Group I-2 occupancies. Essential electrical systems for Group I-2 occupancies shall be maintained in accordance with NFPA 70 when required by applicable building code.

17. Change Section 604.2.7 to read:

(N)604.2.7 Group I-3 occupancies. Power-operated sliding doors or power-operated locks for swinging doors in Group I-3 occupancies shall be operable by a manual release mechanism at the door and emergency power provided for the doors and locks shall be maintained where required by the applicable building code.

18. Change Section 604.2.8 to read:

(N)604.2.8 Hazardous materials. Emergency and standby power shall be maintained in accordance with NFPA 70 in occupancies with hazardous materials when required by the applicable building code.

19. Delete Section 604.2.9.

20. Change Section 604.2.10 to read:

(N)604.2.10 Horizontal sliding doors. Standby power shall be maintained in accordance with NFPA 70 for horizontal sliding doors as required by the applicable building code. The standby power supply shall have a capacity to operate not fewer than 50 closing cycles of the door unless otherwise specified by the applicable building code.

21. Change Section 604.2.11 to read:

(N)604.2.11 Hydrogen fuel gas rooms. Standby power shall be maintained in accordance with NFPA 70 for

hydrogen fuel gas rooms as required by the applicable building code.

22. Change Section 604.2.12 to read:

(N)604.2.12 Means of egress illumination. Emergency power shall be maintained for means of egress illumination in accordance with the applicable building code.

23. Change Section 604.2.13 to read:

(N)604.2.13 Membrane structures. Standby power shall be maintained for auxiliary inflation systems in permanent membrane structures in accordance with applicable building code. Auxiliary inflation systems shall be provided in temporary air-supported and air-inflated membrane structures in accordance with Section 3103.10.4.

24. Change Section 604.2.14 to read:

(N)604.2.14 Semiconductor fabrication facilities. Emergency power shall be maintained in accordance with NFPA 70 for semiconductor fabrication facilities as required by the applicable building code.

25. Change Section 604.2.15 to read:

(N)604.2.15 Smoke control systems. Standby power shall be maintained in accordance with NFPA 70 for smoke control as required by the applicable building code.

26. Change Section 604.2.16 to read:

(N) 604.2.16 Underground buildings. Emergency and standby power shall be maintained in accordance with NFPA 70 in underground buildings as required by the applicable building code.

27. Change Section 604.3 to read:

(N)604.3 Critical circuits. Cables used for survivability of required critical circuits shall be listed. Electrical circuit protective systems shall be maintained in accordance with their listing requirements.

28. Change Section 604.4 to read:

604.4 Maintenance. Emergency and standby power systems shall be maintained in accordance with NFPA 70, NFPA 110, and NFPA 111 such that the system is capable of supplying service within the time specified for the type and duration required in accordance with the applicable building code.

29. Change Section 604.5 to read:

604.5 Operational inspection and testing. Emergency power systems, including all appurtenant components, shall be inspected and tested under load in accordance with NFPA 110, NFPA 70, and NFPA 111.

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# Regulations

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Exception: Where the emergency power system is used for standby power or peak load shaving, such use shall be recorded and shall be allowed to be substituted for scheduled testing of the generator set, provided that appropriate records are maintained.

30. ] Add Section ~~604.7~~ 604.8 to read:

~~604.7.~~ 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 was installed. Written records of tests shall be retained by the owner of the building for a minimum of two years after the test is conducted and shall be made available to the fire code official upon request.

D. [ The following changes shall be made to Section 605, Electric Equipment, Wiring and Hazards:

1. Change Section 605.2 to read:

605.2 Illumination. Illumination shall be maintained for service equipment areas, motor control centers, and electrical panelboards.

2. Change Section 605.9 to read:

(N)605.9 Temporary wiring. Temporary wiring for electrical power and lighting installations not regulated by the applicable building code is allowed for a period not to exceed 90 days. Temporary wiring methods shall meet the applicable provisions of NFPA 70.

Exception: Temporary wiring for electrical power and lighting installations is allowed during periods of construction, remodeling, repair, or demolition of buildings, structures, equipment, or similar activities.

3. ] Change Section 605.10.1 to read:

605.10.1- Listed and labeled. Only portable electric space heaters listed and labeled in accordance with UL 1278 shall be used.

[ E- 4. Change Section 605.11 to read:

(N)605.11 Solar photovoltaic power systems. Solar photovoltaic power systems shall be maintained in accordance with Sections 605.11.1 through 605.11.2, the applicable building code and NFPA 70.

5. Change Section 605.11.1 to read:

(N)605.11.1 Access and pathways. Roof access, pathways, and spacing requirements shall be maintained in accordance with Section 605.11.1.

6. Change Section 605.11.1.1 to read:

(N)605.11.1.1 Roof access points. Roof access points shall be maintained in areas that do not require the placement of ground ladders over openings such as windows or doors and located at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.

7. Delete Section 605.11.1.2.

8. Delete Section 605.11.1.2.1.

9. Delete Section 605.11.1.2.2.

10. Delete Section 605.11.1.2.3.

11. Delete Section 605.11.1.2.4.

12. Delete Section 605.11.1.2.5.

13. Delete Section 605.11.1.3.

14. Delete Section 605.11.1.3.1.

15. Delete Section 605.11.1.3.2.

16. Delete Section 605.11.1.3.3.

17. Change Section 605.11.2 to read:

(N)605.11.2 Ground-mounted photovoltaic arrays. A clear, brush-free area of 10 feet (3048 mm) shall be maintained for ground-mounted photovoltaic arrays.

E. The following changes shall be made to Section 606, Mechanical Refrigeration:

1. Change Section 606.1 to read:

606.1 Scope. Refrigeration systems shall be maintained in accordance with the applicable building code.

2. Change Section 606.2 to read:

606.2 Refrigerants. The use and purity of new, recovered, and reclaimed refrigerants shall be in accordance with the applicable building code.

3. Change Section 606.3 to read:

606.3 Refrigerant classification. Refrigerants shall be classified in accordance with the applicable building code.

4. Change Section 606.4 to read:

606.4 Change in refrigerant type. A change in the type of refrigerant in a refrigeration system shall be in accordance with the applicable building code.

5. Change Section 606.6 to read:

606.6 Testing of equipment. Refrigeration equipment and systems having a refrigerant circuit containing more than 220 pounds (100 kg) of Group A1 or 30 pounds (14 kg)

of any other group refrigerant shall be subject to periodic testing in accordance with Section 606.6.1. Records of tests shall be maintained. Tests of emergency devices or systems required by the applicable building code shall be conducted by persons trained and qualified in refrigeration systems.

6. Change Section 606.7 to read:

606.7 Emergency signs. Refrigeration units or systems having a refrigerant circuit containing more than 220 pounds (100 kg) of Group A1 or 30 pounds (14 kg) of any other group refrigerant shall be provided with approved emergency signs, charts and labels in accordance with NFPA 704. Hazard signs shall be in accordance with the applicable building code for the classification of refrigerants listed therein.

7. Change Section 606.8 to read:

(N)606.8 Refrigerant detector detection. Refrigerant detection systems shall be maintained. The alarm shall be actuated at a value not greater than the corresponding threshold limit value-time-weighted average values (TLV-TWA) for those agents. Detectors and alarms shall be maintained in approved locations. The detector shall transmit a signal to an approved location.

8. Change Section 606.9 to read:

(N)606.9 Remote controls. Remote controls required by the applicable building code shall be maintained and accessible at all times as required by that code.

9. Change Section 606.9.1 to read:

(N)606.9.1 Refrigeration system emergency shutoff. Emergency shutoffs shall be maintained and accessible at all times.

10. Change Section 606.9.2 to read:

(N)606.9.2 Ventilation system. Ventilation system switches shall be clearly identified and maintained in an approved manner.

11. Change Section 606.10 to read:

(N)606.10 Emergency pressure control system. Permanently installed refrigeration systems containing more than 6.6 pounds (3 kg) of flammable, toxic or highly toxic refrigerant or ammonia shall be maintained as installed in accordance with the applicable building code and this code.

12. Change Section 606.10.1 to read:

(N)606.10.1 Automatic crossover valves. Automatic crossover valves shall be maintained as installed in accordance with the applicable building code.

13. Change Section 606.10.1.1 to read:

(N)606.10.1.1 Overpressure limit set point. Automatic crossover valves shall be arranged and maintained in accordance with the applicable building code.

14. Change Section 606.10.1.2 to read:

(N)606.10.1.2 Manual operation. Manual operation of the automatic crossover valve, where provided, shall be maintained in accordance with the applicable building code.

15. Delete Section 606.10.1.3.

16. Change Section 606.10.2 to read:

(N)606.10.2 Automatic emergency stop. An automatic emergency stop feature shall be maintained in accordance with the applicable building code.

17. Delete Section 606.10.2.1.

18. Delete Section 606.10.2.2.

19. Change Section 606.12 to read:

(N)606.12 Discharge and termination of pressure relief and purge systems. Pressure relief devices, fusible plugs and purge systems discharging to the atmosphere from refrigeration systems containing flammable, toxic or highly toxic refrigerants or ammonia shall be maintained in accordance with Sections 606.12.3 through 606.12.5.

20. Delete Section 606.12.1.

21. Change Section 606.12.1.1 to read:

(N)606.12.1.1 Ammonia refrigeration. Refrigeration systems using ammonia refrigerant and the buildings in which such systems are installed shall comply with IAR-7 for operating procedures.

22. Change Section 606.12.2 to read:

(N)606.12.2 Fusible plugs and rupture members. Unless otherwise required by the applicable building code, discharge piping and devices connected to the discharge side of a fusible plug or rupture member shall have provisions to prevent plugging the pipe in the event the fusible plug or rupture member functions.

23. Change Section 606.12.3 to read:

(N) 606.12.3 Flammable refrigerants. Unless otherwise regulated by the applicable building code, systems containing more than 6.6 pounds (3 kg) of flammable refrigerants having a density equal to or greater than the density of air shall discharge vapor to the atmosphere only through an approved treatment system in accordance with Section 606.12.6 or a flaring system in accordance with Section 606.12.7. Systems containing more than 6.6 pounds (3 kg) of flammable refrigerants having a density less than the density of air shall be

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# Regulations

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permitted to discharge vapor to the atmosphere provided that the point of discharge is located outside of the structure at not less than 15 feet (4572 mm) above the adjoining grade level and not less than 20 feet (6096 mm) from any window, ventilation opening, or exit.

24. Change Section 606.12.4 to read:

(N)606.12.4 Toxic and highly toxic refrigerants. Toxic or highly toxic refrigerant discharge methods shall be maintained in accordance with the applicable building code.

25. Change Section 606.12.5 to read:

(N)606.12.5 Ammonia refrigerant. The discharge methods for systems containing more than 6.6 pounds (3 kg) of ammonia refrigerant shall be maintained in accordance with the applicable building code.

26. Change Section 606.12.6 to read:

(N)606.12.6 Treatment systems. Treatment systems for refrigerant gas discharge shall be maintained in accordance with the applicable building code.

(N)606.12.7 Flaring systems. Flaring systems for incineration of flammable refrigerants shall be maintained in accordance with the applicable building code.

27. Change Section 606.12.8 to read:

(N)606.12.8 Ammonia diffusion systems. Ammonia diffusion systems shall be maintained in accordance with the applicable building code.

28. Change Section 606.13 to read:

(N)606.13 Discharge location for refrigeration machinery room ventilation. Treatment systems for mechanical ventilation systems serving refrigeration machinery rooms containing flammable, toxic or highly toxic refrigerants, other than ammonia, capable of exceeding 25% of the LFL or 50% of the IDLH shall be maintained in accordance with the applicable building code.

29. Change Section 606.16 to read:

(N)606.16 Electrical equipment. The hazardous location classification of refrigeration machinery rooms where refrigerants of Groups A2, A3, B2 and B3, as defined in the International Mechanical Code, are used, shall be maintained in accordance with the applicable building code.

F. The following changes shall be made to Section 607, Elevator Operation, Maintenance and Fire Service Keys:

1. ] Change Section 607.1 to read:

607.1- Operation. Existing elevators with a travel distance of 25 feet (7620 mm) or more shall comply with

the requirements of Section 607.5 and the USBC, Part III, Maintenance.

[ F. 2. Change Section 607.2 to read:

607.2 Standby power. In buildings and structures where standby power is required or furnished to operate an elevator, standby power shall be maintained in accordance with Section 604. Operation of the system shall be in accordance with Sections 607.2.1 through 607.2.4.

3. Change Section 607.2.4 to read:

607.2.4 Machine room ventilation. Where standby power is connected to elevators, the machine room ventilation or air conditioning shall remain connected to the standby power source in accordance with the applicable building code.

4. Change Section 607.4 to read:

607.4 Fire service access elevator lobbies. Where fire service access elevators are required by the applicable building code, fire service access elevator lobbies shall be maintained free of storage and furniture.

5. Change Section 607.5 to read:

607.5 Occupant evacuation elevator lobbies. Where occupant evacuation elevators are provided in under the applicable building code, occupant evacuation elevator lobbies shall be maintained free of storage and furniture.

6. Change Section 607.6 to read:

607.6 Water protection of hoistway enclosures. Methods to prevent water from infiltrating into a hoistway enclosure required by the applicable building code shall be maintained.

G. The following changes shall be made to Section 608, Storage Battery Systems:

1. Change Section 608.1 to read:

608.1 Scope. Stationary storage battery systems having an electrolyte capacity of more than 50 gallons (189 L) for flooded lead-acid, nickel cadmium (Ni-Cd), and valve-regulated lead-acid (VRLA) or more than 1,000 pounds (454 kg) for lithium-ion and lithium metal polymer used for facility standby power, emergency power, or uninterruptible power supplies shall comply with this section and Table 608.1 when required by the applicable building code.

2. Change Section 608.4 to read:

608.4 Room design and construction. Enclosure of stationary battery systems shall comply with the applicable building code. Battery systems shall be allowed to be in the same room with the equipment they support.

3. Change Section 608.6.1 to read:

(N)608.6.1 Room ventilation. Ventilation shall be maintained in accordance with the applicable building code.

4. Change Section 608.6.2 to read:

(N)608.6.2 Cabinet ventilation. Where VRLA batteries are installed inside a cabinet, the cabinet shall be approved for use in occupied spaces and shall be mechanically or naturally vented in accordance with one of the following methods:

1. The cabinet ventilation shall limit the maximum concentration of hydrogen to 1% of the total volume of the cabinet during the worst-case event of simultaneous "boost" charging of all the batteries in the cabinet.

2. Where calculations are not available to substantiate the ventilation rate, continuous ventilation shall be provided at a rate of not less than 1 cubic foot per minute per square foot [ 1 ft<sup>3</sup>/min/ft<sup>2</sup> or 0.0051 m<sup>3</sup>/(s · m<sup>2</sup>) ] of floor area covered by the cabinet. The room in which the cabinet is installed shall be ventilated as required in Section 608.6.1.

5. Change Section 608.6.3 to read:

(N)608.6.3 Supervision. Mechanical ventilation systems where required by Sections 608.6.1 and 608.6.2 shall be supervised by an approved central, proprietary, or remote station service or shall initiate an audible and visual signal at a constantly attended onsite location when required by the applicable building code.

6. Change Section 608.8 to read:

(N)608.8 Seismic protection. Seismic protection required for battery systems shall be maintained in accordance with the applicable building code.

7. Change Section 608.9 to read:

(N)608.9 Smoke detection. Automatic smoke detection system shall be maintained in accordance with Chapter 9 in rooms containing stationary battery systems.

H. The following changes shall be made to Section 609, Commercial Kitchen Hoods:

1. Change Section 609.1 to read:

609.1 General. Commercial kitchen exhaust hoods shall comply with the requirements of this Section.

2. Change Section 609.2 to read:

(N)609.2 Where required. 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<sup>3</sup> or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m<sup>3</sup>/s) in accordance with UL 710B.

3. ] Change Section 609.3.3.3 and add Section 609.3.3.3.1 to read:

609.3.3.3- Records. Records for inspections shall state the individual and company performing the inspection, a description of the inspection, and when the inspection took place. Records for cleanings shall state the individual and company performing the cleaning and when the cleaning took place. Such records shall be completed after each inspection or cleaning and maintained for a minimum of three years and be copied to the fire code official upon request.

[ 4. Change Section 609.3.3.3.1 to read:

609.3.3.3.1 Tags. Where a commercial kitchen hood or duct system is inspected or cleaned, a tag containing the service provider name, address, telephone number and date of service shall be provided in a conspicuous location. Prior tags shall be covered or removed.

G. Add an exception to 609.3.3.3.1 to read: ]

Exception: Where records required by Section 609.3.3.3 are maintained on the premises.

[ I. The following change shall be made to Section 610, Commercial Kitchen Hoods:

Change Section 610.7 to read:

(N)610.7 Electrical equipment. Electrical equipment used for the operation of cooking oil storage systems shall comply be maintained in accordance with NFPA 70. ]

**13VAC5-51-133.8. IFC Chapter 7, Fire-Resistance-Rated Construction Fire and Smoke Protection Features.**

[ A. The following changes shall be made to Section 701, General:

1. Change Section 701.1 to read:

701.1 Scope. The provisions of this chapter shall govern maintenance of the materials, systems, and assemblies used for structural fire resistance and fire-resistance-rated construction separation of adjacent spaces to safeguard against the spread of fire and smoke within a building and the spread of fire to or from buildings.

2. Change Section 701.2 to read:

701.2 Unsafe conditions. Where any components in this chapter are not maintained and do not function as intended or do not have the fire resistance required by the code under which the building was constructed,

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# Regulations

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remodeled or altered, such components or portion thereof shall be deemed an unsafe condition in accordance with Section 110.1.1. Components or portions thereof determined to be unsafe shall be repaired or replaced to conform to that code under which the building was constructed, remodeled, or altered or this chapter, as deemed appropriate by the fire code official.

Where the extent of the conditions of components is such that any building, structure, or portion thereof presents an imminent danger to the occupants of the building, structure, or portion thereof, the fire code official shall act in accordance with Section 110.5.

B. The following changes shall be made to Section 703, Fire-Resistance-Rated Construction:

1. Change Section 703.1 to read:

703.1 Maintenance. The required fire-resistance rating of fire-resistance-rated construction, including walls, firestops, shaft enclosures, partitions, smoke barriers, floors, fire-resistive coatings, and sprayed fire-resistant materials applied to structural members and fire-resistant joint systems, shall be maintained. Such elements shall be visually inspected by the owner annually and properly repaired, restored, or replaced where damaged, altered, breached, or penetrated. Records of inspections and repairs shall be maintained. Where concealed, such elements shall not be required to be visually inspected by the owner unless the concealed space is accessible by the removal or movement of a panel, access door, ceiling tile, or similar movable entry to the space. Openings made therein for the passage of pipes, electrical conduit, wires, ducts, air transfer openings, and holes made for any reason shall be protected with approved methods capable of resisting the passage of smoke and fire. Openings through fire-resistance-rated assemblies shall be protected by self-closing or automatic-closing doors of approved construction meeting the fire protection requirements for the assembly.

Exception: When requested by the building owner and approved by the fire official, the visual inspection required by 703.1 may be modified to a time period greater than annually based on the history of the previous inspections.

2. Change Section 703.1.1 to read:

703.1.1 Fireblocking and draftstopping. Required fireblocking and draftstopping in combustibile concealed spaces shall be maintained to provide continuity and integrity of the construction.

3. Change Section 703.2.1 to read:

703.2.1 Testing. Opening protectives shall be inspected and tested annually in accordance with NFPA 80 to confirm proper operation and full closure. A written

record shall be maintained and be available to the fire code official.

4. Change Section 703.2.2 to read:

703.2.2 Signs. Where required by the fire code official, a sign shall be permanently displayed on or near each fire door in letters not less than 1 inch (25 mm) high to read as follows:

1. For doors designed to be kept normally open: FIRE DOOR—DO NOT BLOCK.

2. For doors designed to be kept normally closed: FIRE DOOR—KEEP CLOSED.

5. Change Section 703.2.3 to read:

703.2.3 Hold-open devices and closers. Hold-open devices and automatic door closers, where provided, shall be maintained. During the period that such device is out of service for repairs, the door it operates shall remain in the closed position.

6. Add new Section 703.2.4 to read:

703.2.4 Door operation. Swinging fire doors shall close from the full-open position and latch automatically. The door closer shall exert enough force to close and latch the door from any partially open position.

C. The following changes shall be made to Section 704, Floor Openings and Shafts:

1. ] Change Section 704.1 to read:

704.1- Enclosure. New floor openings in existing buildings shall comply with the International Building Code.

[ 2. Change Section 704.2 to read:

(N) 704.2 Opening protectives. Where openings are required to be protected, opening protectives and associated closing devices shall be maintained as self-closing or automatic-closing. ]

**13VAC5-51-134. IFC Chapter 8. Interior Finish, Decorative Materials and Furnishings.**

A. [ Change Section 801.1 to read:

801.1 Scope. The provisions of this chapter shall govern interior finish, interior trim, furniture, furnishings, decorative materials and decorative vegetation in buildings.

B. Change Section 803.1 to read:

(N)803.1 General. The provisions of this section shall apply to the maintenance of interior wall and ceiling finishes and interior wall and ceiling trim in existing buildings in accordance with the applicable building code.

C. Delete Section 803.1.1.

D. Change Section 803.1.2 to read:

(N)803.1.2 Classification. Interior wall or ceiling finishes shall be classified and tested in accordance with the applicable building code.

E. Delete Section 803.1.2.1.

F. Change Sections 803.2 and 803.3 to read:

(N)803.2 Stability. Interior finish materials regulated by this chapter shall be applied or otherwise fastened in accordance with the applicable building code.

(N)803.3 Interior finish requirements. Interior wall and ceiling finish shall have a flame spread index not greater than that approved under the applicable building code.

G. Delete Table 803.3.

H. Change Section 803.5 to read:

(N)803.5 Textiles. Where used as interior wall or ceiling finish materials, textiles, including materials having woven or nonwoven, napped, tufted, looped or similar surface, shall comply with the requirements of the applicable building code.

I. Delete Sections 803.5.1 and 803.5.1.1.

J. Change Sections 803.5.2 through 803.8 to read:

(N)803.5.2 Newly introduced textile wall and ceiling coverings. Newly introduced textile wall and ceiling coverings shall be approved by the building official.

(N)803.6 Expanded vinyl wall or ceiling coverings. Expanded vinyl wall or ceiling coverings shall be maintained in accordance with the applicable building code.

(N)803.7 Facings or wood veneers intended to be applied on site over a wood substrate. Facings or veneers intended to be applied on site over a wood substrate shall be maintained in accordance with the applicable building code.

(N)803.8 Foam plastic materials. Foam plastic materials shall not be used as interior wall and ceiling finish unless specifically allowed by the applicable building code.

K. Delete Sections 803.8.1 through 803.8.3.

L. Change Sections 803.10 and 804.1 to read:

(N)803.10 Site-fabricated stretch systems. Where used as newly installed interior wall or interior ceiling finish materials, site-fabricated stretch systems containing all three components described in the definition in Chapter 2 shall be tested in accordance with the applicable building code.

(N)804.1 Interior trim. Material, other than foam plastic, used as interior trim be maintained in accordance with the applicable building code.

M. Delete Section 804.1.1.

N. Change Sections 804.2 to read:

(N)804.2 Foam plastic. Foam plastic used as interior trim shall be maintained in accordance with the applicable building code.

O. Delete Sections 804.2.1 through 804.2.4.

P. Change Sections 804.3 through 804.4 to read:

(N)804.3 Interior floor finish. Interior floor finish and floor covering materials shall be maintained in accordance with the applicable building code.

(N)804.3.1 Classification. Interior floor finish and floor covering materials shall be classified in accordance the applicable building code.

(N)804.3.2 Testing and identification. Interior floor finish and floor covering materials shall be tested in accordance with the applicable building code.

(N)804.3.3 Interior floor finish requirements. Interior floor coverings materials shall comply with Sections 804.3.3.1 and 804.3.3.2, and interior floor finish materials shall comply with Section 804.3.1.

(N)804.3.3.1 Testing. Floor covering material shall be testing in accordance with the applicable building code.

(N)804.3.3.2 Minimum critical radiant flux. In all occupancies, new interior floor finish and floor covering materials in enclosures for stairways and ramps, exit passageways, corridors and rooms or spaces not separated from corridors by full-height partitions extending from the floor to the underside of the ceiling shall withstand a minimum critical radiant flux as required by the applicable building code.

(N)804.4 Interior floor-wall base. Interior floor-wall base shall be maintained in accordance with the applicable building code.

Q. Change Sections 805.1.1.2, 805.1.2.2, 805.2.1.2, 805.2.2.2, 805.4.1.2 and 805.4.2.2 to read:

805.1.1.2 Heat release rate. Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537 or California Technical Bulletin 133, as follows:

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80 kW.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.



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# Regulations

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2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 megajoules (MJ).

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

805.1.2.2 Heat release rate. Newly introduced mattresses shall have limited rates of heat release when tested in accordance with ASTM E 1590 or California Technical Bulletin 129, as follows:

1. The peak rate of heat release for the single mattress shall not exceed 100 kW.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

2. The total energy released by the single mattress during the first 10 minutes of the test shall not exceed 25 MJ.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

805.2.1.2 Heat release rate. Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537 or California Technical Bulletin 133, as follows:

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80 kW.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 MJ.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

805.2.2.2 Heat release rate. Newly introduced mattresses shall have limited rates of heat release when tested in accordance with ASTM E 1590 or California Technical Bulletin 129, as follows:

1. The peak rate of heat release for the single mattress shall not exceed 100 kW.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

2. The total energy released by the single mattress during the first 10 minutes of the test shall not exceed 25 MJ.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.

805.4.1.2 Heat release rate. Newly introduced upholstered furniture shall have limited rates of heat release when tested in accordance with ASTM E 1537 or California Technical Bulletin 133, as follows:

1. The peak rate of heat release for the single upholstered furniture item shall not exceed 80 kW.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

2. The total energy released by the single upholstered furniture item during the first 10 minutes of the test shall not exceed 25 MJ.

Exception: Upholstered furniture in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

805.4.2.2 Heat release rate. Newly introduced mattresses shall have limited rates of heat release when tested in accordance with ASTM E 1590 or California Technical Bulletin 129, as follows:

1. The peak rate of heat release for the single mattress shall not exceed 100 kW.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

2. The total energy released by the single mattress during the first 10 minutes of the test shall not exceed 25 MJ.

Exception: Mattresses in rooms or spaces protected by an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard.

R. ] Add exception 3 [ ~~to~~ in ] Section 806.1.1 to read:

3. Trees shall be permitted in places of worship in Group A occupancies.

[ B- S. Change exception 1 in Section 807.3 to read:

1. In auditoriums in Group A, the permissible amount of curtains, draperies, fabric hangings and other similar combustible decorative material suspended from walls or ceilings shall not exceed 75% of the aggregate wall area where the building is equipped throughout with an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard and where the material is installed in accordance with of the applicable building code.

T. ] Change ~~exception 2 in Section 807.4~~ 807.3 to read:

~~807.1. General requirements. In occupancies in Groups A, E, I and R-1 and dormitories in Group R-2, curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 806.2 or be noncombustible.~~

~~Exception:~~

~~2. In dwelling units or sleeping rooms in Group R-2 dormitories, the permissible amount of decorative material suspended from or attached to the walls shall not exceed 50% of the aggregate area of the walls where the building has an approved automatic sprinkler system or 20% of the aggregate area of the walls where approved smoke alarms are provided and in the corridors of such buildings, the permissible amount of decorative material suspended from or attached to the walls shall not exceed 10% of the aggregate area of the walls.~~

~~In Groups I-1 and I-2, combustible decorative materials shall meet the flame propagation criteria of NFPA 701 unless the decorative materials, including, but not limited to, photographs and paintings, are of such limited quantities that a hazard of fire development or spread is not present. In Group I-3, combustible decorative materials are prohibited.~~

~~Fixed or movable walls and partitions, paneling, wall pads and crash pads, applied structurally or for decoration, acoustical correction, surface insulation or other purposes, shall be considered interior finish if they cover 10% or more of the wall or of the ceiling area, and shall not be considered decorative materials or furnishings.~~

~~In Group B and M occupancies, fabric partitions suspended from the ceiling and not supported by the floor shall meet the flame propagation performance criteria in accordance with Section 807.2 and NFPA 701 or shall be nonecombustible.~~

[ U. Change Section 807.5.1.2 to read:

807.5.1.2 Motion picture screens. The screens upon which motion pictures are projected in buildings of Group A shall either meet the flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701 or shall comply with the requirements for a Class B interior finish in accordance with the applicable building code.

V. Change Section 807.5.2.1 to read:

807.5.2.1 Storage in corridors and lobbies. Clothing and personal effects shall not be stored in corridors and lobbies.

Exceptions:

1. Corridors protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.
2. Corridors protected by an approved fire alarm system installed in accordance with NFPA 72.
3. Storage in metal lockers, provided the minimum required egress width is maintained.

W. Change Sections 807.5.3.1 through 807.5.3.4 to read:

807.5.3.1 Groups I-1 and I-2 Condition 1 within units. In Groups I-1 and I-2 Condition 1 occupancies, equipped with an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard, within sleeping units and dwelling units, combustible decorative materials placed on walls shall be limited to not more than 50% of the wall area to which they are attached.

807.5.3.2 In Group I-1 and Group I-2 Condition 1 for areas other than within units. In Group I-1 and Group I-2 Condition 1 occupancies, equipped with an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard, combustible decorative materials placed on walls in areas other than within dwelling and sleeping units shall be limited to not more than 30% of the wall area to which they are attached.

807.5.3.3 In Groups I-2 Condition 2. In Group I-2 Condition 2 occupancies, equipped with an approved automatic sprinkler system installed in accordance with the applicable NFPA 13 standard, combustible decorative materials placed on walls shall be limited to not more than 30% of the wall area to which they are attached.

807.5.3.4 Other areas in Groups I-1 and I-2. In Group I-1 and I-2 occupancies, in areas not equipped with an approved automatic sprinkler system, combustible decorative materials shall be of such limited quantities that a hazard of fire development or spread is not present.

X. Change Section 807.5.5.1 to read:

807.5.5.1 Storage in corridors and lobbies. Clothing and personal effects shall not be stored in corridors and lobbies.

Exceptions:

1. Corridors protected by an approved automatic sprinkler system in accordance with the applicable NFPA 13 standard.
2. Corridors protected by an approved fire alarm system installed in accordance with Section 907.
3. Storage in metal lockers, provided the minimum required egress width is maintained.

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# Regulations

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Y. Change Section 808.1 and 808.2 to read:

808.1 Wastebaskets and linen containers in Groups I-1, I-2, and I-3 occupancies. Wastebaskets, linen containers, and other waste containers, including their lids, located in Groups I-1, I-2, and I-3 occupancies shall be constructed of noncombustible materials or of materials that meet a peak rate of heat release not exceeding 300 kW/m<sup>2</sup> when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m<sup>2</sup> in the horizontal orientation. Metal wastebaskets and other metal waste containers with a capacity of 20 gallons (75.7 L) or more shall be listed in accordance with UL 1315 and shall be provided with a noncombustible lid. Portable containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste and linen collection room and constructed in accordance with the applicable building code.

808.2 Waste containers with a capacity of 20 gallons or more in Group R-2 college and university dormitories. Waste containers, including their lids, located in Group R-2 college and university dormitories, and with a capacity of 20 gallons (75.7 L) or more, shall be constructed of noncombustible materials or of materials that meet a peak rate of heat release not exceeding 300 kW/m<sup>2</sup> when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m<sup>2</sup> in the horizontal orientation. Metal wastebaskets and other metal waste containers with a capacity of 20 gallons (75.7 L) or more shall be listed in accordance with UL 1315 and shall be provided with a noncombustible lid. Portable containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste and linen collection room constructed in accordance with the applicable building code. ]

## 13VAC5-51-135. IFC Chapter 9: Fire Protection Systems.

A. [ The following changes shall be made to Section 901, General:

1. Change Section 901.1 to read:

901.1 Scope. The provisions of this chapter shall apply to the inspection, operation, testing and maintenance of all fire protection systems.

2. Delete Sections 901.2 and 901.2.1.

3. ] Change Section 901.3 to read:

901.3- Permits. Permits shall be required as set forth in Section 107.2.

[ ~~B~~ 4. Change Sections 901.4 and 901.4.1 to read:

(N)901.4 Maintenance and alterations. Fire protection systems shall be maintained in accordance with the original installation standards for that system. Alterations and repairs to fire protection systems shall be done in accordance with the applicable building code and the applicable standards.

(N)901.4.1 Required fire protection systems. Fire protection systems shall be repaired, operated, tested and maintained in accordance with this code. A fire protection system for which a design option, exception or reduction to the provisions of this code or the applicable building code has been granted shall be considered to be a required system.

5. ] Change Section 901.4.2 to read:

901.4.2- Nonrequired fire protection systems. Nonrequired fire protection systems shall be maintained to function as originally installed. If any such systems are to be reduced in function or discontinued, approval shall be obtained from the building official in accordance with Section 103.8.1 of Part I of the USBC.

[ ~~C~~ 6. Change Section 901.4.3 to read:

(N)901.4.3 Fire areas. Where buildings, or portions thereof, are divided into fire areas so as not to exceed the limits established for requiring a fire protection system in accordance with the applicable building code, such fire areas shall be maintained.

7. ] Delete Section 901.4.4.

[ ~~D~~ 8. Change Section 901.4.6 to read:

(N)901.4.6 Pump and riser room size. Where provided, fire pump rooms and automatic sprinkler system riser rooms shall maintain clearances around equipment to elements of permanent construction, including other installed equipment and appliances, and shall be sufficient to allow inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly. Passageways provided for the removal of equipment shall remain unobstructed.

9. Delete Section 901.5.1.

10. Change Section 901.5.2 to read:

901.5.2 Hydrant and fire service main acceptance testing. Fire hydrant systems and private fire service mains shall be subject to acceptance tests as contained in the installation standards and as approved by the fire code official. The fire code official shall be notified before any required acceptance testing.

11. ] Change Section 901.6 to read:

901.6- Inspection, testing and maintenance. To the extent that equipment, systems, devices, and safeguards, such as fire detection, alarm and extinguishing systems, which were provided and approved by the building official when constructed, shall be maintained in an operative condition at all times. And where such equipment, systems, devices, and safeguards are found not to be in

an operative condition, the fire official shall order all such equipment to be rendered safe in accordance with the USBC.

[ ~~E~~. 12. Change Sections 901.7.1 through 901.7.7 to read:

901.7.1 Modifications during impairment. The fire code official is authorized to require safeguards in a building or fire area when the required fire protection is out of service. Those safeguards may be based upon the provisions of the applicable building code or other recognized safety standards.

901.7.2 Impairment coordinator. The building owner shall assign an impairment coordinator to comply with the requirements of this section. In the absence of a specific designee, the owner shall be considered the impairment coordinator.

901.7.3 Tag required. A tag shall be used to indicate that a system or portion thereof has been removed from service.

901.7.4 Placement of tag. The tag shall be posted at each fire department connection, system control valve, fire alarm control unit, fire alarm annunciator and fire command center indicating which system or part thereof has been removed from service. The fire code official shall specify where the tag is to be placed.

901.7.5 Preplanned impairment programs. Preplanned impairments shall be authorized by the impairment coordinator. Before authorization is given, a designated individual shall be responsible for verifying that all of the following procedures have been implemented:

1. The extent and expected duration of the impairment have been determined.
2. The areas or buildings involved have been inspected and the increased risks determined.
3. Recommendations have been submitted to management or the building owner or manager.
4. The fire department has been notified.
5. The insurance carrier, the alarm company, the building owner or manager and other authorities having jurisdiction have been notified.
6. The supervisors in the areas to be affected have been notified.
7. A tag impairment system has been implemented.
8. Necessary tools and materials have been assembled on the impairment site.

901.7.6 Emergency impairments. Where unplanned impairments occur, appropriate emergency action shall be taken to minimize potential injury and damage. The

impairment coordinator shall implement the steps outlined in Section 901.7.4.

901.7.7 Restoring systems to service. When impaired equipment is restored to normal working order, the impairment coordinator shall verify that all of the following procedures have been implemented:

1. Necessary inspections and tests have been conducted to verify that affected systems are operational.
2. Supervisors have been advised that protection is restored.
3. The fire department has been advised that protection is restored.
4. The building owner or manager, insurance carrier, alarm company and other involved parties have been advised that protection is restored.
5. The impairment tag has been removed.

13. Change Section 901.8 to read:

901.8 Removal of or tampering with equipment. It shall be unlawful for any person to remove, tamper with, or otherwise disturb any fire hydrant, fire detection and alarm system, fire suppression system, or other fire appliance required by this code or the applicable building code except for the purpose of extinguishing fire, for training purposes, for recharging or making necessary repairs, or where approved by the fire code official.

14. Change Section 901.8.2 to read:

901.8.2 Removal of existing occupant-use hose lines. The fire code official is authorized to permit the removal of existing occupant-use hose lines where all of the following conditions exist:

1. Installation is not required by this code or the applicable building code.
2. The hose line would not be utilized by trained personnel or the fire department.
3. The remaining outlets are compatible with local fire department fittings.

15. ] Add Section 901.11 to read:

901.11: Defective equipment. When the fire official determines through investigation or testing or reports by a nationally recognized testing agency that specific, required water sprinkler or water-spray extinguishing equipment has been identified as failing to perform or operate through not less than 30 randomly selected sprinkler heads at four or more building sites anywhere in the nation, the fire official shall order all such equipment to be rendered safe.

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# Regulations

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[ ~~F~~ B. The following changes shall be made to Section 903, Automatic Sprinkler Systems:

1. Delete Sections 903.1.1 through 903.2.11.1.3, including Tables.

2. Change Section 903.2.11.2 to read:

(N)903.2.11.2 Rubbish and linen chutes. Access to automatic sprinkler systems shall be maintained for servicing of the automatic sprinkler system components.

3. Delete Sections 903.2.11.3 through 903.2.11.6, including Tables.

4. Change Sections 903.2.12 and 903.3 to read:

(N)903.2.12 During construction and demolition. Automatic sprinkler systems required by the applicable building code during construction, alteration and demolition operations shall be maintained in accordance with Chapter 33.

(N)903.3 Installation requirements. Automatic sprinkler systems shall be maintained in accordance with the applicable building code.

5. Delete Sections 903.3.1 through 903.3.5.2.

6. Change Sections 903.3.6 to read:

(N)903.3.6 Hose threads. Fire hose threads and fittings used in connection with automatic sprinkler systems shall be maintained as approved by the fire code official.

7. Delete Sections 903.3.7 through 903.3.8.4.

8. Change Sections 903.3.8.5 to read:

(N)903.3.8.5 Calculations. When required by inspections, testing, and maintenance provisions of NFPA 25, hydraulic calculations shall be provided to demonstrate that the available water flow and pressure are adequate to supply all sprinklers installed in any single fire area with discharge densities corresponding to the hazard classification.

9. Delete Sections 903.4 through 903.4.3.

10. ] Change Section 903.6 to read:

903.6- Where required in existing buildings and structures. An automatic sprinkler system shall be provided in existing buildings and structures in accordance with Section 102.7 of this code.

[ ~~G~~ C. The following changes shall be made to Section 904, Alternative Automatic Fire-Extinguishing Systems:

1. Change Sections 904.1 and 904.1.1 to read:

(N)904.1 General. Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall be inspected, tested and maintained in accordance with the

provisions of this section and the applicable referenced standards.

904.1.1 Certification of service personnel for fire-extinguishing equipment. Service personnel providing or conducting maintenance on automatic fire-extinguishing systems, other than automatic sprinkler systems, shall possess a valid certificate issued by an approved agency or other approved organization for the type of system and work performed.

2. Delete Section 904.2 and 904.2.1.

3. Change Sections 904.2.2 and 904.3 to read:

(N)904.2.2 Commercial hood and duct systems. Each required commercial kitchen exhaust hood and duct system required by Section 319.4 for mobile food preparation vehicles to have a Type I hood shall be protected with an approved automatic fire-extinguishing system installed in accordance with this code.

(N)904.3 Installation. Automatic fire-extinguishing systems shall be installed in accordance with Annex B of NFPA 96 when required in mobile food preparation vehicles.

4. Delete Sections 904.3.1 through 904.4.3.

5. Change Section 904.5 to read:

904.5 Wet-chemical systems. Wet-chemical extinguishing systems shall be maintained, periodically inspected and tested in accordance with NFPA 17A and their listing. Records of inspections and testing shall be maintained.

6. Change Section 904.6 to read:

904.6 Dry-chemical systems. Dry-chemical extinguishing systems shall be maintained, periodically inspected and tested in accordance with NFPA 17 and their listing. Records of inspections and testing shall be maintained.

7. Change Section 904.7 to read:

904.7 Foam systems. Foam-extinguishing systems shall be maintained, periodically inspected and tested in accordance with NFPA 11 and NFPA 16 and their listing. Records of inspections and testing shall be maintained.

8. Change Section 904.8 to read:

904.8 Carbon dioxide systems. Carbon dioxide extinguishing systems shall be maintained, periodically inspected and tested in accordance with NFPA 12 and their listing. Records of inspections and testing shall be maintained.

9. Change Section 904.9 to read:

904.9 Halon systems. Halogenated extinguishing systems shall be maintained, periodically inspected and tested in

accordance with NFPA 12A and their listing. Records of inspections and testing shall be maintained.

10. Change Section 904.10 to read:

904.10 Clean-agent systems. Clean-agent fire-extinguishing systems shall be maintained, periodically inspected and tested in accordance with NFPA 2001 and their listing. Records of inspections and testing shall be maintained.

11. Change Section 904.11 to read:

(N)904.11 Automatic water mist systems. Automatic water mist systems shall be maintained in accordance with NFPA 25 and the manufacturer's instructions.

12. Delete Sections 904.11.1.1 through 904.11.2.3.

13. Change Sections 904.12 through 904.12.2 to read:

(N)904.12 Commercial cooking systems. Automatic fire-extinguishing systems for commercial cooking shall comply with this section.

(N)904.12.1 Manual system operation. Where provided, manual actuation devices shall be maintained as installed in accordance with the applicable building code and shall not be obstructed.

(N)904.12.2 System interconnection. Where required by the applicable building code, the actuation of the fire extinguishing system shall automatically shut down the fuel or electrical power supply to the cooking equipment. The fuel and electrical supply reset shall be manual.

14. Delete Sections 904.12.3 through 904.12.4.

15. Change Sections 904.12.4.1 to read:

(N)904.12.4.1 Listed sprinklers. Sprinklers replaced in accordance with NFPA 25, which are used for the protection of fryers, shall be tested in accordance with UL 199E, listed for that application, and installed in accordance with their listing.

16. Change Section 904.12.6.1 to read:

(N)904.12.6.1 Existing automatic fire-extinguishing systems. Where a change in the cooking media, positioning of cooking equipment, or replacement of cooking equipment occurs in existing commercial cooking systems, the automatic fire-extinguishing system shall be required to comply with the applicable building code.

17. Delete Sections 904.13 through 904.13.2.

D. The following changes shall be made to Section 905, Standpipe Systems:

1. Change Sections 905.1 and 905.2 to read:

(N)905.1 General. Standpipe systems shall be inspected, tested and maintained in accordance with the provisions of this section and the applicable referenced standards.

(N)905.2 Maintenance standard. Standpipe systems shall be maintained in accordance with this section and NFPA 14. Fire department connections for standpipe systems shall be in accordance with Section 912.

2. Delete Sections 905.3 through 905.3.4.

3. Change Sections 905.3.4.1 to read:

(N)905.3.4.1 Hose and cabinet. Where required by the applicable building code, hose connections shall be equipped with sufficient lengths of 1-1/2-inch (38 mm) hose to provide fire protection for the required area. Hoses shall be equipped with an approved adjustable fog nozzle and be mounted in a cabinet or on a rack.

4. Delete Sections 905.3.5 and 905.3.6.

5. Change Section 905.3.7 to read:

(N)905.3.7 Marinas and boatyards. Standpipes in marinas and boatyards shall comply with Chapter 36.

6. Delete Sections 905.3.8 through 905.5.2.

7. Change Section 905.5.3 to read:

(N)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.

8. Delete Sections 905.6 through 905.6.2.

9. Change Sections 905.7 through 905.7.2 to read:

(N)905.7 Cabinets. Cabinets containing firefighting equipment, such as standpipes, fire hose, fire extinguishers or fire department valves, shall not be blocked from use or obscured from view.

(N)905.7.1 Cabinet equipment identification. Cabinets shall be identified in an approved manner by a permanently attached sign with letters not less than 2 inches (51 mm) high in a color that contrasts with the background color indicating the equipment contained therein.

Exceptions:

1. Doors not large enough to accommodate a written sign shall be marked with a permanently attached pictogram of the equipment contained therein.

2. Doors that have either an approved visual identification clear glass panel or a complete glass door panel are not required to be marked.

(N)905.7.2 Locking cabinet doors. Cabinets shall be unlocked.

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# Regulations

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Exceptions:

1. Visual identification panels of glass or other approved transparent frangible material that is easily broken and allows access.

2. Approved locking arrangements.

3. Group I-3 occupancies.

10. Delete Sections 905.8 and 905.9.

11. Change Section 905.10 to read:

(N)905.10 During construction. Standpipe systems required during construction and demolition operations shall comply with Chapter 33.

12. Delete Section 905.11. ]

[ ~~H~~ E. The following changes shall be made to Section 906, Portable Fire Extinguishers:

1. ] Change Item 1 in Section 906.1 to read:

1. In Group A, B, E, F, H, I, M, R-1, R-4 and S occupancies.

Exceptions:

1. In Groups A, B, and E occupancies equipped throughout with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6.

2. In Group I-3 occupancies, portable fire extinguishers shall be permitted to be located at staff locations and the access to such extinguishers shall be permitted to be locked.

[ ~~F~~ 2. ] Add a note to Section 906.1 to read:

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

[ ~~J~~ 3. Change Section 906.2.1 to read:

906.2.1 Certification of service personnel for portable fire extinguishers. Service personnel providing or conducting maintenance on portable fire extinguishers shall possess a valid certificate issued by an approved agency, or other approved organization for the type of work performed.

F. The following changes shall be made to Section 907, Fire Alarm and Detection Systems:

1. ] Change Section 907.1 to read:

907.1- General. This section covers the [ application, installation, ] performance and maintenance of fire alarm systems and their components in [ new and existing ] buildings and structures. [ The requirements of Section 907.2 are applicable to new buildings and structures.

~~K~~ 2. Delete Sections 907.1.1 and 907.1.2.

3. Change Section 907.1.3 to read:

(N)907.1.3 Equipment. Systems and components not regulated by the applicable building code shall be listed and approved for the purpose for which they are installed.

4. Delete Sections 907.2 through 907.2.6.3.2.

5. Delete Sections 907.2.6.3.3 through 907.2.10.3.

6. Change Section 907.2.11 to read:

(N)907.2.11 Single-station and multiple-station smoke alarms. Alarms not required by the applicable building code shall be listed single-station and multiple-station smoke alarms complying with UL 217 and installed in accordance with the manufacturer's instructions and NFPA 72.

7. Delete Sections 907.2.11.1 through 907.3.1.

8. Change Sections 907.3.2 and 907.3.3 to read:

(N)907.3.2 Delayed egress locks. Where delayed egress locks are installed on means of egress doors, they shall be maintained as installed in accordance with the applicable building code.

(N)907.3.3 Elevator emergency operation. Automatic fire detectors installed for elevator emergency operation shall be maintained as provided by the applicable building code.

9. Delete Sections 907.3.4 through 907.4.1.

10. Change Section 907.4.2 to read:

(N)907.4.2 Manual fire alarm boxes. Manual fire alarm boxes or pull stations shall be maintained as provided in accordance with the applicable building code.

11. Delete Sections 907.4.2.1 and 907.4.2.2.

12. Change Sections 907.4.2.3 and 907.4.2.5 to read:

(N)907.4.2.3 Color. Manual fire alarm boxes shall be maintained as installed unless otherwise approved.

907.4.2.5 Protective covers. The fire code official is authorized to require the installation of listed manual fire alarm box protective covers to prevent malicious false alarms or to provide the manual fire alarm box with protection from physical damage. The protective cover shall be transparent or red in color with a transparent face to permit visibility of the manual fire alarm box. Each cover shall include proper operating instructions. A protective cover that emits a local alarm signal shall not be installed unless approved. Protective covers shall not reduce the required means of egress width.

13. Delete Sections 907.4.3 through 907.5.

14. Change Section 907.5.1 to read:

(N)907.5.1 Presignal feature. A presignal feature shall not be utilized unless approved by the fire code official and the fire department. Where a presignal feature is provided, a signal shall be annunciated at a constantly attended location approved by the fire department so that occupant notification can be activated in the event of fire or other emergency.

15. Delete Sections 907.5.2 through 907.5.2.2.3.

16. Change Section 907.5.2.2.4 to read:

(N)907.5.2.2.4 Emergency voice or alarm communication captions. Where stadiums, arenas and grandstands are required to caption audible public announcements in accordance with of the applicable building code, the emergency or voice alarm communication system shall be captioned. Prerecorded or live emergency captions shall be from an approved location constantly attended by personnel trained to respond to an emergency.

17. Delete Sections 907.5.2.2.5 through 907.6.2.

18. Change Section 907.6.3 to read:

(N)907.6.3 Initiating device identification. The fire alarm systems that identify the specific initiating device address, location, device type, floor level where applicable, and status, including indication of normal, alarm, trouble and supervisory status, shall be maintained as provided in accordance with the applicable building code.

19. Delete Sections 907.6.3.1 through 907.6.4.2.

20. Change Sections 907.6.5 through 907.6.6 to read:

(N)907.6.5 Access. Access to each fire alarm device and notification appliance for periodic inspection, maintenance and testing shall not be obstructed.

(N)907.6.6 Monitoring. The monitoring of fire alarm systems required by the applicable building code shall be maintained in accordance with NFPA 72.

21. Delete Sections 907.7 through 907.7.2.

22. Change Section 907.7.3 to read:

907.7.3 Instructions. Operating, testing and maintenance instructions and existing record drawings ("as built") and equipment specifications shall be provided at an approved location.

23. ] Change Section 907.8.2 to read:

907.8.2- Testing. Testing shall be performed in accordance with the schedules in Chapter 10 of NFPA 72 or more frequently where required by the fire code

official. Where automatic testing is performed at least weekly by a remotely monitored fire alarm control unit specifically listed for the application, the manual testing frequency shall be permitted to be extended to annual. In Group R-1 occupancies, battery-powered single station smoke detectors shall be tested and inspected at one-month intervals.

Exception: Devices or equipment that are inaccessible for safety considerations shall be tested during scheduled shutdowns where approved by the fire code official, but not less than every 18 months.

[ ~~18. 24.~~ ] Change Section 907.8.5 to read:

907.8.5- Maintenance, inspection and testing. The building owner shall be responsible for maintaining the fire and life safety systems in an operable condition at all times. Service personnel shall meet the qualification requirements of NFPA 72 for maintaining, inspecting and testing such systems. A written record shall be maintained and shall be made available to the fire code official. In addition to all applicable information contained in Figure [ ~~4.6.2.2~~ 7.8.2 ] of NFPA 72, the written record of inspections, testing and maintenance shall contain the following minimum information:

1. Date, name and address of property.
2. Name of person performing inspection, maintenance and tests, or combination thereof, and affiliation, business address and telephone number.
3. Name, address and representative of approving agency or agencies.
4. Test frequency.
5. Designation of the detector or detectors tested (for example, "Test performed in accordance with Section \_\_\_\_\_.").
6. Physical location (for example, "Heat detector in main kitchen; horn-strobe in Room 115.") and a list of all initiating and notification devices and appliances tested.
7. Functional list of detectors and required sequence of operations.
8. Check of all smoke detectors.
9. Loop resistance for all fixed-temperature, line-type detectors.
10. Other tests as required by either the equipment manufacturer's published instructions or the authority having jurisdiction.
11. Signature of tester and approved authority representative.
12. Disposition of problems identified during test (examples, "Owner notified," "Problem corrected or



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# Regulations

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successfully retested, or both," "Device abandoned in place.").

[ ~~M. 25.~~ ] Delete Section 907.9.

[ ~~N. Change Section 908.7 to read:~~ G. The following changes shall be made to Section 908, Emergency Alarm Systems:

Change Sections 908.1 through 908.7 to read:

908.1 Group H occupancies. Emergency alarms for the detection and notification of an emergency condition in Group H occupancies shall be maintained as provided in accordance with the applicable building code.

(N)908.2 Group H-5 occupancy. Emergency alarms for notification of an emergency condition in a hazardous production material (HPM) facility shall be maintained as provided in accordance with the applicable building code. Continuous gas detection systems shall be maintained for HPM gases as provided in accordance with the applicable building code.

(N)908.3 Highly toxic and toxic materials. Where required by the applicable building code for highly toxic and toxic materials, gas detection systems shall be maintained.

(N)908.4 Ozone gas-generator rooms. Where required by the applicable building code, gas detection systems provided in ozone gas-generator rooms shall be maintained.

(N)908.5 Repair garages. A flammable-gas detection system provided in accordance with the applicable building code in repair garages for vehicles fueled by nonodorized gases shall be maintained.

(N)908.6 Refrigeration systems. Refrigeration system machinery rooms provided with refrigerant detection in accordance with the applicable building code shall be maintained.

908.7: Carbon [~~monoxide alarms. Carbon monoxide alarms~~ dioxide systems. Emergency alarm systems provided in accordance with the applicable building code ] shall be maintained [ ~~as approved~~ ].

[ ~~O. Delete Section 908.7.1.~~

H. The following changes shall be made to Section 909, Smoke Control Systems:

1. Change Section 909.1 to read:

(N)909.1 Scope and purpose. This section applies to the inspection, testing, and maintenance of mechanical or passive smoke control systems. The purpose of these systems to provide a tenable environment for the evacuation or relocation of occupants. These provisions are not intended for the preservation of contents, the

timely restoration of operations, or for assistance in fire suppression or overhaul activities.

2. Delete Sections 909.2 through 909.4.5.

3. Change Section 909.4.6 to read:

(N)909.4.6 Duration of operation. All portions of active or engineered smoke control systems shall be capable of continued operation after detection of the fire event for a period of not less than that required by the applicable building code.

4. Delete Section 909.4.7.

5. Change Section 909.5 to read:

(N)909.5 Smoke barriers. Smoke barriers required for passive smoke control and smoke control systems using the pressurization method shall be maintained in accordance with Chapter 7 of this code.

6. Delete Sections 909.5.1 and 909.5.2.

7. Change Section 909.5.3 to read:

(N)909.5.3 Opening protection. Protection of openings in smoke barriers shall be maintained in accordance with Chapter 7.

8. Delete Section 909.5.3.1

9. Change Section 909.5.3.2 to read:

(N)909.5.3.2 Ducts and air transfer openings. Protection of ducts and air transfer openings shall be maintained in accordance with Chapter 7.

10. Delete Sections 909.6 through 909.10.4.

11. Change Section 909.10.5 through 909.11.1 to read:

(N)909.10.5 Fans. Motors driving fans associated with smoke control systems shall not be operated beyond their nameplate horsepower (kilowatts) as determined from measurement of actual current draw and shall have a minimum service factor of 1.15.

(N)909.11 Standby power. Standby power provided for smoke control systems shall be maintained in accordance with Section 604.

(N)909.11.1 Equipment room. Fire barriers associated with equipment rooms servicing smoke control systems shall be maintained in accordance with Chapter 7.

12. Delete Sections 909.11.2 through 909.13.3.

13. Change Section 909.14 and 909.15 to read:

909.14 Marking and identification. The detection and control systems shall be clearly marked at all junctions, accesses and terminations.

909.15 Control diagrams. Identical control diagrams showing all devices in the system and identifying their

location and function shall be maintained current and kept on file with the fire code official, with the fire department, and in the fire command center in a format and manner approved by the fire chief.

14. Delete Sections 909.16 and 909.16.1.

15. Change Section 909.16.2 to read:

(N)909.16.2 Smoke control panel. The firefighter's control panel shall maintain control capability over the complete smoke control system equipment within the building in accordance with the applicable building code.

16. Delete Section 909.16.3.

17. Change Section 909.17 and 909.18 to read:

(N)909.17 System response time. Smoke-control system activation, including all associated components, shall be initiated in accordance with its design. The total response time shall not be less than the requirements specified in the design.

(N)909.18 Acceptance testing. Devices, equipment, components and sequences shall be individually tested. These tests, in addition to those required by other provisions of this code, shall consist of determination of function, sequence, and, where applicable, capacity of their installed condition.

18. Delete Sections 909.18.1 through 909.18.8.3.

19. Change Section 909.18.8.3.1 and 909.18.9 to read:

(N)909.18.8.3.1 Report filing. A copy of the final report required by the applicable building code shall be filed with the fire code official and an identical copy shall be maintained in an approved location at the building.

(N)909.18.9 Identification and documentation. Copies of charts, drawings, and other documents identifying and locating each component of the smoke control system and describing their proper function and maintenance requirements shall be maintained on file at the building. Devices shall have an approved identifying tag or mark on them consistent with such copies and shall be dated indicating the last time they were successfully tested and by whom.

20. Delete Section 909.19.

21. Change Sections 909.20.1, 909.20.6 and 909.21 to read:

909.20.1 Schedule. A routine maintenance and operational testing program shall be initiated immediately after the smoke control system has passed the acceptance tests. A written schedule for routine maintenance and operational testing shall be established and approved by the fire code official in accordance with Chapter 9 of the applicable building code.

(N)909.20.6 Components bypassing weekly test. Where components of the smoke control system are bypassed by

the preprogrammed weekly test in accordance with the applicable building code, such components shall be tested semiannually. The system shall be tested under standby power conditions.

(N)909.21 Elevator hoistway pressurization alternative. Where elevator hoistway pressurization is provided in lieu of required enclosed elevator lobbies, the pressurization system shall be maintained in accordance with Section 909.

22. Delete Sections 909.21.1 through 909.21.2.

23. Change Section 909.21.3 through 909.21.4.1 to read:

(N)909.21.3 Ducts for system. Any duct system protected with a fire-resistance rating shall be maintained in accordance with Chapter 7.

(N)909.21.4 Fan system. The fan system provided for the pressurization system shall comply with Sections 909.21.4.1.

(N)909.21.4.1 Fire resistance. Where provided in accordance with the applicable building code, the fire-resistance rating required for the elevator shaft enclosure shall be maintained in accordance with Chapter 7.

24. Delete Sections 909.21.4.2 through 909.21.4.4.

25. Change Section 909.21.5 to read:

(N)909.21.5 Standby power. Standby power systems for pressurization systems shall be maintained in accordance with Section 604.

26. Delete Sections 909.21.6 and 909.21.7.

27. Change Section 909.21.8 and 909.21.9 to read:

(N)909.21.8 Marking and identification. Detection and control systems shall be marked in accordance with Section 909.14.

(N)909.21.9 Control diagrams. Control diagrams shall be provided in accordance with Section 909.15.

28. Delete Section 909.21.10.

29. Change Section 909.21.11 to read:

(N)909.21.11 System response time. Hoistway pressurization systems response time shall be maintained in accordance with the requirements for smoke control system response time in the applicable building code.

I. The following changes shall be made to Section 910, Smoke and Heat Removal:

1. Change Section 910.1 to read:

(N)910.1 General. Where required by the applicable building code, smoke and heat vents or mechanical smoke removal systems shall be maintained as installed.

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# Regulations

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2. Delete Sections 910.2 through 910.3.3.

3. Change Section 910.4 to read:

(N)910.4 Mechanical smoke removal systems. Mechanical smoke removal systems provided shall be maintained as installed in accordance with the applicable building code.

4. Delete Sections 910.4.1 through 910.4.7.

J. The following changes shall be made to Section 911, Explosion Control:

1. Change Section 911.1 to read:

(N)911.1 General. Explosion control systems and components shall be maintained and operated in accordance with NFPA 69, or NFPA 495, as applicable. Deflagration venting shall not be used as a means to protect buildings from detonation hazards.

2. Delete Table 911.1 and Sections 911.2 through 911.4.

K. The following changes shall be made to Section 912, Fire Department Connections:

1. Delete Sections 912.1 through 912.2.1.

2. Change Section 912.6 to read:

(N)912.6 Backflow protection. The potable water supply to automatic sprinkler and standpipe systems protected against backflow as required by the applicable building code shall be maintained in accordance with NFPA 25.

L. The following changes shall be made to Section 913, Fire Pumps:

1. Change Sections 913.1 through 913.2.1 to read:

(N)913.1 General. Where provided, fire pumps shall be maintained in accordance with the applicable building code.

(N)913.2 Protection against interruption of service. The fire pump, driver and controller shall be maintained in accordance with the applicable building code.

(N)913.2.1 Protection of fire pump rooms. Rooms where fire pumps are separated from all other areas of the building by a fire-rated assembly in accordance with the applicable building code shall be maintained in accordance with Chapter 7.

2. Delete Section 913.2.2.

3. Change Section 913.3 and 913.4 to read:

(N)913.3 Temperature of pump room. Suitable means shall be provided for maintaining the temperature of a pump room or pump house above 40°F (5°C).

(N)913.4 Valve supervision. Where provided, the fire pump suction, discharge and bypass valves, and isolation

valves on the backflow prevention device or assembly shall be maintained in accordance with the applicable building code.

4. Delete Section 913.5.1.

M. The following changes shall be made to Section 914, Fire Protection Based on Special Detailed Requirements of Use and Occupancy:

1. Delete Sections 914.1 through 914.2.3.

2. Change Section 914.2.4 to read:

914.2.4 Fire department access to equipment. Rooms or areas containing controls for air-conditioning systems, automatic fire-extinguishing systems, automatic sprinkler systems, or other detection, suppression, or control elements shall be identified for use by the fire department.

3. Delete Sections 914.3 through 914.11.3, including Tables.

N. The following changes shall be made to Section 915, Carbon Monoxide Detection:

1. Change Section 915.1 to read:

(N)915.1 General. Where provided, carbon monoxide detection shall be installed in accordance with the applicable building code.

2. Delete Sections 915.1.1 through 915.5.3.

3. Change Section 915.6 to read:

915.6 Maintenance. Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 720. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced. ]

## **13VAC5-51-135.5. IFC Chapter 10, Means of Egress.**

A. [ The following changes shall be made to Section 1001, Administration:

1. Change Section 1001.1 to read:

1001.1 General. Means of egress systems for buildings or portions thereof shall be maintained in accordance with the applicable building code and Section 1031.

2. ] Add Section 1001.3 to read:

1001.3- Overcrowding. Overcrowding, admittance of any person beyond the approved occupant load established by the USBC or other building code under which the building was constructed, or obstructing aisles, passageways, or any part of the means of egress shall not be allowed. The fire code official, upon finding any condition that constitutes a life safety hazard, shall be

authorized to cause the event to be stopped until such condition or obstruction is corrected.

B. [ The following changes shall be made to Section 1003, General Means of Egress:

1. Change Section 1003.1 to read:

(N)1003.1 Applicability. The general requirements specified in Sections 1003 through 1015 shall apply to the maintenance of the building.

2. Change Section 1003.2 to read:

(N)1003.2 Ceiling height. The means of egress ceiling height shall be maintained in accordance with the applicable building code.

3. Change Section 1003.3 to read:

1003.3 Protruding objects. Protruding objects on circulation paths shall comply with the requirements of Sections 1003.3.1 and 1003.3.4.

4. Change Section 1003.3.1 to read:

(N)1003.3.1 Headroom. Minimum headroom shall be maintained in accordance with the applicable building code.

5. Delete Section 1003.3.2.

6. Delete Section 1003.3.3.

7. Change Section 1003.3.4 to read:

(N)1003.3.4 Clear width. Protruding objects shall not reduce the minimum clear width of accessible routes.

8. Change Section 1003.4 to read:

(N)1003.4 Floor surface. Slip and trip hazards in the means of egress shall be abated.

9. Delete Section 1003.5.

10. Change Section 1003.6 to read:

(N)1003.6 Means of egress continuity. Means of egress continuity shall be maintained in accordance with the applicable building code.

11. Delete Section 1003.7.

C. The following changes shall be made to Section 1004, Occupant Load:

1. Change Section 1004.1 to read:

(N)1004.1 Design occupant load. The design occupant load shall be maintained in accordance with the applicable building code.

2. Delete Section 1004.1.1.

3. Delete Section 1004.1.1.1.

4. Delete Section 1004.1.1.2.

5. Delete Section 1004.1.1.3.

6. Delete Section 1004.1.2 and Table 1004.1.2.

7. Delete Section 1004.2.

8. Change Section 1004.3 to read:

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

9. Delete Section 1004.4.

10. Change Section 1004.5 to read:

(N)1004.5 Outdoor areas. The means of egress for outdoor areas shall be maintained in accordance with the applicable building code.

11. Change Section 1004.6 to read:

(N)1004.6 Multiple occupancies. Where a building contains two or more occupancies, the means of egress requirements shall be maintained in accordance with the applicable building code.

D. The following changes shall be made to Section 1005, Means of Egress Sizing:

1. Change Section 1005.1 to read:

(N)1005.1 General. All portions of the means of egress system shall be sized in accordance with the applicable code.

2. Change Section 1005.2 to read:

(N)1005.2 Minimum width based on component. The minimum width of any means of egress components shall be maintained in accordance with the applicable building code.

3. Change Section 1005.3 to read:

(N)1005.3 Required capacity based on occupant load. The required capacity of the means of egress for any room, area, space or story shall be maintained in accordance with the applicable building code.

4. Change Section 1005.3.1 to read:

(N)1005.3.1 Stairways. The capacity, in inches, of means of egress stairways shall be maintained in accordance with the applicable building code.

5. Delete Section 1005.3.2.

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# Regulations

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6. Change Section 1005.4 to read:

(N)1005.4 Continuity. The minimum width or required capacity of the means of egress required from any story of a building shall be maintained in accordance with the applicable building code.

7. Delete Section 1005.5.

8. Change Section 1005.6 to read:

(N)1005.6 Egress convergence. Where the means of egress from stories above and below converge at an intermediate level, the capacity of the means of egress from the point of convergence shall be maintained in accordance with the applicable code.

9. Change Section 1005.7 to read:

(N)1005.7 Encroachment. Encroachments into the required means of egress width shall be in accordance with the provisions of the applicable building code.

10. Delete Section 1005.7.1.

11. Delete Section 1005.7.2.

12. Delete Section 1005.7.3.

E. The following changes shall be made to Section 1006, Numbers of Exits and Exit Access Doorways:

1. Change Section 1006.1 to read:

(N)1006.1 General. The number of exits or exit access doorways required within the means of egress system shall be maintained in accordance with the applicable building code.

2. Change Section 1006.2 to read:

(N)1006.2 Egress from spaces. Egress from spaces shall be maintained in accordance with the applicable building code.

3. Delete Section 1006.2.1 and Table 1006.2.1.

4. Delete Section 1006.2.1.1.

5. Delete Section 1006.2.2.

6. Delete Section 1006.2.2.1.

7. Delete Section 1006.2.2.2.

8. Delete Section 1006.2.2.3.

9. Delete Section 1006.2.2.4.

10. Delete Section 1006.2.2.5.

11. Change Section 1006.3 to read:

(N)1006.3 Egress from stories or occupied roofs. The means of egress system serving any story or occupied roof shall be maintained in accordance with the applicable building code.

12. Delete Section 1006.3.1 and Table 1006.3.1.

13. Delete Section 1006.3.2 and Tables 1006.3.2(1) and 1006.3.2(2).

14. Delete Section 1006.3.2.1.

15. Delete Section 1006.3.2.2.

F. The following changes shall be made to Section 1007, Exit and Exit Access Doorway Configuration:

1. Change Section 1007.1 to read:

(N)1007.1 General. Exits, exit access doorways, and exit access stairways and ramps serving spaces, including individual building stories, shall be maintained in accordance with the applicable code.

2. Delete Section 1007.1.1.

3. Delete Section 1007.1.1.1.

4. Delete Section 1007.1.2.

5. Delete Section 1007.1.3.

6. Delete Section 1007.1.3.1.

G. The following changes shall be made to Section 1008, Means of Egress Illumination:

1. Change Section 1008.1 to read:

(N)1008.1 Means of egress illumination. Illumination provided in the means of egress shall be maintained in accordance with the applicable code.

2. Change Section 1008.2 to read:

(N)1008.2 Illumination required. Illumination provided for the means of egress serving a room or space shall be maintained in accordance with the applicable building code.

3. Delete Section 1008.2.1.

4. Delete Section 1008.2.2.

5. Change Section 1008.3 to read:

(N)1008.3 Emergency power for illumination. The power supply for means of egress illumination shall be maintained in accordance with the applicable building code.

6. Delete Section 1008.3.1.

7. Delete Section 1008.3.2.

8. Delete Section 1008.3.3.

9. Delete Section 1008.3.4.

10. Delete Section 1008.3.5.

H. The following changes shall be made to Section 1009, Accessible Means of Egress:

1. Change Section 1009.1 to read:

(N)1009.1 Accessible means of egress required. Accessible means of egress shall be maintained in accordance with the applicable building code.

2. Change Section 1009.2 to read:

(N)1009.2 Continuity and components. Continuity and components provided for accessible means of egress shall be maintained in accordance with the applicable building code.

3. Delete Section 1009.2.1.

4. Change Section 1009.3 to read:

(N)1009.3 Stairways. Stairways part of an accessible means of egress shall be maintained in accordance with the applicable building code.

5. Change Section 1009.4 to read:

(N)1009.4 Elevators. Elevators considered part of the means of egress shall be maintained in accordance with the applicable building code.

6. Change Section 1009.5 to read:

(N)1009.5 Platform lifts. Platform lifts serving as a part of an accessible means of egress shall be maintained in accordance with the applicable building code.

7. Change Section 1009.6 to read:

(N)1009.6 Areas of refuge. Areas of refuge shall be maintained in accordance with the applicable building code.

8. Delete Section 1009.6.1.

9. Delete Section 1009.6.2.

10. Delete Section 1009.6.3.

11. Delete Section 1009.6.4.

12. Delete Section 1009.6.5.

13. Change Section 1009.7 to read:

(N)1009.7 Exterior areas for assisted rescue. Exterior areas for assisted rescue shall be maintained in accordance with the applicable building code.

14. Delete Section 1009.7.1.

15. Delete Section 1009.7.2.

16. Delete Section 1009.7.3.

17. Delete Section 1009.7.4.

18. Change Section 1009.8 to read:

(N)1009.8 Two-way communication. Where provided, two-way communication systems shall be maintained in accordance with the applicable building code.

19. Delete Section 1009.8.1.

I. The following changes shall be made to Section 1010, Doors, Gates and Turnstiles:

1. Change Section 1010.1 to read:

(N)1010.1 Doors. Doors serving a means of egress system shall be maintained in accordance with the applicable building code. Means of egress doors shall be readily distinguishable from the adjacent construction and finishes such that the doors are easily recognizable as doors. Mirrors or similar reflecting materials shall not be used on means of egress doors. Means of egress doors shall not be concealed by curtains, drapes, decorations or similar materials.

2. Delete Section 1010.1.1.

3. Delete Section 1010.1.1.1.

4. Delete Section 1010.1.2.

5. Delete Section 1010.1.2.1.

6. Delete Section 1010.1.3.

7. Delete Section 1010.1.3.1.

8. Delete Section 1010.1.4.

9. Delete Section 1010.1.4.1 and Tables 1010.1.4.1(1) and 1010.1.4.1(2).

10. Delete Section 1010.1.4.1.1.

11. Delete Section 1010.1.4.1.2.

12. Delete Section 1010.1.4.2.

13. Delete Section 1010.1.4.3.

14. Delete Section 1010.1.5.

15. Delete Section 1010.1.6.

16. Delete Section 1010.1.7.

17. Delete Section 1010.1.8.

18. Delete Section 1010.1.9.1.

19. Delete Section 1010.1.9.2.

20. Change Section 1010.1.9.3 to read:

(N)1010.1.9.3 Locks and latches. Where required, a readily visible durable sign is posted on the egress side on or adjacent to the door stating THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. The sign shall be in letters 1 inch (25 mm)

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# Regulations

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high on a contrasting background and shall be maintained.

21. Delete Section 1010.1.9.4.

22. Delete Section 1010.1.9.5.

23. Delete Section 1010.1.9.5.1.

24. Delete Section 1010.1.9.6.

25. Delete Section 1010.1.9.7.

26. Delete Section 1010.1.9.8.

27. Delete Section 1010.1.9.9.

28. Delete Section 1010.1.9.10.

29. Delete Section 1010.1.9.11.

30. Delete Section 1010.1.10.

31. Delete Section 1010.1.10.1.

32. Delete Section 1010.1.10.2.

33. Change Section 1010.2 to read:

(N)1010.2 Gates. Gates serving the means of egress system shall be maintained in accordance with the applicable building code.

34. Delete Section 1010.2.1.

35. Change Section 1010.3 to read:

(N)1010.3 Turnstiles. Turnstiles or similar devices shall be maintained in accordance with the applicable building code.

36. Delete Section 1010.3.1.

37. Delete Section 1010.3.2.

J. The following changes shall be made to Section 1011, Stairways:

1. Change Section 1011.1 to read:

(N)1011.1 General. Stairways serving occupied portions of a building shall be maintained in accordance with the applicable building code.

2. Change Section 1011.2 to read:

(N)1011.2 Width and capacity. The capacity of stairways shall be maintained in accordance with the applicable building code.

3. Change Section 1011.3 to read:

(N)1011.3 Headroom. Headroom requirements for stairways shall be maintained in accordance with the applicable building code.

4. Change Section 1011.4 to read:

(N)1011.4 Walkline. The walkline across winder treads shall be maintained in accordance with the applicable building code.

5. Change Section 1011.5 to read:

(N)1011.5 Stair treads and risers. Stair treads and risers shall be maintained in accordance with the applicable building code.

6. Delete Section 1011.5.1.

7. Delete Section 1011.5.2.

8. Delete Section 1011.5.3.

9. Delete Section 1011.5.4.

10. Delete Section 1011.5.4.1.

11. Delete Section 1011.5.5.

12. Delete Section 1011.5.5.1.

13. Delete Section 1011.5.5.2.

14. Delete Section 1011.5.5.3.

15. Delete Section 1011.6.

16. Delete Section 1011.7.

17. Delete Section 1011.7.1.

18. Delete Section 1011.7.2.

19. Delete Section 1011.7.3.

20. Delete Section 1011.7.4.

21. Change Section 1011.8 to read:

(N)1011.8 Vertical rise. Vertical rise of a flight of stairs shall be maintained in accordance with the applicable building code.

22. Change Section 1011.9 to read:

(N)1011.9 Curved stairways. Curved stairways with winder treads shall be maintained in accordance with the applicable building code.

23. Change Section 1011.10 to read:

(N)1011.10 Spiral stairways. Spiral stairways used as a component in the means of egress shall be maintained in accordance with the applicable building code.

24. Change Section 1011.11 to read:

(N)1011.11 Handrails. Handrails for stairways shall be maintained in accordance with the applicable building code.

25. Change Section 1011.12 to read:

(N)1011.12 Stairway to roof. Stairways to a roof shall be maintained in accordance with the applicable building code.

26. Delete Section 1011.12.1.

27. Delete Section 1011.12.2.

28. Change Section 1011.13 to read:

(N)1011.13 Guards. Guards shall be maintained in accordance with the applicable building code.

29. Change Section 1011.14 to read:

(N)1011.14 Alternating tread devices. Alternating tread devices shall be maintained in accordance with the applicable building code.

30. Delete Section 1011.14.1.

31. Delete Section 1011.14.2.

32. Change Section 1011.15 to read:

(N)1011.15 Ships ladders. Ships ladders shall be maintained in accordance with the applicable building code.

33. Delete Section 1011.15.1.

34. Delete Section 1011.15.2.

35. Delete Section 1011.16.

K. The following changes shall be made to Section 1012, Ramps:

1. Change Section 1012.1 to read:

(N)1012.1 Scope. The provisions of this section shall apply to the maintenance of ramps used as a component of a means of egress.

2. Change Section 1012.2 to read:

(N)1012.2 Slope. Ramp slopes shall be maintained in accordance with the applicable building code.

3. Change Section 1012.3 to read:

(N)1012.3 Cross slope. The cross slope for ramps shall be maintained in accordance with the applicable building code.

4. Change Section 1012.4 to read:

(N)1012.4 Vertical rise. The rise for any ramp run shall be maintained in accordance with the applicable building code.

5. Change Section 1012.5 to read:

(N)1012.5 Minimum dimensions. The minimum dimensions of means of egress ramps shall be maintained in accordance with the applicable building code.

6. Delete Section 1012.5.1.

7. Delete Section 1012.5.2.

8. Delete Section 1012.5.3.

9. Change Section 1012.6 to read:

(N)1012.6 Landings. Landings serving ramps shall be maintained in accordance with the applicable building code.

10. Delete Section 1012.6.1.

11. Delete Section 1012.6.2.

12. Delete Section 1012.6.3.

13. Delete Section 1012.6.4.

14. Delete Section 1012.6.5.

15. Delete Section 1012.7.

16. Delete Section 1012.7.2.

17. Change Section 1012.8 to read:

(N)1012.8 Handrails. Handrails serving ramps shall be maintained in accordance with the applicable building code.

18. Change Section 1012.9 to read:

(N)1012.9 Guards. Guards shall be maintained in accordance with the applicable building code.

19. Change Section 1012.10 to read:

(N)1012.10 Edge protection. Edge protection shall be maintained in accordance with the applicable building code.

20. Delete Section 1012.10.1.

21. Delete Section 1012.10.2.

L. The following changes shall be made to Section 1013, Exit Signs:

1. Change Section 1013.1 to read:

(N)1013.1 Where required. Exits and exit access doors shall be maintained in accordance with the applicable building code.

2. Change Section 1013.2 to read:

(N)1013.2 Floor-level exit signs in Group R-1. Floor-level exit signs in Group R-1 buildings shall be maintained in accordance with the applicable building code.



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# Regulations

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3. Change Section 1013.3 to read:

(N)1013.3 Illumination. Exit sign illumination shall be maintained in accordance with the applicable building code.

4. Change Section 1013.4 to read:

(N)1013.4 Raised character and braille exit signs. Raised character and braille exit signs shall be maintained in accordance with the applicable building code.

5. Change Section 1013.5 to read:

(N)1013.5 Internally illuminated exit signs. Electrically powered, self-luminous, and photoluminescent exit signs shall be maintained in accordance with the applicable building code.

6. Change Section 1013.6 to read:

(N)1013.6 Externally illuminated exit signs. Externally illuminated exit signs shall be maintained in accordance with the applicable building code.

7. Delete Section 1013.6.1.

8. Delete Section 1013.6.2.

9. Delete Section 1013.6.3.

M. The following changes shall be made to Section 1014. Handrails:

1. Change Section 1014.1 to read:

(N)1014.1 Where required. Handrails serving stairways, ramps, stepped aisles, and ramped aisles shall be maintained in accordance with the applicable building code.

2. Change Section 1014.2 to read:

(N)1014.2 Height. Handrail height, shall be maintained in accordance with the applicable building code.

3. Change Section 1014.3 to read:

(N)1014.3 Handrail graspability. Handrail graspability shall be maintained in accordance with the applicable building code.

4. Delete Section 1014.3.1.

5. Delete Section 1014.3.2.

6. Change Section 1014.4 to read:

(N)1014.4 Continuity. Handrail continuity shall be maintained in accordance with the applicable building code.

7. Delete Section 1014.5.

8. Delete Section 1014.6.

9. Change Section 1014.7 to read:

(N)1014.7 Clearance. Clear space between a handrail and a wall or other surface shall be maintained in accordance with the applicable building code.

10. Change Section 1014.8 to read:

(N)1014.8 Projections. Projections into the required width of aisles, stairways and ramps at each side shall not exceed the requirements of the applicable building code.

11. Change Section 1014.9 to read:

(N)1014.9 Intermediate handrails. Where provided, intermediate handrails shall be maintained in accordance with the applicable building code.

N. The following changes shall be made to Section 1015. Guards:

1. Change Section 1015.1 to read:

(N)1015.1 General. Guards shall be maintained in accordance with the applicable building code.

2. Delete Section 1015.2.

3. Delete Section 1015.2.1.

4. Change Section 1015.3 to read:

(N)1015.3 Height. Guard height shall be maintained in accordance with the applicable building code.

5. Change Section 1015.4 to read:

(N)1015.4 Opening limitations. Openings in guards shall be maintained in accordance with the applicable building code.

6. Change Section 1015.5 to read:

(N)1015.5 Screen porches. Guards provided for screen porches shall be maintained in accordance with the applicable building code.

7. Change Section 1015.6 to read:

(N)1015.6 Mechanical equipment, systems and devices. Guards provided for mechanical equipment shall be maintained in accordance with the applicable building code.

8. Change Section 1015.7 to read:

(N)1015.7 Roof access. Guards provided for roof access shall be maintained in accordance with the applicable building code.

9. Change Section 1015.8 to read:

(N)1015.8 Window openings. Windows shall be maintained in accordance with the applicable building code.

10. Delete Section 1015.8.1.

O. The following changes shall be made to Section 1016, Exit Access:

1. Change Section 1016.1 to read:

(N)1016.1 General. The exit access shall be maintained in accordance with the applicable building code.

2. Change Section 1016.2 to read:

(N)1016.2 Egress through intervening spaces. Egress through intervening spaces shall be maintained in accordance with the applicable building code.

3. Delete Section 1016.2.1.

P. The following changes shall be made to Section 1017, Exit Access Travel Distance:

1. Change Section 1017.1 to read:

(N)1017.1 General. Travel distance within the exit access portion of the means of egress system shall be maintained in accordance with the applicable building code.

2. Delete Section 1017.2 and Table 1017.2.

3. Delete Section 1017.2.1.

4. Delete Section 1017.2.2.

5. Delete Section 1017.3.

6. Delete Section 1017.3.1.

Q. The following changes shall be made to Section 1018, Aisles:

1. Change Section 1018.1 to read:

(N)1018.1 General. Aisles and aisle accessways serving as a portion of the exit access in the means of egress system shall be maintained in accordance with the applicable building code.

2. Change Section 1018.2 to read:

(N)1018.2 Aisles in assembly spaces. Aisles and aisle accessways serving a room or space used for assembly purposes shall be maintained in accordance with the applicable building code.

3. Change Section 1018.3 to read:

(N)1018.3 Aisles in Groups B and M. In Groups B and M occupancies, the aisle width shall be maintained in accordance with the applicable building code.

4. Change Section 1018.4 to read:

(N)1018.4 Aisle accessways in Group M. Aisle accessways in Group M shall be maintained in accordance with the applicable building code.

5. Change Section 1018.5 to read:

(N)1018.5 Aisles in other than assembly spaces and Groups B and M. Aisles in other than assembly spaces and Groups B and M shall be maintained in accordance with the applicable building code.

R. The following changes shall be made to Section 1019, Exit Access Stairways and Ramps.

1. Change Section 1019.1 to read:

(N)1019.1 General. Exit access stairways and ramps serving as an exit access component in a means of egress system shall be maintained in accordance with the applicable building code.

2. Delete Section 1019.2.

3. Delete Section 1019.3.

4. Delete Section 1019.4.

S. The following changes shall be made to Section 1020, Corridors:

1. Change Section 1020.1 to read:

(N)1020.1 Maintenance. Corridors shall be maintained in accordance with the applicable building code.

2. Delete Table 1020.1.

3. Change Section 1020.2 to read:

(N)1020.2 Width and capacity. The width and capacity of corridors shall be maintained in accordance with the applicable building code.

4. Delete Table 1020.2.

5. Delete Section 1020.4.

6. Delete Section 1020.5.

7. Delete Section 1020.5.1.

8. Change Section 1020.6 to read:

(N)1020.6 Corridor continuity. The continuity of fire-resistance-rated corridors shall be maintained in accordance with the applicable building code.

T. The following changes shall be made to Section 1021, Egress Balconies:

1. Change Section 1021.1 to read:

(N)1021.1 General. Balconies used for egress purposes shall be maintained in accordance with the applicable building code.

2. Change Section 1021.2 to read:

(N)1021.2 Wall separation. Wall separation for egress balconies shall be maintained in accordance with the applicable building code.

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# Regulations

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3. Delete Section 1021.3.

4. Change Section 1021.4 to read:

(N)1021.4 Location. The fire separation distance for exterior egress balconies shall be maintained in accordance with the applicable building code.

U. The following changes shall be made to Section 1022, Exits:

1. Change Section 1022.1 to read:

(N)1022.1 General. An exit shall not be used for any purpose that interferes with its function as a means of egress. Once a given level of exit protection is achieved, such level of protection shall not be reduced until arrival at the exit discharge. Exits shall be continuous from the point of entry into the exit to the exit discharge. Exits shall be maintained in accordance with the applicable building code.

2. Change Section 1022.2 to read:

(N)1022.2 Exterior exit doors. Exterior exit doors shall be maintained in accordance with the applicable building code.

3. Delete Section 1022.2.1.

4. Delete Section 1022.2.2.

V. The following changes shall be made to Section 1023, Interior Exit Stairways and Ramps:

1. Change Section 1023.1 to read:

(N)1023.1 General. Interior exit stairways and ramps serving as an exit component in a means of egress system shall be maintained in accordance with the applicable building code.

2. Delete Section 1023.2.

3. Delete Section 1023.3.

4. Delete Section 1023.3.1.

5. Change Section 1023.4 to read:

(N)1023.4 Openings. Interior exit stairway and ramp opening protectives shall be maintained in accordance with the applicable building code.

6. Delete Section 1023.5.

7. Change Section 1023.6 to read:

(N)1023.6 Ventilation. Equipment and ductwork for interior exit stairway and ramp ventilation shall be maintained in accordance with the applicable building code.

8. Change Section 1023.7 to read:

(N)1023.7 Interior exit stairway and ramp exterior walls. Exterior walls of the interior exit stairway or ramp shall be maintained in accordance with the applicable building code.

9. Change Section 1023.8 to read:

(N)1023.8 Discharge identification. An interior exit stairway and ramp shall not continue below its level of exit discharge unless an approved barrier is provided at the level of exit discharge to prevent persons from unintentionally continuing into levels below. Directional exit signs shall be provided and maintained in accordance with the applicable building code.

10. Change Section 1023.9.1 to read:

(N)1023.9.1 Signage requirements. Stairway identification signs shall comply with all of the following requirements:

1. The signs shall be a minimum size of 18 inches (457 mm) by 12 inches (305 mm).

2. The letters designating the identification of the interior exit stairway and ramp shall be not less than 1-1/2 inches (38 mm) in height.

3. The number designating the floor level shall be not less than of 5 inches (127 mm) in height and located in the center of the sign.

4. Other lettering and numbers shall be not less than 1 inch (25 mm) in height.

5. Characters and their background shall have a nonglare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

11. Change Section 1023.10 to read:

(N)1023.10 Elevator lobby identification signs. At landings in interior exit stairways where two or more doors lead to the floor level, any door with direct access to an enclosed elevator lobby shall be identified by signage located on the door or directly adjacent to the door stating "Elevator Lobby." Signage shall be in accordance with Section 1023.9.1, Items 4 and 5.

12. Change Section 1023.11 to read:

(N)1023.11 Smokeproof enclosures. Smokeproof enclosures shall be maintained in accordance with the applicable building code.

13. Delete Section 1023.11.1.

14. Delete Section 1023.11.2.

W. The following changes shall be made to Section 1024, Exit Passageways:

1. Change Section 1024.1 to read:

(N)1024.1 Exit passageways. Exit passageways serving as an exit component in a means of egress system shall be maintained in accordance with the applicable building code.

2. Change Section 1024.2 to read:

(N)1024.2 Width. The minimum width or required capacity of exit passageways shall be maintained in accordance with the applicable building code.

3. Delete Section 1024.3.

4. Delete Section 1024.4.

5. Change Section 1024.5 to read:

(N)1024.5 Openings. Exit passageway opening protectives shall be maintained in accordance with the applicable building code.

6. Change Section 1024.6 to read:

(N)1024.6 Penetrations. Penetration protection shall be maintained in accordance with the applicable building code.

7. Change Section 1024.7 to read:

(N)1024.7 Ventilation. Equipment and ductwork for exit passageway ventilation shall be maintained in accordance with the applicable building code.

X. The following changes shall be made to Section 1025, Luminous Egress Path Markings:

1. Change Section 1025.1 to read:

(N)1025.1 General. Luminous egress path markings shall be maintained in accordance with the applicable building code.

2. Change Section 1025.2 to read:

(N)1025.2 Markings within exit components. Egress path markings provided in interior exit stairways, interior exit ramps, and exit passageways shall be maintained in accordance with the applicable building code.

3. Delete Section 1025.2.1.

4. Delete Section 1025.2.2.

5. Delete Section 1025.2.3.

6. Delete Section 1025.2.4

7. Delete Section 1025.2.4.1.

8. Delete Section 1025.2.4.2.

9. Delete Section 1025.2.4.3.

10. Delete Section 1025.2.5.

11. Delete Section 1025.2.6.

12. Delete Section 1025.2.6.1.

13. Delete Section 1025.2.6.2.

14. Delete Section 1025.2.6.3.

15. Delete Section 1025.3.

16. Change Section 1025.4 to read:

(N)1025.4 Self-luminous and photoluminescent. Self-luminous and photoluminescent egress path markings shall be maintained in accordance with the applicable building code.

17. Change Section 1025.5 to read:

(N)1025.5 Illumination. Photoluminescent exit path markings shall be maintained in accordance with the applicable building code.

Y. The following changes shall be made to Section 1026, Horizontal Exits:

1. Change Section 1026.1 to read:

(N)1026.1 Horizontal exits. Horizontal exits serving as an exit in a means of egress system shall be maintained in accordance with the applicable building code.

2. Change Section 1026.2 to read:

(N)1026.2 Separation. The separation between buildings or refuge areas connected by a horizontal exit shall be maintained in accordance with the applicable building code.

3. Change Section 1026.3 to read:

(N)1026.3 Opening protectives. Fire doors in horizontal exits shall be maintained in accordance with the applicable building code.

4. Change Section 1026.4 to read:

(N)1026.4 Refuge area. Where provided, the refuge area of a horizontal exit shall be maintained in accordance with the applicable building code.

5. Delete Section 1026.4.1.

6. Delete Section 1026.4.2.

Z. The following changes shall be made to Section 1027, Exterior Exit Stairways and Ramps:

1. Change Section 1027.1 to read:

(N)1027.1 Exterior exit stairways and ramps. Exterior exit stairways and ramps serving as an element of a required means of egress shall be maintained in accordance with the applicable building code.

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# Regulations

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2. Change Section 1027.2 to read:

(N)1027.2 Use in a means of egress. Exterior exit stairways shall not be used as an element of a required means of egress.

3. Delete Section 1027.3.

4. Delete Section 1027.4.

5. Delete Section 1027.5.

6. Delete Section 1027.6.

AA. The following changes shall be made to Section 1028, Exit Discharge:

1. Change Section 1028.1 to read:

(N)1028.1 General. The exit discharge shall be maintained in accordance with the applicable building code.

2. Change Section 1028.2 to read:

(N)1028.2 Exit discharge width or capacity. The minimum width or required capacity of the exit discharge shall be maintained in accordance with the applicable building code.

3. Change Section 1028.3 to read:

(N)1028.3 Exit discharge components. Exit discharge components shall be maintained in accordance with the applicable building code.

4. Change Section 1028.4 to read:

(N)1028.4 Egress courts. Egress courts serving as a portion of the exit discharge in the means of egress system shall be maintained in accordance with the applicable building code.

5. Change Section 1028.4.1 to read:

(N)1028.4.1 Width or capacity. The required capacity of egress courts shall be maintained in accordance with the applicable building code.

6. Delete Section 1028.4.2.

7. Change Section 1028.5 to read:

(N)1028.5 Access to a public way. Where provided, access to a public way shall be maintained in accordance with the applicable building code.

Exception: Where access to a public way cannot be provided, a safe dispersal area shall be provided where all of the following are met:

1. The area shall be of a size to accommodate not less than 5 square feet (0.46 m<sup>2</sup>) for each person.

2. The area shall be located on the same lot not less than 50 feet (15 240 mm) away from the building requiring egress.

3. The area shall be permanently maintained and identified as a safe dispersal area.

4. The area shall be provided with a safe and unobstructed path of travel from the building.

BB. The following changes shall be made to Section 1029, Assembly:

1. Change Section 1029.1 to read:

(N)1029.1 General. The means of egress serving room a or space used for assembly purposes that contains seats, tables, displays, equipment or other material shall be maintained in accordance with the applicable building code.

2. Delete Section 1029.1.1.

3. Delete Section 1029.1.1.1.

4. Change Section 1029.2 to read:

(N)1029.2 Assembly main exit. The assembly main exit shall be maintained in accordance with the applicable building code.

5. Change Section 1029.3 to read:

(N)1029.3 Assembly other exits. Other assembly exits shall be maintained in accordance with the applicable building code.

6. Delete Section 1029.4.

7. Change Section 1029.5 to read:

(N)1029.5 Interior balcony and gallery means of egress. Interior balcony and gallery means of egress shall be maintained in accordance with the applicable building code.

8. Change Section 1029.6 to read:

(N)1029.6 Capacity of aisle for assembly. The required capacity of aisles shall be maintained in accordance with the applicable building code.

9. Delete Section 1029.6.1.

10. Delete Section 1029.6.2 and Table 1029.6.2.

11. Delete Section 1029.6.2.1.

12. Delete Section 1029.6.2.2.

13. Delete Section 1029.6.2.3.

14. Delete Section 1029.6.3.

15. Change Section 1029.7 to read:

(N)1029.7 Travel distance. Travel distance shall be maintained in accordance with the applicable building code.

16. Change Section 1029.8 to read:

(N)1029.8 Common path of egress travel. The common path of egress travel shall be maintained in accordance with the applicable building code.

17. Delete Section 1029.8.1.

18. Change Section 1029.9 to read:

(N)1029.9 Assembly aisles are required. Assembly aisles shall be maintained in accordance with the applicable building code.

19. Change Section 1029.9.1 to read:

(N)1029.9.1 Minimum aisle width. The minimum clear width for aisles shall be maintained in accordance with the applicable building code.

20. Delete Section 1029.9.2.

21. Delete Section 1029.9.3.

22. Delete Section 1029.9.4.

23. Delete Section 1029.9.5.

24. Delete Section 1029.9.6.

25. Delete Section 1029.9.7.

26. Delete Section 1029.9.8.

27. Change Section 1029.10 to read:

(N)1029.10 Transitions. Transitions between stairways and stepped aisles shall be maintained in accordance with the applicable building code.

28. Delete Section 1029.10.1.

29. Delete Section 1029.10.2.

30. Delete Section 1029.10.2.1.

31. Delete Section 1029.10.2.2.

32. Delete Section 1029.10.3.

33. Delete Section 1029.11.

34. Delete Section 1029.11.1.

35. Delete Section 1029.11.2.

36. Change Section 1029.12 to read:

(N)1029.12 Aisle accessways. Aisle accessways for seating at tables shall maintained in accordance with the applicable building code.

37. Delete Section 1029.12.1.

38. Delete Section 1029.12.1.1.

39. Delete Section 1029.12.1.2.

40. Delete Section 1029.12.2.

41. Delete Section 1029.12.2.1 and Table 1029.12.2.1.

42. Delete Section 1029.12.2.2.

43. Change Section 1029.13 to read:

(N)1029.13 Assembly aisle walking surfaces. Ramped and stepped aisles shall be maintained in accordance with the applicable building code.

44. Delete Section 1029.13.1.

45. Delete Section 1029.13.1.1.

46. Delete Section 1029.13.1.2.

47. Delete Section 1029.13.1.3.

48. Delete Section 1029.13.2.

49. Delete Section 1029.13.2.1.

50. Delete Section 1029.13.2.2.

51. Delete Section 1029.13.2.2.1.

52. Delete Section 1029.13.2.3.

53. Delete Section 1029.13.2.4.

54. Delete Section 1029.14.

55. Change Section 1029.15 to read:

(N)1029.15 Handrails. Handrails serving ramped aisles shall be maintained in accordance with the applicable building code.

56. Delete Section 1029.15.1.

57. Delete Section 1029.15.2.

58. Delete Section 1029.15.3.

59. Delete Section 1029.15.4.

60. Change Section 1029.16 to read:

(N)1029.16 Assembly guards. Guards adjacent to seating in a building, room or space used for assembly purposes shall be maintained in accordance with the applicable building code.

61. Change Section 1029.16.1 to read:

(N)1029.16.1 Perimeter guards. Perimeter guards shall be maintained in accordance with the applicable building code.

62. Delete Section 1029.16.2.

63. Delete Section 1029.16.3.

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# Regulations

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64. Delete Section 1029.16.4.

CC. The following changes shall be made to Section 1030, Emergency Escape and Rescue:

1. Change Section 1030.1 to read:

(N)1030.1 General. Emergency escape and rescue components of a building shall be maintained in accordance with the applicable building code.

2. Change Section 1030.2 to read:

(N)1030.2 Minimum size. Emergency escape and rescue openings shall be maintained in accordance with the applicable building code.

3. Delete Section 1030.2.1.

4. Change Section 1030.3 to read:

(N)1030.3 Maximum height from floor. Emergency escape and rescue opening height shall be maintained in accordance with the applicable building code.

5. ] Change Section ~~1029.4~~ 1030.4 to read:

~~1029.4. 1030.4 Operational constraints. [ Emergency The operation of emergency ] escape and rescue openings shall be [ operational from the inside of the room without the use of keys or tools. Bars, grilles, grates, or similar devices are permitted to be placed over emergency escape and rescue openings provided (i) the minimum net clear opening size complies with Section ~~1029.2~~ 1030.2, (ii) such devices shall be releasable or removable from the inside without the use of a key, tool, or force greater than that which is required for normal operation of the escape and rescue opening, and (iii) where smoke alarms are installed in accordance with Section 907.2.11 and approved by the building official regardless of the valuation of the alteration maintained in accordance with the applicable building code ].~~

[ 6. Change Section 1030.5 to read:

(N)1030.5 Window wells. Window wells shall be maintained in accordance with the applicable building code.

7. Delete Section 1030.5.1.

8. Delete Section 1030.5.2. ]

## **13VAC5-51-138. IFC Chapter 11: Construction Requirements for Existing Buildings.**

Delete Chapter 11 in its entirety.

## **13VAC5-51-138.4. IFC Chapter 20: Aviation Facilities.**

[ A. The following change shall be made to Section 2001, General: ]

Change Section 2001.3 to read:

2001.3- Permits. For permits to operate aircraft-refueling vehicles, application of flammable or combustible finishes and hot work, see Section 107.2.

[ B. The following changes shall be made to Section 2007, Helistops and Heliports:

1. Change Section 2007.1 to read:

(N)2007.1 General. Helistops and heliports shall be maintained in accordance with the applicable building code.

2. Change Section 2007.4 to read:

2007.4 Exits. Exits and stairways shall be maintained in accordance with the applicable building code.

3. Change Section 2007.5 to read:

(N)2007.5 Standpipe systems. Where provided, standpipe systems shall be maintained in accordance with the applicable code.

4. Change Section 2007.6 to read:

(N)2007.6 Foam protection. Where provided, foam fire-protection systems shall be maintained in accordance with the applicable building code. ]

## **13VAC5-51-138.8. IFC Chapter 21: Dry Cleaning.**

[ A. The following change shall be made to Section 2101, General: ]

Change Section 2101.2 to read:

2101.2- Permit required. Permits shall be required as set forth in Section 107.2.

[ B. The following change shall be made to Section 2103, Classifications:

Change Section 2103.3 to read:

2103.3 Design. The occupancy classification, design and construction of dry cleaning plants shall be maintained in accordance with the applicable building code.

C. The following changes shall be made to Section 2104, General Requirements:

1. Change Section 2104.2.1 to read:

(N)2104.2.1 Ventilation. Ventilation shall be maintained in accordance with the applicable building code.

2. Change Section 2104.2.3 to read as follows:

2104.2.3 Electrical wiring and equipment. Electrical wiring and equipment in dry cleaning rooms or other locations subject to flammable vapors shall be maintained in accordance with the applicable building code.

D. The following changes shall be made to Section 2105, Operating Requirements:

1. Change Section 2105.2.3 to read:

(N)2105.2.3 Ventilation. Ventilation shall be maintained in accordance with the applicable building code.

2. Change Section 2105.3 to read:

(N)2105.3 Types IV and V systems. Types IV and V dry cleaning systems shall be maintained in accordance with the applicable building code.

E. The following change shall be made to Section 2106, Spotting and Pretreating:

Change Section 2106.3 to read as follows:

2106.3 Class II or III solvents. Scouring, brushing, and spotting and pretreating shall be permitted to be conducted with Class II or III solvents. The maximum quantity of Class II or III solvents permitted at any work station shall be 1 gallon (4 L).

F. The following changes shall be made to Section 2107, Dry Cleaning Systems:

1. Change Section 2107.1 to read as follows:

2107.1 General equipment requirements. Dry cleaning systems, including dry cleaning units, washing machines, stills, drying cabinets, tumblers and their appurtenances, including pumps, piping, valves, filters and solvent coolers, shall be maintained in accordance with NFPA 32.

2. Delete Section 2107.2.

3. Change Section 2107.2.2 to read:

(N)2107.2.2 Number of means of egress. The number and means of egress for Type II dry cleaning rooms shall be maintained in accordance with the applicable building code.

4. Change Section 2107.2.3 to read as follows:

2107.2.3 Spill control and secondary containment. Curbs, drains or other provisions for spill control and secondary containment shall be maintained in accordance with the applicable building code.

5. Change Section 2107.3 to read as follows:

2107.3 Solvent storage tanks. Solvent storage tanks for Classes II, IIIA and IIIB liquids shall be maintained in accordance with the applicable building code.

G. The following changes shall be made to Section 2108, Fire Protection:

1. Change Section 2108.1 to read as follows:

2108.1 General. Fire protection systems, devices, and equipment shall be maintained in accordance with the applicable building code.

2. Change Section 2108.2 to read:

(N)2108.2 Automatic sprinkler system. Where installed, an automatic sprinkler system shall be maintained in accordance with the applicable building code.

3. Delete Section 2108.3. ]

**13VAC5-51-139. IFC Chapter 22, Combustible Dust-Producing Operations.**

Change Section 2201.2 to read:

2201.2, Permits. Permits shall be required for combustible dust-producing operations as set forth in Section 107.2.

**13VAC5-51-140. IFC Chapter 23, Motor Fuel-Dispensing Facilities and Repair Garages.**

A. [ The following changes shall be made to Section 2301, General:

1. Change Section 2301.1 to read:

2301.1 Scope. The operation and maintenance of automotive motor fuel-dispensing facilities, marine motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities, aircraft motorvehicle fuel-dispensing facilities, and repair garages shall be in accordance with this chapter. Such operations shall include both those that are accessible to the public and private operations.

2. ] Change Section 2301.2 to read:

2301.2, Permits. Permits shall be required as set forth in Section 107.2.

[ ~~B.~~ 3. Delete Section 2301.3.

4. Change Section 2301.4 to read:

(N)2301.4 Indoor motor fuel-dispensing facilities. Motor fuel-dispensing facilities located inside buildings shall be maintained in accordance with NFPA 30A and the applicable building code.

5. Change Section 2301.5 to read:

(N)2301.5 Electrical. Electrical wiring and equipment shall be maintained in accordance with NFPA 30A and the applicable building code.

6. Change Section 2301.6 to read:

2301.6 Heat-producing appliances. Heat-producing appliances shall be suitable for the locations in which they are installed and shall comply with NFPA 30A.

B. The following changes shall be made to Section 2303, Location of Dispensing Devices:

1. Change Section 2303.1 to read:

(N)2303.1 Location of dispensing devices. Dispensing devices shall be maintained in accordance with the applicable building code.



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# Regulations

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2. Change Section 2303.2 to read:

(N)2303.2 Emergency disconnect switches. Emergency disconnect switches shall be maintained in accordance with the applicable building code.

C. The following changes shall be made to Section 2304, Dispensing Operations:

1. Change Section 2304.2.2 to read:

(N)2304.2.2 Emergency controls. Approved emergency controls shall be provided in accordance with the applicable building code.

2. Change Section 2304.3.2 to read:

(N)2304.3.2 Dispensers. Dispensing devices shall be maintained in accordance with the applicable building code.

3. Change Section 2304.3.3 to read:

2304.3.3 Emergency controls. Approved emergency controls shall be maintained in accordance with the applicable building code. Emergency controls shall be of a type that is only manually resettable.

4. Change Section 2304.3.5 to read:

2304.3.5 Emergency procedures. An approved emergency procedures sign, in addition to the signs required by Section 2305.6, shall be posted and maintained in a conspicuous location and shall read:

IN CASE OF FIRE SPILL OR RELEASE

1. USE EMERGENCY PUMP SHUTOFF

2. REPORT THE ACCIDENT!

FIRE DEPARTMENT TELEPHONE NO. \_\_\_\_\_

FACILITY ADDRESS: \_\_\_\_\_

D. The following changes shall be made to Section 2305, Operational Requirements:

1. Change Section 2305.2.4 to read:

2305.2.4 Emergency shutoff valves. Automatic emergency shutoff valves shall be checked not less than once each year by manually tripping the hold-open linkage.

2. Change Section 2305.2.5 to read:

2305.2.5 Leak detectors. Leak detection devices shall be checked and tested not less than annually in accordance with the manufacturer's specifications to ensure proper installation and operation.

3. ] Change Section 2305.4 to read:

2305.4- Sources of ignition. Smoking and open flames shall be prohibited within 20 feet (6096 mm) of a fuel

dispensing device. The engines of vehicles being fueled shall be shut off during fueling. Electrical equipment shall be in accordance with NFPA 70.

[ ~~C~~ E. The following changes shall be made to Section 2306, Flammable and Combustible Liquid Motor Fuel-Dispensing Facilities:

1. Change Section 2306.1 to read:

2306.1 General. Operation and maintenance of flammable and combustible liquid motor fuel-dispensing facilities shall be in accordance with Chapter 57 and Sections 2306.2 through 2306.6.3 and other applicable provisions of this code.

2. ] Change Section 2306.2.1.1 to read:

2306.2.1.1- Inventory control and leak detection for underground tanks. Accurate inventory records shall be maintained on underground fuel storage tanks for indication of possible leakage from tanks and piping. The records shall be kept at the premises or made available for inspection by the fire official within 24 hours of a written or verbal request and shall include records for each tank. Where there is more than one system consisting of tanks serving separate pumps or dispensers for a product, the inventory record shall be maintained separately for each tank system.

Owners and operators of underground fuel storage tanks shall provide release detection for tanks and piping that routinely contain flammable and combustible liquids in accordance with one of the following methods:

1. Monthly inventory control to detect a release of at least 1.0% of flow-through plus 130 gallons.

2. Manual tank gauging for tanks with 2,000 gallon capacity or less when measurements are taken at the beginning and ending of a 36-hour to 58-hour period during which no liquid is added to or removed from the tank.

3. Tank tightness testing capable of detecting a 0.1 gallon per hour leak rate.

4. Automatic tank gauging that tests for loss of liquid.

5. Vapor monitoring for vapors within the soil of the tank field.

6. Groundwater monitoring when the groundwater is never more than 20 feet from the ground surface.

7. Interstitial monitoring between the underground tank and a secondary barrier immediately around or beneath the tank.

8. Other approved methods that have been demonstrated to be as effective in detecting a leak as the methods listed above.

A consistent or accidental loss of product shall be immediately reported to the fire official.

D. Change Section 2306.8.1 to read:

~~2306.8.1. Listed. Dispensers shall be listed in accordance with UL 87A. Hoses, nozzles, breakaway fittings, swivels, flexible connectors or dispenser emergency shutoff valves, vapor recovery systems, leak detection devices, and pumps used in alcohol blended fuel dispensing systems shall be listed for the specific purpose.~~

E. Add Section 2306.8.6 to read:

~~2306.8.6. Compatibility. Dispensers shall only be used with the fuels for which they have been listed, which are marked on the product. Field installed components including hose assemblies, breakaway couplings, swivel connectors, and hose nozzle valves shall be provided in accordance with the listing and the marking on the unit.~~

[ 3. Change Section 2306.2.2 to read:

(N)2306.2.2 Aboveground tanks located inside buildings. Aboveground tanks for the storage of Classes I, II and IIIA liquid fuels located in buildings shall be maintained in accordance with the applicable building code.

4. Change Section 2306.2.3 to read:

(N)2306.2.3 Aboveground tanks located outside above grade. Aboveground tanks located outside shall be maintained in accordance with the applicable building code.

5. Delete Table 2306.2.3.

6. Change Section 2306.2.4 to read:

(N)2306.2.4 Aboveground tanks located in above-grade vaults or below-grade vaults. Aboveground tanks located in above-grade vaults or below-grade vaults shall be maintained in accordance with the applicable building code.

7. Delete Section 2306.2.4.1.

8. Change Section 2306.2.4.2 to read:

(N)2306.2.4.2 Fleet vehicle motor fuel-dispensing facilities. Tanks storing liquids at a fleet vehicle motor fuel-dispensing facility shall be maintained in accordance with the applicable building code.

9. Change Section 2306.2.6 to read:

(N)2306.2.6 Special enclosures. Special enclosures shall be maintained in accordance with the applicable building code.

10. Change Section 2306.5 to read:

(N)2306.5 Secondary containment. Aboveground tanks provided with drainage control or diking shall be

maintained in accordance with Chapter 57 and the applicable building code.

11. Change Section 2306.6 to read:

(N)2306.6 Piping, valves, fittings and ancillary equipment for use with flammable or combustible liquids. The design, fabrication, assembly, testing and inspection of piping, valves, fittings and ancillary equipment for use with flammable or combustible liquids shall be maintained in accordance with the applicable building code.

12. Change Section 2306.6.2 to read:

(N)2306.6.2 Piping, valves, fittings and ancillary equipment for aboveground tanks for Classes I, II and III liquids. Piping, valves, fittings and ancillary equipment for aboveground tanks shall be maintained in accordance with the applicable building code.

13. Delete Section 2306.6.2.1.

14. Change Section 2306.6.2.2 to read:

(N)2306.6.2.2 Fill-pipe connections. The fill pipe for aboveground tanks shall be maintained in accordance with the applicable building code.

15. Change Section 2306.6.2.3 to read:

(N)2306.6.2.3 Overfill protection. Overfill protection shall be in accordance with the applicable building code.

16. Change Section 2306.6.2.4 to read:

(N)2306.6.2.4 Siphon prevention. An approved antisiphon method shall be maintained in accordance with the applicable building code.

17. Change Section 2306.6.2.5 to read:

(N)2306.6.2.5 Emergency relief venting. Aboveground storage tanks, tank compartments, and enclosed secondary containment spaces shall be maintained in accordance with the applicable building code.

18. Change Section 2306.6.2.6 to read:

(N)2306.6.2.6 Spill containers. Spill containers shall be maintained in accordance with the applicable building code.

19. Change Section 2306.6.3 to read:

(N)2306.6.3 Piping, valves, fittings and ancillary equipment for underground tanks. Piping, valves, fittings and ancillary equipment for underground tanks shall be maintained in accordance with the applicable building code.

20. Change Section 2306.7 to read:

(N)2306.7 Fuel-dispensing systems for flammable or combustible liquids. Fuel-dispensing systems for

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# Regulations

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flammable or combustible liquid fuels shall be maintained in accordance with the applicable building code.

21. Delete Section 2306.7.1.

22. Delete Section 2306.7.2.

23. Change Section 2306.7.3 to read:

(N)2306.7.3 Mounting of dispensers. Dispensing devices, except those installed on top of a protected aboveground tank that qualifies as vehicle-impact resistant, shall be maintained in accordance with the applicable building code.

24. Change Section 2306.7.4 to read:

(N)2306.7.4 Dispenser emergency shutoff valve. Dispenser emergency shutoff valves shall be maintained in accordance with the applicable building code.

25. Change Section 2306.7.5 to read:

(N)2306.7.5 Dispenser hose. Dispenser hoses shall be maintained in accordance with the applicable building code.

26. Change Section 2306.7.5.1 to read:

(N)2306.7.5.1 Emergency breakaway devices. Emergency breakaway devices shall be maintained in accordance with the applicable building code.

27. Change Section 2306.7.6 to read:

(N)2306.7.6 Fuel delivery nozzles. Fuel delivery nozzles shall be maintained in accordance with the applicable building code.

28. Delete Section 2306.7.6.1.

29. Change Section 2306.7.7 to read:

(N)2306.7.7 Remote pumping systems. Remote pumping systems for liquid fuels shall be maintained in accordance with the applicable building code.

30. Change Section 2306.7.7.1 to read:

(N)2306.7.7.1 Leak detection. Leak detection devices shall be maintained in accordance with the applicable building code.

31. Delete Section 2306.7.7.2.

32. Change Section 2306.7.9 to read:

(N)2306.7.9 Vapor-recovery and vapor-processing systems. Vapor-recovery and vapor-processing systems shall be maintained in accordance with the applicable building code.

33. Change Section 2306.7.9.1 to read:

(N)2306.7.9.1 Vapor-balance systems. Vapor-balance systems shall be maintained in accordance with the applicable building code.

34. Change Section 2306.7.9.1.1 to read:

(N)2306.7.9.1.1 Dispensing devices. Dispensing devices shall be maintained in accordance with the applicable building code.

35. Change Section 2306.7.9.1.2 to read:

(N)2306.7.9.1.2 Vapor-return line closeoff. Vapor-return line closeoffs shall be maintained in accordance with the applicable building code.

36. Change Section 2306.7.9.1.3 to read:

(N)2306.7.9.1.3 Piping. Piping in vapor-balance systems shall be maintained in accordance with the applicable building code.

37. Change Section 2306.7.9.1.4 to read:

(N)2306.7.9.1.4 Flexible joints and shear joints. Flexible joints and shear joints shall be maintained in accordance with the applicable building code.

38. Delete Section 2306.7.9.1.5.

39. Change Section 2306.7.9.2 to read:

(N)2306.7.9.2 Vapor-processing systems. Vapor-processing systems shall be maintained in accordance with the applicable building code.

40. Change Section 2306.7.9.2.1 to read:

(N)2306.7.9.2.1 Equipment. Equipment in vapor-processing systems, including hose nozzle valves, vapor pumps, flame arresters, fire checks or systems for prevention of flame propagation, controls, and vapor-processing equipment, shall be maintained in accordance with the applicable building code.

41. Delete Section 2306.7.9.2.2.

42. Delete Section 2306.7.9.2.2.1.

43. Change Section 2306.7.9.2.2.2 to read:

(N)2306.7.9.2.2.2 Physical protection. Physical protection for vapor-processing equipment shall be maintained in accordance with the applicable building code.

44. Delete Section 2306.7.9.2.2.3.

45. Delete Section 2306.7.9.2.3.

46. Change Section 2306.7.9.2.4 to read:

(N)2306.7.9.2.4 Piping. Piping in a mechanical-assist system shall be maintained in accordance with the applicable building code.

47. Change Section 2306.8 to read:

(N)2306.8 Alcohol-blended fuel-dispensing operations. Alcohol-blended fuel-dispensing systems shall be maintained in accordance with the applicable building code.

48. Delete Section 2306.8.2.

49. Delete Section 2306.8.3.

50. Delete Section 2306.8.4.

F. The following changes shall be made to Section 2307, Liquefied Petroleum Gas Motor Fuel-Dispensing Facilities:

1. Change Section 2307.1 to read:

(N)2307.1 General. Operation and maintenance of motor fuel-dispensing facilities for liquefied petroleum gas (LP-gas) fuel shall be in accordance with this section and other applicable provisions of this code.

2. Delete Section 2307.2.

3. Delete Section 2307.2.1.

4. Delete Section 2307.2.2.

5. Change Section 2307.3 to read:

2307.3 Attendants. Motor fuel-dispensing operations for LP-gas shall be conducted by qualified attendants or by persons trained in the proper handling of LP-gas.

6. Change Section 2307.4 to read:

(N)2307.4 Location of dispensing operations and equipment. LP-gas containers shall be located in accordance with the applicable building code.

7. Delete Section 2307.5.

8. Delete Section 2307.6.

9. Delete Section 2307.6.1.

10. Change Section 2307.6.2 to read:

(N)2307.6.2 Hoses. Hoses and piping for the dispensing of LP-gas shall be maintained in accordance with the applicable building code.

11. Delete Section 2307.6.3.

12. Change Section 2307.7 to read:

(N)2307.7 Public fueling of motor vehicles. Self-service LP-gas dispensing systems, including key, code, and card lock dispensing systems, shall be limited to the filling of

permanently mounted containers providing fuel to the LP-gas powered vehicle.

The requirements for self-service LP-gas dispensing systems shall be in accordance with the following:

1. The arrangement and operation of the transfer of product into a vehicle shall be in accordance with this section and Chapter 61.

2. The owner of the LP-gas motor fuel-dispensing facility or the owner's designee shall provide for the safe operation of the system and the training of users.

3. Portable fire extinguishers shall be provided in accordance with Section 2305.5.

4. Warning signs shall be provided in accordance with Section 2305.6.

5. The area around the dispenser shall be maintained in accordance with Section 2305.7.

G. The following changes shall be made to Section 2308, Compressed Natural Gas Motor Fuel-Dispensing Facilities:

1. Change Section 2308.1 to read:

2308.1 General. Motor fuel-dispensing facilities for compressed natural gas (CNG) fuel shall be maintained in accordance with the applicable building code.

2. Change Section 2308.2.2 to read:

(N)2308.2.2 Listed equipment. Hoses, hose connections, dispensers, gas detection systems, and electrical equipment used for CNG shall be listed. Vehicle-fueling connections shall be listed and labeled and maintained in accordance with the applicable building code.

3. Delete Section 2308.3.

4. Delete Section 2308.3.1.

5. Change Section 2308.5 to read:

(N)2308.5 Pressure regulators. Pressure regulators shall be maintained in accordance with the applicable building code.

6. Change Section 2308.6 to read:

(N)2308.6 Valves. Gas piping to equipment shutoff valves shall be maintained in accordance with the applicable building code.

7. Change Section 2308.7 to read:

(N)2308.7 Emergency shutdown control. Emergency shutdown controls shall be maintained in accordance with the applicable building code.

H. The following changes shall be made to Section 2309, Hydrogen Motor Fuel-Dispensing and Generation Facilities:

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# Regulations

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1. Change Section 2309.1 to read:

2309.1 General. Operation and maintenance of hydrogen motor fuel-dispensing and generation facilities shall be in accordance with this section and other applicable provisions of this code. Where a fuel-dispensing facility includes a repair garage, the repair operation shall comply with Section 2311.

2. Change Section 2309.2 to read:

(N)2309.2 Equipment. Equipment used for the generation, compression, storage, or dispensing of hydrogen shall be maintained in accordance with the applicable building code.

3. Change Section 2309.2.1 to read:

(N)2309.2.1 Approved equipment. Cylinders, containers, and tanks; pressure relief devices, including pressure valves; hydrogen vaporizers; pressure regulators; and piping used for gaseous hydrogen systems shall be maintained in accordance with the applicable building code.

4. Change Section 2309.2.2 to read:

(N)2309.2.2 Listed or approved equipment. Hoses, hose connections, compressors, hydrogen generators, dispensers, detection systems, and electrical equipment used for hydrogen shall be listed or approved for use with hydrogen and maintained in accordance with the applicable building code.

5. Change Section 2309.2.3 to read:

(N)2309.2.3 Electrical equipment. Electrical installations shall be maintained in accordance with the applicable building code.

6. Change Section 2309.3 to read:

(N)2309.3 Location on property. Location of dispensing equipment shall be maintained in accordance with the applicable building code.

7. Change Section 2309.1.1. to read:

(N)2309.3.1.1 Outdoors. Generation, compression, or storage equipment shall be maintained in accordance with the applicable building code.

8. Change Section 2309.3.1.2 to read:

(N)2309.3.1.2 Indoors. Generation, compression, storage and dispensing equipment shall be maintained in accordance with the applicable building code.

9. Change Section 2309.3.1.3 to read:

(N)2309.3.1.3 Gaseous hydrogen storage. Storage of gaseous hydrogen shall be maintained in accordance with the applicable building code.

10. Change Section 2309.3.1.4 to read:

(N)2309.3.1.4 Liquefied hydrogen storage. Storage of liquefied hydrogen shall be maintained in accordance with the applicable building code.

11. Change Section 2309.3.1.5 to read:

(N)2309.3.1.5 Canopy tops. Gaseous hydrogen compression and storage equipment located on top of motor fuel-dispensing facility canopies shall be maintained in accordance with the applicable building code.

12. Delete Section 2309.3.1.5.1.

13. Change Section 2309.3.1.5.2 to read:

(N)2309.3.1.5.2 Fire-extinguishing systems. Fire-extinguishing provided for fuel-dispensing areas under canopies shall be maintained in accordance with the applicable building code.

14. Delete Section 2309.3.1.5.3.

15. Delete Section 2309.3.1.5.4.

16. Delete Section 2309.3.2.

17. Change Section 2309.4.1 to read:

(N)2309.4.1 Dispensing systems. Dispensing systems shall be maintained in accordance with the applicable building code.

18. Change Section 2309.5 to read:

(N)2309.5 Safety precautions. Safety precautions at hydrogen motor fuel-dispensing and generation facilities shall be in accordance with Sections 2309.5.1 through 2309.5.3.

19. Change Section 2309.5.2 to read:

(N)2309.5.2 Emergency shutoff valves. Manual emergency shutoff valves shall be maintained in accordance with the applicable building code.

20. Change Section 2309.5.3 to read:

(N)2309.5.3 Emergency shutdown controls. Emergency shutdown controls shall be maintained in accordance with the applicable building code.

21. Delete Section 2309.5.3.1.

22. Change Section 2309.6.1.2.1.2 to read:

(N)2309.6.1.2.1.2 Vent pipe maximum diameter. Vent pipe diameter shall be maintained in accordance with the applicable building code.

23. Change Section 2309.6.1.2.1.3 to read:

(N)2309.6.1.2.1.3 Maximum flow rate. The maximum rate of hydrogen flow through the vent pipe system shall

be maintained in accordance with the applicable building code.

24. Delete Section 2309.6.1.2.2.

25. Delete Section 2309.6.1.2.3.

26. Change Section 2309.6.1.2.4 to read:

(N)2309.6.1.2.4 Grounding and bonding. Grounding and bonding of cylinders, containers or tanks, and piping shall be maintained in accordance with the applicable building code.

27. Change Section 2309.6.2 to read:

(N)2309.6.2 Repair of hydrogen piping. Piping systems containing hydrogen shall not be opened to the atmosphere for repair without first purging the piping with an inert gas to achieve 1% hydrogen or less by volume.

I. The following changes shall be made to Section 2310, Marine Motor Fuel-Dispensing Facilities:

1. Change Section 2310.1 to read:

2310.1 General. The construction of marine motor fuel-dispensing facilities shall be in accordance with this section and other applicable provisions of this code.

2. Change Section 2310.2 to read:

(N)2310.2 Storage and handling. The storage and handling of Class I, II or IIIA liquids at marine motor fuel-dispensing facilities shall be maintained in accordance with the applicable building code.

3. Change Section 2310.2.1 to read:

(N)2310.2.1 Class I, II or IIIA liquid storage. Class I, II or IIIA liquids stored inside of buildings used for marine motor fuel-dispensing facilities shall be stored in accordance with the applicable building code.

4. Change Section 2310.2.2 to read:

(N)2310.2.2 Class II or IIIA liquid storage and dispensing. Class II or IIIA liquids stored or dispensed inside of buildings used for marine motor fuel-dispensing facilities shall be stored in and dispensed in accordance with the applicable building code.

5. Change Section 2310.2.3 to read:

(N)2310.2.3 Heating equipment. Heating equipment installed in Class I, II or IIIA liquid storage or dispensing areas shall be maintained in accordance with the applicable building code.

6. Change Section 2310.2.3.3 to read:

(N)2310.2.3.3 Hoses and nozzles. Hoses and nozzles shall be maintained in accordance with the applicable building code.

7. Change Section 2310.3.5 to read:

(N)2310.3.5 Liquefied petroleum gas. Liquefied petroleum gas cylinders shall not be filled at marine motor fuel-dispensing facilities unless approved.

8. Change Section 2310.6 to read:

(N)2310.6 Fire protection. Fire protection features for marine motor fuel-dispensing facilities shall be maintained in accordance with the applicable building code.

J. The following changes shall be made to Section 2311, Repair Garages:

1. Change Section 2311.1 to read:

2311.1 General. Operation and maintenance of repair garages shall comply be in accordance with this section and other applicable provisions of this code. Repair garages for vehicles that use more than one type of fuel shall comply with the applicable provisions of this section for each type of fuel used.

Where a repair garage includes a motor fuel-dispensing facility, the fuel-dispensing operation shall comply with the requirements of this chapter for motor fuel-dispensing facilities.

2. Change Section 2311.2 to read:

(N)2311.2 Storage and use of flammable and combustible liquids. The storage and use of flammable and combustible liquids in repair garages shall maintained in accordance with the applicable building code.

3. Change Section 2311.2.3 to read:

(N)2311.2.3 Drainage and disposal of liquids and oil soaked waste. Contents of oil separators, traps and floor drainage systems shall be collected at sufficiently frequent intervals and removed from the premises to prevent oil from being carried into the sewers.

4. Change Section 2311.3.1 to read:

(N)2311.3.1 Equipment. Appliances and equipment installed in a repair garage shall be maintained in accordance with the applicable building code.

5. Change Section 2311.4 to read:

(N)2311.4 Below-grade areas. Pits and below-grade work areas in repair garages shall be maintained in accordance with the applicable building code.

6. Delete Section 2311.4.1.

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# Regulations

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7. Change Section 2311.4.2 to read:

(N)2311.4.2 Means of egress. Means of egress for pits and below-grade work areas shall be maintained in accordance with the applicable building code.

8. Change Section 2311.4.3 to read:

(N)2311.4.3 Ventilation. Where Class I liquids or LP-gas are stored or used within a building having a basement or pit wherein flammable vapors could accumulate, the basement or pit mechanical ventilation, where provided, shall be maintained in accordance with the applicable building code.

9. Change Section 2311.7.1 to read:

(N)2311.7.1 Ventilation. Ventilation required for repair garages used for the repair of natural gas-fueled vehicles or hydrogen-fueled vehicles shall be maintained in accordance with the applicable building code.

Exception: Repair garages with natural ventilation when approved.

10. Delete Section 2311.7.1.1.

11. Change Section 2311.7.1.2 to read:

(N)2311.7.1.2 Operation. The mechanical ventilation system shall be maintained in accordance with the applicable building code.

12. Change Section 2311.7.2 to read:

(N)2311.7.2 Gas detection system. Gas detection systems required for repair garages used for repair of vehicles fueled by nonodorized gases, including hydrogen and nonodorized liquified natural gas, shall be maintained in accordance with the applicable building code.

13. Delete Section 2311.7.2.1.

14. Delete Section 2311.7.2.1.1.

15. Delete Section 2311.7.2.2.

16. Delete Section 2311.7.2.3. ]

## 13VAC5-51-140.5. IFC Chapter 24, Flammable Finishes.

[ A. The following change shall be made to Section 2401, General: ]

Change Section 2401.3 to read:

2401.3- Permits. Permits shall be required as set forth in Section 107.2.

[ B. The following changes shall be made to Section 2403, Protection of Operations:

1. Change Section 2403.2.1 to read:

(N)2403.2.1 Electrical wiring and equipment. Electrical wiring and equipment shall be maintained in accordance with the applicable building code.

2. Change Section 2403.2.1.1 to read:

(N)2403.2.1.1 Flammable vapor areas. Electrical wiring and equipment in flammable vapor areas shall be of an explosion proof type approved for use in such hazardous locations and maintained in accordance with the applicable building code.

3. Change Section 2403.2.1.2 to read:

(N)2403.2.1.2 Areas subject to deposits of residues. Flammable vapor areas or drying operations that are subject to splashing or dripping of liquids shall be specifically approved for locations containing deposits of readily ignitable residue and explosive vapors.

4. Change Section 2403.2.1.3 to read:

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

5. Change Section 2403.2.5 to read:

(N)2403.2.5 Grounding. The grounding of metal parts of spray booths, exhaust ducts, and piping systems conveying Class I or II liquids shall be maintained in accordance with the applicable building code

C. The following changes shall be made to Section 2404, Spray Finishing:

1. Change Section 2404.1 to read:

(N)2404.1 General. The application of flammable or combustible liquids by means of spray apparatus in continuous or intermittent processes shall be in accordance with the requirements of Sections 2403 and 2404.

2. Delete Section 2404.2.

3. Delete Section 2404.3.

4. Change Section 2404.3.1 to read:

(N)2404.3.1 Spray rooms. Spray rooms shall be maintained in accordance with the applicable building code.

5. Change Section 2404.3.1.1 to read:

(N)2404.3.1.1 Floor. Combustible floor construction in spray rooms shall be maintained in accordance with the applicable building code.

6. Change Section 2404.3.2 to read:

(N)2404.3.2 Spray booths. Spray booths shall be maintained in accordance with the applicable building code.

7. Delete Section 2404.3.2.1.

8. Change Section 2404.3.2.2 to read:

(N)2404.3.2.2 Surfaces. The interior surfaces of spray booths shall be maintained in accordance with the applicable building code.

9. Change Section 2404.3.2.3 to read:

(N)2404.3.2.3 Floor. Combustible floor construction in spray booths shall be maintained in accordance with the applicable building code.

10. Change Section 2404.3.2.4 to read:

(N)2404.3.2.4 Means of egress. Means of egress shall be maintained in accordance with the applicable building code.

11. Change Section 2404.3.2.5 to read:

(N)2404.3.2.5 Clear space. A clear space of not less than 3 feet (914 mm) shall be maintained on all sides of the spray booth. This clear space shall be kept free of any storage or combustible construction.

12. Delete Section 2404.3.2.6.

13. Change Section 2404.3.3 to read:

(N)2404.3.3 Spraying spaces. Spraying spaces shall be maintained in accordance with the applicable building code.

14. Change Section 2404.3.3.1 to read:

(N)2404.3.3.1 Floor. Combustible floor construction in spraying spaces shall be maintained in accordance with the applicable building code.

15. Change Section 2404.4 to read:

(N)2404.4 Fire protection. Automatic fire-extinguishing systems provided for spray booths shall be maintained in accordance with the applicable building code.

16. Change Section 2404.6.2.1 to read:

(N)2404.6.2.1 Glass panels. Panels for luminaires or for observation shall be maintained in accordance with the applicable building code.

17. Change Section 2404.6.2.2 to read:

(N)2404.6.2.2 Exterior luminaires. Luminaires attached to the walls or ceilings of a flammable vapor area, but outside of any classified area and separated from the flammable vapor areas by vapor-tight glass panels, shall be maintained in accordance with the applicable building code.

18. Change Section 2404.6.2.3 to read:

(N)2404.6.2.3 Integral luminaires. Luminaires that are an integral part of the walls or ceiling of a flammable vapor

area are allowed to be separated from the flammable vapor area by glass panels that are an integral part of the luminaire. Such luminaires shall be maintained in accordance with the applicable building code.

19. Change Section 2404.7 to read:

(N)2404.7 Ventilation. Mechanical ventilation of flammable vapor areas shall be maintained in accordance with the applicable building code.

20. Change Section 2404.7.1 to read:

(N)2404.7.1 Operation. Where provided, mechanical ventilation shall be kept in operation at all times while spraying operations are being conducted and for a sufficient time thereafter to allow vapors from drying coated articles and finishing material residue to be exhausted.

21. Delete Section 2404.7.2.

22. Change Section 2404.7.3 to read:

(N)2404.7.3 Air velocity. The required air velocity for ventilation systems shall be maintained in accordance with the applicable building code.

23. Change Section 2404.7.3.1 to read:

(N)2404.7.3.1 Open-face or open-front spray booth. For spray application operations conducted in an open-face or open-front spray booth, the ventilation system shall be maintained in accordance with the applicable building code.

24. Change Section 2404.7.3.2 to read:

(N)2404.7.3.2 Enclosed spray booth or spray room with openings for product conveyance. For spray application operations conducted in an enclosed spray booth or spray room with openings for product conveyance, the ventilation system shall be maintained in accordance with the applicable building code.

25. Delete Section 2404.7.5.

26. Change Section 2404.7.6 to read:

(N)2404.7.6 Termination point. The termination point for exhaust ducts discharging to the atmosphere shall be maintained in accordance with the applicable building code.

27. Change Section 2404.7.7 to read:

2404.7.7 Fan motors and belts. Electric motors driving exhaust fans shall not be placed inside booths or ducts, unless approved. Fan rotating elements shall be nonferrous or nonsparking or the casing shall consist of, or be lined with, such material. Belts shall not enter the duct or booth unless the belt and pulley within the duct are tightly enclosed.



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# Regulations

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28. Change Section 2404.7.8 to read:

(N)2404.7.8 Filters. Air intake filters that are part of a wall or ceiling assembly shall be maintained.

29. Change Section 2404.7.8.1 to read:

(N)2404.7.8.1 Supports. Supports and holders for filters shall be maintained.

30. Change Section 2404.7.8.3 to read:

(N)2404.7.8.3 Maintaining air velocity. The required air velocity shall be maintained in accordance with the applicable building code.

31. Change Section 2404.7.8.4 to read:

(N)2404.7.8.4 Filter rolls. Filter rolls for spray booths shall be maintained in accordance with applicable building code.

32. Change Section 2404.7.8.7 to read:

(N)2404.7.8.7 Waterwash spray booths. Waterwash spray booths shall be maintained in accordance with the applicable building code.

33. Change Section 2404.8 to read:

(N)2404.8 Interlocks. Interlocks for spray application finishes shall be maintained in accordance with the applicable building code.

34. Delete Section 2404.8.1.

35. Change Section 2404.8.1.1 to read:

(N)2404.8.1.1 Alarm station. Where required, a manual fire alarm and emergency system shutdown station shall be maintained in accordance with the applicable building code.

36. Delete Section 2404.8.1.2.

37. Delete Section 2404.8.2.

38. Change Section 2404.9.3 to read:

(N)2404.9.3 Ventilation. Positive mechanical ventilation providing a minimum of six complete air changes per hour shall be maintained in accordance with the applicable building code.

39. Change Section 2404.9.4 to read:

(N)2404.9.4 Electrical wiring. Electrical wiring within 10 feet (3048 mm) of the floor and 20 feet (6096 mm) horizontally of the limited spraying space shall be designed for Class I, Division 2 locations in accordance with the applicable building code.

D. The following changes shall be made to Section 2405, Dipping Operations:

1. Delete Section 2405.2.

2. Delete Section 2405.3.

3. Change Section 2405.3.1 to read:

(N)2405.3.1 Overflow. Overflow piping required for dip tanks shall be maintained in accordance with the applicable building code.

4. Change Section 2405.3.2 to read:

(N)2405.3.2 Bottom drains. Bottom drains required for dip tanks shall be maintained in accordance with the applicable building code. Manual operation shall be from a safe, accessible location. Where gravity flow is not practicable, automatic pumps shall be provided.

5. Change Section 2405.4 to read:

(N)2405.4 Fire protection. Dip tank operations shall be protected in accordance with the applicable building code.

6. Change Section 2405.4.1 to read:

(N)2405.4.1 Fixed fire-extinguishing equipment. Fixed fire-extinguishing equipment required for dip tanks shall be maintained in accordance with the applicable building code.

7. Change Section 2405.4.1.1 to read:

(N)2405.4.1.1 Fire-extinguishing system. Fire-extinguishing systems provided for dip tanks maintained in accordance with the applicable building code.

8. Change Section 2405.7 to read:

(N)2405.7 Ventilation of flammable vapor areas. Ventilation provided for flammable vapor areas shall be maintained in accordance with the applicable building code.

9. Delete Section 2405.9.1.

10. Change Section 2405.9.2 to read:

(N)2405.9.2 Hoods. Hoods provided for tanks shall be maintained in accordance with the applicable building code.

11. Delete Section 2405.9.3.

12. Change Section 2405.9.4 to read:

(N)2405.9.4 Fire protection. Fire protection provided hardening and tempering tanks shall be maintained in accordance with the applicable building code.

13. Delete Section 2405.10.1.

14. Change Section 2405.11 to read:

(N)2405.11 Roll-coating operations. Roll-coating operations shall be maintained in accordance with the applicable building code.

E. The following changes shall be made to Section 2406, Powder Coating:

1. Change Section 2406.2 to read:

(N)2406.2 Location. Powder coating operations shall be conducted in enclosed powder coating rooms, enclosed powder coating facilities that are ventilated, or ventilated spray booths and in accordance with applicable building code.

2. Delete Section 2406.3.

3. Change Section 2406.4 to read:

(N)2406.4 Fire protection. Fire-extinguishing systems provided for areas used for powder coating shall be maintained in accordance with the applicable building code.

4. Delete Section 2406.4.1.

5. Change Section 2406.6.4 to read:

(N)2406.6.4 Grounding and bonding. Grounding and bonding provided for powder coating operations shall be maintained in accordance with the applicable building code.

6. Change Section 2406.7 to read:

(N)2406.7 Ventilation. Exhaust ventilation shall be maintained in accordance with the applicable building code.

F. The following changes shall be made to Section 2407, Electrostatic Apparatus:

1. Change Section 2407.2 to read:

(N)2407.2 Location and clear space. A sign stating the sparking distance shall be conspicuously posted near the assembly. The location and clear space required for electrostatic apparatus and devices shall be maintained in accordance with the applicable building code and manufacturer's instructions.

2. Delete Section 2407.3.

3. Change Section 2407.3.1 to read:

(N)2407.3.1 Barriers. Booths, fencing, railings or guards shall be in accordance with the applicable building code.

4. Change Section 2407.4 to read:

(N)2407.4 Fire protection. Fire-extinguishing systems provided for areas used for electrostatic spray finishing with fixed equipment shall be maintained in accordance with the applicable building code.

5. Change Section 2407.4.1 to read:

(N)2407.4.1 Protection for automated liquid electrostatic spray application equipment. Flame detection apparatus

required for automated liquid electrostatic spray application equipment shall be maintained in accordance with the applicable building code.

6. Change Section 2407.7 to read:

(N)2407.7 Ventilation. Ventilation provided for flammable vapor areas shall be maintained in accordance with the applicable building code.

7. Change Section 2407.8 to read:

(N)2407.8 Emergency shutdown. Emergency shutdown controls shall be maintained in accordance with the applicable building code.

8. Change Section 2407.9 to read:

(N)2407.9 Ventilation interlock. Ventilation interlock required for electrostatic equipment shall be maintained in accordance with the applicable building code.

G. The following change shall be made to Section 2408, Organic Peroxides and Dual-Component Coatings:

Delete Section 2408.2.

H. The following changes shall be made to Section 2409, Indoor Manufacturing of Reinforced Plastics:

1. Change Section 2409.3 to read:

(N)2409.3 Fire protection. Automatic sprinkler systems provided for resin application areas shall be maintained in accordance with the applicable building code.

2. Change Section 2409.6 to read:

(N)2409.6 Ventilation. Mechanical ventilation shall be maintained in accordance with the applicable building code.

3. Change Section 2409.6.1 to read:

(N)2409.6.1 Local ventilation. Local ventilation shall be maintained in accordance with the applicable building code. ]

**13VAC5-51-141. IFC Chapter 25: Fruit and Crop Ripening.**

[ A. The following changes shall be made to Section 2501, General:

1. ] Change Section 2501.2 to read:

2501.2: Permits. Permits shall be required as set forth in Section 107.2.

[ 2. Change Section 2501.3 to read:

2501.3 Ethylene generators. Approved ethylene generators shall be operated and maintained in accordance with the applicable building code.

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# Regulations

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B. The following change shall be made to Section 2503, Ethylene Gas:

Change Section 2503.2 to read:

(N)2503.2 Dispensing. Valves controlling discharge of ethylene shall be maintained in accordance with the applicable building code.

C. The following changes shall be made to Section 2504, Sources of Ignition:

1. Change Section 2504.1 to read:

(N)2504.1 Ignition prevention. Sources of ignition shall be controlled or protected in accordance with the applicable building code.

2. Change Section 2504.2 to read:

(N)2504.2 Electrical wiring and equipment. Electrical wiring and equipment, including luminaires, shall be maintained in accordance with the applicable building code.

3. Change Section 2504.3 to read:

(N)2504.3 Static electricity. Bonding and grounding provided for containers, piping and equipment shall be maintained in accordance with the applicable building code.

4. Change Section 2504.5 to read:

(N)2504.5 Heating. Heating shall be maintained in accordance with the applicable building code.

D. The following changes shall be made to Section 2506, Ethylene Generators:

1. Change Section 2506.1 to read:

(N)2506.1 Ethylene generators. Ethylene generators shall be listed and labeled by an approved testing laboratory, approved, and used only in approved rooms in accordance with the ethylene generator manufacturer's instructions. The listing evaluation shall include documentation that the concentration of ethylene gas does not exceed 25% of the lower explosive limit (LEL).

2. Change Section 2506.2 to read:

(N)2506.2 Ethylene generator rooms. Ethylene generator rooms shall be maintained in accordance with the applicable building code. ]

**13VAC5-51-141.5. IFC Chapter 26. Fumigation and Insecticidal Fogging.**

Change Section 2601.2 to read:

2601.2- Permits. Permits shall be required as set forth in Section 107.2.

**13VAC5-51-142. IFC Chapter 27. Semiconductor Fabrication Facilities.**

[ A. Change Section 2701.1 to read:

2701.1 Scope. Semiconductor fabrication facilities and comparable research and development areas classified as Group H-5 shall comply with this chapter to the extent that the provisions of this chapter relate to operation and maintenance and not to the construction of Group H-5 buildings or structures.

B. Delete Section 2701.4.

C. ] Change Section 2701.5 to read:

2701.5- Permits. Permits shall be required as set forth in Section 107.2.

[ D. Change Section 2703.1.3 to read:

(N)2703.1.3 Signals. Emergency equipment and alarm and detection systems providing signals to emergency control stations shall be maintained in accordance with the applicable building code.

E. Change Section 2703.2.2 to read:

2703.2.2 General requirements. In addition to the requirements in Section 2703.2, systems, equipment and processes shall also comply with Section 5003.2, other applicable provisions of this code.

F. Delete Sections 2703.3 and 2703.3.1.

G. Change Section 2703.3.2 through 2703.3.8 to read:

(N)2703.3.2 Pass-throughs in exit access corridors. Pass-throughs in exit access corridors shall be in accordance with the applicable building code.

(N)2703.3.3 Liquid storage rooms. Liquid storage rooms shall be maintained in accordance with the applicable building code.

(N)2703.3.4 HPM rooms. Hazardous production materials (HPM) rooms shall be maintained in accordance with the applicable building code.

(N)2703.3.5 Gas cabinets. Gas cabinets shall be maintained in accordance with the applicable building code.

(N)2703.3.6 Exhausted enclosures. Exhausted enclosures shall be maintained in accordance with the applicable building code.

(N)2703.3.7 Gas rooms. Gas rooms shall be maintained in accordance with the applicable building code.

(N)2703.3.8 Service corridors. Service corridors shall be maintained in accordance with the applicable building code.

H. Change Sections 2703.7 and 2703.7.1 to read:

(N)2703.7 Electrical wiring and equipment. Electrical wiring and equipment in HPM facilities shall be maintained in accordance with the applicable building code.

(N)2703.7.1 Fabrication areas. Electrical wiring and equipment in fabrication areas shall be maintained in accordance with the applicable building code.

I. Delete Section 2703.7.2.

J. Change Section 2703.7.3 to read:

(N)2703.7.3 HPM rooms, gas rooms, and liquid storage rooms. Electrical wiring and equipment in HPM rooms, gas rooms, and liquid storage rooms shall be maintained in accordance with the applicable building code.

K. Change Section 2703.7.10 to read:

(N)2703.10 Automatic sprinkler system. Automatic sprinkler systems shall be maintained in accordance with the applicable building code.

L. Delete Sections 2703.10.1 and 2703.10.1.1.

M. Delete Sections 2703.10.2 through 2703.10.4.4.1.

N. Change Sections 2703.10.4.4.2 and 2703.10.4.4.3 to read:

(N)2703.10.4.4.2 Control valve. Control valves provided for sprinklers installed in exhaust ducts shall be maintained in accordance with the applicable building code.

(N)2703.10.4.4.3 Drainage. Drainage provided to remove sprinkler water discharged in exhaust ducts shall be maintained.

O. Delete Section 2703.10.4.4.4.

P Change Sections 2703.10.5 through 2703.12 to read:

(N)2703.10.5 Sprinkler alarms and supervision. Automatic sprinkler systems shall be maintained in accordance with applicable building code.

(N)2703.11 Manual fire alarm system. Manual fire alarm systems shall be maintained in accordance with the applicable building code.

(N)2703.12 Emergency alarm system. Emergency alarm systems shall be maintained in accordance with the applicable building code.

Q. Delete Sections 2703.12.1 and 2703.12.1.1.

R. Change Sections 2703.12.1.2 and 2703.12.1.3 to read:

(N)2703.12.1.2 Corridors and interior exit stairways and ramps. Emergency alarms for corridors, interior exit stairways and ramps, and exit passageways shall be maintained in accordance with the applicable building code.

(N)2703.12.1.3 Liquid storage rooms, HPM rooms and gas rooms. Emergency alarms for liquid storage rooms, HPM rooms, and gas rooms shall be maintained in accordance with the applicable building code.

S. Delete Sections 2703.12.2 and 2703.12.3.

T. Change Section 2703.13 to read:

(N)2703.13 Continuous gas detection systems. Continuous gas detection systems shall be maintained in accordance with the applicable building code.

U. Delete Sections 2703.13.1 through 2703.13.2.2.

V. Change Section 2703.14 to read:

(N)2703.14 Exhaust ventilation systems for HPM. Exhaust ventilation systems and materials for exhaust ducts utilized for the exhaust of HPM shall be maintained in accordance with the applicable building code.

W. Delete Sections 2703.14.1 and 2703.14.2.

X. Change Section 2703.15 to read:

(N)2703.15 Emergency power system. Emergency power system systems shall be maintained in accordance with the applicable building code.

Y. Delete Section 2703.15.1.

Z. Change Sections 2703.15.2 through 2704.1 to read:

(N)2703.15.2 Exhaust ventilation systems. Exhaust ventilation systems shall be maintained in accordance with the applicable building code.

(N)2703.16 Subatmospheric pressure gas systems. Subatmospheric pressure gas systems (SAGS) shall be maintained in accordance with the applicable building code.

(N)2704.1 General. Storage of hazardous materials shall comply with Section 2703 and this section and other applicable provisions of this code to the extent that such requirements are operational in nature and do not affect how a building is constructed.

AA. Change Section 2704.2.2.1 to read:

2704.2.2.1 Storage and use in fabrication areas. The maximum quantities of hazardous materials stored or used in a single fabrication area shall not exceed the quantities set forth by the applicable building code.

BB. Delete Table 2704.2.2.1.

CC. Change Section 2704.3.1 to read:

2704.3.1 HPM storage. The indoor storage of HPM in quantities greater than those listed in Sections 5003.1.1 and 3404.3.4 shall be in a room complying with the requirements of this code for a liquid storage room, HPM room, or gas room as appropriate for the materials stored.

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# Regulations

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DD. Change Section 2705.1 to read:

2705.1 General. The use and handling of hazardous materials shall comply with this section, Section 2703, and other applicable provisions of this code to the extent that such requirements are operational in nature and do not affect how a building is constructed.

EE. Change Section 2705.2.3.2 to read:

(N)2705.2.3.2 Protection of vessels. Vessels containing hazardous materials located in or connected to a workstation shall be protected as follows:

1. HPM: Vessels containing HPM shall be protected from physical damage and shall not project from the workstation.
2. Compressed gases: Protection for compressed gas vessels shall also comply with Section 5303.5.
3. Cryogenic fluids: Protection for cryogenic fluid vessels shall also comply with Section 5503.5.

FF. Change Section 2705.3.1 to read:

(N)2705.3.1 Corridors and enclosures for stairways and ramps. Corridors and enclosures for exit stairways and ramps in new fabrication areas shall not contain HPM, except as permitted in corridors by Section 2705.3.2 and the applicable building code.

GG. Change Section 2705.3.2.1 to read:

2705.3.2.1 Fabrication area alterations. Where existing fabrication areas are altered or modified in existing buildings, HPM is allowed to be transported in existing corridors where such corridors comply with the applicable building code.

HH. Delete Section 2705.3.3. ]

## **13VAC5-51-142.5. IFC Chapter 28, Lumber Yards and Agro-Industrial, Solid Biomass, and Woodworking Facilities.**

[ A. ] Change Section 2801.2 to read:

2801.2- Permit. Permits shall be required as set forth in Section 107.2.

[ B. Change Sections 2803.1 through 2803.3 to read:

(N)2803.1 Open yards. Open yards around structures required by the applicable building code shall be maintained.

(N)2803.2 Dust control. Equipment or machinery located inside buildings that generates or emits combustible dust equipped with an approved dust collection and exhaust system shall be maintained in accordance with the applicable building code. Equipment or systems that are used to collect, process or convey combustible dusts shall be provided with an approved explosion control system.

(N)2803.2.1 Explosion venting. Explosion venting required for dust explosion hazards shall be maintained in accordance with the applicable building code.

(N)2803.3 Waste removal. Waste removal systems required for sawmills, planing mills and other woodworking plants shall be maintained in accordance with the applicable building code.

Exception: Manual waste removal where approved.

C. Change Section 2803.4 to read:

(N)2803.4 Electrical equipment. Electrical wiring and equipment shall be maintained in accordance with the applicable building code.

D. Change Sections 2804.2, and 2804.2.1 to read:

(N)2804.2 Fire alarms. Where provided, fire alarms maintained in accordance with the applicable building code.

(N)2804.2.1 Manual fire alarms. Where installed, manual fire alarm systems shall be maintained in accordance with the applicable building code.

E. Change Section 2804.4 to read:

(N)2804.4 Automatic sprinkler systems. Automatic sprinkler systems shall be maintained in accordance with the applicable building code.

F. Change Section 2805.2 to read:

(N)2805.2 Dryer protection. Dryers shall be maintained in accordance with the applicable building code. Deluge heads shall be inspected quarterly for pitch buildup. Deluge heads in dryers shall be flushed during regular maintenance for functional operation.

G. Change Section 2807.2 to read:

2807.2 Size of piles. Piles shall not exceed 60 feet (18 288 mm) in height, 300 feet (91 440 mm) in width, and 500 feet (152 m) in length. Piles shall be separated from adjacent piles or other exposures by approved fire apparatus access roads.

Exception: The fire code official is authorized to allow the pile size to be increased where additional approved fire protection is provided in accordance with Chapter 9.

H. Change Section 2807.3 to read:

(N)2807.3 Pile fire protection. Automatic sprinkler protection provided in conveyor tunnels and combustible enclosures that pass under a pile shall be maintained in accordance with the applicable building code.

I. Change Section 2808.7 to read:

(N)2808.7 Pile fire protection. Automatic sprinkler protection provided in conveyor tunnels and combustible

enclosures that pass under a pile shall be maintained in accordance with the applicable building code. ]

## **13VAC5-51-143.5. IFC Chapter 29: Manufacture of Organic Coatings.**

[ A. ] Change Section 2901.2 to read:

2901.2: Permits. Permits shall be required as set forth in Section 107.2.

[ B. Delete Section 2903.1.

C. Delete Section 2903.2.

D. Change Section 2903.4 to read:

2903.4 Fire protection systems. Fire protection systems shall be maintained, periodically inspected, and tested in accordance with Chapter 9.

E. Change Section 2903.10 to read:

2903.10 Drainage. Drainage facilities shall be maintained to direct flammable and combustible liquid leakage and fire protection water to an approved location away from the building, any other structure, any storage area, or adjoining premises.

F. Change Section 2903.11 to read:

(N)2903.11 Alarm system. Alarm systems shall be maintained in accordance with the applicable building code.

G. Change Section 2904.1 to read:

(N)2904.1 Wiring and equipment. Electrical wiring and equipment shall be maintained in accordance with the applicable building code.

H. Change Section 2904.3 to read:

(N)2904.3 Bonding. Bonding provided for equipment including tanks, machinery and piping shall be maintained in accordance with the applicable building code.

I. Change Section 2904.3.1 to read:

(N)2904.3.1 Piping. Electrically isolated sections of metallic piping or equipment shall be maintained in accordance with the applicable building code.

J. Change Section 2904.4 to read:

(N)2904.4 Ground. Metal framing of buildings shall be grounded in accordance with the applicable building code.

K. Delete Section 2905.1.

L. Change Section 2905.4 to read:

(N)2905.4 Explosion control. Explosion control shall be maintained in accordance with the applicable building code and maintenance provisions of NFPA 35.

M. Change Section 2905.5 to read:

(N)2905.5 Ventilation. Enclosed structures in which Class I liquids are processed or handled shall be ventilated in accordance with the applicable building code.

N. Change Section 2906.1 to read:

(N)2906.1 Mills. Mills operating with close clearances that process flammable and heat-sensitive materials, such as nitrocellulose, shall be maintained in accordance with the applicable building code.

O. Change Section 2909.2 to read:

(N)2909.2 Tank storage. Tank storage for flammable and combustible liquids located inside of structures shall be limited to storage areas at or above grade that are separated from the processing area in accordance with the applicable building code. Processing equipment containing flammable and combustible liquids and storage in quantities essential to the continuity of the operations shall not be prohibited in the processing area.

P. Change Section 2909.4 to read:

(N)2909.4 Nitrocellulose storage. Nitrocellulose storage shall be located on a detached pad or in a separate structure or a room enclosed in accordance with the applicable building code.

Q. Change Section 2909.6 to read:

2909.6 Finished products. Finished products that are flammable or combustible liquids shall be stored outside of structures, in a separate structure, or in a room separated from the processing area where such storage is permitted under the applicable building code. The storage of finished products shall be in tanks or closed containers in accordance with Chapter 57. ]

## **13VAC5-51-144. IFC Chapter 30: Industrial Ovens.**

[ A. Change Section 3001.1 to read:

(N)3001.1 Scope. This chapter shall apply to the maintenance and operation of industrial ovens and furnaces. Industrial ovens and furnaces shall comply with the applicable provisions of NFPA 86 and this chapter. The terms "ovens" and "furnaces" are used interchangeably in this chapter.

B. ] Change Section 3001.2 to read:

3001.2: Permits. Permits shall be required as set forth in Section 107.2.

[ C. Change Section 3003.1 to read:

(N)3003.1 Ventilation. Enclosed rooms or basements containing industrial ovens or furnaces shall be maintained in accordance with the applicable building code.

D. Delete Section 3003.4.

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# Regulations

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E. Change Section 3004.1 to read:

(N)3004.1 Fuel-gas piping. Fuel-gas piping serving industrial ovens shall be maintained in accordance with the applicable building code.

F. Delete Section 3004.2.

G. Change Section 3004.2.1 to read:

(N)3004.2.1 Fuel supply lines. Valves for fuel supply lines shall be maintained in accordance with the applicable building code.

H. Delete Section 3004.3.

I. Change Sections 3005.1, 3006.1 and 3006.2 to read:

(N)3005.1 Shut down. Interlocks shall be maintained in accordance with the applicable building code.

(N)3006.1 Required protection. Fire-extinguishing systems provided for Classes A and B ovens that contain, or are utilized for the processing of, combustible materials shall be maintained in accordance with the applicable building code.

(N)3006.2 Fixed fire-extinguishing systems. Fixed fire-extinguishing systems shall be maintained in accordance with the applicable building code. ]

## **13VAC5-51-144.2. IFC Chapter 31, Tents and Other Membrane Structures.**

[ A. The following change shall be made to Section 3101, General:

Change Section 3101.1 to read:

3101.1 Scope. Tents, temporary stage canopies, and membrane structures shall comply with this chapter. The provisions of Section 3103 are applicable only to temporary tents and membrane structures. The provisions of Section 3104 are applicable to temporary and permanent tents and membrane structures. Other temporary structures shall comply with the applicable building code.

B. The following changes shall be made to Section 3103, Temporary Tents and Membrane Structures:

1. Change Section 3103.1 to read:

(N)3103.1 General. Tents and membrane structures used for temporary periods shall comply with this section. Other temporary structures erected for a period of 180 days or less shall comply with the applicable building code.

2. Change Section 3103.2 to read:

(N)3103.2 Approval required. Tents and membrane structures having an area in excess of 900 square feet (84 m<sup>2</sup>) shall not be erected, operated or maintained for any

purpose without first obtaining a permit and approval from the fire code official in accordance with Table 107.2.

3. Change Section 3103.2.1 to read:

3103.2.1 Multiple tents. The aggregate area of multiple tents separated by less than 12 feet (3658 mm) shall not exceed 900 square feet unless approved in accordance with Section 3103.2.

4. ] Change Section 3103.4 to read:

3103.4. Permits. Permits shall be required as set forth in Section 107.2.

[ 5. Change Section 3103.9.1 to read:

3103.9.1 Tents and membrane structures exceeding one story. Tents and membrane structures exceeding one story shall be designed and constructed to comply with applicable building code.

C. The following changes shall be made to Section 3104, Temporary and Permanent Tents and Membrane:

1. Change Section 3104.1 to read:

3104.1 General. Tents and membrane structures, both temporary and permanent, shall be in accordance with this section. Permanent tents and membrane structures shall also comply with the applicable building code.

2. Change Section 3104.2 to read:

3104.2 Flame propagation performance treatment. Before a permit is granted, the owner or agent shall file a certificate executed by an approved testing laboratory certifying that the tents and membrane structures and their appurtenances; sidewalls, drops and tarpaulins; floor coverings, bunting, and combustible decorative materials and effects, including sawdust where used on floors or passageways, are composed of material meeting the flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701 or shall be treated with a flame retardant in an approved manner and meet the flame propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701, and that such flame propagation performance criteria are effective for the period specified by the permit.

3. Change Section 3104.4 to read:

3104.4 Certification. An affidavit or affirmation shall be submitted and a copy retained on the premises on which the tent or air-supported structure is located. The affidavit shall attest to all of the following information relative to the flame propagation performance criteria of the fabric

1. Names and address of the owners of the tent or air-supported structure.
2. Date the fabric was last treated with flame-retardant solution.
3. Trade name or kind of chemical used in treatment.
4. Name of person or firm treating the material.
5. Name of testing agency and test standard by which the fabric was tested.

4. Change Section 3104.13 to read:

3104.13 Fire protection equipment. Fire hose lines, water supplies, and other auxiliary fire equipment shall be maintained at the site in such numbers and sizes as approved

5. Change Section 3104.14 to read:

3104.14 Occupant load factors. The occupant load allowed in an assembly structure, or portion thereof, shall be determined in accordance with Chapter 10 or applicable building code.

6. Change Section 3104.15.1 to read:

3104.15.1 Installation. Heating or cooking equipment tanks, piping, hoses, fittings, valves, tubing, and other related components shall be installed as specified by the applicable building code and shall be approved.

7. Change Section 3104.15.2 to read:

3104.15.2 Venting. Gas, liquid and solid fuel-burning equipment designed to be vented shall be vented to the outside air as specified by the applicable building code and shall be approved. Such vents shall be equipped with approved spark arresters where required. Where vents or flues are used, all portions of the tent or membrane structure shall be not less than 12 inches (305 mm) from the flue or vent.

8. Change Section 3104.16.1 to read:

3104.16.1 General. LP-gas equipment such as tanks, piping, hoses, fittings, valves, tubing and other related components shall be approved and in accordance with Chapter 61 and with the applicable building code.

D. The following changes shall be made to Section 3105, Temporary State Canopies:

1. Change Section 3105.1 to read:

(N)3105.1 General. Operation and maintenance of temporary stage canopies shall be in accordance with Section 3104, Sections 3105.2 through 3105.8, and ANSI E1.21.

2. Change Section 3105.2 to read:

(N)3105.2 Approval. Temporary stage canopies in excess of 400 square feet (37 m<sup>2</sup>) shall not be erected for any purpose without first obtaining approval and a permit from the building official.

3. Change Section 3105.5 to read:

(N)3105.5 Required documents. Documents shall be submitted to the building official where required by the USBC.

4. Change Section 3105.6.2 to read:

(N)3105.6.2 Inspection report. The inspecting agency or individual shall furnish an inspection report to the building official and fire code official. The inspection report shall indicate that the temporary stage canopy was inspected and was or was not installed in accordance with the approved construction documents. Discrepancies shall be brought to the immediate attention of the installer for correction. Where any discrepancy is not corrected, it shall be brought to the attention of the building official and fire code official and the designated responsible party.

5. Change Section 3105.7 to read:

(N)3105.7 Means of egress. The means of egress for temporary stage canopies shall comply with Chapter 10 and the applicable building code.

6. Delete Section 3105.8. ]

**13VAC5-51-144.4. IFC Chapter 32: High-Piled Combustible Storage.**

[ A. The following changes shall be made to Section 3201, General:

1. Change Section 3201.1 to read:

(N)3201.1 Scope. Maintenance and operational aspects of high-piled combustible storage shall be in accordance with this chapter. In addition to the requirements of this chapter, the following material-specific requirements shall apply:

1. Aerosols shall be in accordance with Chapter 51.
2. Flammable and combustible liquids shall be in accordance with Chapter 57.
3. Hazardous materials shall be in accordance with Chapter 50.
4. Storage of combustible paper records shall be in accordance with the applicable NFPA 13 standard.
5. Storage of combustible fibers shall be in accordance with Chapter 37.



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# Regulations

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6. General storage of combustible material shall be in accordance with Chapter 3.

2. ] Change Section 3201.2 to read:

3201.2- Permits. A permit shall be required as set forth in Section 107.2.

[ 3. Change Section 3201.3 to read:

(N)3201.3 Construction documents.

B. The following changes shall be made to Section 3204, Designation of High-Piled Storage Areas:

1. Change Section 3204.1 to read:

(N)3204.1 General. The operational and maintenance of high-piled storage areas, and portions of high-piled storage areas intended for storage, shall be maintained in accordance with the applicable building code.

2. Delete Section 3204.2.

C. The following changes shall be made to Section 3206, General Fire Protection and Life Safety Features:

1. Change Section 3206.1 to read:

(N)3206.1 General. Fire protection and life safety features for high-piled storage areas shall be maintained in accordance with the applicable building code.

2. Delete Section 3206.2 and Table 3206.2.

3. Delete Section 3206.3.

4. Delete Section 3206.3.1.

5. Delete Section 3206.3.2.

6. Delete Section 3206.3.2.1.

7. Delete Section 3206.3.2.2.

8. Change Section 3206.4 to read:

(N)3206.4 Automatic sprinklers. Automatic sprinkler systems shall be maintained in accordance with the applicable building code.

(N)3206.4.1 Pallets. The requirements based on the presence of pallets shall be maintained in accordance with the applicable building code.

9. Change Section 3206.4.1.1 to read:

(N)3206.4.1.1 Plastic pallets. Plastic pallets listed and labeled in accordance with UL 2335 or FM 4996 shall be treated as wood pallets.

10. Change Section 3206.5 to read:

(N)3206.5 Fire detection. Fire detection provided for high-piled storage areas shall be maintained in accordance with the applicable building code.

11. Change Section 3206.6 to read:

(N)3206.6 Building access. Where building access is required, it shall be maintained in accordance with the applicable building code.

12. Change Section 3206.6.1 to read:

(N)3206.6.1 Access doors. Access doors shall be maintained in accordance with the applicable building code.

13. Change Section 3206.6.1.1 to read:

(N)3206.6.1.1 Number of doors required. The minimum number of doors shall be maintained in accordance with the applicable building code.

14. Change Section 3206.6.1.2 to read:

(N)3206.6.1.2 Door size and type. Access doors shall be maintained in accordance with the applicable building code. Roll-up doors shall not be used unless approved.

15. Delete Section 3206.1.3.

16. Change Section 3206.7 to read:

(N)3206.7 Smoke and heat removal. Where smoke and heat removal is required, it shall be maintained in accordance with the applicable building code.

17. Change Section 3206.8 to read:

(N)3206.8 Fire department hose connections. Where a standpipe system is required for exit passageways, it shall be maintained in accordance with the applicable building code.

18. Change Section 3206.9 to read:

(N)3206.9 Aisles. Aisles separating storage piles or racks shall be maintained in accordance with the applicable building code.

19. Change Section 3206.9.1 to read:

(N)3206.9.1 Width. Aisle width shall be maintained in accordance with the applicable building code.

20. Change Section 3206.9.1.1 to read:

(N)3206.9.1.1 Sprinklered buildings. Aisles in sprinklered buildings shall be maintained in accordance with the applicable building code.

21. Change Section 3206.9.1.2 to read:

(N)3206.9.1.2 Nonsprinklered buildings. Aisles in nonsprinklered buildings shall be maintained in accordance with the applicable building code.

22. Change Section 3206.9.2 to read:

(N)3206.9.2 Clear height. The required aisle width shall be maintained in accordance with the applicable building

code. Rack structural supports and catwalks are allowed to cross aisles at a minimum height of 6 feet 8 inches (2032 mm) above the finished floor level, provided that such supports do not interfere with fire department hose stream trajectory.

23. Delete Section 3206.9.3.

D. The following changes shall be made to Section 3207, Solid-Piled and Shelf Storage:

1. Change Section 3207.2 to read:

(N)3207.2 Fire protection. Where automatic sprinklers are provided, they shall be maintained in accordance with the applicable building code.

2. Change Section 3207.2.1 to read:

(N)3207.2.1 Shelf storage. Shelf storage greater than 12 feet (3658 mm) but less than 15 feet (4572 mm) in height shall be in accordance with the fire protection requirements set forth in the applicable building code. Shelf storage 15 feet (4572 mm) or more in height shall be protected in an approved manner as required by this code and the applicable building code.

3. Change Section 3207.3 to read:

(N)3207.3 Pile dimension and height limitations. Pile dimensions, the maximum permissible storage height and pile volume shall be in accordance with the applicable building code.

4. Change Section 3207.4 to read:

(N)3207.4 Array. Where an automatic sprinkler system design utilizes protection based on a closed array, array clearances shall be maintained as specified by the standard used.

E. The following changes shall be made to Section 3208, Rack Storage:

1. Change Section 3208.2 to read:

(N)3208.2 Fire protection. Where automatic sprinklers are provided, they shall be maintained in accordance with the applicable building code.

2. Change Section 3208.2.2 to read:

(N)3208.2.2 Racks with solid shelving. Racks with solid shelving having an area greater than 20 square feet (1.9 m<sup>2</sup>), measured between approved flue spaces at all four edges of the shelf, shall be in accordance with this section.

Exceptions:

1. Racks with mesh, grated, slatted or similar shelves having uniform openings not more than 6 inches (152 mm) apart, comprising not less than 50% of the overall

shelf area, and with approved flue spaces are allowed to be treated as racks without solid shelves.

2. Racks used for the storage of combustible paper records with solid shelving shall be in accordance with the applicable building code.

3. Change Section 3208.2.2.1 to read:

(N)3208.2.2.1 Fire protection. Fire protection for racks with solid shelving shall be in accordance with the applicable building code.

4. Delete Section 3208.3 and Table 3208.3.

5. Change Section 3208.3.1 to read:

(N)3208.3.1 Flue space protection. Where required by the fire code official, flue spaces required by the applicable building code, in single-row, double-row, or multiple-row rack storage installations shall be equipped with approved devices to protect the required flue spaces. Such devices shall not be removed or modified.

6. Change Section 3208.4 to read:

(N)3208.4 Column protection. Protection for steel building columns shall be maintained in accordance with the applicable building code.

7. Change Section 3208.5 to read:

(N)3208.5 Extra-high-rack storage systems. Approval shall be obtained prior to installing extra high rack combustible storage.

8. Change Section 3208.5.1 to read:

(N)3208.5.1 Fire protection. Fire protection provided for buildings with extra high rack combustible storage shall be maintained in accordance with the applicable building code.

F. The following changes shall be made to Section 3209, Automated Storage:

1. Change Section 3209.2 to read:

(N)3209.2 Automatic sprinklers. Where automatic sprinklers are provided, they shall be maintained in accordance with the applicable building code.

2. Change Section 3209.3 to read:

(N)3209.3 Carousel storage. High-piled storage areas having greater than 500 square feet (46 m<sup>2</sup>) of carousel storage shall be maintained in accordance with the applicable building code.

3. Change Section 3209.4 to read:

(N)3209.4 Automated rack storage. High-piled storage areas with automated rack storage shall be maintained in accordance with the applicable building code. The switch

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# Regulations

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shall be clearly identified and shall be in a location approved.

G. The following change shall be made to Section 3210, Specialty Storage:

Change Section 3210.1 to read:

(N)3210.1 General. Records storage facilities used for the rack or shelf storage of combustible paper records shall be in accordance with the applicable building code. Palletized storage of records shall be in accordance with the applicable building code.

## **13VAC5-51-144.5. Chapter 33 Fire Safety During Construction and Demolition.**

Change Section 3314.1 to read:

3314.1 Completion before occupancy. In buildings where an automatic sprinkler system is required by this code or the applicable building code, it shall be unlawful to occupy any portion of a building or structure until the automatic sprinkler system installation has been tested and approved, except as provided in Section 106. ]

## **13VAC5-51-144.6. IFC Chapter 34- Tire Rebuilding and Tire Storage.**

A. [ Change Section 3401.1 to read:

3401.1 Scope. The maintenance and operation of tire rebuilding plants, tire storage, and tire byproduct facilities shall comply with this chapter, other applicable requirements of this code, and NFPA 13, as originally approved. Tire storage in buildings shall also comply with Chapter 32.

B. ] Change Section 3401.2 to read:

3401.2- Permit required. Permits shall be required as set forth in Section 107.2.

[ B- C. Change Section 3403.1 to read:

(N)3403.1 Construction. Tire rebuilding plants shall comply with the requirements of the applicable building code.

D. Delete Section 3403.2.

E. ] Change Section 3406.1 to read:

3406.1- Required access. New and existing tire storage yards shall be provided with fire apparatus access roads in accordance with Section 503 and Section 3406.2.

## **[ 13VAC5-51-144.7. IFC Chapter 35 Welding and Other Hot Work.**

Change Section 3501.2 to read:

3501.2 Permits. Permits shall be required as set forth in Section 107.2. ]

## **13VAC5-51-144.8. IFC Chapter [ ~~37~~ Combustible Fibers 36 Marinas ].**

[ A. ] Change Section [ ~~3701.3~~ ] to read:

[ ~~3701.3 Permits. Permits shall be required as set forth in Section 107.2.~~ (N)3603.5 Electrical equipment. Electrical equipment shall be maintained in accordance with its listing, Section 605 of this code, and NFPA 303 as required for wet, damp, and hazardous locations.

B. Change Section 3604.2 to read:

(N)3604.2 Standpipes. Standpipes provided for marinas and boatyards shall be maintained in accordance with the applicable building code.

## **13VAC5-51-144.9. IFC Chapter 37 Combustible Fibers.**

A. Change Section 3701.3 to read:

3701.3 Permits. Permits shall be required as set forth in Section 107.2.

B. Change Section 3703.5 to read:

(N)3703.5 Dust collection. Dust collection and exhaust systems required or provided for equipment or machinery that generates or emits combustible fibers shall be maintained in accordance with the applicable building code.

C. Change Section 3704.3 to read:

(N)3704.3 Storage of more than 100 cubic feet to 500 cubic feet. Loose combustible fibers in quantities exceeding 100 cubic feet (3 m<sup>3</sup>) but not exceeding 500 cubic feet (14 m<sup>3</sup>) shall be stored in rooms in accordance with the applicable building code.

D. Change Section 3704.4 to read:

(N)3704.4 Storage of more than 500 cubic feet to 1,000 cubic feet. Loose combustible fibers in quantities exceeding 500 cubic feet (14 m<sup>3</sup>) but not exceeding 1,000 cubic feet (28 m<sup>3</sup>) shall be stored in rooms in accordance with the applicable building code.

E. Change Section 3704.5 to read:

(N)3704.5 Storage of more than 1,000 cubic feet. Loose combustible fibers in quantities exceeding 1,000 cubic feet (28 m<sup>3</sup>) shall be stored in rooms in accordance with the applicable building code. ]

## **13VAC5-51-145. IFC Chapter 50- Hazardous Materials - General Provisions.**

A. [ The following changes shall be made to Section 5001, General:

1. Change Section 5001.1 to read:

5001.1 Scope. Prevention, control and mitigation of dangerous conditions related to storage, dispensing, use

and handling of hazardous materials shall be in accordance with this chapter for operational usage. Quantities within buildings shall be maintained in accordance with the applicable building code.

This chapter shall apply to all hazardous materials, including those materials regulated elsewhere in this code, except that where specific requirements are provided in other chapters, those specific requirements shall apply in accordance with the applicable chapter. Where a material has multiple hazards, all hazards shall be addressed.

Exceptions:

1. In retail or wholesale sales occupancies, the quantities of medicines, foodstuff or consumer products, and cosmetics containing not more than 50% by volume of water-miscible liquids and with the remainder of the solutions not being flammable shall not be limited, provided such materials are packaged in individual containers not exceeding 1.3 gallons (5 L).

2. Quantities of alcoholic beverages in retail or wholesale sales occupancies shall not be limited providing the liquids are packaged in individual containers not exceeding 1.3 gallons (5 L).

3. Application and release of pesticide and agricultural products and materials intended for use in weed abatement, erosion control, soil amendment, or similar applications where applied in accordance with the manufacturer's instructions and label directions.

4. The offsite transportation of hazardous materials where in accordance with U.S. Department of Transportation regulations.

5. Building materials not otherwise regulated by this code.

6. Refrigeration systems (see Section 606).

7. Stationary storage battery systems regulated by Section 608.

8. The display, storage, sale or use of fireworks and explosives in accordance with Chapter 56.

9. Corrosives utilized in personal and household products in the manufacturer's original consumer packaging in Group M occupancies.

10. The storage of distilled spirits and wines in wooden barrels and casks.

[ E. ] Change the "Consumer fireworks" row in and add [ Add a new "Permissible fireworks" row to Table 5003.1.1(1) to read: ]

Consumer fireworks	1.4G	H-3	125 <sup>e,t</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
[ <u>Permissible fireworks</u> ]	1.4G	H-3	125 <sup>d,e,t</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A

11. The use of wall-mounted dispensers containing alcohol-based hand rubs classified as Class I or II liquids where in accordance with Section 5705.5.

2. Delete Section 5001.1.1.

3. Change Section 5001.3.3.9 to read:

(N)5001.3.3.9 Reliable power source. Where a power supply is relied upon to prevent or control an emergency condition that could endanger people or property, the power supply shall be maintained in accordance with the applicable building code.

4. Change Section 5001.3.3.10 to read:

(N)5001.3.3.10 Ventilation. Where ventilation is required by the applicable building code maintained.

5. ] Change Section 5001.5 to read:

5001.5: Permits. Permits shall be required as set forth in Section 107.2.

[ ~~B. 6.~~ ] Add the following language to the end of Section 5001.5.1 to read:

The HMMP shall be maintained onsite for use by emergency responders, and shall be updated not less than annually.

[ ~~C. 7.~~ ] Add the following language to the end of Section 5001.5.2 to read:

The HMIS shall be maintained onsite or readily available through another means where approved by the fire code official for use by temporary responders, and shall be updated not less than annually.

[ ~~D. 8.~~ ] Add Sections 5001.5.3, 5001.5.3.1, and 5001.5.3.2 to read:

5001.5.3: Repository container. When a HMMP or HMIS is required, the owner or operator shall provide a repository container (lock box) or other approved means for the storage of items required in Sections 5001.5.1 and 5001.5.2 so as to be readily available to emergency response personnel.

5001.5.3.1: Location and identification. The repository container (lock box) shall be located, installed and identified in an approved manner.

5001.5.3.2: Keying. All repository containers (lock boxes) shall be keyed as required by the fire code official.

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# Regulations

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F- 9. ] Add Section 5001.7, including subsections, to read:

5001.7 Operational requirements for Group B teaching and research laboratories. Teaching and research laboratories in Group B educational occupancies above the 12th grade utilizing Section 430 of the USBC, Part I, Construction, or Section [ ~~302-6~~ 306.1 ] of the USBC, Part II, Existing Buildings, shall comply with this section and other applicable requirements of this code. In the case of conflicts between the requirements of Section 430 of the USBC, Part I, Construction, or Section [ ~~302-6~~ 306.1 ] of the USBC, Part II, Existing Buildings, and provisions of this code other than those set out in this section, Section 430 of the USBC, Part I, Construction, or Section [ ~~302-6~~ 306.1 ] of the USBC, Part II, Existing Buildings, as applicable, shall govern.

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

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

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

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

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

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

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

5001.7.8 Container size. The maximum container size for all hazardous materials shall be 5.3 gallons (20 L) for liquids, 50 pounds (23 kg) for solids, 100 cubic feet (2.8 m<sup>3</sup>) for health hazard gases per Table 5003.1.1(2), and 500 cubic feet (14 m<sup>3</sup>) for all other gases in accordance with Table 5003.1.1(1).

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

5001.7.9 Density. Quantities of Class I, II, and IIIA combustible or flammable liquids in storage and use within control areas or laboratory suites shall not exceed 8 gallons per 100 square feet (30 L/9.3 m<sup>2</sup>) of floor area, with not more than 4 gallons per 100 square feet (15 L/9.3 m<sup>2</sup>) being in use. Quantities of Class I flammable liquids in storage and use shall not exceed 4 gallons per 100 square feet (15 L/9.3 m<sup>2</sup>) of floor area with not more than 2 gallons (7.5 L) being in use. The maximum in use in open systems is limited to 10% of these quantities. Densities shall be reduced by 25% on the 4th-floor through 6th-floor levels above grade plane of the building and 50% above the 6th-floor level. The density is to be reduced to 50% of these values for buildings that are not protected throughout with an approved automatic fire sprinkler system. Regardless of the density, the maximum allowable quantity per control area or laboratory suite shall not be exceeded.

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

5001.7.10 Restricted materials in storage. Storage of pyrophorics and Class 4 oxidizers prohibited by Table 5003.1.1(1) in existing buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the USBC, Part I, Construction, shall be allowed within a control area at 25% of the limits in Table 5003.1.1(1) for a building equipped throughout with an automatic sprinkler system, with no additional increases allowed, provided that such materials are stored in accordance with all of the following:

1. Containers shall be completely sealed and stored according to the manufacturer's recommendations.
2. Storage shall be within approved hazardous materials storage cabinets in accordance with Section 5003.8.7 or shall be located in an inert atmosphere glove box in accordance with NFPA 45, Section 7.11.

3. The storage cabinet or glove box shall not contain any storage of incompatible materials.

5001.7.11 Restricted materials in use. Use of pyrophorics and Class 4 oxidizers prohibited by Table 5003.1.1(1) in existing buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the USBC, Part I, Construction, shall be allowed within a control area at 25% of the limits in Table 5003.1.1(1) for buildings equipped throughout with an automatic sprinkler system, with no additional increases allowed, provided that such materials are used in accordance with all of the following:

1. Use shall be within an approved chemical fume hood listed in accordance with UL 1805, or in an inert

atmosphere glove box in accordance with NFPA 45, Section 7.11, or other approved equipment designed for the specific hazard of the material.

2. Combustible materials shall be kept at least 2 feet (610 mm) away from the work area, except for those items directly related to the research.

3. A portable fire extinguisher appropriate for the specific material shall be provided within 20 feet (6096 mm) of the use in accordance with Section 906.

[ ~~G~~. B. The following changes shall be made to Section 5003, General Requirements:

1. Add a new "Permissible fireworks" row to Table 5003.1.1(1) to read:

<u>Permissible fireworks</u>	<u>1.4G</u>	<u>H-3</u>	<u>125<sup>d,e,1</sup></u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
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2. Delete Sections 5003.1.3 and 5003.1.4.

3. Change Section 5003.2 to read:

(N)5003.2 Systems, equipment and processes. Systems, equipment and processes utilized for storage, dispensing, use or handling of hazardous materials shall be maintained in accordance with the applicable building code.

4. Change Section 5003.2.1 to read:

(N)5003.2.1 Design and construction of containers, cylinders and tanks. Portable containers and cylinders shall be designed and constructed in accordance with approved standards. Containers, cylinders, and other means used for containment of hazardous materials shall be of an approved type. Pressure vessels not meeting U.S. Department of Transportation requirements for transportation shall comply with the ASME Boiler and Pressure Vessel Code.

Tanks shall be maintained in accordance with the applicable building code.

5. Change Section 5003.2.2 to read:

(N)5003.2.2 Piping, tubing, valves and fittings. Piping, tubing, valves, and fittings conveying hazardous materials shall be maintained in accordance with the applicable building code.

6. Delete Section 5003.2.2.1.

7. Change Section 5003.2.2.2 to read:

(N)5003.2.2.2 Additional regulations for supply piping for health-hazard materials. Supply piping and tubing for gases and liquids shall be maintained in accordance with the applicable building code.

8. Change Section 5003.2.3 to read:

(N)5003.2.3 Equipment, machinery and alarms. Equipment and machinery associated with the use, storage or handling of hazardous materials shall be listed or approved.

9. Change Section 5003.2.4 to read:

(N)5003.2.4 Installation of tanks. Installation of tanks shall be in accordance with Sections 5003.2.4.1 through 5003.2.4.2.1.

10. Change Section 5003.2.4.1 to read:

(N)5003.2.4.1 Underground tanks. Underground tanks used for the storage of liquid hazardous materials shall be maintained in accordance with the applicable building code.

11. Change Section 5003.2.4.2 to read:

(N)5003.2.4.2 Aboveground tanks. Aboveground stationary tanks used for the storage of hazardous materials shall be maintained in accordance with the requirements for outdoor storage of the particular material involved.

12. Delete Section 5003.2.7.

13. Change Section 5003.2.8 to read:

(N)5003.2.8. Seismic protection. Where provided, bracing and anchoring for machinery and equipment utilizing hazardous materials shall be maintained in accordance with the applicable building code.

14. 5003.2.9.1 Equipment, devices and systems requiring testing. The following equipment, systems, and devices shall be tested in accordance with Sections 5003.2.9 and 5003.2.9.2.

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# Regulations

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1. Gas detection systems, alarms, and automatic emergency shutoff valves required by Section 6004.2.2.10 for highly toxic and toxic gases.

2. Limit control systems for liquid level, temperature and pressure required by Sections 5004.8 and 5005.1.4.

3. Emergency alarm systems and supervision required by Sections 5004.9 and 5005.4.4.

4. Monitoring and supervisory systems required by the applicable building code.

5. Manually activated shutdown controls required by the applicable building code for compressed gas systems conveying pyrophoric gases.

15. ] Change Section 5003.3.1.4 to read:

5003.3.1.4- Responsibility for cleanup. The person, firm, or corporation responsible for an unauthorized discharge shall institute and complete all actions necessary to remedy the effects of such unauthorized discharge, whether sudden or gradual, at no cost to the jurisdiction. The fire code official may require records and receipts to verify cleanup and proper disposal of unauthorized discharges. When deemed necessary by the fire code official, cleanup may be initiated by the fire department or by an authorized individual or firm. Costs associated with such cleanup shall be ~~borne by~~ the responsibility of the owner, operator, or other person responsible for the unauthorized discharge.

Note: Owners and operators of certain underground and aboveground petroleum storage tanks may have access to the Virginia Petroleum Storage Tank Fund for reimbursement of some cleanup costs associated with petroleum discharges from these tanks. See Article 10 (§ 62.1-44.34:10 et seq.) of Title 62.1 of the Code of Virginia.

[ 16. Delete Section 5003.8.

17. Change Section 5003.8.1 to read:

(N)5003.8.1 Buildings. Buildings, or portions thereof, in which hazardous materials are stored, handled or used shall be maintained in accordance with the applicable building code.

18. Delete Section 5003.8.2 and Table 5003.8.2.

19. Change Section 5003.8.3 to read:

(N)5003.8.3 Control areas. Control areas shall comply with Sections 5003.8.3.2 through 5003.8.3.4.

20. Delete Section 5003.8.3.1.

21. Change Section 5003.8.3.2 to read:

(N)5003.8.3.2 Percentage of maximum allowable quantities. The percentage of maximum allowable

quantities of hazardous materials per control area allowed at each floor level within a building shall be maintained in accordance with the applicable building code.

22. Delete Table 5003.8.3.2.

23. Change Section 5003.8.3.3 to read:

(N)5003.8.3.3 Number. The maximum number of control areas per floor within a building shall be maintained in accordance with the applicable building code.

24. Change Section 5003.8.3.4 to read:

(N)5003.8.3.4 Fire-resistance-rating requirements. The required fire-resistance rating for control areas shall be maintained in accordance with the applicable building code.

25. Delete Section 5003.8.3.5.

26. Delete Section 5003.8.4.

27. Delete Section 5003.8.4.1.

28. Change Section 5003.8.4.2 to read:

(N)5003.8.4.2 Ventilation system. The ventilation system for gas rooms shall be maintained in accordance with the applicable building code.

29. Change Section 5003.8.5 to read:

(N)5003.8.5 Exhausted enclosures. Where an exhausted enclosure is used to increase maximum allowable quantity per control area, the exhausted enclosure shall be maintained in accordance with the applicable building code.

30. Delete Section 5003.8.5.1.

31. Change Section 5003.8.5.2 to read:

(N)5003.8.5.2 Ventilation. The ventilation system for exhausted enclosures shall be maintained in accordance with the applicable building code.

32. Change Section 5003.8.5.3 to read:

(N)5003.8.5.3 Fire-extinguishing system. Fire-extinguishing systems required for exhaust enclosures shall be maintained in accordance with the applicable building code.

33. Change Section 5003.8.6.2 to read:

(N)5003.8.6.2 Ventilation. The ventilation system for gas cabinets shall be maintained in accordance with the applicable building code.

34. Change Section 5003.9.9 to read:

(N)5003.9.9 Shelf storage. Shelving shall be maintained in accordance with the applicable building code.

35. Change Section 5003.11 to read:

(N)5003.11 Group M storage and display and Group S storage. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single control area of a Group M occupancy, or an outdoor control area, or stored in a single control area of a Group S occupancy shall be maintained in accordance with the applicable building code.

36. Change Section 5003.11.1 to read:

(N)5003.11.1 Maximum allowable quantity per control area in Group M or S occupancies. The aggregate amount of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single control area of a Group M occupancy or stored in a single control area of a Group S occupancy shall not exceed the amounts set forth in the applicable building code.

37. Delete Table 5003.11.1.

38. Change Section 5003.11.2 to read:

(N)5003.11.2 Maximum allowable quantity per outdoor control area in Group M or S occupancies. The aggregate amount of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored and displayed within a single outdoor control area of a Group M occupancy shall not exceed the amounts set forth in the applicable building code.

39. Change Section 5003.11.3 to read:

(N)5003.11.3 Storage and display. Storage and display shall be maintained in accordance with the applicable building code.

40. Delete Section 5003.11.3.1.

41. Change Section 5003.11.3.2 to read:

(N)5003.11.3.2 Storage and display height. Display height shall not exceed 6 feet (1829 mm) above the finished floor in display areas of Group M occupancies unless approved by the applicable building code.

Storage height shall not exceed 8 feet (2438 mm) above the finished floor in storage areas of Group M and Group S occupancies unless approved by the applicable building code.

42. Change Section 5003.11.3.4 to read:

(N)5003.11.3.4 Racks and shelves. Racks and shelves used for storage or display shall be maintained in accordance with the applicable building code.

43. Change Section 5003.11.3.8 to read:

(N)5003.11.3.8 Floors. Floors shall be maintained in accordance with the applicable building code.

C. The following changes shall be made to Section 5004, Storage:

1. Change Section 5004.1 to read:

(N)5004.1 Scope. Storage of hazardous materials shall be maintained in accordance with the applicable building code. Retail and wholesale storage and display of nonflammable solid and nonflammable and noncombustible liquid hazardous materials in Group M occupancies and Group S storage shall be maintained in accordance with the applicable building code.

2. Change Section 5004.2 to read:

(N)5004.2 Spill control and secondary containment for liquid and solid hazardous materials. Spill control and secondary containment for rooms, buildings or areas used for the storage of liquid or solid hazardous materials shall be maintained in accordance with the applicable building code.

Exception: Outdoor storage of containers on approved containment pallets in accordance with Section 5004.2.3.

3. Delete Section 5004.2.1.

4. Delete Section 5004.2.2 and Table 5004.2.2.

5. Delete Section 5004.2.2.1.

6. Delete Section 5004.2.2.3.

7. Delete Section 5004.2.2.5.

8. Change Section 5004.2.2.6 to read:

(N)5004.2.2.6 Drainage system design. Drainage systems shall be in accordance with the applicable building code.

9. Change Section 5004.3 to read:

(N)5004.3 Ventilation. Ventilation required for indoor storage areas and storage buildings shall be maintained in accordance with the applicable building code.

10. Delete Section 5004.3.1.

11. Change Section 5004.5 to read:

(N)5004.5 Automatic sprinkler systems. Automatic sprinkler systems for the storage of hazardous materials shall be maintained in accordance with the applicable building code.

12. Change Section 5004.6 to read:

(N)5004.6 Explosion control. Explosion control for storage rooms, areas and buildings shall be maintained in accordance with the applicable building code.



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# Regulations

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13. Change Section 5004.7 to read:

(N)5004.7 Standby or emergency power. Standby or emergency power shall be maintained in accordance with the applicable building code.

14. Delete Section 5004.7.1.

15. Delete Section 5004.7.2.

16. Change Section 5004.8 to read:

(N)5004.8 Limit controls. Limit controls shall be maintained in accordance with the applicable building code.

17. Delete Section 5004.8.1.

18. Delete Section 5004.8.2.

19. Change Section 5004.9 to read:

(N)5004.9 Emergency alarm. Emergency alarm systems shall be maintained in accordance with the applicable building code.

20. Delete Section 5004.10.

21. Delete Section 5004.12.

22. Change Section 5004.13 to read:

(N)5004.13 Weather protection. Where overhead noncombustible construction is provided for sheltering outdoor hazardous material storage areas, such storage shall not be considered indoor storage where the area is constructed in accordance with the requirements for weather protection as required by the applicable building code.

Exception: Storage of explosive materials shall be considered as indoor storage.

D. The following changes shall be made to Section 5005, Use, Dispensing and Handling:

1. Change Section 5005.1 to read:

(N)5005.1 General. Use, dispensing and handling of hazardous materials shall be maintained in accordance with the applicable building code.

2. Delete Section 5005.1.2.

3. Change Section 5005.1.3 to read:

(N)5005.1.3 Spill control and secondary containment for hazardous material liquids. Where required by the applicable building code, spill control and secondary containment shall be maintained in accordance with the applicable building code.

4. Change Section 5005.1.4 to read:

(N)5005.1.4 Limit controls. Limit controls shall be maintained in accordance with the applicable building code.

5. Delete Section 5005.1.4.1.

6. Delete Section 5005.1.4.2.

7. Delete Section 5005.1.4.3.

8. Delete Section 5005.1.4.4.

9. Change Section 5005.1.5 to read:

(N)5005.1.5 Standby or emergency power. Standby or emergency power shall be maintained in accordance with the applicable building code.

10. Delete Section 5005.1.5.1.

11. Delete Section 5005.1.6.

12. Change Section 5005.1.7 to read:

(N)5005.1.7 Lighting. Lighting provided for use, dispensing and handling of hazardous materials shall be maintained in accordance with the applicable building code.

13. Change Section 5005.1.8 to read:

(N)5005.1.8 Fire-extinguishing systems. Fire-extinguishing systems for rooms or areas in which hazardous materials are dispensed or used shall be maintained in accordance with the applicable building code.

14. Change Section 5005.1.9 to read:

(N)5005.1.9 Ventilation. Ventilation for indoor dispensing and use areas shall be maintained in accordance with the applicable building code.

15. Change Section 5005.2.1 to read:

5005.2 Indoor dispensing and use. Indoor dispensing and use of hazardous materials shall be in buildings complying with the International Building Code and in accordance with Section 5005.1, Sections 5005.2.1 through 5005.2.1.4, and Sections 5005.2.2.1 through 5005.2.2.4.

16. Change Section 5005.2.1.3 to read:

5005.2.1.3 Spill control for hazardous material liquids. Buildings, rooms, or areas where hazardous material liquids are dispensed into vessels exceeding a 1.3-gallon (5 L) capacity or used in open systems exceeding a 5.3-gallon (20 L) capacity shall be provided with spill control in accordance with the applicable building code.

17. Change Section 5005.2.1.4 to read:

(N)5005.2.1.4 Secondary containment for hazardous material liquids. Where required by the applicable building code, secondary containment for buildings, rooms or areas where hazardous material liquids are dispensed or used in open systems shall be maintained in accordance with the applicable building code.

18. Delete Table 5005.2.1.4.

19. Delete Section 5005.2.2.

20. Change Section 5005.2.2.1 to read:

(N)5005.2.2.1 Ventilation. Ventilation for closed systems shall be maintained in accordance with the applicable building code.

21. Change Section 5005.2.2.2 to read:

(N)5005.2.2.2 Explosion control. Explosion control shall be maintained in accordance with the applicable building code.

22. Change Section 5005.2.2.3 to read:

(N)5005.2.2.3 Spill control for hazardous material liquids. Spill control for buildings, rooms or areas where hazardous material liquids are used shall be maintained in accordance with the applicable building code.

23. Change Section 5005.2.2.4 to read:

(N)5005.2.2.4 Secondary containment for hazardous material liquids. Secondary containment for buildings, rooms or areas where hazardous material liquids are used shall be maintained in accordance with the applicable building code.

24. Change Section 5005.3.4 to read:

5005.3.4 Spill control for hazardous material liquids in open systems. Outdoor areas where hazardous material liquids are dispensed in vessels exceeding a 1.3-gallon (5 L) capacity or used in open systems exceeding a 5.3-gallon (20 L) capacity shall be provided with spill control in accordance with the applicable building code.

25. Change Section 5005.3.5 to read:

5005.3.5 Secondary containment for hazardous material liquids in open systems. Where required, outdoor areas where hazardous material liquids are dispensed or used in open systems shall be provided with secondary containment in accordance with the applicable building code where the capacity of an individual vessel or system or the capacity of multiple vessels or systems exceeds the following:

1. Individual vessel or system: greater than 1.3 gallons (5 L).

2. Multiple vessels or systems: greater than 5.3 gallons (20 L).

26. Change Section 5005.3.6 to read:

5005.3.6 Spill control for hazardous material liquids in closed systems. Outdoor areas where hazardous material liquids are used in closed systems exceeding 55 gallons (208 L) shall be provided with spill control in accordance with the applicable building code.

27. Change Section 5005.3.7 to read:

5005.3.7 Secondary containment for hazardous material liquids in closed systems. Where required, outdoor areas where hazardous material liquids are dispensed or used in closed systems shall be provided with secondary containment in accordance with the applicable building code where the capacity of an individual vessel or system or the capacity of multiple vessels or systems exceeds the following:

1. Individual vessel or system greater than 55 gallons (208 L).

2. Multiple vessels or systems greater than 1,000 gallons (3785 L).

28. Change Section 5005.3.9 to read:

5005.3.9 Weather protection. Where overhead noncombustible construction is provided for sheltering outdoor hazardous material use areas, such use shall not be considered indoor use where the area is constructed in accordance with the requirements for weather protection as required in the applicable building code.

Exception: Use of explosive materials shall be considered as indoor use.

29. Change Section 5005.4 to read:

(N)5005.4 Handling. Handling of hazardous materials shall be maintained in accordance with the applicable building code.

30. Change Section 5005.4.1 to read:

(N)5005.4.1 Quantities exceeding the maximum allowable quantity per control area. Handling of hazardous materials in outdoor locations in amounts exceeding the maximum allowable quantity per the applicable building code shall be in accordance with Sections 5001, 5003, 5005.1 and 5005.4.

31. Change Section 5005.4.2 to read:

(N)5005.4.2 Quantities not exceeding the maximum allowable quantity per control area. Handling of hazardous materials in outdoor locations in amounts not exceeding the maximum allowable quantity per the applicable building code shall be in accordance with Sections 5001 and 5003.

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# Regulations

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32. Change Section 5005.4.4 to read:

(N)5005.4.4 Dispensing, use and handling. Where hazardous materials having a hazard ranking of 3 or 4 are being transported through corridors, interior exit stairways or ramps or exit passageways, such transportation shall be in accordance with the applicable building code. ]

## **13VAC5-51-145.5. IFC Chapter 51: Aerosols.**

[ A. Change Section 5101.1 to read:

5101.1 Scope. The provisions of this chapter and NFPA 30B shall apply to the manufacturing, storage and display of aerosol products. Manufacturing of aerosol products using hazardous materials shall also comply with Chapter 50.

B. ] Change Section 5101.2 to read:

5101.2: Permit required. Permits shall be required as set forth in Section 107.2.

[ C. Change Sections 5104.1 and 5104.2 to read:

(N)5104.1 General. The inside storage of Levels 2 and 3 aerosol products shall be maintained in accordance with the applicable building code.

5104.1.1 Plastic containers. Aerosol products in plastic containers larger than 4 fluid ounces (118 ml), but not to exceed 33.8 fluid ounces (1000 ml), shall be allowed only where in accordance with this section. The commodity classification shall be Class III commodities, as defined in the applicable NFPA 13 standard where any of the following conditions are met:

1. Base product has no fire point where tested in accordance with ASTM D 92, and nonflammable propellant.
2. Base product has no sustained combustion as tested in accordance with Appendix H, "Method of Testing for Sustained Combustibility," in U.S. Department of Transportation 49 CFR Part 173, and nonflammable propellant.
3. Base product contains up to 20 percent by volume (15.8 percent by weight) of ethanol or isopropyl alcohol, or both, in an aqueous mix, and nonflammable propellant.
4. Base product contains 4 percent by weight or less of an emulsified flammable liquefied gas propellant within an aqueous base. The propellant shall remain emulsified for the life of the product. Where such propellant is not permanently emulsified, the propellant shall be nonflammable.

(N)5104.2 Storage in Groups A, B, E, F, I and R. Storage of aerosol products in occupancies in Groups A, B, E, F, I

and R shall be maintained in accordance with the applicable building code.

D. Change Section 5104.3 and 5104.3.1 to read:

(N)5104.3 Storage in general purpose warehouses. Aerosol storage in general purpose warehouses shall be maintained in accordance with the applicable building code.

(N)5104.3.1 Nonsegregated storage. Nonsegregated storage areas shall be maintained in accordance with the applicable building code.

E. Delete Table 5104.3.1.

F. Change Section 5104.3.2 to read:

(N)5104.3.2 Segregated storage. Segregated storage areas shall be maintained in accordance with the applicable building code.

G. Delete Table 5104.3.2.

H. Change Section 5104.3.2.1 and 5104.3.2.2 to read:

(N)5104.3.2.1 Chain link fence enclosures. Chain link fence enclosures shall be maintained in accordance with the applicable building code.

(N)5104.3.2.2 Aisles. The minimum aisle requirements for segregated storage in general purpose warehouses shall be maintained in accordance with the applicable building code.

I. Delete Table 5104.3.2.2.

J. Change Section 5104.4 through 5104.4.3 to read:

(N)5104.4 Storage in aerosol warehouses. The total quantity of Levels 2 and 3 aerosol products in a warehouse utilized for the storage, shipping and receiving of aerosol products shall maintained in accordance with the applicable building code.

(N)5104.4.1 Automatic sprinkler system. Where provided, automatic sprinkler systems protecting aerosol warehouses shall be maintained in accordance with the applicable building code.

(N)5104.4.2 Pile and palletized storage aisles. Travel distance and aisles serving pile and palletized storage shall be maintained in accordance with the applicable building code.

(N)5104.4.3 Rack storage aisles. Rack storage shall be maintained in accordance with the applicable building code.

K. Delete Section 5104.4.4.

L. Change Section 5104.5 to read:

(N)5104.5 Storage in inside flammable liquid storage rooms. Inside flammable liquid storage rooms shall be

maintained in accordance with the applicable building code.

M. Delete Sections 5104.5.1 and 5104.5.2.

N. Change Sections 5104.6 and 5104.6.1 to read:

(N)5104.6 Storage in liquid warehouses. The storage of aerosol products in liquid warehouses shall be maintained in accordance with the applicable building code.

(N)5104.6.1 Containment. Spill control or drainage shall be maintained in accordance with the applicable building code.

O. Delete Section 5104.6.2.

P. Change Sections 5104.6.3 and 5104.7 to read:

(N)5104.6.3 Opening protection into segregated storage areas. Fire doors or gates opening into the segregated storage area shall be maintained in accordance with the applicable building code.

(N)5104.7 Storage in Group M occupancies. Storage of aerosol products in occupancies in Group M shall be maintained in accordance with the applicable building code.

Q. Delete Table 5104.7.

R. Change Sections 5106.1 and 5106.2.1 to read:

(N)5106.1 General. This section shall apply to the maintenance of retail display of aerosol products.

(N)5106.2.1 Maximum quantities in retail display areas. Quantities of aerosol products in retail display areas shall be maintained in accordance with the applicable building code.

S. Delete Table 5106.2.1.

T. Change Section 5106.2.2 to read:

(N)5106.2.2 Display of containers. Aerosol containers shall be stacked in accordance with the applicable building code.

U. Delete Section 5106.2.3.

V. Change Sections 5106.2.4 through 5106.4.1 to read:

(N)5106.2.4 Retail display automatic sprinkler system. Where an automatic sprinkler system is required for the protected retail display of aerosol products, the wet-pipe automatic sprinkler system shall be in accordance with the applicable building code.

(N)5106.3 Aerosol display and normal merchandising exceeding 8 feet (2438 mm) high. Aerosol display and merchandising exceeding 8 feet in height shall be in accordance with Sections 5106.3.1 through 5106.3.3.

(N)5106.3.1 Maximum quantities in retail display areas. Aerosol products in retail display areas shall not exceed quantities approved under the applicable building code.

(N)5106.3.2 Automatic sprinkler protection. Where provided, automatic sprinkler protection for aerosol display and merchandising areas shall be maintained in accordance with the applicable building code.

(N)5106.3.3 Separation of aerosol areas. Separation of aerosol areas shall be maintained in accordance with the applicable building code.

(N)5106.4 Maximum quantities in storage areas. Aerosol products in storage areas adjacent to retail display areas shall not exceed the quantities approved under the applicable building code.

W. Delete Table 5106.4.

X. Change Sections 5106.5 and 5106.5.1 to read:

(N)5106.5 Special protection design for Levels 2 and 3 aerosols adjacent to flammable and combustible liquids in double-row racks. The display and merchandising of aerosols adjacent to flammable and combustible liquids in double-row racks shall be maintained in accordance with the applicable building code.

(N)5106.5.1 Fire protection. Where required, fire protection for the display and merchandising of aerosols in double-row racks shall be maintained in accordance with the applicable building code.

Y. Delete Section 5106.2.3.

Z. Delete Section 5106.5.2.

AA. Change Sections 5106.5.3 through 5106.5.6 to read:

(N)5106.5.3 Shelving. Shelving in racks shall be maintained in accordance with the applicable building code.

(N)5106.5.4 Aisles. Aisles shall be maintained between rows of racks and adjacent solidly piled or palletized merchandise in accordance with the applicable building code.

(N)5106.5.5 Flue spaces. Flue spaces in racks shall be maintained in accordance with the applicable building code.

(N)5106.5.6 Horizontal barriers. Horizontal barriers shall be maintained in accordance with the applicable building code.

BB. Delete Sections 5106.5.7 and 5106.5.8.

CC. Change Section 5107.1 to read:

(N)5107.1 General. Manufacturing facilities shall be maintained in accordance with the applicable building code. ]

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# Regulations

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## **13VAC5-51-146. IFC Chapter 52. Combustible Fibers. (Repealed.)**

Change Section 5201.3 to read:

5201.3. Permits. Permits shall be required as set forth in Section 107.2.

## **13VAC5-51-146.5. IFC Chapter 53. Compressed Gases.**

[ A. Change Section 5301.1 to read:

5301.1 Scope. Storage, use and handling of compressed gases in compressed gas containers, cylinders, tanks and systems shall comply with the applicable building code, this chapter, and the use and handling provisions of NFPA 55, including those gases regulated elsewhere in this code. Partially full compressed gas containers, cylinders or tanks containing residual gases shall be considered as full for the purposes of the controls required.

Liquefied natural gas for use as a vehicular fuel shall also comply with NFPA 52 and NFPA 59A.

Compressed gases classified as hazardous materials shall also comply with Chapter 50 for general requirements and chapters addressing specific hazards, including Chapters 58 (Flammable Gases), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids), and 64 (Pyrophoric Materials).

Compressed hydrogen (CH<sub>2</sub>) for use as a vehicular fuel shall also comply with Chapters 23 and 58 of this code and NFPA 2.

Cutting and welding gases shall also comply with Chapter 35.

LP-gas shall also comply with Chapter 61.

Exceptions:

1. Gases used as refrigerants in refrigeration systems (see Section 606).
2. Compressed natural gas (CNG) for use as a vehicular fuel shall comply with Chapter 23, NFPA 52, and the International Fuel Gas Code.
3. Cryogenic fluids shall comply with Chapter 55.

B. ] Change Section 5301.2 to read:

5301.2- Permits. Permits shall be required as set forth in Section 107.2.

[ C. Change Section 5303.16 to read:

(N)5303.16 Vaults. Vaults shall be maintained in accordance with the applicable building code.

D. Delete Sections 5303.16.1 through 5303.16.3.

E. Delete Section 5303.16.5.

F. Delete Sections 5303.16.7 through 5303.16.10.

G. Delete Sections 5303.16.12 and 5303.16.14.

H. Change Sections 5305.5 and 5306.2 to read:

(N)5305.5 Venting. Venting shall be maintained in accordance with the applicable building code.

(N)5306.2 Interior supply location. Medical gases shall be stored in areas approved under the applicable building code.

I. Delete Sections 5306.2.1 and 5306.2.2.

J. Change Section 5307.2 to read:

5307.2 Permits. Permits shall be required as set forth in Section 107.2.

K. Delete Section 5307.5.

L. Change Sections 5307.5.1 and 5307.5.2 to read:

(N)5307.5.1 Ventilation. Mechanical ventilation shall be maintained in accordance with the applicable building code.

(N)5307.5.2 Emergency alarm system. Where required under the applicable building code, emergency alarm systems shall be maintained.

M. Delete Section 5308.1.

N. Change Section 5308.2 to read:

(N)5308.2 Ventilation. Where mechanical ventilation is required, it shall be maintained in accordance with the applicable building code. ]

## **13VAC5-51-147. IFC Chapter 54. Corrosive Materials.**

[ A. ] Change [ ~~Section~~ Sections 5401.1 and ] 5401.2 to read:

[ 5401.1 Scope. Maintenance and operational aspects of the storage and use of corrosive materials shall be in accordance with this chapter. Compressed gases shall also comply with Chapter 53.

Exceptions:

1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.
2. Stationary storage battery systems in accordance with Section 608.
3. This chapter shall not apply to R-717 (ammonia) where used as a refrigerant in a refrigeration system (see Section 606). ]

5401.2- Permits. Permits shall be required as set forth in Section 107.2.

[ B. Change Sections 5403.1 and 5403.2 to read:

5403.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of corrosive

materials in amounts not exceeding the maximum allowable quantity per control area shall be in accordance with the applicable building code.

5403.2 Quantities exceeding the maximum allowable quantity per control area. The storage and use of corrosive materials in amounts exceeding the maximum allowable quantity per control area shall be in accordance with the applicable building code.

C. Change Sections 5404.1.1 and 5404.2.1 to read:

(N)5404.1.1 Liquid-tight floor. Liquid-tight floors shall be maintained in accordance with the applicable building code.

(N)5404.2.1 Aboveground outside storage tanks. Aboveground outside storage tanks shall be maintained in accordance with the applicable building code.

D. Change Section 5405.1.2 to read:

(N)5405.1.2 Ventilation. Where required, mechanical exhaust ventilation shall be maintained in accordance with the applicable building code. ]

**13VAC5-51-147.5. IFC Chapter 55, Cryogenic Fluids.**

[ A. ] Change [ ~~Section~~ Sections 5501.1 and ] 5501.2 to read:

[ 5501.1 Scope. Maintenance and operational aspects of the storage, use and handling of cryogenic fluids shall comply with this chapter and NFPA 55. Cryogenic fluids classified as hazardous materials shall also comply with the general requirements of Chapter 50. Partially full containers containing residual cryogenic fluids shall be considered as full for the purposes of the controls required.

Exceptions:

1. Fluids used as refrigerants in refrigeration systems (see Section 606).
2. Liquefied natural gas (LNG), which shall comply with NFPA 59A.

Oxidizing cryogenic fluids, including oxygen, shall comply with Chapter 63, as applicable.

Flammable cryogenic fluids, including hydrogen, methane and carbon monoxide, shall comply with Chapters 23 and 58, as applicable.

Inert cryogenic fluids, including argon, helium and nitrogen, shall comply with ANSI/CGA P-18. ]

5501.2. Permits. Permits shall be required as set forth in Section 107.2.

[ B. Change Section 5503.1.2 to read:

(N)5503.1.2 Concrete containers. Barrier materials and membranes used in connection with concrete, but not

functioning structurally, shall be compatible with the materials contained.

C. Change Sections 5503.5.2 and 5503.6 to read:

(N)5503.5.2 Securing of containers. Stationary containers shall be secured to foundations in accordance with the applicable building code. Portable containers subject to shifting or upset shall be secured. Nesting shall be an acceptable means of securing containers.

(N)5503.6 Electrical wiring and equipment. Electrical wiring and equipment shall be maintained in accordance with the applicable building code.

D. Change Section 5504.2.1 to read:

(N)5504.2.1 Stationary containers. Stationary containers shall be maintained in accordance with the applicable building code.

E. Delete Section 5504.2.1.2.

F. Change Sections 5504.2.1.3, 5504.2.2.2, and 5504.2.2.3 to read:

(N)5504.2.1.3 Ventilation. Ventilation required in storage areas for stationary containers shall be maintained in accordance with the applicable building code.

(N)5504.2.2.2 Construction of indoor areas. Rooms or areas used for the storage of cryogenic fluids in portable containers shall be maintained in accordance with the applicable building code.

(N)5504.2.2.3 Ventilation. Ventilation shall be maintained in accordance with the applicable building code.

G. Change Sections 5505.4.1 and 5505.4.1.1 to read:

(N)5505.4.1 Dispensing areas. Dispensing of cryogenic fluids with physical or health hazards shall be conducted in approved locations.

(N)5505.4.1.1 Ventilation. Ventilation required in areas where cryogenic fluids are dispensed shall be maintained in accordance with the applicable building code.

Exception: Cryogenic fluids that can be demonstrated not to create harmful vapors. ]

**13VAC5-51-150. IFC Chapter 56, Explosives and Fireworks.**

A. Change exception 4 in Section 5601.1 to read:

4. The possession, storage, and use of not more than 15 pounds (6.81 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and any amount of small arms primers for hand loading of small arms ammunition for personal consumption.

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# Regulations

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B. Add exceptions 10, 11 and 12 to Section 5601.1 to read:

10. The storage, handling, or use of explosives or blasting agents pursuant to the provisions of Title 45.1 of the Code of Virginia.

11. The display of small arms primers in Group M when in the original manufacturer's packaging.

12. The possession, storage and use of not more than 50 pounds (23 kg) of commercially manufactured sporting black powder, 100 pounds (45 kg) of smokeless powder, and small arms primers for hand loading of small arms ammunition for personal consumption in Group R-3 or R-5, or 200 pounds (91 kg) of smokeless powder when stored in the manufacturer's original containers in detached Group U structures at least 10 feet (3048 mm) from inhabited buildings and are accessory to Group R-3 or R-5.

C. Change exception 4 in Section 5601.1.3 to read:

4. The possession, storage, sale, handling and use of permissible fireworks where allowed by applicable local or state laws, ordinances and regulations provided such fireworks comply with CPSC 16 CFR, Parts 1500-1507, and DOTn 49 CFR, Parts 100-178, for consumer fireworks.

D. Add exception 5 to Section 5601.1.3 to read:

5. The sale or use of materials or equipment when such materials or equipment is used or to be used by any person for signaling or other emergency use in the operation of any boat, railroad train or other vehicle for the transportation of persons or property.

E. Change entire Section 5601.2 to read:

5601.2- Permit required. Permits shall be required as set forth in Section 107.2 and regulated in accordance with this section. The manufacture, storage, possession, sale and use of fireworks or explosives shall not take place without first applying for and obtaining a permit.

5601.2.1- Residential uses. No person shall keep or store, nor shall any permit be issued to keep, possess or store, any fireworks or explosives at any place of habitation, or within 100 feet (30,480 mm) thereof.

Exception: Storage of smokeless propellant, black powder, and small arms primers for personal use and not for resale in accordance with Section 5606.

5601.2.2- Sale and retail display. Except for the Armed Forces of the United States, Coast Guard, National Guard, federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities, explosives shall not be sold, given, delivered or transferred to any person or company not in possession of a valid permit. The holder of a permit to sell explosives shall make a record of all transactions involving explosives in conformance with

Section 5603.2 and include the signature of any receiver of the explosives. No person shall construct a retail display nor offer for sale explosives, explosive materials, or fireworks upon highways, sidewalks, public property, or in assembly or educational occupancies.

5601.2.3- Permit restrictions. The fire official is authorized to limit the quantity of explosives, explosive materials, or fireworks permitted at a given location. No person, possessing a permit for storage of explosives at any place, shall keep or store an amount greater than authorized in such permit. Only the kind of explosive specified in such a permit shall be kept or stored.

5601.2.3.1- Permit applicants. As a condition of a permit as provided for in Section 107.5, the fire official shall not issue a permit to manufacture, store, handle, use or sell explosives or blasting agents to any applicant who has not provided on the permit application the name and signature of a designated individual as representing the applicant. When, as provided for in Section 107.2 or 107.6, a permit is required to conduct a fireworks display, as a condition of permit as provided for in Section 107.5, the fire official shall not issue a permit to design, setup or conduct a fireworks display to any applicant who has not provided on the permit application the name and signature of a designated individual as representing the applicant.

If the applicant's designated individual changes or becomes no longer qualified to represent the applicant as responsible management or designated individual, the applicant shall notify the fire official who issued the permit on the change of status of the designated individual. The notice is to be made prior to the use of any explosives or conducting a fireworks display but in no case shall the notification occur more than seven days after the change of status and shall provide the name of another designated individual. The fire official may revoke or require the reissuance of a permit based on a change of permit conditions or status or inability to provide another designated individual.

5601.2.3.1.1- BCC~~2~~. The SFMO shall process all applications for a BCC for compliance with § 27-97.2 of the Code of Virginia and will be the sole provider of a BCC. Using forms provided by the SFMO, a BCC may be applied for and issued to any person who submits to the completion of a background investigation by providing fingerprints and personal descriptive information to the SFMO. The SFMO shall forward the fingerprints and personal descriptive information to the Central Criminal Records Exchange for submission to the Federal Bureau of Investigation for the purpose of obtaining a national criminal history records check regarding such applicant.

5601.2.3.1.2- Issuance of a BCC~~2~~. The issuance of a BCC shall be denied if the applicant or designated person representing an applicant has been convicted of any felony, whether such conviction occurred under the laws of the

Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof, unless his civil rights have been restored by the Governor or other appropriate authority.

5601.2.3.1.3- Fee for BCC: The fee for obtaining or renewing a BCC from the SFMO shall be \$150 plus any additional fees charged by other agencies for fingerprinting and for obtaining a national criminal history record check through the Central Criminal Records Exchange to the Federal Bureau of Investigation.

5601.2.3.1.4- Revocation of a BCC: After issuance of a BCC, subsequent conviction of a felony will be grounds for immediate revocation of a BCC, whether such conviction occurred under the laws of the Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof. The BCC shall be returned to the SFMO immediately. An individual may reapply for his BCC if his civil rights have been restored by the Governor or other appropriate authority.

5601.2.4- Financial responsibility. Before a permit is issued, as required by Section 5601.2, the applicant shall file with the jurisdiction a corporate surety bond in the principal sum of \$500,000 or a public liability insurance policy for the same amount, for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The legal department of the jurisdiction may specify a greater amount when conditions at the location of use indicate a greater amount is required. Government entities shall be exempt from this bond requirement.

5601.2.4.1- Blasting. Before approval to do blasting is issued, the applicant for approval shall file a bond or submit a certificate of insurance in such form, amount, and coverage as determined by the legal department of the jurisdiction to be adequate in each case to indemnify the jurisdiction against any and all damages arising from permitted blasting but in no case shall the value of the coverage be less than \$1,000,000.

Exception: Filing a bond or submitting a certificate of liability insurance is not required for blasting on real estate parcels of five or more acres conforming to the definition of "real estate devoted to agricultural use" or "real estate devoted to horticultural use" in § 58.1-3230 of the Code of Virginia and conducted by the owner of such real estate.

5601.2.4.2- Fireworks display. The permit holder shall furnish a bond or certificate of insurance in an amount deemed adequate by the legal department of the jurisdiction for the payment of all potential damages to a person or persons or to property by reason of the permitted display, and arising from any acts of the permit holder, the

agent, employees or subcontractors, but in no case shall the value of the coverage be less than \$1,000,000.

F. Change entire Section 5601.4 to read:

5601.4- Qualifications. Persons in charge of magazines, blasting, fireworks display, or pyrotechnic special effect operations shall not be under the influence of alcohol or drugs which impair sensory or motor skills, shall be at least 21 years of age and possess knowledge of all safety precautions related to the storage, handling or use of explosives, explosive materials or fireworks.

5601.4.1- Certification of blasters and pyrotechnicians. Certificates as a restricted blaster, unrestricted blaster or pyrotechnician will be issued upon proof of successful completion of an examination approved by the SFMO commensurate to the certification sought and completion of a background investigation for compliance with § 27-97.2 of the Code of Virginia. The applicant for certification shall submit proof to the SFMO of the following experience:

1. For certification as a restricted blaster, at least one year under direct supervision by a certified unrestricted blaster, certified restricted blaster or other person(s) approved by the SFMO.
2. For certification as an unrestricted blaster, at least one year under direct supervision by a certified unrestricted blaster or other person or persons approved by the SFMO.
3. For certification as a pyrotechnician, aerial, or pyrotechnician, proximate, applicant was in responsible charge of or has assisted in the documented design, setup and conducting of a fireworks display on at least six occasions within the 24 months immediately preceding the application for certification.

The SFMO shall process all certification applicants for compliance with § 27-97.2 of the Code of Virginia and will be the sole provider of blaster and pyrotechnician certifications.

Exception: The use of explosives by the owner of real estate parcels of five or more acres conforming to the definition of "real estate devoted to agricultural use" or "real estate devoted to horticultural use" in § 58.1-3230 of the Code of Virginia when blasting on such real estate.

5601.4.2- Certification issuance. The issuance of a certification as a blaster or pyrotechnician shall be denied if the applicant has (i) been convicted of any felony, whether such conviction occurred under the laws of the Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof, unless his civil rights have been restored by the Governor or other appropriate authority, (ii) has not provided acceptable proof or evidence of the experience required in Section



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## Regulations

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5601.4.1, or (iii) has not provided acceptable proof or evidence of the continued training or education required in Section 5601.4.5.

5601.4.3- Fee for certification. The fee for obtaining or renewing a blaster or pyrotechnician certificate from the SFMO shall be \$150 plus any additional fees charged by other agencies for fingerprinting and for obtaining a national criminal history record check through the Central Criminal Records Exchange to the Federal Bureau of Investigation.

5601.4.3.1- Fee for replacement certificate. A written request for a replacement blaster or pyrotechnician certificate shall be accompanied by the payment of an administrative fee in the amount of \$20 made payable to the Treasurer of Virginia. Verbal requests shall not be accepted.

5601.4.4- Revocation of a blaster or pyrotechnician certification. After issuance of a blaster or pyrotechnician certification, subsequent conviction of a felony will be grounds for immediate revocation of a blaster or pyrotechnician certification, whether such conviction occurred under the laws of the Commonwealth, or any other state, the District of Columbia, the United States or any territory thereof. The certification shall be returned to the SFMO immediately. An individual may subsequently reapply for his blaster or pyrotechnician certification if his civil rights have been restored by the Governor or other appropriate authority.

5601.4.5- Expiration and renewal of a BCC, or blaster or pyrotechnician certification. A certificate for an unrestricted blaster, restricted blaster or pyrotechnician shall be valid for three years from the date of issuance. A BCC shall be valid for three years from the date of issuance. Renewal of the unrestricted blaster certificate will be issued upon proof of at least 16 accumulated hours of continued training or education in the use of explosives within three consecutive years and a background investigation for compliance with § 27-97.2 of the Code of Virginia. Renewal of the restricted blaster certificate will be issued upon proof of at least eight accumulated hours of continued training or education in the use of explosives within three consecutive years and a background investigation for compliance with § 27-97.2 of the Code of Virginia. Renewal of the pyrotechnician certificate will be issued upon proof of at least 12 accumulated hours of continued training or education in the subject areas of explosives storage; the design, setup or conduct of a fireworks display within three consecutive years; and a background investigation for compliance with § 27-97.2 of the Code of Virginia. The continued training or education required for renewal of a blaster or pyrotechnician certificate shall be obtained during the three years immediately prior to the certificate's published expiration

date. Failure to renew a blaster or pyrotechnician certificate in accordance with this section shall cause an individual to obtain another blaster or pyrotechnician certificate upon compliance with Section 5601.4.1 to continue engaging in the unsupervised use of explosives or conducting a fireworks display.

5601.4.6- Denial, suspension or revocation of a certificate. If issuance or renewal of a blaster or pyrotechnician certificate is denied, or upon the filing of a complaint against an applicant or certificate holder for non-performance, or performance in violation of the SFPC and the appropriate referenced NFPA 495, 1123 or 1126 standards, the State Fire Marshal may convene a three-member panel to hear the particulars of the complaint or denial. The three-member panel will be comprised of the following persons:

1. A Virginia certified fire official, excluding any person certified as a blaster or pyrotechnician, or who is on the staff of the SFMO.
2. A Virginia certified blaster or pyrotechnician whose certification is the same as that of the person to whom a complaint is lodged, and who is not associated in any way with the person against whom a complaint is lodged and whose work or employer is geographically remote, as much as practically possible, from the person to whom a complaint is lodged.
3. A member of the general public who does not have a vested financial interest in conducting a fireworks display, or the manufacture, sale, storage, or use of explosives.

Upon the State Fire Marshal convening such panel, the hearing is to commence within 60 calendar days of the filing of the complaint or denial. The three-member panel is to hear the complaint and render a written recommendation to the State Fire Marshal for certificate issuance, no action, revocation, or suspension of a certificate for a period not to exceed six months. Notwithstanding the discretionary decision and action to convene such panel, the State Fire Marshal reserves the authority to choose an action that may be contrary to the panel's recommendation. A written decision of the State Fire Marshal is to be delivered to the party within 14 days of the hearing's conclusion. If the certificate is denied, revoked, or suspended by the SFMO, in accordance with Section 112.9, the party may file an appeal with the ~~TRB~~ State Review Board. The party's appeal to ~~TRB~~ State Review Board must be filed within 14 calendar days of the receipt of the State Fire Marshal's written decision to deny, revoke, or suspend. The denial, revocation, or suspension of a license is independent of any criminal proceedings that may be initiated by any state or local authority.

5601.4.6.1- Replacement of revoked certificate. Any person whose certificate as a pyrotechnician or blaster was revoked upon cause may apply for certification as a pyrotechnician or blaster six months or more from the date of the revocation and upon compliance with Section 5601.4.1. All elements of Section 5601.4.1 are required to be obtained and dated after the date of revocation.

5601.4.6.2- Return of suspended certificate. Any certificate that was suspended upon cause will be reinstated at the end of the suspension period without change to its expiration date.

G. Change Section 5601.7 to read:

5601.7- Seizure. The fire official is authorized to remove or cause to be removed or disposed of in an approved manner, at the expense of the owner, fireworks offered or exposed for sale, stored, possessed or used in violation of this chapter.

H. [ Change Section 5601.8.1.1 to read:

5601.8.1.1 Mass-detonating explosives (Division 1.1, 1.2 or 1.5). The total net explosive weight of mass-detonating explosives (Division 1.1, 1.2 or 1.5) shall be used. See Table 5604.5.2(1) as appropriate.

Exception: Where the TNT equivalence of the explosive material has been determined, the equivalence is allowed to be used to establish the net explosive weight.

I. Change Section 5601.8.1.3 to read:

5601.8.1.3 Combinations of mass-detonating and non-mass-detonating explosives (excluding Division 1.4). Combination of mass-detonating and non-mass-detonating explosives (excluding Division 1.4) shall be as follows:

1. Where Divisions 1.1 and 1.2 explosives are located in the same site, determine the distance for the total quantity considered first as Division 1.1 and then as Division 1.2. The required distance is the greater of the two. Where the Division 1.1 requirements are controlling and the TNT equivalence of the Division 1.2 is known, the TNT equivalent weight of the Division 1.2 items shall be allowed to be added to the total explosive weight of Division 1.1 items to determine the net explosive weight for Division 1.1 distance determination. See Table 5604.5.2(2) as appropriate.

2. Where Divisions 1.1 and 1.3 explosives are located in the same site, determine the distances for the total quantity considered first as Division 1.1 and then as Division 1.3. The required distance is the greater of the two. Where the Division 1.1 requirements are controlling and the TNT equivalence of the Division 1.3 is known, the TNT equivalent weight of the Division 1.3 items shall be allowed to be added to the total explosive weight of Division 1.1 items to determine the net explosive weight

for Division 1.1 distance determination. See Table 5604.5.2(1) or Table 5604.5.2(2) as appropriate.

3. Where Divisions 1.1, 1.2 and 1.3 explosives are located in the same site, determine the distances for the total quantity considered first as Division 1.1, next as Division 1.2 and finally as Division 1.3. The required distance is the greatest of the three. As allowed by subdivisions 1 and 2 of this subsection, TNT equivalent weights for Division 1.2 and Division 1.3 items are allowed to be used to determine the net weight of explosives for Division 1.1 distance determination. Table 5604.5.2(1) shall be used where TNT equivalency is used to establish the net explosive weight.

4. For composite pyrotechnic items Division 1.1 and Division 1.3, the sum of the net weights of the pyrotechnic composition and the explosives involved shall be used. See Tables 5604.5.2(1) and 5604.5.2(2).

J. Change Section 5605.6.4.1 to read:

5605.6.4.1 Magazines. Magazines used for storage in processing areas shall be in accordance with the requirements of Section 5604.5.1. Explosive materials shall be removed to appropriate storage magazines for unattended storage at the end of the work day. The contents of indoor magazines shall be added to the quantity of explosives contained at individual workstations and the total quantity of material stored, processed or used shall be utilized to establish the intraplant separation distances indicated by Table 5604.5.2(3) as appropriate.

K. Change Section 5606.5.2.1 to read:

5606.5.2.1 Smokeless propellant. Commercial stocks of smokeless propellants shall be stored as follows:

1. Quantities exceeding 20 pounds (9 kg), but not exceeding 100 pounds (45 kg) shall be stored in portable wooden boxes having walls of not less than 1 inch (25 mm) nominal thickness or equivalent.

2. Quantities exceeding 100 pounds (45 kg), but not exceeding 800 pounds (363 kg), shall be stored in storage cabinets having walls not less than 1 inch (25 mm) nominal thickness or equivalent. Not more than 400 pounds (182 kg) shall be stored in any one cabinet, and cabinets shall be separated by a distance of at least 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of at least 1 hour.

3. Storage of quantities exceeding 800 pounds (363 kg), but not exceeding 5,000 pounds (2270 kg) in a building shall comply with all of the following:

3.1. The storage is inaccessible to unauthorized personnel.

3.2. Smokeless propellant shall be stored in nonportable storage cabinets having wood walls not less than 1 inch

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# Regulations

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(25 mm) nominal thickness or equivalent and having shelves with not no more than 3 feet (914 mm) of vertical separation between shelves.

3.3. No more than 400 pounds (182 kg) is stored in any one cabinet.

3.4. Cabinets shall be located against walls with at least 40 feet (12 192 mm) between cabinets.

3.5. The minimum required separation between cabinets may be reduced to 20 feet (6096 mm) provided that barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades must extend a minimum of 10 feet (3048 mm) outward, be firmly attached to the wall and be constructed of steel not less than 1/4 inch thick (6.4 mm), 2-inch (51 mm) nominal thickness wood, brick or concrete block.

3.6. Smokeless propellant shall be separated from materials classified as combustible liquids, flammable liquids, flammable solids or oxidizing materials by a distance of 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of 1 hour.

3.7. The building shall be equipped throughout with an automatic sprinkler system installed in accordance with the applicable building code.

4. Smokeless propellants not stored in according to Item 1, 2, or 3 shall be stored in a Type 2 or 4 magazine in accordance with Section 5604 and NFPA 495.

L. Change Section 5606.5.2.3 to read:

5606.5.2.3 Small arms primers. Commercial stocks of small arms primers shall be stored as follows:

1. Quantities not to exceed 750,000 small arms primers stored in a building shall be arranged such that not more than 100,000 small arms primers are stored in any one pile and piles are not less than 15 feet (4572 mm) apart.

2. Quantities exceeding 750,000 small arms primers stored in a building shall comply with all of the following:

2.1. The warehouse or storage building shall not be accessible to unauthorized personnel.

2.2. Small arms primers shall be stored in cabinets. Not more than 200,000 small arms primers shall be stored in any one cabinet.

2.3. Shelves in cabinets shall have vertical separation of not less than 2 feet (610 mm).

2.4. Cabinets shall be located against walls of the warehouse or storage room with not less than 40 feet (12 192 mm) between cabinets. The minimum required separation between cabinets shall be allowed to be reduced to 20 feet (6096 mm) provided that barricades

twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades shall be firmly attached to the wall and shall be constructed of steel not less than 1/4 inch thick (6.4 mm), 2-inch (51 mm) nominal thickness wood, brick or concrete block.

2.5. Small arms primers shall be separated from materials classified as combustible liquids, flammable liquids, flammable solids or oxidizing materials by a distance of 25 feet (7620 mm) by a fire partition having a fire-resistance rating of 1 hour.

2.6. The building shall be protected throughout with an automatic sprinkler system installed in accordance with the applicable building code.

3. Small arms primers not stored in accordance with Item 1 or 2 of this section shall be stored in a magazine meeting the requirements of Section 5604 and NFPA 495.

M.] Add the following to the list of definitions in Section 5602.1:

Background clearance card (BCC).

Blaster, restricted.

Blaster, unrestricted.

Design.

Designated individual.

Fireworks.

Fireworks, 1.4G.

Fireworks, 1.3G.

Permissible fireworks.

Pyrotechnician (fireworks operator).

Pyrotechnician, aerial.

Pyrotechnician, proximate.

Responsible management.

Smokeless propellants.

Sole proprietor.

[ F. N. ] Change Section 5603.4 to read:

5603.4- Accidents. Accidents involving the use of explosives, explosive materials, and fireworks, which result in injuries or property damage, shall be immediately reported by the permit holder to the fire code official and State Fire Marshal.

[ J. O. ] Change Section 5605.1 to read:

5605.1- General. The [ restricted and unrestricted ] manufacture, assembly and testing of explosives, ammunition, blasting agents and fireworks shall comply

with the requirements of this section, [ ~~Title 59.1, Chapter 41 of the Code of Virginia, and~~ ] NFA 495 [ ~~or~~ ] NFA 1124 [ ~~, or NFA 1126~~ ].

Exceptions:

1. The hand loading of small arms ammunition prepared for personal use and not offered for resale.
2. The mixing and loading of blasting agents at blasting sites in accordance with NFA 495.

[ ~~3. The use of binary explosives or phosphoric materials in blasting or pyrotechnic special effects applications in accordance with NFA 495 or NFA 1126.~~

~~K. P.~~ ] Add Section 5605.1.1 to read:

5605.1.1- Permits. Permits for the [ restricted and unrestricted explosives ] manufacture, assembly and testing of explosives, ammunition, blasting agents and fireworks shall be required as set forth in Section 107.2 and regulated in accordance with this section. A permit [ ~~to manufacture for unrestricted explosives manufacturing of~~ ] any explosive material [ ~~in any quantity~~ ] shall be prohibited unless such manufacture is authorized by a federal license and conducted in accordance with recognized safety practices. [ All restricted explosives manufacturing shall comply with the instructions provided by the supplier of the components used in the manufacture of the explosive material. ]

[ ~~L.~~ Exceptions:

1. Any recreational use of reactive targets is not required to obtain a permit for restricted explosives manufacture or explosives use when such manufacture and use complies with all of the following:

1.1. The manufacture and use is limited to one pound or less per unit on private property with the permission of the property owner and used no closer than 500 feet from a roadway or structure;

1.2. The manufacture of the reactive target complies with the instructions provided by the producer of the components used in the manufacture;

1.3. The reactive target manufactured is for immediate use without any residual storage or transportation; and

1.4. The exploding or use of the target is in conformance with its intended purpose by the manufacturer of the reactive target and does not involve the deliberate destruction of any property, vehicle, structure or animal life.

2. The owner of real estate parcels of five or more acres conforming to the definition of "real estate devoted to agricultural use" or "real estate devoted to horticultural use" in § 58.1-3230 of the Code of Virginia is not required to obtain a permit for restricted explosives

manufacture when such manufacture complies with all of the following:

2.1. The manufacture of the explosives is conducted by the owner of such real estate;

2.2. The manufacture of the explosives complies with the instructions provided by the producer of the components used in the manufacture;

2.3. The explosive used does not include reactive targets;

2.4. The reactive target manufactured is for immediate use without any residual storage or transportation; and

2.5. A permit to use explosives has been obtained in accordance with Section 107.2.

3. An applicant that is performing nonpersonal, business work is not required to obtain a permit for restricted explosives manufacture when such manufacture complies with all of the following:

3.1. The applicant's certified blaster who manufactures the explosives complies with the instructions provided by the producer of the components used in the manufacture;

3.2. The explosive used does not include the use of reactive targets;

3.3. The explosive material manufactured is for immediate use without any residual storage or transportation; and

3.4. A permit to use explosives has been obtained in accordance with Section 107.2.

~~Q.~~ Delete Section 5605.3.

~~R.~~ Change Section 5605.4 to read:

(N)5605.4 Separation of manufacturing operating buildings from inhabited buildings, public traffic routes and magazines. Where an operating building on an explosive materials plant site is designed to contain explosive materials, such a building shall be maintained in accordance with the applicable building code.

~~S.~~ Change Section 5605.5 to read:

(N)5605.5 Buildings and equipment. Buildings or rooms that exceed the maximum allowable quantity per control area of explosive materials shall be operated in accordance with this section.

Exception: Fireworks manufacturing buildings constructed and operated in accordance with NFA 1124.

~~T.~~ Delete Table 5605.3.

~~U.~~ Change Section 5605.6.4 to read:

(N)5605.6.4 Quantity limits. The quantity of explosives at any particular work station shall be limited to that posted on the load limit signs for the individual work station. The

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# Regulations

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total quantity of explosives for multiple workstations shall not exceed that established by the intraplant distances in accordance with the applicable building code.

V. ] Change Section 5606.4 to read:

5606.4- Storage in residences. Propellants for personal use in quantities not exceeding 50 pounds (23 kg) of black powder or 100 pounds (45 kg) of smokeless powder shall be stored in original containers in occupancies limited to Groups R-3 and R-5, or 200 pounds (91 kg) of smokeless powder when stored in the manufacturer's original containers in detached Group U structures that are at least 10 feet from inhabited buildings and are accessory to Group R-3 or R-5. In other than Group R-3 or R-5, smokeless powder in quantities exceeding 20 pounds (9 kg) but not exceeding 50 pounds (23 kg) shall be kept in a wooden box or cabinet having walls of at least one inch (25 mm) nominal thickness or equivalent.

[ ~~M. W.~~ ] Delete Sections 5606.4.1, 5606.4.2, and 5606.4.3.

[ ~~N. X.~~ ] Change Section 5606.5.1.1 to read:

5606.5.1.1- Smokeless propellant. No more than 100 pounds (45 kg) of smokeless propellants, in containers of 8 pounds (3.6 kg) or less capacity, shall be displayed in Group M occupancies.

[ ~~O. Y.~~ ] Delete Section 5606.5.1.3.

[ ~~P. Z.~~ ] Change Section 5606.5.2.1 to read:

5606.5.2.1- Smokeless propellant- Commercial stocks of smokeless propellants shall be stored as follows:

1. Quantities exceeding 20 pounds (9 kg), but not exceeding 100 pounds (45 kg) shall be stored in portable wooden boxes having walls of at least one inch (25 mm) nominal thickness or equivalent.

2. Quantities exceeding 100 pounds (45 kg), but not exceeding 800 pounds (363 kg), shall be stored in storage cabinets having walls at least one inch (25 mm) nominal thickness or equivalent. Not more than 400 pounds (182 kg) shall be stored in any one cabinet, and cabinets shall be separated by a distance of at least 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of at least one hour.

3. Storage of quantities exceeding 800 pounds (363 kg), but not exceeding 5,000 pounds (2270 kg) in a building shall comply with all of the following:

3.1. The storage is inaccessible to unauthorized personnel.

3.2. Smokeless propellant shall be stored in nonportable storage cabinets having wood walls at least one inch (25 mm) nominal thickness or equivalent and having shelves with no more than three feet (914 mm) of vertical separation between shelves.

3.3. No more than 400 pounds (182 kg) is stored in any one cabinet.

3.4. Cabinets shall be located against walls with at least 40 feet (12 192 mm) between cabinets. The minimum required separation between cabinets may be reduced to 20 feet (6096 mm) provided that barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades must extend a minimum of 10 feet (3048 mm) outward, be firmly attached to the wall, and be constructed of steel not less than 0.25 inch thick (6.4 mm), two-inch (51 mm) nominal thickness wood, brick, or concrete block.

3.5. Smokeless propellant shall be separated from materials classified as combustible liquids, flammable liquids, flammable solids, or oxidizing materials by a distance of 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of one hour.

3.6. The building shall be equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

4. Smokeless propellants not stored according to Item 1, 2, or 3 above shall be stored in a Type 2 or 4 magazine in accordance with Section 5604 and NFPA 495.

[ ~~Q. AA.~~ ] Change Section 5607.1 to read:

5607.1- General. Blasting operations shall be conducted only by persons certified by the SFMO as a restricted or unrestricted blaster or shall be supervised on-site by a person properly certified by the SFMO as a restricted or unrestricted blaster.

[ ~~R. BB.~~ ] Add Section 5607.16 to read:

5607.16- Blast records. A record of each blast shall be kept and retained for at least five years and shall be readily available for inspection by the code official. The record shall be in a format selected by the blaster and shall contain the minimum data and information indicated in Form 5607.16.

Form 5607.16  
Blast (shot) Record

Block 1 General Information				
1	Blast date:	Blast Number:	Blast Time:	Permit Number:
2	Blast location by address including city, county or town:			
3	Blast location by GPS coordinates: <input type="checkbox"/> check box if unknown			
4	Name of Permit Holder:			
5	Name of Blaster in charge (print):			
6	Signature of Blaster in charge:			
7	Certification Number of Blaster in charge:			

Block 2 General Environmental Conditions			
1	Weather (Clear? Cloudy? Overcast?)	Wind direction and speed  @ _____ mph	Temperature F° / C°
2	Topography (Flat? Hilly? Mountainous?)	Distance from blast site to nearest inhabited building:	Distance from nearest inhabited building determined by: <input type="checkbox"/> GPS coordinates <input type="checkbox"/> Measurement <input type="checkbox"/> Estimated
3	Use of nearest inhabited building (Dwelling? Business? Apartment Building? School?)	Direction from blast site to nearest inhabited building:	Direction from blast site to nearest inhabited building determined by: <input type="checkbox"/> GPS instrument <input type="checkbox"/> Compass <input type="checkbox"/> Estimated
Additional Blaster notations on environmental conditions:			

Block 3 Shot Layout and Precautions Taken (N/A = Not Applicable)			
1	Number of holes	Diameter of hole or holes	Depth of hole or holes

# Regulations

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

Block 4 Seismic Control Measures (N/A = Not Applicable)			
1	Was scaled distance formula used? <input type="checkbox"/> Yes <input type="checkbox"/> No	Indicate which scaled distance equation was used. <input type="checkbox"/> N/A <input type="checkbox"/> $W(lb) = \{D(ft)/50\}^2$ <input type="checkbox"/> $W(lb) = \{D(ft)/55\}^2$ <input type="checkbox"/> $W(lb) = \{D(ft)/65\}^2$	Maximum allowable charge weight per 8 ms based on scaled distance. <input type="checkbox"/> N/A
2	Was seismograph used? <input type="checkbox"/> Yes <input type="checkbox"/> No	Seismograph manufacturer and model number: <input type="checkbox"/> N/A	Seismograph serial number: <input type="checkbox"/> N/A
			Seismograph's last calibration date. <input type="checkbox"/> N/A
3	Distance and direction seismograph from blast site <input type="checkbox"/> N/A	Distance determined by: <input type="checkbox"/> N/A <input type="checkbox"/> GPS coordinates <input type="checkbox"/> Estimated <input type="checkbox"/> Measurement	
4	Seismograph <input type="checkbox"/> N/A Geophone Minimum Frequency _____ Hz Seismograph Microphone Minimum Frequency _____ Hz	Seismograph recordings: <input type="checkbox"/> N/A Transverse _____ in/s _____ Hz Vertical _____ in/s _____ Hz Longitudinal _____ in/s _____ Hz	

5	Seismograph trigger level <input type="checkbox"/> N/A  _____ in/s _____ dB
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Additional Blaster notations on seismic control measures:

**Block 5  
Quantity and Product**

1	Maximum allowable charge weight per 8 ms interval <input type="checkbox"/> Delay not used _____ lbs	Initiation (Check)  <input type="checkbox"/> Electric <input type="checkbox"/> Non-electric <input type="checkbox"/> Electronic
2	Maximum number of holes/decks per 8 ms interval <input type="checkbox"/> Delay not used _____ lbs	
3	Maximum weight or sticks of explosive per hole  _____ lbs	Firing device manufacturer and model: <input type="checkbox"/> N/A

Explosive Product listing (Attach additional pages as needed.)

	Manufacturer	Product name, description or brand	Number of units	Unit weight (lb)

5	Total explosive weight in this shot: _____ lbs.
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Additional Blaster notations on product and quantities:

**Block 6  
Completion of Shot Record and General Comments**

General comments on shot not included in notes above:

Date shot report completed:	Time shot report completed:
Printed name and signature of person completing shot report if different from Block 1, Lines 5 and 6.	(Print)
	(Signature)



# Regulations

[ ~~S~~- CC. ] Change Section 5608.2 to read:

5608.2- Permit application. Prior to issuing permits for a fireworks display, plans for the fireworks display, inspections of the display site and demonstrations of the display operations shall be approved. A plan establishing procedures to follow and actions to be taken in the event that a shell fails to ignite in, or discharge from, a mortar or fails to function over the fallout area or other malfunctions shall be provided to the fire code official.

In addition to the requirements of Section 5601.2.3.1, a permit to conduct a fireworks display shall not be issued to any applicant without the applicant identifying on the application the pyrotechnician who will be in responsible charge of the fireworks display and who is appropriately certified as a pyrotechnician in accordance with Section 5601.4.1.

Exception: Permits are not required for the use or display of permissible fireworks on private property with the consent of the owner of such property.

[ ~~T~~- DD. ] Change Section 5608.3 to read:

5608.3- Approved fireworks displays. Approved fireworks displays shall include only the approved fireworks 1.3G, fireworks 1.4G, fireworks 1.4S and pyrotechnic articles 1.4G. The design, setup, conducting or direct on-site supervision of the design, setup and conducting of any fireworks display, either inside a building or outdoors, shall be performed only by persons certified by the SFMO

[ ~~V~~- EE. ] Add Table 5608.4 to read:

in accordance with Section 5601.4.1 as a pyrotechnician (firework operator) and at least one person properly certified by the SFMO as a pyrotechnician shall be present at the site where the fireworks display is being conducted. The approved fireworks shall be arranged, located, discharged and fired in a manner that will not pose a hazard to property or endanger any person.

Exception: Certification as a pyrotechnician is not required for the use or display of permissible fireworks when conducted on private property with the consent of the owner of such property.

[ ~~U~~- FF. ] Change Section 5608.4 to read:

5608.4 Clearance. Spectators, spectator parking areas, and dwellings, buildings or structures shall not be located within the display site. The site for the outdoor land or water display shall have at least 100-ft/in. (31-m/2.4mm) radius of internal mortar diameter of the largest shell to be fired as shown in Table 5608.4.

Exceptions:

1. This provision shall not apply to pyrotechnic special effects and fireworks displays using Division 1.4G materials before a proximate audience in accordance with NFPA 1126.
2. This provision shall not apply to unoccupied dwellings, buildings and structures with the approval of the building owner and the fire code official.

Table 5608.4 Distances for Outdoor Fireworks Display Sites: Minimum Separation Distances from Mortars to Spectators for Land and Water Displays									
Mortar Size <sup>a</sup>		Minimum Secured Diameter of Site		Vertical Mortars <sup>b</sup>		Angled Mortars <sup>c</sup> 1/3 offset		Mortars to Special Hazards <sup>d</sup>	
in.	mm	ft	m	ft	m	ft	m	ft	m
<3	<76	300	92	150	46	100	31	300	92
3	76	600	183	300	92	200	61	600	183
4	102	800	244	400	122	266	81	800	244
5	127	1000	305	500	152	334	102	1000	305
6	152	1200	366	600	183	400	122	1200	366
7	178	1400	427	700	213	467	142	1400	427
8	203	1600	488	800	244	534	163	1600	488
10	254	2000	610	1000	305	667	203	2000	610
12	305	2400	732	1200	366	800	244	2400	732
>12	Requires the approval of the fire official								

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

<sup>b</sup> Where the mortars are positioned vertically, the mortars shall be placed at the approximate center of the display site.

<sup>c</sup> Mortars shall be permitted to be angled during a display to allow for wind and to carry shells away from the main spectator viewing areas. For angled mortars, the minimum secured diameter of the display site does not change. Only the location of the mortars within the secured area changes when the mortars are angled.

<sup>d</sup> Note that this is only the distance to the special hazards. The minimum secured diameter of the display site does not change.

[ ~~W. GG.~~ ] Add Sections 5608.4.1 and 5608.4.2 to read:

5608.4.1- Non-splitting, non-bursting comets and mines. For non-splitting or non-bursting comets and mines containing only stars or non-splitting or non-bursting comets, the minimum required radius of the display site shall be 50 feet per inch (15.24 m per 25.4 mm) of the internal mortar diameter of the largest comet or mine to be fired, one-half that shown in Table 5608.4.

5608.4.2- Special distance requirements. The minimum distance requirements of Table 5608.4 shall be adjusted as follows:

1. For chain-fused aerial shells and comets and mines to be fired from mortars, racks, or other holders that are sufficiently strong to prevent their being repositioned in the event of an explosive malfunction of the aerial shells, comets, or mines, the minimum required radius shall be the same as that required in Sections 5608.4 and 5608.4.1. For chain-fused aerial shells and comets and mines to be fired from mortars, racks, or other holders that are not sufficiently strong to prevent their being repositioned in the event of an explosive malfunction of the aerial shells, comets, or mines, or if there is doubt concerning the strength of racks holding chain-fused mortars, based upon the largest mortar in the sequence, the minimum required radius shall be double that required in Sections 5608.4 and 5608.4.1.

2. Distances from the point of discharge of any firework to a health care or detention and correctional facility, or the bulk storage of materials that have flammability, explosive, or toxic hazard shall be at least twice the distances specified in Table 5608.4.

3. The minimum required spectator separation distance for roman candles and cakes that produce aerial shells, comets, or mine effects shall be the same as the minimum required radius specified in Table 5608.4.

4. Aerial shells, comets and mines, and roman candles and cakes shall be permitted to be angled if the dud shells or components are carried away from the main spectator area and either of the following requirements is satisfied:

4.1. The offset specified in Table 5608.4 is followed.

4.2. The separation distance is correspondingly increased in the direction of the angle.

If the offset provided in Table 5608.4 is followed, the mortars or tubes shall be angled so that any dud shells or components fall at a point approximately equal to the offset of the mortars or tubes from the otherwise required discharge point but in the opposite direction.

**13VAC5-51-151. IFC Chapter 57: Flammable and Combustible Liquids.**

A. [ The following changes shall be made to Section 5701, General:

1. ] Add Section 5701.1.1 to read:

5701.1.1- Other regulations. Provisions of the Virginia State Water Control Board regulations 9VAC25-91 and 9VAC25-580 addressing the maintenance and operational aspects of underground and aboveground storage tanks subject to those regulations are hereby incorporated by reference to be an enforceable part of this code. Where differences occur between the provisions of this code and the incorporated provisions of the State Water Control Board regulations, the provisions of the State Water Control Board regulations shall apply.

Note: For requirements for the installation, repair, upgrade and closure of such tanks, see Section 414.6.2 of the USBC, Part I, Construction.

~~B.~~ [ 2. Change Section 5701.2 to read:

(N)5701.2 Applicability. This chapter shall apply to the maintenance and operation of flammable and combustible liquids.

3. Delete Section 5701.3.

4. ] Change Section 5701.4 to read:

5701.4- Permits. Permits shall be required as set forth in Section 107.2.

[ ~~C. B.~~ The following changes shall be made to Section 5703, General Requirements:

1. Change Sections 5703.1 and 5703.1.1 to read:

(N)5703.1 Electrical. Electrical wiring and equipment shall be maintained in accordance with the applicable building code.

(N)5703.1.1 Classified locations for flammable liquids. Areas where flammable liquids are stored, handled,

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# Regulations

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dispensed or mixed shall be maintained in accordance with the applicable building code.

2. Delete Table 5703.1.1.

3. Change Section 5703.1.2 to read:

(N)5702.1.2 Classified locations for combustible liquids. Areas where Class II or III liquids are heated above their flash points shall be maintained in accordance with the applicable building code.

4. Delete Section 5703.1.3.

5. Change Sections 5703.2 and 5703.6 to read:

(N)5703.2 Fire protection. Where provided, fire protection for the storage, use, dispensing, mixing, handling, and onsite transportation of flammable and combustible liquids shall be maintained in accordance with the applicable building code.

(N)5703.6 Piping systems. Piping systems, and their component parts, for flammable and combustible liquids shall be maintained in accordance with the applicable building code.

6. Delete Sections 5703.6.1 and 5703.6.2.

7. Delete Table 5703.6.2.

8. Delete Sections 5703.6.2.1 and 5703.6.3.

9. Change Section 5703.6.3.1 to read:

(N)5703.6.3.1 Existing piping. Existing piping shall be tested in accordance with the applicable building code where the fire official has reasonable cause to believe that a leak exists.

10. Delete Sections 5703.6.4 through 5703.6.11.

C. The following changes shall be made to Section 5704. Storage:

1. Delete Section 5704.2.5.

2. Delete Sections 5704.2.7 through 5704.2.7.3.5.3.

3. Change Section 5704.2.7.4 to read:

(N)5704.2.7.4 Emergency venting. Where required, emergency venting for stationary, aboveground tanks shall be maintained in accordance with the applicable building code.

4. Delete Sections 5704.2.7.5 and 5704.2.7.5.1.

5. Delete Section 5704.2.7.5.3.

6. Delete Sections 5704.2.7.5.5 through 5704.2.7.5.5.2.

7. Delete Sections 5704.2.7.5.7 and 5704.2.7.5.8.

8. Change Section 5704.2.7.6 to read:

(N)5704.2.7.6 Repair, alteration or reconstruction of tanks and piping. Hot work, as defined in Section 202, on storage tanks shall be conducted in accordance with Section 3510.

9. Delete Sections 5704.2.7.7 through 5704.2.7.9.

10. Delete Sections 5704.2.7.11 through 5704.2.8.3.

11. Change Section 5704.2.8.5 to read:

(N)5704.2.8.5 Anchoring. Anchoring for vaults shall be maintained in accordance with the applicable building code.

12. Delete Sections 5704.2.8.7 and 5704.2.8.8.

13. Change Section 5704.2.8.9 to read:

(N)5704.2.8.9 Ventilation. Where required, the exhaust system shall be maintained in accordance with the applicable building code.

14. Delete Sections 5704.2.8.10 and 5704.2.8.11.

15. Delete Sections 5704.2.8.13 and 5704.2.8.14.

16. Delete Section 5704.2.8.16.

17. Delete Section 5704.2.8.18.

18. Change Sections 5704.2.9 and 5704.2.9.1 to read:

(N)5704.2.9 Aboveground tanks. Aboveground storage of flammable and combustible liquids in tanks shall be maintained in accordance with the applicable building code.

(N)5704.2.9.1 Existing noncompliant installations. Existing aboveground tanks shall be maintained in accordance with the code requirements that were applicable at the time of installation.

19. Delete Sections 5704.2.9.2 through 5704.2.9.2.3.

20. Delete Section 5704.2.9.3.

21. Change Sections 5704.2.9.4 and 5704.2.9.5 to read:

(N)5704.2.9.4 Stairways, platforms and walkways. Stairways, platforms and walkways shall be maintained in accordance with the applicable building code.

(N)5704.2.9.5 Aboveground tanks inside of buildings. Aboveground tanks inside of buildings shall be maintained in accordance with the applicable building code.

22. Delete Sections 5704.2.9.5.1 and 5704.2.9.5.2.

23. Change Section 5704.2.9.6 to read:

(N)5704.2.9.6 Aboveground tanks outside of buildings. Aboveground tanks outside of buildings shall be maintained in accordance with the applicable building code.

24. Delete Sections 5704.2.9.6.1 through 5704.2.9.7.3.

25. Delete Section 5704.2.9.7.5.

26. Delete Sections 5704.2.9.7.5.2 and 5704.2.9.7.6.

27. Delete Sections 5704.2.9.7.8 through 5704.2.10.3.

28. Delete Section 5704.2.10.5.

29. Change Sections 5704.2.11 and 5704.2.11.1 to read:

(N)5704.2.11 Underground tanks. Underground storage of flammable and combustible liquids in tanks shall be maintained in accordance with the applicable building code.

(N)5704.2.11.1 Location. The location of flammable and combustible liquid storage tanks located underground, either outside or under buildings, shall be in accordance with the applicable building code.

30. Delete Sections 5704.2.11.2 through 5704.2.11.4.

31. Delete Section 5704.2.11.4.2.

32. ] Add the following exception to Section 5704.2.13.1.3 to read:

Exception: Underground storage tanks subject to the Virginia State Water Control Board regulation 9VAC25-580.

[ 33. Change Section 5704.2.12.2 to read

5704.2.12.2 Testing of underground tanks. Before being covered or placed in use, tanks and piping connected to underground tanks shall be tested for tightness in the presence of the fire code official. Piping shall be tested in accordance with the applicable building code. The system shall not be covered until it has been approved.

34. Change Section 5704.13.1.2 to read:

5704.2.13.1.2 Out of service for 90 days. Underground tanks not used for a period of 90 days shall be safeguarded in accordance with all the following or be removed in accordance with Section 5704.2.14:

1. Flammable or combustible liquids shall be removed from the tank.

2. All piping, including fill line, gauge opening, vapor return and pump connection, shall be capped or plugged and secured from tampering.

3. Vent lines shall remain open and be maintained in accordance with Section 5704.2.7.4.

35. Change Section 5704.2.13.1.5 to read:

(N)5704.2.13.1.5 Reinstallation of underground tanks. Tanks that are to be reinstalled for flammable or combustible liquid service shall be approved by the building official.

36. Change Section 5704.3 to read:

5704.3 Container and portable tank storage. Storage of flammable and combustible liquids in closed containers that do not exceed 60 gallons (227 L) in individual capacity and portable tanks that do not exceed 660 gallons (2498 L) in individual capacity, and limited transfers incidental thereto, shall comply with Sections 5704.3.1 through 5704.3.8.4.

37. Change Section 5704.3.3.5 to read:

(N)5704.3.3.5 Shelf storage. Shelving shall be maintained in accordance with the applicable building code.

38. Delete Sections 5704.3.3.5.1 and 5704.3.3.5.2.

39. Delete Section 5704.3.3.6.

40. Change Section 5704.3.4 to read:

(N)5704.3.4 Quantity limits for storage. Liquid storage quantity limitations shall be maintained in accordance with the applicable building code.

41. Delete Section 5704.3.4.1.

42. Delete Table 5704.3.4.1.

43. Delete Sections 5704.3.4.2 and 5704.3.4.3.

44. Change Section 5704.3.5 to read:

(N)5704.3.5 Storage in control areas. Storage of flammable and combustible liquids in control areas shall be maintained in accordance with the applicable building code.

45. Delete Section 5704.3.5.1.

46. Change Section 5704.3.6.2 to read:

5704.3.6.2 Container capacity. Containers for Class I liquids shall not exceed a capacity of 5 gallons (19 L).

Exception: Metal containers not exceeding 55 gallons (208 L) are allowed to store up to 240 gallons (908 L) of the maximum allowable quantity per control area of Classes IB and IC liquids in a control area. The building shall be equipped throughout with an approved automatic sprinkler system in accordance with the applicable building code. The containers shall be provided with plastic caps without cap seals and shall be stored upright. Containers shall not be stacked or stored in racks and shall not be located in areas accessible to the public.

47. Change Section 5704.3.7.1 to read:

(N)5704.3.7.1 General. Quantities of liquids exceeding those set forth in the applicable building code for storage in control areas shall be stored in a liquid storage room complying with the applicable building code.

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# Regulations

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48. Change Section 5704.3.7.2.2 to read:

(N)5704.3.7.2.2 Separation and aisles. Piles shall be separated from each other in accordance with the applicable building code. Aisles shall be maintained in accordance with the applicable building code.

49. Change Sections 5704.3.7.3 through 5704.3.7.5 to read:

(N)5704.3.7.3 Spill control and secondary containment. Liquid storage rooms shall be maintained in accordance with the applicable building code.

(N)5704.3.7.4 Ventilation. Ventilation for storage rooms shall be maintained in accordance with the applicable building code.

(N)5704.3.7.5 Fire protection. Fire protection for liquid storage rooms shall be maintained in accordance with the applicable building code.

50. Delete Section 5704.3.7.5.1.

51. Change Sections 5704.3.8 and 5704.3.8.1 to read:

(N)5704.3.8 Liquid storage warehouses. Liquid storage warehouses shall be maintained in accordance with the applicable building code.

(N)5704.3.8.1 Quantities and storage arrangement. The total quantities of liquids in a liquid storage warehouse shall be maintained in accordance with the applicable building code. The arrangement of storage shall be in accordance with Table 5704.3.6.3(2) or 5704.3.6.3(3).

52. Delete Sections 5704.3.8.1.1 and 5704.3.8.1.2.

53. Change Sections 5704.3.8.2 through 5704.3.8.4 to read:

(N)5704.3.8.2 Spill control and secondary containment. Spill control and secondary containment for liquid storage warehouses shall be maintained in accordance with the applicable building code.

(N)5704.3.8.3 Ventilation. Ventilation for liquid storage warehouses storing containers greater than 5 gallons (19 L) in capacity shall be maintained in accordance with the applicable building code.

(N)5704.3.8.4 Automatic sprinkler systems. Automatic sprinkler systems for storage warehouses shall be maintained in accordance with the applicable building code.

54. Delete Section 5704.3.8.5.

55. Change Section 5704.4.3 to read:

(N)5704.4.3 Spill control and secondary containment. Spill control and secondary containment for storage areas shall be maintained in accordance with the applicable building code.

56. Delete Section 5704.4.7.

D. The following change shall be made to Section 5705, Dispensing, Use, Mixing and Handling:

1. Change Section 5705.3.6.2.3 to read:

5705.3.6.2.3 Solvent quantity limits. Solvent quantities shall be limited as follows:

1. Machines without remote solvent reservoirs shall be limited to quantities set forth in Section 5705.3.5.

2. Machines with remote solvent reservoirs using Class I liquids shall be limited to quantities set forth in Section 5705.3.5.

3. Machines with remote solvent reservoirs using Class II liquids shall be limited to 35 gallons (132 L) per machine. The total quantities shall not exceed an aggregate of 240 gallons (908 L) per control area in buildings not equipped throughout with an approved automatic sprinkler system and an aggregate of 480 gallons (1817 L) per control area in buildings equipped throughout with an approved automatic sprinkler system in accordance the applicable building code.

4. Machines with remote solvent reservoirs using Class IIIA liquids shall be limited to 80 gallons (303 L) per machine.

2. Change Section 5705.5 to read:

5705.5 Alcohol-based hand rubs classified as Class I or II liquids. The use of wall-mounted dispensers containing alcohol-based hand rubs classified as Class I or II liquids shall be in accordance with all of the following:

1. The maximum capacity of each dispenser shall be 68 ounces (2 L).

2. The minimum separation between dispensers shall be 48 inches (1219 mm).

3. The dispensers shall not be installed above, below, or closer than 1 inch (25 mm) to an electrical receptacle, switch, appliance, device or other ignition source. The wall space between the dispenser and the floor or intervening countertop shall be free of electrical receptacles, switches, appliances, devices or other ignition sources.

4. Dispensers shall be mounted so that the bottom of the dispenser is not less than 42 inches (1067 mm) and not more than 48 inches (1219 mm) above the finished floor.

5. Dispensers shall not release their contents except when the dispenser is manually activated. Facilities shall be permitted to install and use automatically activated "touch free" alcohol-based hand-rub dispensing devices with the following requirements:

5.1. The facility or persons responsible for the dispensers shall test the dispensers each time a new refill is installed in accordance with the manufacturer's care and use instructions.

5.2. Dispensers shall be designed and must operate in a manner that ensures accidental or malicious activations of the dispensing device are minimized. At a minimum, all devices subject to or used in accordance with this section shall have the following safety features:

5.2.1. Any activations of the dispenser shall only occur when an object is placed within 4 inches (98 mm) of the sensing device.

5.2.2. The dispenser shall not dispense more than the amount required for hand hygiene consistent with label instructions as regulated by the U.S. Food and Drug Administration (USFDA).

5.2.3. An object placed within the activation zone and left in place will cause only one activation.

6. Storage and use of alcohol-based hand rubs shall be in accordance with the applicable provisions of Sections 5704 and 5705.

7. Dispensers installed in occupancies with carpeted floors shall only be allowed in smoke compartments or fire areas equipped throughout with an approved automatic sprinkler system in accordance with the applicable building code.

3. Delete Section 5705.5.1.

E. The following changes shall be made to Section 5706, Special Operations:

1. Add Section 5706.1.1 to read:

5706.1.1 Mobile fueling operations. Delivery of Class I, Class II, and Class III liquids to the fuel tank of a highway vehicle from a tank vehicle, a tank carried on a vehicle, or a nonportable container is prohibited.

Exceptions:

1. The refueling of highway vehicles in an emergency.

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

3. Vehicles used for farm operations and machinery.

2. Change Section 5706.2.4.2 to read:

5706.2.4.2 Vents. Tanks shall be provided with a method of normal and emergency venting. Normal vents shall be in accordance with the applicable building code.

Emergency vents shall be in accordance with Section 5704.2.7.4. Emergency vents shall be arranged to discharge in a manner that prevents localized overheating

or flame impingement on any part of the tank in the event that vapors from such vents are ignited.

3. Change Sections 5706.2.6 and 5706.3.3 to read:

(N)5706.2.6 Spill control drainage control and diking. Outdoor storage areas shall be provided with drainage control or diking as set forth in the applicable building code.

(N)5706.3.3 Sumps. Sumps associated with wells shall be maintained in accordance with the applicable building code.

4. Delete Sections 5706.3.3.1 and 5706.3.3.3.

5. Change Sections 5706.4.1, 5706.4.2, 5706.4.4, 5706.4.7.6, and 5706.4.9 to read:

(N)5706.4.1 Building construction. Buildings shall be maintained in accordance with the applicable building code.

(N)5706.4.2 Means of egress. Means of egress from rooms in which liquids are stored, used or transferred by pumps shall be maintained in accordance with the applicable building code.

(N)5706.4.4 Ventilation. Ventilation for rooms, buildings and enclosures in which Class I liquids are pumped, used or transferred shall be maintained in accordance with the applicable building code.

(N)5706.4.7.6 Piping, valves and fittings. Piping, valves and fittings shall be maintained in accordance with the applicable building code.

(N)5706.4.9 Drainage control. Loading and unloading areas shall be provided with drainage control in accordance with the applicable building code.

6. Change Sections 5706.4.10, 5706.5.1.2, 5706.5.1.3, 5706.5.1.5, 5706.5.1.6, 5706.8.1, 5706.8.3, and 5706.8.5 to read:

(N)5706.4.10 Fire protection. Fire protection for bulk plants or terminals shall be maintained in accordance with the applicable building code.

(N)5706.5.1.2 Weather protection canopies. Where weather protection canopies are provided, they shall be maintained in accordance with the applicable building code.

(N)5706.5.1.3 Ventilation. Ventilation shall be maintained in accordance with the applicable building code.

(N)5706.5.1.5 Spill control and secondary containment. The spill control and secondary containment system shall be maintained in accordance with the applicable building code.

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# Regulations

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(N)5706.5.1.6 Fire protection. Fire protection shall be maintained in accordance with the applicable building code.

5706.8.1 Over-pressure or vacuum protection. Tanks and equipment shall have independent venting for over-pressure or vacuum conditions that might occur from malfunction of the vapor recovery or processing system.

Exception: For tanks, venting shall comply with the applicable building code.

5706.8.3 Vapor collection systems and overflow protection. The operation of the vapor collection system and overflow protection shall be in accordance with this section and Section 19.5 of NFPA 30.

5706.8.5 Overflow protection. Storage tanks served by vapor recovery or processing systems shall be equipped with overflow protection in accordance with the applicable building code. ]

## **13VAC5-51-151.5. IFC Chapter 58, Flammable Gases and Flammable Cryogenic Fluids.**

[ A. ] Change [ ~~Section~~ Sections 5801.1 and ] 5801.2 to read:

[ (N)5801.1 Scope. The storage and use of flammable gases and flammable cryogenic fluids shall be in accordance with this chapter and NFPA 55. Compressed gases shall also comply with Chapter 53 and cryogenic fluids shall also comply with Chapter 55. Flammable cryogenic fluids shall comply with Section 5806. Hydrogen motor fuel-dispensing stations and repair garages and their associated aboveground hydrogen storage systems shall also be designed, constructed and maintained in accordance with Chapter 23 and NFPA 2.

### Exceptions:

1. Gases used as refrigerants in refrigeration systems (see Section 606).
2. Liquefied petroleum gases and natural gases regulated by Chapter 61.
3. Fuel-gas systems and appliances regulated under the International Fuel Gas Code other than gaseous hydrogen systems and appliances.
4. Pyrophoric gases in accordance with Chapter 64. ]

5801.2. Permits. Permits shall be required as set forth in Section 107.2.

[ B. Change Sections 5803.1, 5803.1.1.2, 5803.1.5, and 5804.1 to read:

(N)5803.1 Quantities not exceeding the maximum allowable quantity per control area. The storage and use of flammable gases in amounts not exceeding the maximum

allowable quantity per control area under the applicable building code.

(N)5803.1.1.2 Aggregate quantity. The aggregate quantities of flammable gases used for maintenance purposes and operation of equipment shall not exceed the maximum allowable quantity per control area under the applicable building code.

(N)5803.1.5 Electrical. Electrical wiring and equipment shall be maintained in accordance with the applicable building code.

(N)5804.1 Indoor storage. Indoor storage of flammable gases in amounts exceeding the maximum allowable quantity per control area in accordance with the applicable building code and this chapter.

C. Delete Sections 5804.1.1 and 5806.2.

D. Change Section 5806.3 to read:

(N)5806.3 Aboveground tanks for liquid hydrogen. Aboveground tanks for the storage of liquid hydrogen shall be maintained in accordance with the applicable building code.

E. Delete Sections 5806.3.1 through 5806.3.2.1.

F. Change Section 5806.4 to read:

(N)5806.4 Underground tanks for liquid hydrogen. Underground tanks for the storage of liquid hydrogen shall be maintained in accordance with the applicable building code.

G. Delete Sections 5806.4.1 through 5806.4.3.

H. Change Section 5806.4.4 to read:

(N)5806.4.4 Anchorage and security. Anchorage provided for tanks and systems shall be maintained in accordance with the applicable building code.

I. Delete Sections 5806.4.5 through 5806.4.8.3.

J. Change Sections 5807.1.10 and 5808.1 to read:

(N)5807.1.10 Electrical. Electrical components for metal hydride storage systems shall be maintained in accordance with NFPA 70.

(N)5808.1 General. Where required by the applicable building code, hydrogen fuel gas rooms shall be maintained.

K. Delete Sections 5808.2 through 5806.8.3.2.

L. Change Sections 5808.4 and 5808.5 to read:

(N)5808.4 Exhaust ventilation. Ventilation required for hydrogen fuel gas rooms shall be maintained in accordance with the applicable building code.

(N)5808.5 Gas detection system. Gas detection systems required for hydrogen fuel gas rooms shall be maintained in accordance with the applicable building.

M. Delete Sections 5808.5.1 through 5808.5.4.

N. Change Section 5808.6 and 5808.7 to read:

(N)5808.6 Explosion control. Explosion control required for hydrogen fuel gas rooms shall be maintained in accordance with the applicable building code.

(N)5808.7 Standby power. Standby power provided for mechanical ventilation and gas detection systems shall be maintained in accordance with the applicable building code. ]

**13VAC5-51-152.5. IFC Chapter 59: Flammable Solids.**

[ A. ] Change Section 5901.2 to read:

5901.2: Permits. Permits shall be required as set forth in Section 107.2.

[ B. Change Section 5904.1 to read:

(N)5904.1 Indoor storage. Indoor storage of flammable solids in amounts exceeding the maximum allowable quantity per control area shall be in accordance with the applicable building code.

C. Delete Section 5904.1.1.

D. Change Section 590 to read:

(N)5904.1.2 Aisles. Aisle widths between piles shall be maintained in accordance with the applicable building code.

(N)5904.1.3 Basement storage. Flammable solids shall not be stored in basements unless previously approved.

(N)5906.2 Storage of magnesium articles. The storage of magnesium shall be maintained in accordance with the applicable building code.

E. Delete Sections 5906.2.1 through 5906.2.3.

F. Change Sections 5906.3.1 and 5906.4 to read:

(N)5906.3.1 Indoor storage. Indoor storage of pigs, ingots and billets shall be maintained in accordance with the applicable building code.

(N)5906.4 Storage of fine magnesium scrap. The storage of scrap magnesium shall be maintained in accordance with the applicable building code.

G. Delete Sections 5906.4.2 through 5906.5.4.

H. Change Section 5906.5.5 to read:

(N)5906.5.5 Electrical equipment. Electric wiring, fixtures and equipment in the immediate vicinity of and attached to dust-producing machines, shall be maintained in accordance with the applicable building code.

I. Delete Section 5906.5.6. ]

**13VAC5-51-153. IFC Chapter 60: Highly Toxic and Toxic Materials.**

[ A. ] Change [ ~~Section~~ Sections 6001.1 and ] 6001.2 to read:

[ 6001.1 Scope. The outside storage and use of highly toxic and toxic materials and the maintenance and operational aspects of inside storage and use of highly toxic and toxic materials shall comply with this chapter. Compressed gases shall also comply with Chapter 53.

Exceptions:

1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.

2. Conditions involving pesticides or agricultural products as follows:

2.1. Application and release of pesticide, agricultural products and materials intended for use in weed abatement, erosion control, soil amendment or similar applications when applied in accordance with the manufacturer's instruction and label directions.

2.2. Transportation of pesticides in compliance with the Federal Hazardous Materials Transportation Act and regulations thereunder.

2.3. Storage in dwellings or private garages of pesticides registered by the U.S. Environmental Protection Agency to be utilized in and around the home, garden, pool, spa and patio. ]

6001.2: Permits. Permits shall be required as set forth in Section 107.2.

[ B. Change Section 6003.1.4 to read:

6003.1.4 Indoor storage. Indoor storage of highly toxic and toxic solids and liquids shall comply with the applicable building code.

C. Delete Sections 6003.1.4.1, 6003.1.4.2, and 6003.2.5.

D. Change Sections 6004.1.2, 6004.1.3, and 6004.3.3 to read:

6004.1.2 Gas cabinets. Gas cabinets containing highly toxic or toxic compressed gases shall comply with Section 5003.8.6 and the following requirements:

1. The average ventilation velocity at the face of gas cabinet access ports or windows shall be not less than 200 feet per minute (1.02 m/s) with not less than 150 feet per minute (0.76 m/s) at any point of the access port or window.

2. Gas cabinets shall be connected to an exhaust system.



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# Regulations

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3. Gas cabinets shall not be used as the sole means of exhaust for any room or area.

4. The maximum number of cylinders located in a single gas cabinet shall not exceed three, except that cabinets containing cylinders not exceeding 1 pound (0.454 kg) net contents are allowed to contain up to 100 cylinders.

5. Gas cabinets required by Section 6004.2 or 6004.3 shall be equipped with an approved automatic sprinkler system in accordance with the applicable building code. Alternative fire-extinguishing systems shall not be used.

6004.1.3 Exhausted enclosures. Exhausted enclosures containing highly toxic or toxic compressed gases shall comply with Section 5003.8.5 and the following requirements:

1. The average ventilation velocity at the face of the enclosure shall be not less than 200 feet per minute (1.02 m/s) with not less than 150 feet per minute (0.76 m/s).

2. Exhausted enclosures shall be connected to an exhaust system.

3. Exhausted enclosures shall not be used as the sole means of exhaust for any room or area.

4. Exhausted enclosures required by Section 6004.2 or 6004.3 shall be equipped with an approved automatic sprinkler system in accordance with the applicable building code. Alternative fire-extinguishing systems shall not be used.

6004.3.3 Outdoor storage weather protection for portable tanks and cylinders. Weather protection in accordance with Section 5004.13 shall be provided for portable tanks and cylinders located outdoors and not within gas cabinets or exhausted enclosures. The storage area shall be equipped with an approved automatic sprinkler system in accordance with the applicable building code.

Exception: An automatic sprinkler system is not required when:

1. All materials under the weather protection structure, including hazardous materials and the containers in which they are stored, are noncombustible.

2. The weather protection structure is located not less than 30 feet (9144 mm) from combustible materials or structures or is separated from such materials or structures using a fire barrier complying with Section 6004.3.2.1.1.

E. Change Sections 6004.2.2.5, 6004.2.2.6, and 6004.2.2.8 to read:

(N)6004.2.2.5 Piping and controls - stationary tanks. In addition to the requirements of Section 5003.2.2, piping and controls on stationary tanks shall comply with the following requirements:

1. Pressure relief devices shall be vented to a treatment system designed in accordance with Section 6004.2.2.7.

Exception: Pressure relief devices on outdoor tanks provided exclusively for relieving pressure due to fire exposure are not required to be vented to a treatment system provided that:

1. The material in the tank is not flammable.

2. The tank is located not less than 30 feet (9144 mm) from combustible materials or structures or is shielded by a fire barrier complying with Section 6004.3.2.1.1.

2. Filling or dispensing connections shall be provided with a means of local exhaust. Such exhaust shall be designed to capture fumes and vapors. The exhaust shall be directed to a treatment system in accordance with Section 6004.2.2.7.

3. Stationary tanks shall be provided with a means of excess flow control on all tank inlet or outlet connections.

Exceptions:

1. Inlet connections designed to prevent backflow.

2. Pressure relief devices.

(N)6004.2.2.6 Gas rooms. Gas rooms shall comply with Section 5003.8.4 and the following requirement:

1. The exhaust ventilation from gas rooms shall be directed to an exhaust system.

(N)6004.2.2.8 Emergency power. Emergency power shall be maintained in accordance with the applicable building code.

F. Delete Sections 6004.2.2.8.1 and 6004.2.2.9. ]

## **13VAC5-51-154. IFC Chapter 61, Liquefied Petroleum Gases.**

A. Change Section 6101.2 to read:

6101.2- Permits. Permits shall be required as set forth in Section 107.2. Distributors shall not fill an LP-gas container for which a permit is required unless a permit for installation has been issued for that location by the fire code official, except when the container is for temporary use on construction sites.

[ B. Change Section 6103.1 to read:

(N)6103.1 General. LP-gas equipment shall be maintained in accordance with the code under which it was installed.

C. Delete Section 6103.3.

D. Change Section 6104.1 to read:

(N)6104.1 General. The storage and handling of LP-gas and the maintenance of related equipment shall comply with applicable building code.

E. Delete Sections 6104.2 through 6104.4 and Table 6104.3.

F. ] Add Section 6106.4 to read:

6106.4. DOTn cylinders filled on site. [~~DOTn~~ U.S. Department of Transportation (DOTn)] cylinders in stationary service that are filled on site and therefore are not under the jurisdiction of DOTn either shall be requalified in accordance with DOTn requirements or shall be visually inspected within 12 years of the date of manufacture or within five years from May 1, 2008, whichever is later, and within every five years thereafter, in accordance with the following:

1. Any cylinder that fails one or more of the criteria in Item 3 shall not be refilled or continued in service until the condition is corrected.
2. Personnel shall be trained and qualified to perform inspections.
3. Visual inspection shall be performed in accordance with the following:
  - 3.1. The cylinder is checked for exposure to fire, dents, cuts, digs, gouges, and corrosion according to CGA C-6, Standards for Visual Inspection of Steel Compressed Gas Cylinders, except that paragraph 4.2.1(1) of that standard (which requires tare weight certification), shall not be part of the required inspection criteria.
  - 3.2. The cylinder protective collar (where utilized) and the foot ring are intact and are firmly attached.
  - 3.3. The cylinder is painted or coated to retard corrosion.
  - 3.4. The cylinder pressure relief valve indicates no visible damage, corrosion of operating components, or obstructions.
  - 3.5. There is no leakage from the cylinder or its appurtenances that is detectable without the use of instruments.
  - 3.6. The cylinder is installed on a firm foundation and is not in contact with the soil.
  - 3.7. A cylinder that passed the visual inspection shall be marked with the month and year of the examination followed by the letter "E" (example: 10-01E, indicating requalification in October 2001 by the external inspection method).
  - 3.8. The results of the visual inspection shall be documented, and a record of the inspection shall be retained for a five-year period.

Exception: Any inspection procedure outlined in Items 3.1 through 3.8 that would require a cylinder be moved in such a manner that disconnection from the piping system would be necessary shall be omitted, provided the other inspection results do not indicate further inspection is warranted.

[ ~~C.~~ G. Change Section 6108.1 to read:

(N)6108.1 General. Fire protection for installations having LP-gas storage containers shall be maintained in accordance with the applicable building code.

H. Delete Section 6109.11.2.

I. ] Change Section 6111.2 to read:

6111.2. Unattended parking. The unattended parking of LP-gas tank vehicles shall be in accordance with Sections 6111.2.1 and 6111.2.2.

Exception: The unattended outdoor parking of LP-gas tank vehicles may also be in accordance with Section 9.7.2 of NFPA 58.

**13VAC5-51-154.2. IFC Chapter 62. Organic Peroxides.**

[ ~~A.~~ ] Change Section 6201.2 to read:

6201.2. Permits. Permits shall be required for organic peroxides as set forth in Section 107.2.

[ ~~B.~~ Change Sections 6203.1 and 6203.1.1 to read:

(N)6203.1 Storage and use. The storage and use of organic peroxides in amounts not exceeding the maximum allowable quantity per control area indicated in Section 5003.1 shall be maintained in accordance with the applicable building code.

(N)6203.1.1 Special limitations for indoor storage and use by occupancy. The indoor storage and use of organic peroxides shall be maintained in accordance with the applicable building code.

C. Delete Sections 6203.1.1.1 and 6203.1.1.3.

D. Change Section 6203.1.1.4 to read:

(N)6203.1.1.4 Classrooms. In classrooms in Group B, F or M occupancies, any amount of unclassified detonable and Class 1 organic peroxides shall be stored in accordance with the applicable building code.

E. Delete Sections 6203.2 and 6204.1.1.

F. Delete Table 6204.1.2.

G. Change Section 6203.1.2 through and 6204.1.6 to read:

(N)6204.1.2 Distance from detached buildings to exposures. Detached storage buildings for Classes I, II, III, IV and V organic peroxides shall be located in accordance with the applicable building code. Detached buildings containing quantities of unclassified detonable organic

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# Regulations

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peroxides shall be located in accordance with the applicable building code.

(N)6204.1.3 Liquid-tight floor. Liquid-tight floors shall be maintained in accordance with the applicable building code.

(N)6204.1.4 Electrical wiring and equipment. Electrical wiring and equipment in storage areas for Class I or II organic peroxides shall be maintained in accordance with the applicable building code.

(N)6204.1.5 Smoke detection. Smoke detection systems shall be maintained in accordance with the applicable building code.

(N)6204.1.6 Maximum quantities. Maximum allowable quantities per building in a mixed occupancy building shall not exceed the amounts set forth by the applicable building code.

Maximum allowable quantities per building in a detached storage building shall not exceed the amounts set forth by the applicable building code.

H. Change Sections 6204.1.10 and 6204.1.11 to read:

(N)6204.1.10 Explosion control. Indoor storage rooms, areas and buildings containing explosion control shall be maintained in accordance with the applicable building code.

(N)6204.1.11 Standby power. Standby power shall be maintained in accordance with the applicable building code.

I. Delete Section 6204.1.11.1.

J. Change Section 6204.2.5 to read:

6204.2.5 Separation. In addition to the requirements of Section 5003.9.8, outdoor storage areas for organic peroxides in amounts exceeding those specified by the applicable building code shall be located a minimum distance of 50 feet (15 240 mm) from other hazardous material storage.

K. Change Section 6204.2.3 to read:

(N)6204.2.3 Maximum quantities. Maximum quantities of organic peroxides in outdoor storage shall be in accordance with the applicable building code. ]

## **13VAC5-51-154.4. IFC Chapter 63- Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids.**

[ A. ] Change Section 6301.2 to read:

6301.2- Permits. Permits shall be required as set forth in Section 107.2.

[ B. Change Section 6303.1 to read:

(N)6303.1 Storage and use. The storage and use of oxidizing materials shall be maintained in accordance with the applicable building code.

C. Delete Sections 6303.1.1 and 6303.1.1.1.

D. Change Section 6303.1.1.1 to read:

6303.1.1.1.1 Group A, E, I or U occupancies. In Group A, E, I or U occupancies, any amount of Class 4 liquid and solid oxidizers shall be stored in accordance with the following:

1. Class 4 liquid and solid oxidizers shall be stored in hazardous materials storage cabinets complying with Section 5003.8.7.

E. Delete Sections 6303.1.1.2 and 6303.1.1.3.

F. Change Section 6303.1.2 to read:

(N)6303.1.2 Emergency shutoff. Shutoff valves shall be maintained in accordance with the applicable building code.

G. Delete Sections 6303.1.2.1 and 6303.1.2.2.

H. Change Sections 6303.1.3 and 6303.2 to read:

(N)6303.1.3 Ignition source control. Ignition sources in areas containing oxidizing gases shall be controlled in accordance with the applicable building code.

(N)6303.2 Class 1 oxidizer storage configuration. The storage configuration of Class I liquid and solid oxidizers shall be as set forth in accordance with the applicable building code.

I. Delete Table 6303.2.

J. Change Sections 6304.1 through 6304.1.5 to read:

(N)6304.1 Indoor storage. Indoor storage of oxidizing materials shall be maintained in accordance with the applicable building code.

(N)6304.1.1 Explosion control. Explosion control for indoor storage rooms, areas and buildings containing Class 4 liquid or solid oxidizers shall be maintained in accordance with the applicable building code.

(N)6304.1.2 Automatic sprinkler system. The automatic sprinkler system for oxidizer storage shall be maintained in accordance with the applicable building code.

(N)6304.1.3 Liquid-tight floor. Liquid-tight floors of storage areas for liquid and solid oxidizers shall be maintained in accordance with the applicable building code.

(N)6304.1.4 Smoke detection. Smoke detection systems shall be maintained in accordance with the applicable building code.

(N)6304.1.5 Storage conditions. The maximum quantity of oxidizers per building in storage buildings shall be maintained in accordance with the applicable building code.

K. Delete Tables 6304.1.5(1), 6304.1.5(2), and 6304.1.5(3).

L. Change Section 6304.1.8 to read:

6304.1.8 Detached storage. Storage of liquid and solid oxidizers shall be in detached buildings where required by the applicable building code.

M. Change Section 6304.2.2 to read:

6304.2.2 Storage configuration for liquid and solid oxidizers. Storage configuration for liquid and solid oxidizers shall be in accordance with the applicable building code.

N. Change Sections 6305.1 and 6306.4 to read:

(N)6305.1 Scope. The use of oxidizers shall be in accordance with the applicable building code.

(N)6306.4 Maximum aggregate quantity. The maximum aggregate quantity of liquid oxygen allowed in storage and in use in each dwelling unit shall be maintained in accordance with the applicable building code. ]

**13VAC5-51-154.6. IFC Chapter 64. Pyrophoric Materials.**

[ A. ] Change Section 6401.2 to read:

6401.2- Permits. Permits shall be required as set forth in Section 107.2.

[ B. Change Sections 6403.1 and 6403.1.1 to read:

(N)6403.1 Storage and use. The storage and use of pyrophoric material shall be maintained in accordance with the applicable building code.

(N)6403.1.1 Emergency shutoff. Emergency shutoff valves shall be maintained in accordance with the applicable building code.

C. Delete Sections 6403.1.1.1, 6403.1.1.2, and 6403.2.

D. Change Sections 6404.1 and 6404.1.1 to read:

(N)6404.1 Indoor storage. Indoor storage of pyrophoric materials shall be maintained in accordance with the applicable building code.

(N)6404.1.1 Liquid-tight floor. Liquid-tight floors of storage areas containing pyrophoric liquids shall be maintained in accordance with the applicable building code.

E. Delete Sections 6404.1.2, 6404.1.3, 6404.1.4, and 6404.2.2. ]

**13VAC5-51-154.7. IFC Chapter 65. Pyroxylin (Cellulose Nitrate) Plastics.**

[ A. ] Change Section 6501.2 to read:

6501.2- Permits. Permits shall be required as set forth in Section 107.2.

[ B. Delete Sections 6504.1.1 and 6504.1.3.

C. Change Sections 6505.1 and 6504.2 to read:

6504.1 Raw material. Raw cellulose nitrate (pyroxylin) plastic material in a Group F building shall be stored and handled in accordance with Sections 6504.1.2 and 6504.1.4 through 6504.1.7.

(N)6504.2 Fire protection. Fire protection for the manufacture or storage of articles of cellulose nitrate (pyroxylin) plastic in quantities exceeding 100 pounds (45 kg) shall be in accordance with the applicable building code. ]

**13VAC5-51-154.8. IFC Chapter 66. Unstable (Reactive) Materials.**

[ A. ] Change Section 6601.2 to read:

6601.2- Permits. Permits shall be required as set forth in Section 107.2.

[ B. Change Sections 6603.1 and 6603.1.1 to read:

(N)6603.1 Storage and use. Quantities of unstable (reactive) materials not exceeding the maximum allowable quantity per control area shall be maintained in accordance with the applicable building code.

(N)6603.1.1 General. The storage and use of unstable (reactive) materials shall be in accordance with the applicable building code.

C. Delete Section 6603.1.2.

D. Change Sections 6603.1.2.1 and 6604.1 to read:

6603.1.2.1 Group A, E, I or U occupancies. In Group A, E, I or U occupancies, any amount of Classes 3 and 4 unstable (reactive) materials shall be stored in accordance with the applicable building code.

(N)6604.1 Indoor storage. Indoor storage of unstable (reactive) materials shall be maintained in accordance with the applicable building code.

E. Delete Section 6604.1.1.

D. Change Sections 6604.1.2, 6604.1.3, and 6604.1.5 to read:

(N)6604.1.2 Explosion control. Explosion control for indoor storage shall be maintained in accordance with the applicable building code.

# Regulations

(N)6604.1.3 Liquid-tight floor. Liquid-tight floors of storage areas shall be maintained in accordance with the applicable building code.

(N)6604.1.5 Location in building. Unstable (reactive) materials shall not be stored in basements unless approved.

## **13VAC5-51-154.9. IFC Chapter 67 Water-Reactive Solids and Liquids.**

A. Change Section 6701.2 to read:

6701.2 Permits. Permits shall be required as set forth in Section 107.2.

B. Change Section 6703.1 to read:

(N)6703.1 Storage and use. The storage and use of water reactive solids and liquids shall be maintained in accordance with the applicable building code.

C. Change Section 6703.2 to read:

(N)6703.2 Quantities exceeding the maximum allowable quantity per control area.

D. Change Section 6704.1 to read:

(N)6704.1 Indoor storage. Indoor storage of water-reactive solids and liquids shall be maintained in accordance with the applicable building code.

E. Change Section 6704.1.1 to read:

(N)6704.1.1 Detached storage.

F. Change Section 6704.1.2 to read:

(N)6704.1.2 Liquid-tight floor. Liquid-tight floors in storage areas for water reactive solids and liquids shall be maintained in accordance with the applicable building code.

G. Delete Section 6704.1.3.

H. Change Section 6704.1.5 to read:

(N)6704.1.5 Storage configuration. Aisle widths between piles shall be maintained in accordance with the applicable building code.

I. Change Section 6704.1.1 to read:

(N)6704.1.6 Explosion control. Explosion control for indoor storage rooms shall be maintained in accordance with the applicable building code.

J. Change Section 6704.2.5 to read:

(N)6704.2.5 Containment. Secondary containment shall be provided in accordance with the applicable building code. ]

## **13VAC5-51-155. IFC Chapter 80- Referenced Standards.**

Change the referenced standards as follows (standards not shown remain the same):

Standard reference number	Title	Referenced in code section number
CGA C-6 (2001)	Standards for Visual Inspection of Steel Compressed Gas Cylinders	6106.4
NFPA 45-15	Standard on Fire Protection for Laboratories Using Chemicals	5001.7.5, 5001.7.10, 5001.7.11
[ NFPA 96-17	Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations	319.4, 904.3 ]
UL 87A-12	Outline of Investigation for Power Operated Dispensing Devices for Gasoline and Gasoline/ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent	2306.8.1
UL 1278-00	Standard for Movable and Wall- or Ceiling-Hung Electric Room Heaters	605.10.1
UL 1805-2002	Standard for Laboratory Hoods and Cabinets	5001.7.11

DOCUMENTS INCORPORATED BY REFERENCE (13VAC5-51)

[ American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036 (<https://www.ansi.org/>):

ANSI Z21.69/CSA 6.16-09, Connectors for Movable Gas Appliances

The American Society of Mechanical Engineers, Two Park Avenue, New York, NY 10016-5990 (<https://www.asme.org/>):

ASME Boiler and Pressure Vessel Code-2010/2011 addenda

ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 (<https://www.astm.org/>):

[ASTM D 92-12b, Standard Test Method for Flash and Fire Points by Cleveland Open Cup](#)

[ASTM E 84-2013A, Test Method for Surface Burning Characteristics of Building Materials](#)

[ASTM E 108-2011, Standard Test Method for Fire Tests of Roof Coverings](#)

[ASTM E 1354-2013, Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter](#)

[ASTM E 1537-13, Standard Test Method for Fire Testing of Upholstered Furniture](#)

[ASTM E 1590-13, Standard Test Method for Fire Testing of Mattresses](#)

[State of California Department of Consumer Affairs, Bureau of Electronics and Appliance Repair, Home Furnishings and Thermal Insulation, 4244 South Market Court, Suite D, Sacramento, CA 95834-1243 \(<http://www.bearhfti.ca.gov/>\):](#)

[California Technical Bulletin 129-1992](#)

[California Technical Bulletin 133-1991](#)

[Compressed Gas Association, 14501 George Carter Way, Suite 103, Chantilly, VA 20151 \(<http://www.cganet.com/>\):](#)

[ANSI/P-18-2006, Standard for Bulk Inert Gas Systems](#)

[CGA C-6-2001, Standards for Visual Inspection of Steel Compressed Gas Cylinders, Eighth Edition](#)

[European Committee for Standardization \(EN\), Central Secretariat, Rue de Stassart 36, B-10 50 Brussels \(<https://www.cen.eu/>\):](#)

[EN 1081, 1998 Resilient Floor Coverings-Determination of the Electrical Resistance \]](#)

[The International Fire Code—2012 Edition, International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001-2070 \[ \(<http://www.iccsafe.org/>\): \]](#)

[International Fire Code - 2015 Edition](#)

[\[ International Fuel Gas Code - 2015 Edition \]](#)

[International Residential Code - 2015 Edition](#)

[\[ CGA C 6—2001, Standards for Visual Inspection of Steel Compressed Gas Cylinders, Eighth Edition, Compressed Gas Association, 1725 Jefferson Davis Highway, 5th Floor, Arlington, VA 22202 4102 \]](#)

[National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471 \(<http://www.nfpa.org/>\):](#)

[\[ NFPA 2-11, Hydrogen Technologies Code](#)

[NFPA 11-10, Standard for Low-, Medium- and High-Expansion Foam](#)

[NFPA 12-11, Standard on Carbon Dioxide Extinguishing Systems](#)

[NFPA 12A-09, Standard on Halon 1301 Fire Extinguishing Systems](#)

[NFPA 13-13, Standard for the Installation of Sprinkler Systems](#)

[NFPA 13D-13, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes](#)

[NFPA 13R-13, Standard for the Installation of Sprinkler Systems in Low Rise Residential Occupancies](#)

[NFPA 14-13, Standard for the Installation of Standpipe and Hose Systems](#)

[NFPA 16-15, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems](#)

[NFPA 17-13, Standard for Dry Chemical Extinguishing Systems](#)

[NFPA 17A-13, Standard for Wet Chemical Extinguishing Systems](#)

[NFPA 25-14, Standard for Inspection, Testing and Maintenance of Water-based Fire Protection Systems](#)

[NFPA 30-12, Flammable and Combustible Liquids Code](#)

[NFPA 30A-15, Code for Motor Fuel Dispensing Facilities and Repair Garages](#)

[NFPA 31-11, Standard for the Installation of Oil-Burning Equipment](#)

[NFPA 32-11, Standard for Drycleaning Plants](#)

[NFPA 35-11, Standard for the Manufacture of Organic Coatings \]](#)

[\[ NFPA 45-15, Standard \] on Fire Protection for Laboratories Using Chemicals](#)

[\[ NFPA 52-13, Vehicular Gaseous Fuel System Code](#)

[NFPA 55-13, Compressed Gases and Cryogenic Fluids Code \]](#)

[NFPA \[ 58-44 58-14 \], Liquefied Petroleum Gas Code](#)

[\[ NFPA 59A-13, Standard for the Production, Storage and Handling of Liquefied Natural Gas \(LNG\)](#)

[NFPA 69-14, Standard on Explosion Prevention Systems \]](#)

[NFPA 70-44 70-14, National Electrical Code](#)

[NFPA 72-40 72-13, National Fire Alarm and Signaling Code](#)

[\[ NFPA 86-15, Standard for Ovens and Furnaces](#)

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# Regulations

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NFPA 96-17, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations

NFPA 110-13, Standard for Emergency and Standby Power Systems

NFPA 111-13, Standard on Stored Electrical Energy Emergency and Standby Power Systems

NFPA 211-13, Standard for Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances

NFPA 286-15, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth

NFPA 303-11, Fire Protection Standard for Marinas and Boatyards ]

NFPA 495-10 495-13, Explosives Materials Code

NFPA 701-10, Standard Methods of Fire Tests for Flame - Propagation of Textiles and Films

[ NFPA 720-15, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment ]

NFPA ~~4123-10~~ 1123-14, Code for Fireworks Display

NFPA 1124-06, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles

NFPA 1126-11, Standard for the Use of Pyrotechnics Before a Proximate Audience

[ NFPA 2001-15, Standard on Clean Agent Fire Extinguishing Systems ]

Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062 (<http://www.ul.com/>):

[ UL 80-07, Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids-with revisions through August 2009 ]

UL 87A-12, Outline of Investigation for Power-Operated Dispensing Devices for Gasoline and Gasoline/ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent

[ UL 142-06, Steel Aboveground Tanks for Flammable and Combustible Liquids-with revisions through February 12, 2010

UL 217-06, Single and Multiple Station Smoke Alarms-with revisions through April 2012

UL 710B-2011, Recirculating Systems

UL 790-04, Standard Test Methods for Fire Tests of Roof Coverings-with revisions through October 2008 ]

UL 1278-00, Standard for Movable and Wall- or Ceiling-Hung Electric Room Heaters, Third Edition, June 21, 2000

[ UL 1315-95, Standard for Safety for Metal Waste Paper Containers-with revisions through September 2012 ]

UL 1805-2002, Standard for Laboratory Hoods and Cabinets

VA.R. Doc. No. R16-4665; Filed April 9, 2018, 1:25 p.m.

## Final Regulation

**REGISTRAR'S NOTICE:** The Board of Housing and Community Development is claiming an exemption from Article 2 of the Administrative Process Act pursuant to § 2.2-4006 A 12 of the Code of Virginia, which excludes regulations adopted by the Board of Housing and Community Development pursuant to the Statewide Fire Prevention Code (§ 27-94 et seq.), the Industrialized Building Safety Law (§ 36-70 et seq.), the Uniform Statewide Building Code (§ 36-97 et seq.), and § 36-98.3 of the Code of Virginia, provided the board (i) provides a Notice of Intended Regulatory Action in conformance with the provisions of § 2.2-4007.01, (ii) publishes the proposed regulation and provides an opportunity for oral and written comments as provided in § 2.2-4007.03, and (iii) conducts at least one public hearing as provided in § 2.2-4009 and 36-100 prior to the publishing of the proposed regulations.

**Title of Regulation:** **13VAC5-63, Virginia Uniform Statewide Building Code (amending 13VAC5-63-10, 13VAC5-63-20, 13VAC5-63-30, 13VAC5-63-40, 13VAC5-63-50, 13VAC5-63-70, 13VAC5-63-80, 13VAC5-63-130, 13VAC5-63-150, 13VAC5-63-170, 13VAC5-63-190, 13VAC5-63-200, 13VAC5-63-210, 13VAC5-63-220, 13VAC5-63-230, 13VAC5-63-235, 13VAC5-63-240, 13VAC5-63-245, 13VAC5-63-250, 13VAC5-63-260, 13VAC5-63-264, 13VAC5-63-270, 13VAC5-63-280, 13VAC5-63-290, 13VAC5-63-295, 13VAC5-63-298, 13VAC5-63-300, 13VAC5-63-310, 13VAC5-63-320, 13VAC5-63-330, 13VAC5-63-336, 13VAC5-63-360, 13VAC5-63-370, 13VAC5-63-400, 13VAC5-63-410, 13VAC5-63-420, 13VAC5-63-430, 13VAC5-63-434, 13VAC5-63-438, 13VAC5-63-440, 13VAC5-63-443, 13VAC5-63-450, 13VAC5-63-470, 13VAC5-63-480, 13VAC5-63-490, 13VAC5-63-500, 13VAC5-63-510, 13VAC5-63-520, 13VAC5-63-530, 13VAC5-63-540; adding 13VAC5-63-268, 13VAC5-63-431, 13VAC5-63-432.5, 13VAC5-63-433, 13VAC5-63-433.3, 13VAC5-63-433.5, 13VAC5-63-434.5, 13VAC5-63-435, 13VAC5-63-435.5, 13VAC5-63-439, 13VAC5-63-441, 13VAC5-63-485, 13VAC5-63-524, 13VAC5-63-545, 13VAC5-63-549; repealing 13VAC5-63-225, 13VAC5-63-350).**

**Statutory Authority:** § 36-98 of the Code of Virginia.

**Effective Date:** September 4, 2018.

**Agency Contact:** Elizabeth O. Rafferty, Policy and Legislative Director, Department of Housing and Community Development, Main Street Centre, 600 East Main Street,



Suite 300, Richmond, VA 23219, telephone (804) 371-7011, FAX (804) 371-7090, TTY (804) 371-7089, or email [elizabeth.rafferty@dhcd.virginia.gov](mailto:elizabeth.rafferty@dhcd.virginia.gov).

## Summary:

*This regulatory action incorporates the newest editions of the model codes, produced by the International Code Council and other standard-writing groups, into the Virginia Uniform Statewide Building Code. The substantive changes to the Uniform Statewide Building Code (USBC) in this regulatory action are summarized as follows:*

*13VAC5-63-10 A and B: Updates the incorporation by reference to the latest ICC International Codes and standards.*

*13VAC5-63-20: Clarification of the exemption in the USBC for public utilities to include wiring and equipment of telecommunication (cellular telephone) companies. In addition, a new exemption for conveyor systems is added in subdivision D 3, as such equipment is not part of a building and therefore not within the scope of the USBC. In subdivision D 6 language is added to clarify that the demolition of manufactured homes or industrialized buildings is subject to the USBC. The prior edition of the code did not have explicit language addressing this, but demolition is a form of construction, so it did fall within the scope of the code.*

*13VAC5-63-30 D: Establishes a new provision for existing college research laboratories to permit compliance with special provisions in Part II of the USBC (the Virginia Existing Building Code; formerly the Virginia Rehabilitation Code) when utilizing new or differing amount of certain hazardous materials. The new provision is part of comprehensive changes to the USBC and the Statewide Fire Prevention Code (13VAC5-51) (SFPC) developed by an ad hoc committee of affected parties and representatives of educational research laboratories. The language is based on actions approved at the ICC hearings for the 2018 editions of the International Codes with conditions specific to Virginia institutions considered in the final language.*

*13VAC5-63-50 E and I: The Virginia Certification Standards (13VAC5-21) (VCS), also under the authority of the BHCD, were amended in September of 2014 to include requirements for continuing education and periodic training for all inspector certificates issued by the BHCD. Formerly the requirements were in the USBC, SFPC, and Virginia Amusement Device Regulations. Now that the VCS contains those requirements, duplicate requirements in the USBC are no longer necessary and are therefore being deleted.*

*13VAC5-63-80 B 16: A new permit exemption is added for work on billboards necessary to comply with federal*

*guidelines of the Occupational Safety and Health Administration that is necessary so that sign companies are not subject to varying requirements from jurisdiction to jurisdiction, and safeguards are in place through the federal requirements to assure safe installations without the necessity for a USBC permit.*

*13VAC5-63-210 C: A new provision is added to address day treatment facilities licensed by the Virginia Department of Behavioral Health and Developmental Services to clarify that buildings used for such purposes must have sprinkler systems if located above the second story. This is necessary due to the inability of the occupants of the treatment facilities to be able to exit quickly if an emergency exists. Many occupants need assistance in evacuating due to physical or mental limitations; therefore, in sprinklered buildings, the occupants could be moved to protected areas on the floor they are on without the spread of fire to those areas since the fire would be suppressed by the sprinkler system.*

*13VAC5-63-210 D: An allowance is added for alcohol to be stored in wooden barrels or casks without complying with the hazardous material provisions of the code. The language was in the International Fire Code, but not in the International Building Code, as those codes are developed independently in the ICC code development process. The language is necessary to assure all breweries and producers of distilled spirits and wines are subject to consistent requirements and is based on the fact that there is no evidence that storage in wooden barrels or casks is a potential fire hazard necessitating the requirements of the code used for explosives, fireworks, flammable gases such as liquefied petroleum gas, and gasoline and diesel fuels to be applicable.*

*13VAC5-63-210 T 4: Adds a new exception 7 to the requirements of the International Residential Code (IRC) for separation of dwellings from lot lines to recognize zoning ordinances that require setbacks to prevent houses on adjacent lots from being within 10 feet of each other. This allows flexibility in the clustering of homes for zoning purposes and accomplishes the building code objective of maintaining fire separation distances between dwellings. The IRC requires any building wall within five feet of a property line to be of fire-rated construction without this exception.*

*13VAC5-63-210 T 37 and T 38: Relocates the interior passageway requirements for new homes (former subdivision T 14) and clarifies the text. Removes difficult to apply language involving doors at the end of a hallway. The overall goal of the provision is to provide doors for wheelchair users on the main level of new dwellings.*

*13VAC5-63-210 T 45 and T 46: Adds tables permitting the use of No. 2 (quality) southern yellow pine (wood) of appropriate spans to be used in the framing of homes. The*



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## Regulations

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tables in the existing regulation (2012 edition) inadvertently omitted spans for No. 2 pine and only permitted No. 1 quality, which is not readily available by wood distributors.

13VAC5-63-210 T 61: Deletes former subdivision T 94 that required only 50% of new lamps (light bulbs) to be high efficacy (efficiency) bulbs. This deletion will allow the provisions of the IRC to be applicable, which require 75% of new bulbs to be high efficiency.

13VAC5-63-210 T 69: Adds new provisions to permit the use of a corrugated gas tubing with coatings to prevent lightning arcs from causing holes in the tubing. The product has undergone the approval process through the National Fuel Gas Code and the American National Standards Institute standard writing process.

13VAC5-63-210 T 74: From a proposal submitted by the Virginia State Corporation Commission, a new provision is added to require a tracer wire to be installed in the ditch with nonmetallic water service piping to new homes. This will enable other utilities to locate the water service line when installing additional underground lines and prevent the possible inadvertent rupturing of the water service line. There was a case where a gas line crossed a water service line that was not pressurized yet and gas traveled up the water service line and caused an explosion in the house it served. Tracer wire is already required by the USBC for nonmetallic sewer lines.

13VAC5-63-220 X and Y: Establishes a new provision for new college research laboratories to utilize certain hazardous materials inherent in operations without having to fully comply with the hazardous material provisions of the code as the use of such materials is in limited quantity. The new provision is part of comprehensive changes to the USBC and the Statewide Fire Prevention Code (13VAC5-51) (SFPC) developed by an ad hoc committee of affected parties and representatives of educational research laboratories. The language is based on actions approved at the ICC hearings for the 2018 editions of the International Codes with conditions specific to Virginia institutions considered in the final language.

13VAC5-63-230 E: Reestablishes exceptions for when smoke and fire dampers are required in shaft enclosures for heating, ventilating and air-conditioning duct systems. The exceptions were in the 2009 edition of the USBC and were deleted in the 2012 edition based on wording in the 2012 International Building Code (IBC); however, since the wording in the 2012 IBC differed slightly from the 2009 USBC language, the 2009 exceptions are being reinserted.

13VAC5-63-245 L and Q: Adds language in the IBC that is consistent with the IRC stairway landing requirements when dwelling units are being designed under the IBC,

such as four-story townhomes that are outside of the scope of the IRC. The same hazards exist for dwellings, whether constructed under the IBC or the IRC.

13VAC5-63-264 A 13: Deletes former subdivision A 21 that required only 50% of new lamps (light bulbs) to be high efficacy (efficiency) bulbs in buildings subject to the International Energy Conservation Code (IECC). This deletion will allow the provisions of the 2015 IECC to be applicable, which require 75% of new bulbs to be high efficiency.

13VAC5-63-295 B and C: Adds tables permitting the use of No. 2 (quality) southern yellow pine (wood) of appropriate spans to be used in the framing of dwellings constructed under the IBC. The tables in the existing regulation (2012 edition) inadvertently omitted spans for No. 2 pine and only permitted No. 1 quality, which is not readily available by wood distributors.

13VAC5-63-310 D 1, D 7, and D 8: Add requirements for pollution control units where such systems are voluntarily installed. The use of these systems to control pollutants in grease ducts in restaurants and other facilities having grease ducts has become more prevalent, and this language was approved for the 2018 International Mechanical Code (IMC) at the ICC process in time for implementing in it Virginia for the 2015 USBC.

13VAC5-63-310 D 9: Reestablishes exceptions for when smoke and fire dampers are required in shaft enclosures for heating, ventilating, and air-conditioning duct systems. The exceptions were in the 2009 edition of the USBC (in both the IBC and the IMC) and were deleted in the 2012 edition based on wording in the 2012 IMC; however, since the wording in the 2012 IMC differed slightly from the 2009 USBC language, the 2009 exceptions are being reinserted.

13VAC5-63-310 E 2 and E 5: Adds new sections to permit the use of a corrugated gas tubing with coatings to prevent lightning arcs from causing holes in the tubing in buildings subject to the IBC. The product has undergone the approval process through the National Fuel Gas Code and the American National Standards Institute standard writing process.

13VAC5-63-431 A, B, and C: Modifies the wording of the 2015 edition of the ICC International Existing Building Code (IEBC) for use in Part II of the USBC, which governs alterations, additions, and change of occupancy of existing buildings. The new wording permits an additional compliance method for alterations and repairs based on the code in effect when the building was originally constructed.

13VAC5-63-431 D: Establishes the technical requirements for a new provision for existing college research laboratories when utilizing new or differing amount of

certain hazardous materials. The requirements are part of comprehensive changes to the USBC and SFPC developed by an ad hoc committee of affected parties and representatives of educational research laboratories. The language is based on actions approved at the ICC hearings for the 2018 editions of the International Codes with conditions specific to Virginia institutions considered in the final language.

13VAC5-63-422 A, B, and C: Minor changes to the 2015 IEBC to clarify the classifications of work that are covered under the Level Method of compliance in the IEBC and how the work area concept is to be applied. Clarifying language is also added for addressing buildings that have horizontal fire separation as only vertical fire separation was addressed.

13VAC5-63-433.5, 13VAC5-63-434, 13VAC5-63-434.5, 13VAC5-63-435, 13VAC5-63-439, and 13VAC5-63-440. Minor changes to the 2015 IEBC developed by an ad hoc group preparing a training module for the department's Jack A. Proctor Building Code Academy for Part II of the USBC. These changes clarify the requirements of the different compliance methods set out in the IEBC based on questions raised during the development of the training module.

Changes since publication of the proposed include:

13VAC5-63-20: Further clarifies language for power, wireless, and cable companies and adds an exemption for direct burial utility poles.

13VAC5-63-30 B: Provides that Part II of the Virginia Uniform Statewide Building Code shall be referred to as the "Virginia Existing Building Code" and shall apply to construction and rehabilitation activities in existing buildings and structures.

13VAC5-63-50 F and G: Clarifies that permit technicians are technical assistants and therefore they require the same certification mandates as other technical assistants and grandfathers any permit technician prior to the effective date of this regulation.

13VAC5-63-80 B: Adds a permit exemption to allow local jurisdictions to require a permit for exempted items located in a special flood hazard area and increases the maximum amount of roof decking replacement that can be done before a building permit is required, from 100 square feet to 256 square feet.

13VAC5-63-130 G and K: Adds the requirement for inspections for any fuel-burning appliances or equipment being replaced in existing single-family dwellings to ensure proper sizing of vent or chimney systems and to ensure that vents and chimneys are free from blockage, defects, or deterioration and are in operable condition. Allows inspection by others but requires certification to the

building official that the requirements have been met. Subsection K provides that a licensed mechanical contractor may perform duct testing required by section R403.3.3 of the International Energy Conservation Code (IECC) or Section N1103.3.3 of the International Residential Code (IRC).

13VAC5-63-150 B: Provides a requirement that a notice of violation must specify a reasonable time period within which the corrections or compliance must occur and further clarifies that unsafe buildings, or structures that become unsafe during the construction process, follow a separate path of abatement under Section 118.

13VAC5-63-190 G: Changes the requirement for a decision by the local board of building code appeals to be a written decision as opposed to a resolution and adds that the decision shall be explained in writing. Throughout the appeals section replaces "resolution" with the term "written decision."

13VAC5-63-200 A and B: Adds permit technicians to the definition of "technical assistant" and changes the definition of "change of occupancy" to read "See section 202 of the VEBC" for the purpose of ensuring the term is used consistently throughout the USBC.

13VAC5-63-210 T (Changes to the IRC):

Subdivision T 12 clarifies that hazardous locations for glazing are less than 60 inches measured horizontally in a straight line from the water's edge and the bottom exposed edge of the glazing where it is less than 60 inches measured vertically above any standing or walking surface.

Subdivision T 29 adds language to clarify that a swimming pool barrier can be located on the property line and providing a prohibition for pool equipment, such as pumps, filters, and heaters, to be within three feet of the exterior of the barrier when located on the same property.

Subdivision T 44 clarifies that the intent of openings to an underfloor space is to provide cross ventilation, and when cross ventilation has been provided, openings are not required to be within three feet of each corner.

Subdivision T 51 provides requirements for braced wall panel support.

Subdivision T 53 reformats the roof construction section.

Subdivision T 60 clarifies that the REScheck compliance software developed by the U.S. Department of Energy shall be an acceptable method of determining energy code compliance.

Subdivision T 68 eliminates the visual inspection option for duct testing and requires a pressure test to be conducted and the results forwarded to the code official.

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# Regulations

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*Subdivision T 70 provides an energy compliance alternative using the ERI index and provides for trade-offs when using renewable energy sources. 1*

*3VAC5-63-230 F: Adds a requirement for HVAC system shutdown by one of three different methods: a duct detector installed in the return duct, an area smoked detector interlocked with the HVAC equipment, or a listed heat sensor installed in the return duct.*

*13VAC5-63-240:*

*Subsection I increases the number of sprinkler heads permitted on a limited area sprinkler system from six to 20.*

*Subsection L eliminates a Virginia amendment on standpipes, incorporates new language for the existing pressure exemption for buildings up to 150 feet, alleviates the need for the exception regarding residual pressure, and eliminates the potential issue of pressure being waived but not volume.*

*Subsection T requires fire department connections to be unobstructed by fences, bushes, trees, walls, or any other fixed or moveable objects.*

*13VAC5-63-245:*

*Subsection R eliminates the requirement for ladders in limited areas to be constructed in accordance with the International Mechanical Code (IMC). This was removed due to technically infeasible and conflicting language.*

*Subsection W provides an exception to allow structural members supporting a roof to be penetration rated stair enclosures under certain conditions.*

*Subsection AA adds the use group R-4 to the list of use groups required to provide emergency escape and rescue openings.*

*13VAC5-63-264. (Changes to the IECC):*

*Subdivisions 1, 2, and 3 keep the current energy efficiency requirements related to projection factor and simple solar heat gain coefficient of windows. Adoption of the 2015 model code without amending this section would result in lower energy efficiency.*

*Subdivision 5 requires mechanical ventilation to be provided for Group R (residential) occupancies constructed under the IBC to ensure minimum acceptable indoor air quality in dwellings that have limited air infiltration as a result of meeting minimum energy efficiency requirements.*

*Subdivision 7 clarifies that the REScheck compliance software developed by the U.S. Department of Energy shall be an acceptable method of determining energy code compliance.*

*Subdivision 15 eliminates the visual inspection option for duct testing and requires a pressure test to be conducted and the results forwarded to the code official.*

*Subdivision 17 provides an energy compliance alternative using the ERI index and for trade-offs when using renewable energy sources and deletes a state amendment that established a fixed 15% fenestration area when utilizing the performance path method of energy efficiency compliance of the IECC for residential structures.*

*13VAC5-63-280 D: Eliminates the need to determine whether professional design is required as the basis for determining when special inspections are required for a project and, instead bases the threshold on size and height of the proposed structure.*

*13VAC5-63-298: Exempts one story buildings that have noncombustible exterior wall covering from complying with National Fire Protection Association 285 testing.*

*13VAC5-63-310 D 2 and D 4: Add minimum mechanical ventilation requirements for dwelling units in the IMC to ensure minimum acceptable indoor air quality in dwellings that have limited air infiltration as a result of meeting minimum energy efficiency requirements.*

*13VAC5-63-320 B 16, B 17, B 18, and B 19: Keep the current IPC storm drain sizing tables.*

*13VAC5-63-400 through 13VAC5-63-443: Extensively rearrange and consolidate the Virginia Rehabilitation Code to become the Virginia Existing Building Code (VEBC), provide clarification on how to apply the VEBC, and simplify scoping.*

*13VAC5-63-470 E: Clarifies who is responsible for the maintenance of a building, structure, system, facility, and associated equipment.*

*13VAC5-63-480 U: Requires manufactured home park tenants to be notified if a notice of violation is issued to an owner for violations that jeopardize park tenants' health or safety.*

*13VAC5-63-490: Creates a new section related to violations of the Virginia Maintenance Code and clarifies that violating the code is unlawful.*

*13VAC5-63-510 C: Adds definitions for applicable building code and maintains consistency with other codes.*

*13VAC5-63-530 D 7: Requires maintenance of nonpotable water reuse systems and provides provisions for safely abandoning a system that is no longer in use.*

*13VAC5-63-540 B 17: Clarifies that the owner has three options for displaying the elevator, escalator, or dumbwaiter certificate of inspection.*

Part I  
Construction

**13VAC5-63-10. Chapter 1 Administration; Section 101 General.**

A. Section 101.1 Short title. The Virginia Uniform Statewide Building Code, Part I, Construction, may be cited as the Virginia Construction Code or as the VCC. The term "USBC" shall mean the VCC unless the context in which the term is used clearly indicates it to be an abbreviation for the entire Virginia Uniform Statewide Building Code or for a different part of the Virginia Uniform Statewide Building Code.

Note: This code is also known as the ~~2012~~ 2015 edition of the USBC due to the use of the ~~2012~~ 2015 editions of the model codes.

B. Section 101.2 Incorporation by reference. Chapters 2 - 35 of the ~~2012~~ 2015 International Building Code, published by the International Code Council, Inc., are adopted and incorporated by reference to be an enforceable part of the USBC. The term "IBC" means the ~~2012~~ 2015 International Building Code, published by the International Code Council, Inc. Any codes and standards referenced in the IBC are also considered to be part of the incorporation by reference, except that such codes and standards are used only to the prescribed extent of each such reference. In addition, any provisions of the appendices of the IBC specifically identified to be part of the USBC are also considered to be part of the incorporation by reference.

Note 1: The IBC references other International Codes and standards including the following major codes:

~~2012~~ 2015 International Plumbing Code (IPC)

~~2012~~ 2015 International Mechanical Code (IMC)

~~2014~~ 2014 NFPA 70

~~2012~~ 2015 International Fuel Gas Code (IFGC)

~~2012~~ 2015 International Energy Conservation Code (IECC)

~~2012~~ 2015 International Residential Code (IRC)

Note 2: The IRC is applicable to the construction of detached one-family and two-family dwellings and townhouses as set out in Section 310.

C. Section 101.3 Numbering system. A dual numbering system is used in the USBC to correlate the numbering system of the Virginia Administrative Code with the numbering system of the IBC. IBC numbering system designations are provided in the catchlines of the Virginia Administrative Code sections. Cross references between sections or chapters of the USBC use only the IBC numbering system designations. The term "chapter" is used in the context of the numbering system of the IBC and may mean a chapter

in the USBC, a chapter in the IBC or a chapter in a referenced code or standard, depending on the context of the use of the term. The term "chapter" is not used to designate a chapter of the Virginia Administrative Code, unless clearly indicated.

D. Section 101.4 Arrangement of code provisions. The USBC is comprised of the combination of (i) the provisions of Chapter 1, Administration, which are established herein, (ii) Chapters 2 - 35 of the IBC, which are incorporated by reference in Section 101.2, and (iii) the changes to the text of the incorporated chapters of the IBC that are specifically identified. The terminology "changes to the text of the incorporated chapters of the IBC that are specifically identified" shall also be referred to as the "state amendments to the IBC." Such state amendments to the IBC are set out using corresponding chapter and section numbers of the IBC numbering system. In addition, since Chapter 1 of the IBC is not incorporated as part of the USBC, any reference to a provision of Chapter 1 of the IBC in the provisions of Chapters 2 - 35 of the IBC is generally invalid. However, where the purpose of such a reference would clearly correspond to a provision of Chapter 1 established herein, then the reference may be construed to be a valid reference to such corresponding Chapter 1 provision.

E. Section 101.5 Use of terminology and notes. The provisions of this code shall be used as follows:

1. The term "this code," or "the code," where used in the provisions of Chapter 1, in Chapters 2 - 35 of the IBC or in the state amendments to the IBC means the USBC, unless the context clearly indicates otherwise.

2. The term "this code" or "the code" where used in a code or standard referenced in the IBC means that code or standard, unless the context clearly indicates otherwise.

3. The use of notes in Chapter 1 is to provide information only and shall not be construed as changing the meaning of any code provision.

4. Notes in the IBC, in the codes and standards referenced in the IBC and in the state amendments to the IBC may modify the content of a related provision and shall be considered to be a valid part of the provision, unless the context clearly indicates otherwise.

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

1. The provisions of Chapter 1 of this code supersede any provisions of Chapters 2 - 35 of the IBC that address the same subject matter and impose differing requirements.

2. The provisions of Chapter 1 of this code supersede any provisions of the codes and standards referenced in the IBC that address the same subject matter and impose differing requirements.

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# Regulations

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3. The state amendments to the IBC supersede any provisions of Chapters 2 - 35 of the IBC that address the same subject matter and impose differing requirements.

4. The state amendments to the IBC supersede any provisions of the codes and standards referenced in the IBC that address the same subject matter and impose differing requirements.

5. The provisions of Chapters 2 - 35 of the IBC supersede any provisions of the codes and standards referenced in the IBC that address the same subject matter and impose differing requirements.

G. Section 101.7 Administrative provisions. The provisions of Chapter 1 establish administrative requirements, which include but are not limited to provisions relating to the scope of the code, enforcement, fees, permits, inspections and disputes. Any provisions of Chapters 2 - 35 of the IBC or any provisions of the codes and standards referenced in the IBC that address the same subject matter and impose differing requirements are deleted and replaced by the provisions of Chapter 1. Further, any administrative requirements contained in the state amendments to the IBC shall be given the same precedence as the provisions of Chapter 1. Notwithstanding the above, where administrative requirements of Chapters 2 - 35 of the IBC or of the codes and standards referenced in the IBC are specifically identified as valid administrative requirements in Chapter 1 of this code or in the state amendments to the IBC, then such requirements are not deleted and replaced.

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

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

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

## 13VAC5-63-20. Section 102 Purpose and scope.

A. Section 102.1 Purpose. In accordance with § 36-99 of the Code of Virginia, the purpose of the USBC is to protect the health, safety and welfare of the residents of the Commonwealth of Virginia, provided that buildings and structures should be permitted to be constructed at the least possible cost consistent with recognized standards of health, safety, energy conservation and water conservation, including provisions necessary to prevent overcrowding, rodent or

insect infestation, and garbage accumulation; and barrier-free provisions for the physically handicapped and aged.

B. Section 102.2 Scope. This section establishes the scope of the USBC in accordance with § 36-98 of the Code of Virginia. The USBC shall supersede the building codes and regulations of the counties, municipalities and other political subdivisions and state agencies. This code also shall supersede the provisions of local ordinances applicable to single-family residential construction that (i) regulate dwelling foundations or crawl spaces, (ii) require the use of specific building materials or finishes in construction, or (iii) require minimum surface area or numbers of windows; however, this code shall not supersede proffered conditions accepted as a part of a rezoning application, conditions imposed upon the grant of special exceptions, special or conditional use permits or variances, conditions imposed upon a clustering of single-family homes and preservation of open space development through standards, conditions, and criteria established by a locality pursuant to subdivision 8 of § 15.2-2242 of the Code of Virginia or ~~subdivision A 12 of § 45.2-2286~~ § 15.2-2286.1 of the Code of Virginia, or land use requirements in airport or highway overlay districts, or historic districts created pursuant to § 15.2-2306 of the Code of Virginia, or local flood plain regulations adopted as a condition of participation in the National Flood Insurance Program.

Note: Requirements relating to functional design are contained in Section 103.10 of this code.

C. Section 102.2.1 Invalidity of provisions. To the extent that any provisions of this code are in conflict with Chapter 6 (§ 36-97 et seq.) of Title 36 of the Code of Virginia or in conflict with the scope of the USBC, those provisions are considered to be invalid to the extent of such conflict.

D. Section 102.3 Exemptions. The following are exempt from this code:

1. Equipment [ ; ] ~~related [ and ]~~ wiring [ , and ] ~~poles and towers [ supporting ] the related [ structures ] used for providing [ wired ] utility, [ telecommunications communications ], information, [ or ] cable television [ , broadcast or radio ] service in accordance with all of the following conditions:~~

~~[ 1.1. The equipment, wiring ] installed [ , and supporting structures are owned and controlled by a provider of publicly regulated utility service or a franchised cable television operator ] and electrical [ or its affiliates.~~

~~1.2. 1.1. ] The equipment and related [ ; and ] wiring used for radio, broadcast or cable television, telecommunications or information service transmission. The exemption shall apply only if under applicable federal and state law the ownership and control of the equipment and wiring is by the service provider or its affiliates. Such exempt equipment and wiring shall be [ ,~~

~~and supporting structures ] are located on either rights-of-way or property for which the service provider has rights of occupancy and entry; however, the structures, including their service equipment,~~

~~[ 1.3. 1.2. ] Buildings housing or supporting such exempt equipment and wiring shall be subject to the USBC.~~

~~[ 1.4. 1.3. ] The installation of equipment and [ , and ] wiring [ , and supporting structures ] exempted by this section shall not create an unsafe condition prohibited by the USBC.~~

2. [ Support structures owned or controlled by a provider of publicly regulated utility service or its affiliates for the transmission and distribution of electric service in accordance with all of the following conditions:

2.1. The support structures are located on either rights-of-way or property for which the service provider has rights of occupancy and entry.

2.2. The support structures exempted by this section shall not create an unsafe condition prohibited by the USBC.

3. Direct burial poles used to support equipment or wiring providing communications, information or cable television services. The poles exempted by this section shall not create an unsafe condition prohibited by the USBC.

4. ] Electrical equipment, transmission equipment, and related wiring used for wireless transmission of radio, broadcast, telecommunications, or information service in accordance with all of the following conditions:

~~[ 2.1. 4.1. ] Buildings housing exempt equipment and wiring and structures supporting exempt equipment and wiring shall be subject to the USBC.~~

~~[ 2.2. 4.2. ] The equipment and wiring exempted by this section shall not create an unsafe condition prohibited by the USBC.~~

2. [ 3. 5. ] Manufacturing and, processing, and product handling machines and equipment that do not produce or process hazardous materials regulated by this code, including those portions of conveyor systems used exclusively for the transport of associated materials or products, and all of the following service equipment associated with the manufacturing or processing machines.:

~~2.1. [ 3.1. 5.1. ] Electrical equipment connected after the last disconnecting means.~~

~~2.2. [ 3.2. 5.2. ] Plumbing piping and equipment connected after the last shutoff valve or backflow device and before the equipment drain trap.~~

~~2.3. [ 3.3. 5.3. ] Gas piping and equipment connected after the outlet shutoff valve.~~

Manufacturing and processing machines that produce or process hazardous materials regulated by this code are only required to comply with the code provisions regulating the hazardous materials.

~~3. [ 4. 6. ] Parking lots and sidewalks that are not part of an accessible route.~~

~~4. [ 5. 7. ] Nonmechanized playground or recreational equipment such as swing sets, sliding boards, climbing bars, jungle gyms, skateboard ramps, and similar equipment where no admission fee is charged for its use or for admittance to areas where the equipment is located.~~

~~5. [ 6. 8. ] Industrialized buildings subject to the Virginia Industrialized Building Safety Regulations (13VAC5-91) and manufactured homes subject to the Virginia Manufactured Home Safety Regulations (13VAC5-95); except as provided for in Section 425 427 and in the case of demolition of such industrialized buildings or manufactured homes.~~

~~6. [ 7. 9. ] Farm buildings and structures, except for a building or a portion of a building located on a farm that is operated as a restaurant as defined in § 35.1-1 of the Code of Virginia and licensed as such by the Virginia Board of Health pursuant to Chapter 2 (§ 35.1-11 et seq.) of Title 35.1 of the Code of Virginia. However, farm buildings and structures lying within a flood plain or in a mudslide-prone area shall be subject to flood-proofing regulations or mudslide regulations, as applicable.~~

~~7. [ 8. 10. ] Federally owned buildings and structures unless federal law specifically requires a permit from the locality. Underground storage tank installations, modifications and removals shall comply with this code in accordance with federal law.~~

~~8. [ 9. 11. ] Off-site manufactured intermodal freight containers, moving containers, and storage containers placed on site temporarily or permanently for use as a storage container.~~

~~9. [ 10. 12. ] Automotive lifts.~~

**13VAC5-63-30. Section 103 Application of code.**

A. Section 103.1 General. In accordance with § 36-99 of the Code of Virginia, the USBC shall prescribe building regulations to be complied with in the construction and rehabilitation of buildings and structures, and the equipment therein.

B. [ Section 103.1.1 Virginia Existing Building Code. Part II of the Virginia Uniform Statewide Building Code, also known as the "Virginia Existing Building Code," or the "VEBC" is applicable to construction and rehabilitation activities in existing buildings and structures, as those terms are defined in the VEBC, except where specifically addressed in the VCC.

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# Regulations

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~~C.] Section 103.2 When applicable to new construction. Construction for which a permit application is submitted to the local building department on or after the effective date of the 2012 2015 edition of the code shall comply with the provisions of this code, except for permit applications submitted during a one-year period beginning on the effective date of the 2012 2015 edition of the code. The applicant for a permit during such one-year period shall be permitted to choose whether to comply with the provisions of this code or the provisions of the edition of the code in effect immediately prior to the 2012 2015 edition. This provision shall also apply to subsequent amendments to this code based on the effective date of such amendments. In addition, when a permit has been properly issued under a previous edition of this code, this code shall not require changes to the approved construction documents, design or construction of such a building or structure, provided the permit has not been suspended or revoked.~~

~~[ C. Section 103.3 Change of occupancy. No change of occupancy shall be made in any structure when the current USBC requires a greater degree of accessibility, structural strength, fire protection, means of egress, ventilation or sanitation. When such a greater degree is required, the owner or the owner's agent shall comply with the following:~~

- ~~1. When involving Group I 2 or I 3, written application shall be made to the local building department for a new certificate of occupancy and the new certificate of occupancy shall be obtained prior to the new use of the structure. When impractical to achieve compliance with this code for the new occupancy classification, the building official shall consider modifications upon application and as provided for in Section 106.3. In addition, the applicable accessibility provisions of Section 1012.8 of Part II of the Virginia Uniform Statewide Building Code, also known as the "Virginia ] Rehabilitation [ Existing Building Code," or the ] "VRC" [ "VEBC" shall be met.~~

~~Exception: This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.~~

- ~~2. In other than Group I 2 or I 3, the provisions of the ] VRC [ VEBC for change of occupancy shall be met.~~

~~D. Section 103.3.1 Group B teaching and research laboratories. Where the use of new or different hazardous materials or a change in the amount of hazardous materials in existing Group B teaching and research laboratories in educational occupancies above the 12th grade would constitute a change of occupancy, Section 302.6 of the VEBC shall be permitted to be used as an acceptable alternative to compliance with change of occupancy requirements to permit the increased amounts of hazardous materials stipulated without the laboratories being classified as Group H.~~

~~E. Section 103.4 Additions. Additions to buildings and structures shall comply with the requirements of this code for new construction or shall comply with the ] VRC [ VEBC. An existing building or structure plus additions shall comply with the height and area provisions of Chapter 5 and the applicable provisions of Chapter 9. Further, this code shall not require changes to the design or construction of any portions of the building or structure not altered or affected by an addition, unless the addition has the effect of lowering the current level of safety.~~

~~Exceptions:~~

- ~~1. This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.~~

- ~~2. When this code is used for compliance, existing structural elements carrying gravity loads shall be permitted to comply with Section 1103 of the ] International Existing Building Code [ VEBC. ]~~

~~E. [ F. Section 103.5 Reconstruction, alteration or repair in Group R 5 occupancies. The following criteria is applicable to reconstruction, alteration or repair of Group R 5 buildings or structures:~~

- ~~1. Any reconstruction, alteration or repair shall not adversely affect the performance of the building or structure, or cause the building or structure to become unsafe or lower existing levels of health and safety.~~

- ~~2. Parts of the building or structure not being reconstructed, altered or repaired shall not be required to comply with the requirements of this code applicable to newly constructed buildings or structures.~~

- ~~3. The installation of material or equipment, or both, that is neither required nor prohibited shall only be required to comply with the provisions of this code relating to the safe installation of such material or equipment.~~

- ~~4. Material or equipment, or both, may be replaced in the same location with material or equipment of a similar kind or capacity.~~

~~Exceptions:~~

- ~~1. This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of this code.~~

- ~~2. Reconstructed decks, balconies, porches and similar structures located 30 inches (762 mm) or more above grade shall meet the current code provisions for structural loading capacity, connections and structural attachment. This requirement excludes the configuration and height of handrails and guardrails.~~

~~3. Compliance with the ] VRC [ VEBC shall be an acceptable alternative to compliance with this section at the discretion of the owner or owner's agent. ]~~

~~F. [ G. Section 103.5.1 Equipment changes. Upon the replacement or new installation of any fuel burning appliances or equipment in existing Group R-5 occupancies, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:~~

- ~~1. Vent or chimney systems are sized in accordance with the IRC.~~
- ~~2. Vent or chimney systems are clean, free of any obstruction or blockages, defects, or deterioration, and are in operable condition. Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met. ]~~

~~G. [ H. Section 103.6 Reconstruction, alteration, and repair in other occupancies. Reconstruction, alteration, and repair in occupancies other than Group R-5 shall comply with the ] VRC [ VEBC. ]~~

~~H. [ I. Section 103.7 Retrofit requirements. The local building department shall enforce the provisions of Section 1701 of the ] VRC, which require certain existing buildings to be retrofitted with fire protection systems and other safety equipment. Retroactive fire protection system requirements contained in the International Fire Code (IFC) shall not be applicable unless required for compliance with the provisions of Section 1701 of the VRC [ VEBC. ]~~

~~I. [ J. D. ] Section [ 403.8 103.3 ] Nonrequired equipment. The following criteria for nonrequired equipment is in accordance with § 36-103 of the Code of Virginia. Building owners may elect to install partial or full fire alarms or other safety equipment that was not required by the edition of the USBC in effect at the time a building was constructed without meeting current requirements of the code, provided the installation does not create a hazardous condition. Permits for installation shall be obtained in accordance with this code. In addition, as a requirement of this code, when such nonrequired equipment is to be installed, the building official shall notify the appropriate fire official or fire chief.~~

~~J. [ K. E. ] Section [ 403.8.1 103.3.1 ] Reduction in function or discontinuance of nonrequired fire protection systems. When a nonrequired fire protection system is to be reduced in function or discontinued, it shall be done in such a manner so as not to create a false sense of protection. Generally, in such cases, any features visible from interior areas shall be removed, such as sprinkler heads, smoke detectors or alarm panels or devices, but any wiring or piping hidden within the construction of the building may remain. Approval of the proposed method of reduction or discontinuance shall be obtained from the building official.~~

~~K. [ L. F. ] Section [ 403.9 103.4 ] Use of certain provisions of referenced codes. The following provisions of the IBC and of other indicated codes or standards are to be considered valid provisions of this code. Where any such provisions have been modified by the state amendments to the IBC, then the modified provisions apply.~~

- ~~1. Special inspection requirements in Chapters 2 - 35.~~
- ~~2. Testing requirements and requirements for the submittal of construction documents in any of the ICC codes referenced in Chapter 35 and in the IRC.~~
- ~~3. Section R301.2 of the IRC authorizing localities to determine climatic and geographic design criteria.~~
- ~~4. Flood load or flood-resistant construction requirements in the IBC or the IRC, including, but not limited to, any such provisions pertaining to flood elevation certificates that are located in Chapter 1 of those codes. Any required flood elevation certificate pursuant to such provisions shall be prepared by a land surveyor licensed in Virginia or an RDP.~~
- ~~5. Section R101.2 of the IRC.~~
- ~~6. Section N1101.6 N1102.1 of the IRC and Sections C401.5.2 C402.1.1 and R101.5.2 R402.1 of the IECC.~~

~~L. [ M. G. ] Section [ 403.10 103.5 ] Functional design. The following criteria for functional design is in accordance with § 36-98 of the Code of Virginia. The USBC shall not supersede the regulations of other state agencies that require and govern the functional design and operation of building related activities not covered by the USBC, including but not limited to (i) public water supply systems, (ii) waste water treatment and disposal systems, and (iii) solid waste facilities. Nor shall state agencies be prohibited from requiring, pursuant to other state law, that buildings and equipment be maintained in accordance with provisions of this code. In addition, as established by this code, the building official may refuse to issue a permit until the applicant has supplied certificates of functional design approval from the appropriate state agency or agencies. For purposes of coordination, the locality may require reports to the building official by other departments or agencies indicating compliance with their regulations applicable to the functional design of a building or structure as a condition for issuance of a building permit or certificate of occupancy. Such reports shall be based upon review of the plans or inspection of the project as determined by the locality. All enforcement of these conditions shall not be the responsibility of the building official, but rather the agency imposing the condition.~~

~~Note: Identified state agencies with functional design approval are listed in the "Related Laws Package," which is available from DHCD.~~

~~M. [ N. H. ] Section [ 403.11 103.6 ] Amusement devices and inspections. In accordance with § 36-98.3 of the Code of~~



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# Regulations

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Virginia, to the extent they are not superseded by the provisions of § 36-98.3 of the Code of Virginia and the VADR, the provisions of the USBC shall apply to amusement devices. In addition, as a requirement of this code, inspections for compliance with the VADR shall be conducted either by local building department personnel or private inspectors provided such persons are certified as amusement device inspectors under the VCS.

~~N. [ Q. I. ]~~ Section [ ~~103-12~~ 103.7 ] State buildings and structures. This section establishes the application of the USBC to state-owned buildings and structures in accordance with § 36-98.1 of the Code of Virginia. The USBC shall be applicable to all state-owned buildings and structures, with the exception that §§ 2.2-1159 through 2.2-1161 of the Code of Virginia shall provide the standards for ready access to and use of state-owned buildings by the physically handicapped.

Any state-owned building or structure or building built on state-owned property for which preliminary plans were prepared or on which construction commenced after the initial effective date of the USBC, shall remain subject to the provisions of the USBC that were in effect at the time such plans were completed or such construction commenced. Subsequent reconstruction, renovation or demolition of such building or structure shall be subject to the pertinent provisions of this code.

Acting through the Division of Engineering and Buildings, the Virginia Department of General Services shall function as the building official for state-owned buildings. The department shall review and approve plans and specifications, grant modifications, and establish such rules and regulations as may be necessary to implement this section. It shall provide for the inspection of state-owned buildings and enforcement of the USBC and standards for access by the physically handicapped by delegating inspection and USBC enforcement duties to the State Fire Marshal's Office, to other appropriate state agencies having needed expertise, and to local building departments, all of which shall provide such assistance within a reasonable time and in the manner requested. State agencies and institutions occupying buildings shall pay to the local building department the same fees as would be paid by a private citizen for the services rendered when such services are requested by the department. The department may alter or overrule any decision of the local building department after having first considered the local building department's report or other rationale given for its decision. When altering or overruling any decision of a local building department, the department shall provide the local building department with a written summary of its reasons for doing so.

Notwithstanding any provision of this code to the contrary, roadway tunnels and bridges owned by the Virginia Department of Transportation shall be exempt from this code. The Virginia Department of General Services shall not have

jurisdiction over such roadway tunnels, bridges and other limited access highways; provided, however, that the Department of General Services shall have jurisdiction over any occupied buildings within any Department of Transportation rights-of-way that are subject to this code.

Except as provided in subsection ~~D~~ E of § ~~23-38.109~~ 23.1-1016 of the Code of Virginia, and notwithstanding any provision of this code to the contrary, at the request of a public institution of higher education, the Virginia Department of General Services, as further set forth in this provision, shall authorize that institution of higher education to contract with a building official of the locality in which the construction is taking place to perform any inspection and certifications required for the purpose of complying with this code. The department shall publish administrative procedures that shall be followed in contracting with a building official of the locality. The authority granted to a public institution of higher education under this provision to contract with a building official of the locality shall be subject to the institution meeting the conditions prescribed in subsection ~~B~~ A of § ~~23-38.88~~ 23.1-1002 of the Code of Virginia.

Note: In accordance with § 36-98.1 of the Code of Virginia, roadway tunnels and bridges shall be designed, constructed and operated to comply with fire safety standards based on nationally recognized model codes and standards to be developed by the Virginia Department of Transportation in consultation with the State Fire Marshal ~~and approved by the Virginia Commonwealth Transportation Board~~. Emergency response planning and activities related to the standards ~~approved by the Commonwealth Transportation Board~~ shall be developed by the Department of Transportation and coordinated with the appropriate local officials and emergency service providers. On an annual basis, the Department of Transportation shall provide a report on the maintenance and operability of installed fire protection and detection systems in roadway tunnels and bridges to the State Fire Marshal.

~~Q. [ P. J. ]~~ Section [ ~~103-12-1~~ 103.7.1 ] Certification of state enforcement personnel. State enforcement personnel shall comply with the applicable requirements of Section 105 for certification, ~~periodic maintenance training, and continuing education.~~

## **13VAC5-63-40. Section 104 Enforcement, generally.**

A. Section 104.1 Scope of enforcement. This section establishes the requirements for enforcement of the USBC in accordance with § 36-105 of the Code of Virginia. Enforcement of the provisions of the USBC for construction and rehabilitation shall be the responsibility of the local building department. Whenever a county or municipality does not have such a building department, the local governing body shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by DHCD for such

enforcement. For the purposes of this section, towns with a population of less than 3,500 may elect to administer and enforce the USBC; however, where the town does not elect to administer and enforce the code, the county in which the town is situated shall administer and enforce the code for the town. In the event such town is situated in two or more counties, those counties shall administer and enforce the USBC for that portion of the town situated within their respective boundaries.

However, upon a finding by the local building department, following a complaint by a tenant of a residential dwelling unit that is the subject of such complaint, that there may be a violation of the unsafe structures provisions of Part III of the Virginia Uniform Statewide Building Code, also known as the "Virginia Maintenance Code," or the "VMC," the local building department shall enforce such provisions.

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

The local governing body shall, however, inspect and enforce the provisions of the VMC for elevators, escalators, and related conveyances, except for elevators in single-family and two-family homes and townhouses. Such inspection and enforcement shall be carried out by an agency or department designated by the local governing body.

B. Section 104.2 Interagency coordination. When any inspection functions under this code are assigned to a local agency other than the local building department, such agency shall coordinate its reports of inspection with the local building department.

## **13VAC5-63-50. Section 105 Local building department.**

A. Section 105.1 Appointment of building official. Every local building department shall have a building official as the executive official in charge of the department. The building official shall be appointed in a manner selected by the local governing body. After permanent appointment, the building official shall not be removed from office except for cause after having been afforded a full opportunity to be heard on specific and relevant charges by and before the appointing authority. DHCD shall be notified by the appointing authority within 30 days of the appointment or release of a permanent or acting building official.

Note: Building officials are subject to sanctions in accordance with the VCS.

B. Section 105.1.1 Qualifications of building official. The building official shall have at least five years of building experience as a licensed professional engineer or architect, building, fire or trade inspector, contractor, housing inspector or superintendent of building, fire or trade construction or at least five years of building experience after obtaining a degree in architecture or engineering, with at least three years in responsible charge of work. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The building official shall have general knowledge of sound engineering practice in respect to the design and construction of structures, the basic principles of fire prevention, the accepted requirements for means of egress and the installation of elevators and other service equipment necessary for the health, safety and general welfare of the occupants and the public. The local governing body may establish additional qualification requirements.

C. Section 105.1.2 Certification of building official. An acting or permanent building official shall be certified as a building official in accordance with the VCS within one year after being appointed as acting or permanent building official.

Exception: A building official in place prior to April 1, 1983, shall not be required to meet the certification requirements in this section while continuing to serve in the same capacity in the same locality.

D. Section 105.1.3 Noncertified building official. Except for a building official exempt from certification under the exception to Section 105.1.2, any acting or permanent building official who is not certified as a building official in accordance with the VCS shall attend the core module of the Virginia Building Code Academy or an equivalent course in an individual or regional code academy accredited by DHCD within 180 days of appointment. This requirement is in addition to meeting the certification requirement in Section 105.1.2.

~~E. Section 105.1.4 Requirements for periodic maintenance and continuing education. Building officials shall attend~~

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# Regulations

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~~periodic maintenance training as designated by DHCD. In addition to the periodic maintenance training required above, building officials shall attend 16 hours of continuing education every two years as approved by DHCD. If a building official possesses more than one BHCD certificate, the 16 hours shall satisfy the continuing education requirement for all BHCD certificates.~~

Note: Continuing education and periodic training requirements for DHCD certifications are set out in the VCS.

~~¶ E.~~ Section 105.2 Technical assistants. The building official, subject to any limitations imposed by the locality, shall be permitted to utilize technical assistants to assist the building official in the enforcement of the USBC. DHCD shall be notified by the building official within 60 days of the employment of, contracting with or termination of all technical assistants.

Note: Technical assistants are subject to sanctions in accordance with the VCS.

~~¶ F.~~ Section 105.2.1 Qualifications of technical assistants. A technical assistant shall have at least three years of experience and general knowledge in at least one of the following areas: building construction; [ building construction conceptual and administrative processes; ] building, fire or housing inspections; plumbing, electrical or mechanical trades; or fire protection, elevator or property maintenance work. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The locality may establish additional qualification requirements.

~~¶ G.~~ Section 105.2.2 Certification of technical assistants. A technical assistant shall be certified in the appropriate subject area within 18 months after becoming a technical assistant. When required by local policy to have two or more certifications, a technical assistant shall obtain the additional certifications within three years from the date of such requirement.

[ ~~Exception~~ Exceptions:

1.] A technical assistant in place prior to March 1, 1988, shall not be required to meet the certification requirements in this section while continuing to serve in the same capacity in the same locality.

[ 2. A permit technician in place prior to the effective date of the 2015 edition of the code shall not be required to meet the certification requirements in this section while continuing to serve in the same capacity in the same locality. ]

~~I. Section 105.2.3 Requirements for periodic maintenance and continuing education. Technical assistants shall attend periodic maintenance training as designated by DHCD. In addition to the periodic maintenance training required above, technical assistants shall attend 16 hours of continuing~~

~~education every two years as approved by DHCD. If a technical assistant possesses more than one BHCD certificate, the 16 hours shall satisfy the continuing education requirement for all BHCD certificates.~~

Note: Continuing education and periodic training requirements for DHCD certifications are set out in the VCS.

~~¶ H.~~ Section 105.3 Conflict of interest. The standards of conduct for building officials and technical assistants shall be in accordance with the provisions of the State and Local Government Conflict of Interests Act, Chapter 31 (§ 2.2-3100 et seq.) of Title 2.2 of the Code of Virginia.

~~¶ I.~~ Section 105.4 Records. The local building department shall retain a record of applications received, permits, certificates, notices and orders issued, fees collected and reports of inspection in accordance with The Library of Virginia's General Schedule Number Six.

## **13VAC5-63-70. Section 107 Fees.**

A. Section 107.1 Authority for charging fees. In accordance with § 36-105 of the Code of Virginia, fees may be levied by the local governing body in order to defray the cost of enforcement of the USBC.

Note: See subsection D of § 36-105 of the Code of Virginia for rules for permit fees involving property with easements or liens.

B. Section 107.1.1 Fee schedule. The local governing body shall establish a fee schedule incorporating unit rates, which may be based on square footage, cubic footage, estimated cost of construction or other appropriate criteria. A permit or any amendments to an existing permit shall not be issued until the designated fees have been paid, except that the building official may authorize the delayed payment of fees.

C. Section 107.1.2 Refunds. When requested in writing by a permit holder, the locality shall provide a fee refund in the case of the revocation of a permit or the abandonment or discontinuance of a building project. The refund shall not be required to exceed an amount which correlates to work not completed.

D. Section 107.1.3 Fees for generators used with amusement devices. Fees for generators and associated wiring used with amusement devices shall only be charged under the Virginia Amusement Device Regulations (13VAC5-31).

E. Section 107.2 Code academy fee levy. In accordance with subdivision 7 of § 36-137 of the Code of Virginia, the local building department shall collect a 2.0% levy of fees charged for permits issued under this code and transmit it quarterly to DHCD to support training programs of the Virginia Building Code Academy. Localities that maintain individual or regional training academies accredited by DHCD shall retain such levy.

**13VAC5-63-80. Section 108 Application for permit.**

A. Section 108.1 When applications are required. Application for a permit shall be made to the building official and a permit shall be obtained prior to the commencement of any of the following activities, except that applications for emergency construction, alterations or equipment replacement shall be submitted by the end of the first working day that follows the day such work commences. In addition, the building official may authorize work to commence pending the receipt of an application or the issuance of a permit.

1. Construction or demolition of a building or structure. Installations or alterations involving (i) the removal or addition of any wall, partition or portion thereof, (ii) any structural component, (iii) the repair or replacement of any required component of a fire or smoke rated assembly, (iv) the alteration of any required means of egress system, (v) water supply and distribution system, sanitary drainage system or vent system, (vi) electric wiring, (vii) fire protection system, mechanical systems, or fuel supply systems, or (viii) any equipment regulated by the USBC.

2. For change of occupancy, application for a permit shall be made when a new certificate of occupancy is required [ ~~under Section 103.3~~ by the VEBC ].

3. Movement of a lot line that increases the hazard to or decreases the level of safety of an existing building or structure in comparison to the building code under which such building or structure was constructed.

4. Removal or disturbing of any asbestos containing materials during the construction or demolition of a building or structure, including additions.

B. Section 108.2 Exemptions from application for permit. Notwithstanding the requirements of Section 108.1, application for a permit and any related inspections shall not be required for the following; however, this section shall not be construed to exempt such activities from other applicable requirements of this code. In addition, when an owner or an owner's agent requests that a permit be issued for any of the following, then a permit shall be issued and any related inspections shall be required.

1. Installation of wiring and equipment that (i) operates at less than 50 volts, (ii) is for [ ~~network-powered~~ ] broadband communications systems, [ ~~or~~ ] (iii) is exempt under Section 102.3(1) or [ ~~102.3(2)~~ 102.3(4) ], [ or (iv) is for monitoring or automation systems in dwelling units, ] except when any such installations are located in a plenum, penetrate fire rated or smoke protected construction or are a component of any of the following:

1.1. Fire alarm system.

1.2. Fire detection system.

1.3. Fire suppression system.

1.4. Smoke control system.

1.5. Fire protection supervisory system.

1.6. Elevator fire safety control system.

1.7. Access or egress control system or delayed egress locking or latching system.

1.8. Fire damper.

1.9. Door control system.

2. One story detached structures used as tool and storage sheds, playhouses or similar uses, provided the building area does not exceed 256 square feet (23.78 m<sup>2</sup>) and the structures are not classified as a Group F-1 or H occupancy.

3. Detached prefabricated buildings housing the equipment of a publicly regulated utility service, provided the floor area does not exceed 150 square feet (14 m<sup>2</sup>).

4. Tents or air-supported structures, or both, that cover an area of 900 square feet (84 m<sup>2</sup>) or less, including within that area all connecting areas or spaces with a common means of egress or entrance, provided such tents or structures have an occupant load of 50 or less persons.

5. Fences of any height unless required for pedestrian safety as provided for by Section 3306, or used for the barrier for a swimming pool.

6. Concrete or masonry walls, provided such walls do not exceed six feet in height above the finished grade. Ornamental column caps shall not be considered to contribute to the height of the wall and shall be permitted to extend above the six feet height measurement.

7. Retaining walls supporting less than three feet of unbalanced fill that are not constructed for the purpose of impounding Class I, II or III-A liquids or supporting a surcharge other than ordinary unbalanced fill.

8. Swimming pools that have a surface area not greater than 150 square feet (13.95 m<sup>2</sup>), do not exceed 5,000 gallons (19 000 L) and are less than 24 inches (610 mm) deep.

9. Signs under the conditions in Section H101.2 of Appendix H.

10. Replacement of above-ground existing LP-gas containers of the same capacity in the same location and associated regulators when installed by the serving gas supplier.

11. Flagpoles 30 feet (9144 mm) or less in height.

12. Temporary ramps serving dwelling units in Group R-3 and R-5 occupancies where the height of the entrance

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# Regulations

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served by the ramp is no more than 30 inches (762 mm) above grade.

13. Construction work deemed by the building official to be minor and ordinary and which does not adversely affect public health or general safety.

14. Ordinary repairs that include the following:

14.1. Replacement of windows and doors with windows and doors of similar operation and opening dimensions that do not require changes to the existing framed opening and that are not required to be fire rated in Group R-2 where serving a single dwelling unit and in Groups R-3, R-4 and R-5.

14.2. Replacement of plumbing fixtures and well pumps in all groups without alteration of the water supply and distribution systems, sanitary drainage systems or vent systems.

14.3. Replacement of general use snap switches, dimmer and control switches, 125 volt-15 or 20 ampere receptacles, luminaires (lighting fixtures) and ceiling (paddle) fans in Group R-2 where serving a single dwelling unit and in Groups R-3, R-4 and R-5.

14.4. Replacement of mechanical appliances provided such equipment is not fueled by gas or oil in Group R-2 where serving a single-family dwelling and in Groups R-3, R-4 and R-5.

14.5. Replacement of an unlimited amount of roof covering or siding in Groups R-3, R-4 or R-5 provided the building or structure is not in an area where the nominal design (~~3-second-gust~~) wind speed is greater than 100 miles per hour (~~160 km/hr~~) (44.7 meters per second) and replacement of 100 square feet (9.29 m<sup>2</sup>) or less of roof covering in all groups and all wind zones.

14.6. Replacement of [ ~~400~~ 256 ] square feet [ (~~9.29~~ m<sup>2</sup>) 23.78 m<sup>2</sup> ] or less of roof decking in Groups R-3, R-4 or R-5 unless the decking to be replaced was required at the time of original construction to be fire-retardant-treated or protected in some other way to form a fire-rated wall termination.

14.7. Installation or replacement of floor finishes in all occupancies.

14.8. Replacement of Class C interior wall or ceiling finishes installed in Groups A, E and I and replacement of all classes of interior wall or ceiling finishes in other groups.

14.9. Installation or replacement of cabinetry or trim.

14.10. Application of paint or wallpaper.

14.11. Other repair work deemed by the building official to be minor and ordinary which does not adversely affect public health or general safety.

15. Crypts, mausoleums, and columbaria structures not exceeding 1500 square feet (139.35 m<sup>2</sup>) in area if the building or structure is not for occupancy and used solely for the interment of human or animal remains and is not subject to special inspections.

16. Billboard safety upgrades to add or replace steel catwalks, steel ladders, or steel safety cable.

[ ~~Exception~~ Exceptions ]:

[ 1. ] Application for a permit may be required by the building official for the installation of replacement siding, roofing and windows in buildings within a historic district designated by a locality pursuant to § 15.2-2306 of the Code of Virginia.

[ 2. Application for a permit may be required by the building official for any items exempted in this section that are located in a special flood hazard area. ]

C. Section 108.3 Applicant information, processing by mail. Application for a permit shall be made by the owner or lessee of the relevant property or the agent of either or by the RDP, contractor or subcontractor associated with the work or any of their agents. The full name and address of the owner, lessee and applicant shall be provided in the application. If the owner or lessee is a corporate body, when and to the extent determined necessary by the building official, the full name and address of the responsible officers shall also be provided.

A permit application may be submitted by mail and such permit applications shall be processed by mail, unless the permit applicant voluntarily chooses otherwise. In no case shall an applicant be required to appear in person.

The building official may accept applications for a permit through electronic submissions provided the information required by this section is obtained.

D. Section 108.4 Prerequisites to obtaining permit. In accordance with § 54.1-1111 of the Code of Virginia, any person applying to the building department for the construction, removal or improvement of any structure shall furnish prior to the issuance of the permit either (i) satisfactory proof to the building official that he is duly licensed or certified under the terms or Chapter 11 (§ 54.1-1000 et seq.) of Title 54.1 of the Code of Virginia to carry out or superintend the same or (ii) file a written statement, supported by an affidavit, that he is not subject to licensure or certification as a contractor or subcontractor pursuant to Chapter 11 of Title 54.1 of the Code of Virginia. The applicant shall also furnish satisfactory proof that the taxes or license fees required by any county, city, or town have been paid so as to be qualified to bid upon or contract for the work for which the permit has been applied.

E. Section 108.5 Mechanics' lien agent designation. In accordance with § 36-98.01 of the Code of Virginia, a building permit issued for any one-family or two-family

residential dwelling shall at the time of issuance contain, at the request of the applicant, the name, mailing address, and telephone number of the mechanics' lien agent as defined in § 43-1 of the Code of Virginia. If the designation of a mechanics' lien agent is not so requested by the applicant, the building permit shall at the time of issuance state that none has been designated with the words "None Designated."

Note: In accordance with § 43-4.01A of the Code of Virginia, a permit may be amended after it has been initially issued to name a mechanics' lien agent or a new mechanics' lien agent.

F. Section 108.6 Application form, description of work. The application for a permit shall be submitted on a form or forms supplied by the local building department. The application shall contain a general description and location of the proposed work and such other information as determined necessary by the building official.

G. Section 108.7 Amendments to application. An application for a permit may be amended at any time prior to the completion of the work governed by the permit. Additional construction documents or other records may also be submitted in a like manner. All such submittals shall have the same effect as if filed with the original application for a permit and shall be retained in a like manner as the original filings.

H. Section 108.8 Time limitation of application. An application for a permit for any proposed work shall be deemed to have been abandoned six months after the date of filing unless such application has been pursued in good faith or a permit has been issued, except that the building official is authorized to grant one or more extensions of time if a justifiable cause is demonstrated.

### [ 13VAC5-63-130. Section 113 Inspections.

A. Section 113.1 General. In accordance with § 36-105 of the Code of Virginia, any building or structure may be inspected at any time before completion, and shall not be deemed in compliance until approved by the inspecting authority. Where the construction cost is less than \$2,500, however, the inspection may, in the discretion of the inspecting authority, be waived. The building official shall coordinate all reports of inspections for compliance with the USBC, with inspections of fire and health officials delegated such authority, prior to the issuance of an occupancy permit.

B. Section 113.1.1 Equipment required. Any ladder, scaffolding or test equipment necessary to conduct or witness a requested inspection shall be provided by the permit holder.

C. Section 113.1.2 Duty to notify. When construction reaches a stage of completion that requires an inspection, the permit holder shall notify the building official.

D. Section 113.1.3 Duty to inspect. Except as provided for in Section 113.7, the building official shall perform the

requested inspection in accordance with Section 113.6 when notified in accordance with Section 113.1.2.

E. Section 113.2 Prerequisites. The building official may conduct a site inspection prior to issuing a permit. When conducting inspections pursuant to this code, all personnel shall carry proper credentials.

F. Section 113.3 Minimum inspections. The following minimum inspections shall be conducted by the building official when applicable to the construction or permit:

1. Inspection of footing excavations and reinforcement material for concrete footings prior to the placement of concrete.
2. Inspection of foundation systems during phases of construction necessary to assure compliance with this code.
3. Inspection of preparatory work prior to the placement of concrete.
4. Inspection of structural members and fasteners prior to concealment.
5. Inspection of electrical, mechanical and plumbing materials, equipment and systems prior to concealment.
6. Inspection of energy conservation material prior to concealment.
7. Final inspection.

G. 113.3.1 Equipment changes. Upon the replacement or new installation of any fuel-burning appliances or equipment in existing Group R-5 occupancies, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:

1. Vent or chimney systems are sized in accordance with the IRC.
2. Vent or chimney systems are clean, free of any obstruction or blockages, defects, or deterioration, and are in operable condition. Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.

H. Section 113.4 Additional inspections. The building official may designate additional inspections and tests to be conducted during the construction of a building or structure and shall so notify the permit holder.

~~H.~~ I. Section 113.5 In-plant and factory inspections. When required by the provisions of this code, materials, equipment or assemblies shall be inspected at the point of manufacture or fabrication. The building official shall require the submittal of an evaluation report of such materials, equipment or assemblies. The evaluation report shall indicate the complete details of the assembly including a description of the assembly and its components, and describe the basis upon

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# Regulations

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which the assembly is being evaluated. In addition, test results and other data as necessary for the building official to determine conformance with the USBC shall be submitted. For factory inspections, an identifying label or stamp permanently affixed to materials, equipment or assemblies indicating that a factory inspection has been made shall be acceptable instead of a written inspection report, provided the intent or meaning of such identifying label or stamp is properly substantiated.

~~I.~~ J. Section 113.6 Approval or notice of defective work. The building official shall either approve the work in writing or give written notice of defective work to the permit holder. Upon request of the permit holder, the notice shall reference the USBC section that serves as the basis for the defects and such defects shall be corrected and reinspected before any work proceeds that would conceal such defects. A record of all reports of inspections, tests, examinations, discrepancies and approvals issued shall be maintained by the building official and shall be communicated promptly in writing to the permit holder. Approval issued under this section may be revoked whenever it is discovered that such approval was issued in error or on the basis of incorrect information, or where there are repeated violations of the USBC. Notices issued pursuant to this section shall be permitted to be communicated electronically, provided the notice is reasonably calculated to get to the permit holder.

~~J.~~ K. Section 113.7 Approved inspection agencies. The building official may accept reports of inspections and tests from individuals or inspection agencies approved in accordance with the building official's written policy required by Section 113.7.1. The individual or inspection agency shall meet the qualifications and reliability requirements established by the written policy. Under circumstances where the building official is unable to make the inspection or test required by Section 113.3 or 113.4 within two working days of a request or an agreed upon date or if authorized for other circumstances in the building official's written policy, the building official shall accept reports for review. The building official shall approve the report from such approved individuals or agencies unless there is cause to reject it. Failure to approve a report shall be in writing within two working days of receiving it stating the reason for the rejection. Reports of inspections conducted by approved third-party inspectors or agencies shall be in writing, shall indicate if compliance with the applicable provisions of the USBC have been met and shall be certified by the individual inspector or by the responsible officer when the report is from an agency.

Exception: The licensed mechanical contractor installing the mechanical system shall be permitted to perform duct tests required by Section R403.3.3 of the IECC or Section N1103.3.3 of the IRC. The contractor shall have been trained on the equipment used to perform the test.

Note: Photographs, videotapes or other sources of pertinent data or information may be considered as constituting such reports and tests.

~~K.~~ L. Section 113.7.1 Third-party inspectors. Each building official charged with the enforcement of the USBC shall have a written policy establishing the minimum acceptable qualifications for third-party inspectors. The policy shall include the format and time frame required for submission of reports, any prequalification or preapproval requirements before conducting a third-party inspection and any other requirements and procedures established by the building official.

~~L.~~ M. Section 113.7.2 Qualifications. In determining third-party inspector qualifications, the building official may consider such items as DHCD inspector certification, other state or national certifications, state professional registrations, related experience, education and any other factors that would demonstrate competency and reliability to conduct inspections.

~~M.~~ N. Section 113.8 Final inspection. Upon completion of a building or structure and before the issuance of a certificate of occupancy, a final inspection shall be conducted to ensure that any defective work has been corrected and that all work complies with the USBC and has been approved, including any work associated with modifications under Section 106.3. The building official shall be permitted to require the electrical service to a building or structure to be energized prior to conducting the final inspection. The approval of a final inspection shall be permitted to serve as the new certificate of occupancy required by Section 116.1 in the case of additions or alterations to existing buildings or structures that already have a certificate of occupancy.

## **13VAC5-63-150. Section 115 Violations.**

A. Section 115.1 Violation a misdemeanor; civil penalty. In accordance with § 36-106 of the Code of Virginia, it shall be unlawful for any owner or any other person, firm or corporation, on or after the effective date of any code provisions, to violate any such provisions. Any locality may adopt an ordinance that establishes a uniform schedule of civil penalties for violations of specified provisions of the code that are not abated or remedied promptly after receipt of a notice of violation from the local enforcement officer.

Note: See the full text of § 36-106 of the Code of Virginia for additional requirements and criteria pertaining to legal action relative to violations of the code.

B. Section 115.2 Notice of violation. The building official shall issue a written notice of violation to the responsible party if any violations of this code or any directives or orders of the building official have not been corrected or complied with in a reasonable time. The notice shall reference the code section upon which the notice is based and direct the ~~discontinuance and abatement~~ correction of the violation or

the compliance with such directive or order and specify a reasonable time period within which the corrections or compliance must occur. The notice shall be issued by either delivering a copy to the responsible party by mail to the last known address or delivering the notice in person or by leaving it in the possession of any person in charge of the premises, or by posting the notice in a conspicuous place if the person in charge of the premises cannot be found. The notice of violation shall indicate the right of appeal by referencing the appeals section. When the owner of the building or structure, or the permit holder for the construction in question, or the tenants of such building or structure, are not the responsible party to whom the notice of violation is issued, then a copy of the notice shall also be delivered to the such owner, permit holder or tenants.

Note: A notice of unsafe building or structure for structures that become unsafe during the construction process are issued in accordance with Section 118.

C. Section 115.2.1 Notice not to be issued under certain circumstances. When violations are discovered more than two years after the certificate of occupancy is issued or the date of initial occupancy, whichever occurred later, or more than two years after the approved final inspection for an alteration or renovation, a notice of violation shall only be issued upon advice from the legal counsel of the locality that action may be taken to compel correction of the violation. When compliance can no longer be compelled by prosecution under § 36-106 of the Code of Virginia, the building official, when requested by the building owner, shall document in writing the existence of the violation noting the edition of the USBC the violation is under.

D. Section 115.3 Further action when violation not corrected. If the responsible party has not complied with the notice of violation, the building official ~~shall submit a written request to~~ may initiate legal proceedings by requesting the legal counsel of the locality to institute the appropriate legal proceedings to restrain, correct or abate the violation or to require the removal or termination of the use of the building or structure involved. In cases where the locality so authorizes, the building official may issue or obtain a summons or warrant. Compliance with a notice of violation notwithstanding, the building official may request legal proceedings be instituted for prosecution when a person, firm or corporation is served with three or more notices of violation within one calendar year for failure to obtain a required construction permit prior to commencement of work subject to this code.

Note: See § 19.2-8 of the Code of Virginia concerning the statute of limitations for building code prosecutions.

E. Section 115.4 Penalties and abatement. Penalties for violations of the USBC shall be as set out in § 36-106 of the Code of Virginia. The successful prosecution of a violation of

the USBC shall not preclude the institution of appropriate legal action to require correction or abatement of a violation.

F. Section 115.5 Transfer of ownership. In accordance with § 36-105 of the Code of Virginia, if the local building department has initiated an enforcement action against the owner of a building or structure and such owner subsequently transfers the ownership of the building or structure to an entity in which the owner holds an ownership interest greater than 50%, the pending enforcement action shall continue to be enforced against the owner. ]

### **13VAC5-63-170. Section 117 Temporary and moved buildings and structures; demolition.**

A. Section 117.1 Temporary buildings and structures. The building official is authorized to issue a permit for temporary buildings or structures. Such permits shall be limited as to time of service, but shall not be permitted for more than one year, except that upon the permit holder's written request, the building official may grant one or more extensions of time, not to exceed one year per extension. The building official is authorized to terminate the approval and order the demolition or removal of temporary buildings or structures during the period authorized by the permit when determined necessary.

B. Section 117.1.1 Temporary uses within existing buildings and structures. The building official shall review and may approve conditions or modifications for temporary uses, including hypothermia and hyperthermia shelters, that may be necessary as long as the use meets the spirit and functional intent intended by this code. The building official is authorized to terminate the approval and order the discontinuance of the temporary use during the period authorized by the permit when determined necessary. The building official shall notify the appropriate fire official or fire chief of the approved temporary use.

C. Section 117.2 Moved buildings and structures. Any building or structure moved into a locality or moved to a new location within a locality shall not be occupied or used until a ~~certification~~ certificate of occupancy is issued for the new location. Such moved buildings or structures shall be required to comply with the requirements of ~~this code for a newly constructed building or structure unless meeting all of the following requirements relative to the new location:~~

- ~~1. There is no change in the occupancy classification from its previous location.~~
- ~~2. The building or structure was in compliance with all state and local requirements applicable to it in its previous location and is in compliance with all state and local requirements applicable if originally constructed in the new location.~~
- ~~3. The building or structure did not become unsafe during the moving process due to structural damage or for other reasons.~~



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# Regulations

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~~4. Any alterations, reconstruction, renovations or repairs made pursuant to the move are in compliance with applicable requirements of the VRC VEBC.~~

D. Section 117.3 Demolition of buildings and structures. Prior to the issuance of a permit for the demolition of any building or structure, the owner or the owner's agent shall provide certification to the building official that all service connections of utilities have been removed, sealed or plugged satisfactorily and a release has been obtained from the associated utility company. The certification shall further provide that written notice has been given to the owners of adjoining lots and any other lots that may be affected by the temporary removal of utility wires or the temporary disconnection or termination of other services or facilities relative to the demolition. In addition, the requirements of Chapter 33 of the IBC for any necessary retaining walls or fences during demolition shall be applicable and when a building or structure is demolished or removed, the established grades shall be restored.

## [ 13VAC5-63-190. Section 119 Appeals.

A. Section 119.1 Establishment of appeals board. In accordance with § 36-105 of the Code of Virginia, there shall be established within each local building department a LBBCA. Whenever a county or a municipality does not have such a LBBCA, the local governing body shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by DHCD for such appeals resulting therefrom. Fees may be levied by the local governing body in order to defray the cost of such appeals. In addition, as an authorization in this code, separate LBBCAs may be established to hear appeals of different enforcement areas such as electrical, plumbing or mechanical requirements. Each such LBBCA shall comply with the requirements of this section. The locality is responsible for maintaining a duly constituted LBBCA prepared to hear appeals within the time limits established in this section. The LBBCA shall meet as necessary to assure a duly constituted board, appoint officers as necessary, and receive such training on the code as may be appropriate or necessary from staff of the locality.

B. Section 119.2 Membership of board. The LBBCA shall consist of at least five members appointed by the locality for a specific term of office established by written policy. Alternate members may be appointed to serve in the absence of any regular members and as such, shall have the full power and authority of the regular members. Regular and alternate members may be reappointed. Written records of current membership, including a record of the current chairman and secretary shall be maintained in the office of the locality. In order to provide continuity, the terms of the members may be of different length so that less than half will expire in any one-year period.

C. Section 119.3 Officers and qualifications of members. The LBBCA shall annually select one of its regular members to serve as chairman. When the chairman is not present at an appeal hearing, the members present shall select an acting chairman. The locality or the chief executive officer of the locality shall appoint a secretary to the LBBCA to maintain a detailed record of all proceedings. Members of the LBBCA shall be selected by the locality on the basis of their ability to render fair and competent decisions regarding application of the USBC and shall to the extent possible, represent different occupational or professional fields relating to the construction industry. At least one member should be an experienced builder; at least one member should be an RDP, and at least one member should be an experienced property manager. Employees or officials of the locality shall not serve as members of the LBBCA.

D. Section 119.4 Conduct of members. No member shall hear an appeal in which that member has a conflict of interest in accordance with the State and Local Government Conflict of Interests Act (§ 2.2-3100 et seq. of the Code of Virginia). Members shall not discuss the substance of an appeal with any other party or their representatives prior to any hearings.

E. Section 119.5 Right of appeal; filing of appeal application. Any person aggrieved by the local building department's application of the USBC or the refusal to grant a modification to the provisions of the USBC may appeal to the LBBCA. The applicant shall submit a written request for appeal to the LBBCA within 30 calendar days of the receipt of the decision being appealed. The application shall contain the name and address of the owner of the building or structure and in addition, the name and address of the person appealing, when the applicant is not the owner. A copy of the building official's decision shall be submitted along with the application for appeal and maintained as part of the record. The application shall be marked by the LBBCA to indicate the date received. Failure to submit an application for appeal within the time limit established by this section shall constitute acceptance of a building official's decision.

Note: To the extent that a decision of a building official pertains to amusement devices there may be a right of appeal under the VADR.

F. Section 119.6 Meetings and postponements. The LBBCA shall meet within 30 calendar days after the date of receipt of the application for appeal, except that a period of up to 45 calendar days shall be permitted where the LBBCA has regularly scheduled monthly meetings. A longer time period shall be permitted if agreed to by all the parties involved in the appeal. A notice indicating the time and place of the hearing shall be sent to the parties in writing to the addresses listed on the application at least 14 calendar days prior to the date of the hearing, except that a lesser time period shall be permitted if agreed to by all the parties involved in the appeal. When a quorum of the LBBCA is not present at a hearing to

hear an appeal, any party involved in the appeal shall have the right to request a postponement of the hearing. The LBBCA shall reschedule the appeal within 30 calendar days of the postponement, except that a longer time period shall be permitted if agreed to by all the parties involved in the appeal.

G. Section 119.7 Hearings and decision. All hearings before the LBBCA shall be open meetings and the appellant, the appellant's representative, the locality's representative and any person whose interests are affected by the building official's decision in question shall be given an opportunity to be heard. The chairman shall have the power and duty to direct the hearing, rule upon the acceptance of evidence and oversee the record of all proceedings. The LBBCA shall have the power to uphold, reverse or modify the decision of the official by a concurring vote of a majority of those present. Decisions of the LBBCA shall be final if no further appeal is made. The decision of the LBBCA shall be ~~by resolution explained in writing~~, signed by the chairman and retained as part of the record of the appeal. Copies of the ~~resolution written decision~~ shall be sent to all parties by certified mail. In addition, the ~~resolution written decision~~ shall contain the following wording:

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

H. Section 119.8 Appeals to the State Review Board. After final determination by the LBBCA in an appeal, any person who was a party to the appeal may further appeal to the State Review Board. In accordance with § 36-98.2 of the Code of Virginia for state-owned buildings and structures, appeals by an involved state agency from the decision of the building official for state-owned buildings or structures shall be made directly to the State Review Board. The application for appeal shall be made to the State Review Board within 21 calendar days of the receipt of the decision to be appealed. Failure to submit an application within that time limit shall constitute an acceptance of the building official's decision. For appeals from a LBBCA, a copy of the building official's decision and the ~~resolution written decision~~ of the LBBCA shall be submitted with the application for appeal to the State Review Board. Upon request by the office of the State Review Board, the LBBCA shall submit a copy of all pertinent information from the record of the appeal. In the case of appeals involving state-owned buildings or structures, the involved state agency shall submit a copy of the building official's decision and other relevant information with the application for appeal to the State Review Board. Procedures of the State Review Board are in accordance with Article 2 (§ 36-108 et seq.) of Chapter 6 of Title 36 of the Code of Virginia. Decisions of

the State Review Board shall be final if no further appeal is made. ]

**13VAC5-63-200. Chapter 2 Definitions.**

A. Add the following definitions to Section 202 of the IBC to read:

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

Building regulations. Any law, rule, resolution, regulation, ordinance or code, general or special, or compilation thereof, heretofore or hereafter enacted or adopted by the Commonwealth or any county or municipality, including departments, boards, bureaus, commissions, or other agencies thereof, relating to construction, reconstruction, alteration, conversion, repair, maintenance, or use of structures and buildings and installation of equipment therein. The term does not include zoning ordinances or other land use controls that do not affect the manner of construction or materials to be used in the erection, alteration or repair of a building or structure.

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

Chemical fume hood. A ventilated enclosure designed to contain and exhaust fumes, gases, vapors, mists, and particulate matter generated within the hood.

Construction. The construction, reconstruction, alteration, repair, or conversion of buildings and structures.

Day-night average sound level (Ldn). A 24-hour energy average sound level expressed in dBA, with a 10 decibel penalty applied to noise occurring between 10 p.m. and 7 a.m.

DHCD. The Virginia Department of Housing and Community Development.

Emergency communication equipment. Emergency communication equipment, includes but is not limited to two-way radio communications, signal booster, bi-directional amplifiers, radiating cable systems, or internal multiple antenna, or a combination of the foregoing.

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# Regulations

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Emergency public safety personnel. Emergency public safety personnel includes firefighters, emergency medical personnel, law-enforcement officers, and other emergency public safety personnel routinely called upon to provide emergency assistance to members of the public in a wide variety of emergency situations, including but not limited to fires, medical emergencies, violent crimes, and terrorist attacks.

Equipment. Plumbing, heating, electrical, ventilating, air-conditioning and refrigeration equipment, elevators, dumbwaiters, escalators, and other mechanical additions or installations.

Farm building or structure. A building or structure not used for residential purposes, located on property where farming operations take place, and used primarily for any of the following uses or combination thereof:

1. Storage, handling, production, display, sampling or sale of agricultural, horticultural, floricultural or silvicultural products produced in the farm.
2. Sheltering, raising, handling, processing or sale of agricultural animals or agricultural animal products.
3. Business or office uses relating to the farm operations.
4. Use of farm machinery or equipment or maintenance or storage of vehicles, machinery or equipment on the farm.
5. Storage or use of supplies and materials used on the farm.
6. Implementation of best management practices associated with farm operations.

Hospice facility. An institution, place, or building owned or operated by a hospice provider and licensed by the Virginia Department of Health as a hospice facility to provide room, board, and palliative and supportive medical and other health services to terminally ill patients and their families, including respite and symptom management, on a 24-hour basis to individuals requiring such care pursuant to the orders of a physician.

Industrialized building. A combination of one or more sections or modules, subject to state regulations and including the necessary electrical, plumbing, heating, ventilating and other service systems, manufactured off-site and transported to the point of use for installation or erection, with or without other specified components, to comprise a finished building. Manufactured homes shall not be considered industrialized buildings for the purpose of this code.

Laboratory suite. A fire-rated enclosed laboratory area that will provide one or more laboratory spaces, within a Group B educational occupancy, that are permitted to include ancillary uses such as offices, bathrooms, and corridors

that are contiguous with the laboratory area and are constructed in accordance with Section 430.3.

LBBCA. Local board of building code appeals.

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

Local building department. The agency or agencies of any local governing body charged with the administration, supervision, or enforcement of this code, approval of construction documents, inspection of buildings or structures, or issuance of permits, licenses, certificates or similar documents.

Local governing body. The governing body of any city, county or town in this Commonwealth.

Locality. A city, county or town in this Commonwealth.

Manufactured home. A structure subject to federal regulation, which is transportable in one or more sections; is eight body feet or more in width and 40 body feet or more in length in the traveling mode, or is 320 or more square feet when erected on site; is built on a permanent chassis; is designed to be used as a single-family dwelling, with or without a permanent foundation, when connected to the required utilities; and includes the plumbing, heating, air-conditioning, and electrical systems contained in the structure.

Marina. Any installation, operating under public or private ownership, that has a structure providing dockage or moorage for boats, other than paddleboats or rowboats, and provides, through sale, rental, fee, or on a free basis, any equipment, supply, or service, including fuel, electricity, or water, for the convenience of the public or its lessees, renters, or users of its facilities. A dock or pier with or without slips that exclusively serves a single-family residential lot for the use of the owner of the lot is not a marina.

Night club. Any building in which the main use is a place of public assembly that provides exhibition, performance or other forms of entertainment; serves alcoholic beverages; and provides music and space for dancing.

Permissible fireworks. Any sparklers, fountains, Pharaoh's serpents, caps for pistols, or pinwheels commonly known as whirligigs or spinning jennies.

Short-term holding area. An area containing a holding cell or cells, or a holding room or rooms, including associated rooms or spaces where the occupants are restrained or detained by the use of security measures not under the occupant's control for less than 24 hours.

Skirting. A weather-resistant material used to enclose the space from the bottom of the manufactured home to grade.

Slip. A berth or space where a boat may be secured to a fixed or floating structure, including a dock, finger pier, boat lift, or mooring buoy.

Sound transmission class (STC) rating. A single number characterizing the sound reduction performance of a material tested in accordance with ASTM E90-90, "Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions."

State regulated care facility (SRCF). A building with an occupancy in Group R-2, R-3, R-4 or R-5 occupied by persons in the care of others where program oversight is provided by the Virginia Department of Social Services, the Virginia Department of Behavioral Health and Developmental Services, the Virginia Department of Education or the Virginia Department of Juvenile Justice.

State Review Board. The Virginia State Building Code Technical Review Board as established under § 36-108 of the Code of Virginia.

Teaching and research laboratory. A building or portion of a building where hazardous materials are stored, used, and handled for the purpose of testing, analysis, teaching, research, or developmental activities on a nonproduction basis rather than in a manufacturing process.

Technical assistant. Any person employed by or under an extended contract to a local building department or local enforcing agency for enforcing the USBC, including but not limited to inspectors [ ~~and~~ ] plans reviewers [ , and permit technicians ]. For the purpose of this definition, an extended contract shall be a contract with an aggregate term of 18 months or longer.

Tenable environmental. An environment in which the products of combustion, including smoke, toxic gases, particulates, and heat, are limited or otherwise restricted in order to maintain the impact on occupants, including those in the area of fire origin, to a level that is not life threatening and permits the rescue of occupants for a limited time.

Unsafe building or structure. Any building or structure that is under construction and has not received a permanent certificate of occupancy, final inspection, or for which a permit was never issued or has expired and has been determined by the building official to be of faulty construction that is so damaged, decayed, dilapidated, structurally unsafe, or of such faulty construction or unstable foundation that partial or complete collapse is likely, or any unfinished construction that does not have a valid permit, or the permit has been revoked, and the condition of the unfinished construction presents an immediate serious and imminent threat to the life and safety of the occupants or the public.

VADR. The Virginia Amusement Device Regulations (13VAC5-31).

VCS. The Virginia Certification Standards (13VAC5-21).

Working day. A day other than Saturday, Sunday or a legal local, state or national holiday.

B. Change the following definitions in Section 202 of the IBC to read:

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

Addition. An extension or increase in floor area, number of stories, or height of a building or structure.

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

Automatic fire-extinguishing system. An approved system of devices and equipment that automatically detects a fire and discharges an approved fire-extinguishing agent onto or in the area of a fire and includes among other systems an automatic sprinkler system, unless otherwise expressly stated.

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

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).

Change of occupancy. [ ~~A change in the use or occupancy of any building or structure that would place the building or structure in a different division of the same group of occupancies or in a different group of occupancies or a change in the purpose or level of activity within a building or structure that involves a change in application of the requirements of this code~~ See Section 202 of the VEBC ].

Clinic, outpatient. Buildings or portions thereof used to provide medical care on less than a 24-hour basis that are not licensed by the Virginia Department of Health as outpatient surgical hospitals.

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# Regulations

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Custodial care. Assistance with day-to-day living tasks, such as assistance with cooking, taking medication, bathing, using toilet facilities, and other tasks of daily living. In other than in hospice facilities, custodial care includes occupants that have the ability to respond to emergency situations and evacuate at a slower rate or who have mental and psychiatric complications, or both.

~~Group home. A facility for social rehabilitation or substance abuse or mental health problems that contains a group housing arrangement that provides custodial care but does not provide medical care.~~

Existing structure. A structure (i) for which a legal building permit has been issued under any edition of the USBC, (ii) which has been previously approved, or (iii) which was built prior to the initial edition of the USBC. For application of provisions in flood hazard areas, an existing structure is any building or structure for which the start of construction commenced before the effective date of the community's first flood plain management code, ordinance, or standard.

Owner. The owner or owners of the freehold of the premises or lesser estate therein, a mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee or lessee in control of a building or structure.

Registered Design Professional (RDP). An architect or professional engineer, licensed to practice architecture or engineering, as defined under § 54.1-400 of the Code of Virginia.

Substantial damage. For the purpose of determining compliance with the flood provisions of this code, damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

Substantial improvement. For the purpose of determining compliance with the flood provisions of this code, any improvement, including repair, reconstruction, rehabilitation, alteration, or addition, or other improvement of a building or structure or a portion thereof the cost of which equals or exceeds 50% of the market value of the building or structure before the improvement or repair is started. If the building or structure or portion thereof has sustained substantial damage, any improvements are considered substantial improvements regardless of the actual improvement performed. The term does not, however, include either:

1. Any project for improvement of a building or a structure or portion thereof required to correct existing health, sanitary, or safety code violations identified by the building official and that is the minimum necessary to assure safe living conditions; or

2. Any alteration of a historic structure, provided that the alteration will not preclude the building or structure's continued designation as a historic building or structure.

Swimming pool. ~~An aquatic vessel~~ A pool or spa as defined in the International Swimming Pool and Spa Code (ISPSC).

Structure. An assembly of materials forming a construction for occupancy or use including stadiums, gospel and circus tents, reviewing stands, platforms, stagings, observation towers, radio towers, water tanks, storage tanks (underground and aboveground), trestles, piers, wharves, swimming pools, amusement devices, storage bins, and other structures of this general nature but excluding water wells. The word "structure" shall be construed as though followed by the words "or part or parts thereof" unless the context clearly requires a different meaning. "Structure" 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.

C. Delete the following definitions from Section 202 of the IBC:

Agricultural [; ] building

Existing structure (For Chapter 34)

Approved

Historic buildings

## **13VAC5-63-210. Chapter 3 Use and occupancy classification.**

A. Change Sections 303.1.1 and 303.1.2 of the IBC to read:

303.1.1 Small buildings and tenant spaces. A building or tenant space used for assembly purposes with an occupant load of less than 50 persons shall be permitted to be classified as a Group B occupancy.

303.1.2 Small assembly spaces. The following rooms and spaces shall be permitted to be classified as Group B occupancies or as part of the assembly occupancy:

1. A room or space used for assembly purposes with an occupant load of less than 50 persons and ancillary to another occupancy.

2. A room or space used for assembly purposes that is less than 750 square feet (70 m<sup>2</sup>) in area and ancillary to another occupancy.

B. Change Section 303.6 of the IBC to read:

303.6 Assembly Group A-5. Assembly uses intended for participation in or viewing outdoor activities including, but not limited to:

Amusement park structures

Bleachers  
 Grandstands  
 Stadiums  
 Swimming pools

C. Add Section 304.1.1 to the IBC to read:

304.1.1 Day support and day treatment facilities. Day support and day treatment facilities licensed by the Virginia Department of Behavioral Health and Developmental Services shall be permitted to be classified as Group B occupancies provided all of the following conditions are met:

1. Participants who may require physical assistance from staff to respond to an emergency situation shall be located on the level of exit discharge.
2. Any change in elevation within the exit access on the level of exit discharge shall be made by means of a ramp or sloped walkway.

~~C.~~ E. Change the "~~Consumer fireworks~~" row in and "Flammable liquid, combination (IA, IB, IC)" row in Table 307.1(1), add a new "Permissible fireworks" row to Table 307.1(1) of the IBC, and add footnote "r" to Table 307.1(1) of the IBC to read:

<del>Consumer fireworks</del>	<del>1.4G</del>	<del>H-3</del>	<del>125<sup>e,l</sup></del>	<del>N/A</del>	<del>N/A</del>	<del>N/A</del>	<del>N/A</del>	<del>N/A</del>	<del>N/A</del>	<del>N/A</del>
<u>Flammable liquid, combination (IA, IB, IC)</u>	<u>NA</u>	<u>H-2 or H-3</u>	<u>NA</u>	<u>120<sup>d,e,h</sup></u>	<u>NA</u>	<u>NA</u>	<u>120<sup>d,h</sup></u>	<u>NA</u>	<u>NA</u>	<u>30<sup>d,h,r</sup></u>
<u>Permissible fireworks</u>	<u>1.4G</u>	<u>H-3</u>	<u>125<sup>d,e,l</sup></u>	<u>N/A</u> <u>NA</u>	<u>N/A</u> <u>NA</u>	<u>N/A</u> <u>NA</u>	<u>N/A</u> <u>NA</u>	<u>N/A</u> <u>NA</u>	<u>N/A</u> <u>NA</u>	<u>N/A</u> <u>NA</u>
<u>r. The tabular value for distilled spirit distillation and blending rooms is 120 gallons.</u>										

~~D.~~ E. Add Section 307.9 to the IBC to read:

307.9 Amendments. The following changes shall be made to the IFC for the use of Exception ~~13~~ 14 in Section ~~307.1~~ 307.1.1:

1. Change the following definition in Section 202 of the IFC to read:

Smokeless propellants. Solid propellants, commonly referred to as smokeless powders, or any propellants classified by DOTn as smokeless propellants in accordance with NA3178 (Smokeless Powder for Small Arms), used in small arms ammunition, firearms, cannons, rockets, propellant-actuated devices, and similar articles.

3. Where the facilities are located more than two stories above grade, an automatic sprinkler system shall be provided throughout the building in accordance with Section 903.3.1.1.

~~B.~~ D. Change exception ~~13~~ 14 of Section ~~307.1~~ 307.1.1 of the IBC and add exception 15 to Section 307.1.1 of the IBC to read:

~~13.~~ 14. The storage of black powder, smokeless propellant and small arms primers in Groups M, R-3 and R-5 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the IFC, as amended in Section 307.9.

15. The storage of distilled spirits and wines in wooden barrels and casks. Distillation, blending, bottling, and other hazardous materials storage or processing shall be in separate control areas complying with Section 414.2.

2. Change Section 314.1 of the IFC to read as follows:

314.1 General. Indoor displays constructed within any building or structure shall comply with Sections 314.2 through 314.5.

3. Add new Section 314.5 to the IFC to read as follows:

314.5 Smokeless powder and small arms primers. Vendors shall not store, display or sell smokeless powder or small arms primers during trade shows inside exhibition halls except as follows:

1. The amount of smokeless powder each vender may store is limited to the storage arrangements and storage amounts established in Section 5606.5.2.1.

2. Smokeless powder shall remain in the manufacturer's original sealed container and the container shall remain sealed while inside the building. The repackaging of

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# Regulations

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smokeless powder shall not be performed inside the building. Damaged containers shall not be repackaged inside the building and shall be immediately removed from the building in such manner to avoid spilling any powder.

3. There shall be at least 50 feet separation between vendors and 20 feet from any exit.

4. Small arms primers shall be displayed and stored in the manufacturer's original packaging and in accordance with the requirements of Section 5606.5.2.3.

4. Change Exception 4 and add Exceptions 10 and 11 to Section 5601.1 of the IFC as follows:

4. The possession, storage and use of not more than 15 pounds (6.75 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and any amount of small arms primers for hand loading of small arms ammunition for personal consumption.

10. The display of small arms primers in Group M when in the original manufacturer's packaging.

11. The possession, storage and use of not more than 50 pounds (23 kg) of commercially manufactured sporting black powder, 100 pounds (45 kg) of smokeless powder, and small arms primers for hand loading of small arms ammunition for personal consumption in Group R-3 or R-5, or 200 pounds (91 kg) of smokeless powder when stored in the manufacturer's original containers in detached Group U structures at least 10 feet (3048 mm) from inhabited buildings and are accessory to Group R-3 or R-5.

5. Change Section 5606.4 of the IFC to read as follows:

5606.4 Storage in residences. Propellants for personal use in quantities not exceeding 50 pounds (23 kg) of black powder or 100 pounds (45 kg) of smokeless powder shall be stored in original containers in occupancies limited to Group R-3 and R-5 or 200 pounds (91 kg) of smokeless powder when stored in the manufacturer's original containers in detached Group U structures at least 10 feet (3048 mm) from inhabited buildings and are accessory to Group R-3 or R-5. In other than Group R-3 or R-5, smokeless powder in quantities exceeding 20 pounds (9 kg) but not exceeding 50 pounds (23 kg) shall be kept in a wooden box or cabinet having walls of at least one inch (25 mm) nominal thickness or equivalent.

6. Delete Sections 5606.4.1 and 5606.4.2 of the IFC.

7. Change Section 5606.5.1.1 of the IFC to read as follows:

5606.5.1.1 Smokeless propellant. No more than 100 pounds (45 kg) of smokeless propellants in containers of eight pounds (3.6 kg) or less capacity shall be displayed in Group M occupancies.

8. Delete Section 5606.5.1.3 of the IFC.

9. Change Section 5606.5.2.1 of the IFC as follows:

5606.5.2.1 Smokeless propellant. Commercial stocks of smokeless propellants shall be stored as follows:

1. Quantities exceeding 20 pounds (9 kg), but not exceeding 100 pounds (45 kg) shall be stored in portable wooden boxes having walls of at least one inch (25 mm) nominal thickness or equivalent.

2. Quantities exceeding 100 pounds (45 kg), but not exceeding 800 pounds (363 kg), shall be stored in storage cabinets having walls at least one inch (25 mm) nominal thickness or equivalent. Not more than 400 pounds (182 kg) shall be stored in any one cabinet, and cabinets shall be separated by a distance of at least 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of at least one hour.

3. Storage of quantities exceeding 800 pounds (363 kg), but not exceeding 5,000 pounds (2270 kg) in a building shall comply with all of the following:

3.1. The storage is inaccessible to unauthorized personnel.

3.2. Smokeless propellant shall be stored in nonportable storage cabinets having wood walls at least one inch (25 mm) nominal thickness or equivalent and having shelves with no more than 3 feet (914 mm) of vertical separation between shelves.

3.3. No more than 400 pounds (182 kg) is stored in any one cabinet.

3.4. Cabinets shall be located against walls with at least 40 feet (12 192 mm) between cabinets. The minimum required separation between cabinets may be reduced to 20 feet (6096 mm) provided that barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades must extend a minimum of 10 feet (3048 mm) outward, be firmly attached to the wall, and be constructed of steel not less than 0.25 inch thick (6.4 mm), 2-inch (51 mm) nominal thickness wood, brick, or concrete block.

3.5. Smokeless propellant shall be separated from materials classified as combustible liquids, flammable liquids, flammable solids, or oxidizing materials by a distance of 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of 1 hour.

3.6. The building shall be equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

4. Smokeless propellants not stored according to Item 1, 2, or 3 above shall be stored in a Type 2 or 4 magazine in accordance with Section 5604 and NFPA 495.

~~E.~~ G. Add the following to the list of terms in Section 308.2 of the IBC:

Hospice facility

~~F.~~ H. Change Section 308.3 of the IBC to read:

308.3 Institutional Group I-1. This occupancy shall include buildings, structures or portions thereof for more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised environment and receive custodial care. Buildings of Group I-1, other than assisted living facilities licensed by the Virginia Department of Social Services, shall be classified as the occupancy condition indicated in Section 308.3.1. Assisted living facilities licensed by the Virginia Department of Social Services shall be classified as one of the occupancy conditions indicated in Section 308.3.1 or 308.3.2. This group shall include, but not be limited to, the following:

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

~~G.~~ I. Change Sections 308.3.1 and 308.3.2 of the IBC to read:

308.3.1 Condition 1. This occupancy condition shall include buildings in which all persons receiving custodial care who, without any assistance, are capable of responding to an emergency situation to complete building evacuation. Not more than five of the residents may require physical assistance from staff to respond to an emergency situation when all residents who may require the physical assistance reside on a single level of exit discharge.

308.3.2 Condition 2. This occupancy condition shall include buildings in which there are persons receiving custodial care who require assistance by not more than one staff member while responding to an emergency situation to complete building evacuation. Five of the residents may require physical assistance from more than one staff member to respond to an emergency.

~~H.~~ Add Sections 308.3.3 and 308.3.4 to the IBC to read:

~~308.3.3 Six to 16 persons receiving custodial care. A facility housing not fewer than six and not more than 16 persons receiving custodial care shall be classified as Group R-4.~~

~~308.3.4 Five or fewer persons receiving custodial care. A facility with five or fewer persons receiving custodial care~~

~~shall be classified as Group R-3 or shall comply with the IRC provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or with Section P2904 of the IRC.~~

~~I.~~ J. Change Section 308.4 of the IBC to read:

308.4 Group I-2. This occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation. This group shall include, but not be limited to, the following:

- Convalescent facilities
- Detoxification facilities
- Foster care facilities
- Hospice facilities
- Hospitals
- Nursing homes
- Psychiatric hospitals

Exception: Hospice facilities occupied by 16 or less occupants, excluding staff, are permitted to be classified as Group R-4.

~~J.~~ K. Add an exception to Section 308.6 of the IBC to read:

Exception: Family day homes under Section 310.9.

~~K.~~ L. Change Section 310.3 of the IBC to read:

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

- Boarding houses (transient) with more than 10 occupants
- Congregate living facilities (transient) with more than 10 occupants
- Hotels (transient)
- Motels (transient)

Exceptions:

1. Nonproprietor occupied bed and breakfast and other transient boarding facilities not more than three stories above grade plane in height with a maximum of 10 occupants total are permitted to be classified as either Group R-3 or R-5 provided that smoke alarms are installed in compliance with Section 907.2.11.2 for Group R-3 or Section R314 of the IRC for Group R-5.

2. Proprietor occupied bed and breakfast and other transient boarding facilities not more than three stories above grade plane in height, that are also occupied as the residence of the proprietor, with a maximum of five guest room sleeping units provided for the transient occupants are permitted to be classified as either Group R-3 or R-5



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# Regulations

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provided that smoke alarms are installed in compliance with Section 907.2.11.2 for Group R-3 or Section R314 of the IRC for Group R-5.

~~L~~ M. Change Section 310.6 of the IBC to read:

310.6 Residential Group R-4. This occupancy shall include buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised environment and receive custodial care. Buildings of Group R-4, other than assisted living facilities licensed by the Virginia Department of Social Services, shall be classified as the occupancy condition indicated in Section 310.6.1. Assisted living facilities licensed by the Virginia Department of Social Services shall be classified as one of the occupancy conditions indicated in Section 310.6.1 or 310.6.2. This group shall include, but not be limited to the following:

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

This occupancy shall also include hospice facilities with not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code.

Exceptions:

1. Group homes licensed by the Virginia Department of Behavioral Health and Developmental Services that house no more than eight persons with one or more resident counselors shall be classified as Group R-2, R-3, R-4 or R-5. Not more than five of the persons may require physical assistance from staff to respond to an emergency situation.
2. In Group R-4 occupancies classified as the occupancy condition indicated in Section 310.6.1, other than in hospice facilities, not more than five of the residents may require physical assistance from staff to respond to an emergency situation when all residents who may require the physical assistance from staff reside on a single level of exit discharge and other than using a ramp, a change of elevation using steps or stairs is not within the path of egress to an exit door.
3. Assisted living facilities licensed by the Virginia Department of Social Services that house no more than eight persons, with one or more resident counselors, and

all of the residents are capable of responding to an emergency situation without physical assistance from staff, may be classified as Group R-2, R-3 or R-5.

4. Assisted living facilities licensed by the Virginia Department of Social Services that house no more than eight persons, with one or more resident counselors, may be classified as Group R-5 when in compliance with all of the following:

4.1. The building is protected by an automatic sprinkler system installed in accordance with Section 903.3 or Section P2904 of the IRC.

4.2. Not more than five of the residents may require physical assistance from staff to respond to an emergency situation.

4.3. All residents who may require physical assistance from staff to respond to an emergency situation reside on a single level of exit discharge and other than using a ramp, a change in elevation using steps or stairs is not within the path of egress to an exit door.

5. Hospice facilities with five or fewer occupants are permitted to comply with the IRC provided the building is protected by an automatic sprinkler system in accordance with IRC Section P2904 or IBC Section 903.3.

~~M~~ N. [ ~~Add~~ Change ] Sections 310.6.1 and 310.6.2 to the IBC to read:

310.6.1 Condition 1. This occupancy condition shall include buildings in which all persons receiving custodial care who, without any assistance, are capable of responding to an emergency situation to complete building evacuation and hospice facilities.

310.6.2 Condition 2. This occupancy condition shall include buildings in which there are persons receiving custodial care who require assistance by not more than one staff member while responding to an emergency situation to complete building evacuation.

~~N~~ O. Add Section 310.7 to the IBC to read:

310.7 Residential Group R-5. Residential occupancies in detached single-family and two-family dwellings, townhouses and accessory structures within the scope of the IRC.

~~O~~ P. Add Section 310.8 to the IBC to read:

310.8 Group R-5. The construction of Group R-5 structures shall comply with the IRC. The amendments to the IRC set out in Section 310.11 shall be made to the IRC for its use as part of this code. In addition, all references to the IRC in the IBC shall be considered to be references to this section.

~~P. Q.~~ Add Section 310.8.1 to the IBC to read:

310.8.1 Additional requirements. Methods of construction, materials, systems, equipment or components for Group R-5 structures not addressed by prescriptive or performance provisions of the IRC shall comply with applicable IBC requirements.

~~Q. R.~~ Add Section 310.9 to the IBC to read:

310.9 Family day homes. Family day homes where program oversight is provided by the Virginia Department of Social Services shall be classified as Group R-2, R-3 or R-5.

Note: Family day homes may generally care for up to 12 children. See the DHCD Related Laws Package for additional information.

~~R. S.~~ Add Section 310.10 to the IBC to read:

310.10 Radon-resistant construction in Groups R-3 and R-4 structures. Groups R-3 and R-4 structures shall be subject to the radon-resistant construction requirements in Appendix F of the IRC in localities enforcing such requirements pursuant to Section R324 of the IRC.

~~S. T.~~ Add Section 310.11 to the IBC to read:

310.11 Amendments to the IRC. The following changes shall be made to the IRC for its use as part of this code:

1. Add the following definitions to read:

Living area. Space within a dwelling unit utilized for living and entertainment, including family rooms, great rooms, living rooms, dens, media rooms, and similar spaces.

Nonpotable fixtures and outlets. Fixtures and outlets that are not dependent on potable water for the safe operation to perform their intended use. Such fixtures and outlets may include, but are not limited to water closets, urinals, irrigation, mechanical equipment, and hose connections to perform operations, such as vehicle washing and lawn maintenance.

Nonpotable water systems. Water systems for the collection, treatment, storage, distribution, and use or reuse of nonpotable water. Nonpotable systems include reclaimed water, rainwater, and gray water systems.

Rainwater. Natural precipitation, including snow melt, from roof surfaces only.

Stormwater. Precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

2. Change the following definitions to read:

Attic, habitable. A finished or unfinished area, not considered a story, complying with all of the following requirements:

1. The occupiable floor area is at least 70 square feet (17 m<sup>2</sup>), in accordance with Section R304,
2. The occupiable floor area has a ceiling height in accordance with Section R305, and
3. The occupiable space is enclosed by the roof assembly above, knee walls (if applicable) on the sides and the floor-ceiling assembly below.

Habitable attics greater than two-thirds of the area of the story below or over 400 square feet (37.16 m<sup>2</sup>) shall not be permitted in dwellings or townhouses that are three stories above grade plane in height.

Gray water. Water discharged from lavatories, bathtubs, showers, clothes washers, and laundry trays.

3. Change Section R301.2.1 to read:

R301.2.1 Wind design criteria. Buildings and portions thereof shall be constructed in accordance with the wind provisions of this code using the ~~basic~~ ultimate design wind speed in Table R301.2(1) as determined from Figure R301.2(4)A. The structural provisions of this code for wind loads are not permitted where wind design is required as specified in Section R301.2.1.1. Where different construction methods and structural materials are used for various portions of a building, the applicable requirements of this section for each portion shall apply. Where not otherwise specified, the wind loads listed in Table R301.2(2) adjusted for height and exposure using Table R301.2(3) shall be used to determine design load performance requirements for wall coverings, curtain walls, roof coverings, exterior windows, skylights, garage doors, and exterior doors. Asphalt shingles shall be designed for wind speeds in accordance with Section R905.2.4. A continuous load path shall be provided to transmit the applicable uplift forces in Section R802.11.1 from the roof assembly to the foundation. Wind speeds for localities in special wind regions, near mountainous terrain, and near gorges shall be based on elevation. Areas at 4,000 feet in elevation or higher shall use the nominal design wind speed of 110 ~~Ψ~~ mph (48.4 m/s) and areas under 4,000 feet in elevation shall use nominal design wind speed of 90 ~~Ψ~~ mph (39.6 m/s). Gorge areas shall be based on the highest recorded speed per locality or in accordance with local jurisdiction requirements determined in accordance with Section 26.5.1 of ASCE 7.

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# Regulations

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4. Add ~~Exception~~ Exceptions 6 and 7 to Section R302.1 to read:

6. Decks and open porches.

7. Walls of dwellings and accessory structures located on lots in subdivisions or zoning districts where building setbacks established by local ordinance prohibit the walls of the structures on adjacent lots from being closer than 10 feet (3048 mm) to each other at any point along the exterior walls.

~~5. Change the exception in Section R302.2 to require a common two-hour fire resistance rated wall instead of a one-hour fire resistance rated wall, unless the townhouse development is fully sprinklered as provided for in Section R313.1, in which case a common one-hour fire resistance-rated wall shall be permitted between townhouses.~~

~~6.~~ 5. Add the following sentence to the end of Section R302.3 to read:

Dwelling unit separation wall assemblies that are constructed on a lot line shall be constructed as required in Section R302.2 for townhouses.

~~7.~~ 6. Change Section R302.5.1 to read [ and delete Section R302.13 in its entirety ]:

R302.5.1 Opening protection. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1-3/8 inches (35 mm) thickness, solid or honeycomb-core steel doors not less than 1-3/8 inches (35 mm) thick, or 20-minute fire-rated doors.

7. Change Section R303.4 to read:

R303.4 Mechanical ventilation. Dwelling units shall be provided with mechanical ventilation in accordance with Section M1507.

8. Add an exception to Section R303.9 to read:

Exception: Seasonal structures not used as a primary residence for more than 90 days per year, unless rented, leased or let on terms expressed or implied to furnish heat, shall not be required to comply with this section.

9. Add Section R303.9.1 to read:

R303.9.1 Nonowner occupied required heating. Every dwelling unit or portion thereof which is to be rented, leased or let on terms either expressed or implied to furnish heat to the occupants thereof shall be provided with facilities in accordance with Section R303.9 during the period from October 15 to May 1.

10. Add Section R303.10 to read:

R303.10 Insect screens. Every door, window and other outside opening required for ventilation purposes shall be

supplied with approved tightly fitted screens of not less than 16 mesh per inch (16 mesh per 25 mm) and every screen door used for insect control shall have a self-closing device.

11. Add Section R306.5 to read:

R306.5 Water supply sources and sewage disposal systems. The water and drainage system of any building or premises where plumbing fixtures are installed shall be connected to a public or private water supply and a public or private sewer system. As provided for in Section [ ~~403.10~~ 103.5 ] of Part I of the Virginia Uniform Statewide Building Code (13VAC5-63), for functional design, water supply sources and sewage disposal systems are regulated and approved by the Virginia Department of Health and the Virginia Department of Environmental Quality.

Note: See also the Memorandums of Agreement in the "Related Laws Package," which is available from the Virginia Department of Housing and Community Development.

12. [ Change Section R308.4.5 to read:

R308.4.5 Glazing and wet surfaces. Glazing in walls, enclosures, or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers, and indoor or outdoor swimming pools shall be considered a hazardous location if located less than 60 inches (1524 mm) measured horizontally, in a straight line, from the water's edge and the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface. This shall apply to single glazing and each pane in multiple glazing.

13.] Change Section R310.1 to read:

R310.1 Emergency escape and rescue opening required. Basements, habitable attics, and every sleeping room designated on the construction documents shall have ~~at least~~ not less than one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, an emergency egress and rescue openings opening shall be required in each sleeping room. ~~Where emergency escape and rescue openings are provided, they shall have a sill height of not more than 44 inches (1118 mm) measured from the finished floor to the bottom of the clear opening. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside, except that tilt out or removable sash designed windows shall be permitted to be used. Emergency escape and rescue~~

openings with a finished height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court that opens to a public way.

Exceptions:

1. Dwelling units equipped throughout with an approved automatic sprinkler system installed in accordance with NFPA 13, 13R, or 13D or Section P2904.
2. ~~Basements~~ Storm shelters and basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet (18.58 m<sup>2</sup>).

[ ~~13.~~ 14. ] Change Section ~~R310.1.1~~ R310.2.1 to read:

~~R310.1.1~~ R310.2.1 Minimum opening area. All emergency ~~Emergency and~~ escape and rescue openings shall have a ~~minimum~~ net clear opening of not less than 5.7 square feet (0.530 m<sup>2</sup>). The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside, including the tilting or removal of the sash as the normal operation ~~to comply with Sections R310.1.2 and R310.1.3.~~ The net clear height opening shall be not less than 24 inches (610 mm), and the net clear width shall be not less than 20 inches (508 mm).

Exception: Grade floor or below grade openings shall have a ~~minimum~~ net clear opening of not less than 5 square feet (0.465 m<sup>2</sup>).

14. Add Section R311.2.1 to read:

~~R311.2.1 Interior passage. Where a dwelling unit has both a kitchen and a living or entertainment area on the same level as the egress door required by Section R311.2, an interior passage route shall be provided from such egress door to the kitchen and the living or entertainment area and to at least one bedroom and at least one bathroom containing a water closet, lavatory and bathtub or shower, where such rooms are provided on that same level. Any doors or cased openings along such interior passage route providing access to the areas identified above shall comply with the following.~~

- ~~1. Cased openings shall provide a minimum 34-inch clear width.~~
- ~~2. Doors shall be, at a minimum, nominal 34-inch doors.~~

Exceptions:

- ~~1. Where a door or cased opening, and its associated molding or trim, is at the end and facing the length of a hallway and the width of the hallway is not wide enough to accommodate such doors or cased openings.~~
- ~~2. Closet doors or cased openings.~~

~~3. Pantry door or cased openings.~~

~~4. Bathrooms accessed directly from a bedroom that is not required to comply with this section.~~

[ ~~15.~~ 14. ] Change the exception in Section R311.3.1 to read:

Exception: The landing or floor on the exterior side shall not be more than 8-1/4 inches (210 mm) below the top of the threshold provided the door does not swing over the landing or floor.

[ ~~16.~~ 15. ] Change Section R311.7.5.1 to read:

R311.7.5.1 Risers. The ~~maximum~~ riser height shall be not more than 8-1/4 inches (210 mm). The riser shall be measured vertically between the leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open risers are permitted provided that the ~~opening between treads does~~ openings located more than 30 inches (763 mm), as measured vertically, to the floor or grade below do not permit the passage of a 4-inch-diameter (102 mm) sphere.

~~Exception~~ Exceptions:

1. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less spiral stairways.
2. The riser height of spiral stairways shall be in accordance with Section R311.7.10.1.

[ ~~17.~~ 16. ] Change Section R311.7.5.2 to read:

R311.7.5.2 Treads. The ~~minimum~~ tread depth shall be not less than 9 inches (229 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

[ ~~18.~~ 17. ] Change Section R311.7.7 to read:

R311.7.7 Stairway walking surface. The walking surface of treads and landings of stairways shall be level or sloped no steeper than one unit vertical in 48 units horizontal (2.0% slope).

[ ~~19.~~ 18. ] Change Section R312.2.1 to read:

R312.2.1 Window sills. In dwelling units, where the opening top of the sill of an operable window opening is located ~~more~~ less than 18 inches (457 mm) above the finished floor and greater than 72 inches (1829 mm) above the finished grade or other surface below on the

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# Regulations

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exterior of the building, the lowest part of the clear opening of the window shall be a minimum of 18 inches (457 mm) above the finished floor of the room in which the window is located. Operable sections of windows shall not permit openings that allow passage of a 4-inch-diameter (102 mm) sphere where such openings are located within 18 inches (457 mm) of the finished floor. Exceptions: operable window shall comply with one of the following:

1. ~~Windows whose~~ Operable windows with openings that will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening ~~when~~ where the opening is in its largest opened position.
2. Openings Operable windows that are provided with window fall prevention devices that comply with ASTM F 2090.
3. ~~Windows~~ Operable windows that are provided with window opening control devices that comply with Section R312.2.2.

[ 20. ~~19.~~ ] Replace Section R313 with the following:

Section R313.

Automatic Fire Sprinkler Systems.

R313.1 Townhouse automatic fire sprinkler systems. Notwithstanding the requirements of Section [ ~~403.8~~ 103.3 ], where installed, an automatic residential fire sprinkler system for townhouses shall be designed and installed in accordance with NFPA 13D or Section P2904.

Exception: An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed.

R313.2 One-family and two-family dwellings automatic fire sprinkler systems. Notwithstanding the requirements of Section [ ~~403.8~~ 103.3 ], where installed, an automatic residential fire sprinkler system shall be designed and installed in accordance with NFPA 13D or Section P2904.

Exception: An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential fire sprinkler system.

[ 21. ] ~~Change [ 20. ] Delete Section R314.2 to read: R314.2.2.~~

~~R314.2 Smoke detection systems. Household fire alarm systems installed in accordance with NFPA 72 that include smoke alarms, or a combination of smoke detector and audible notification device installed as required by this section for smoke alarms, shall be~~

~~permitted. The household fire alarm system shall provide the same level of smoke detection and alarm as required by this section for smoke alarms. Where a household fire warning system is installed using a combination of smoke detector and audible notification device(s), the system shall become a permanent fixture of the dwelling unit.~~

~~Exception: Where smoke alarms are provided meeting the requirements of Section R314.4.~~

[ 22. ] ~~Delete [ 21. ]~~ Change Section R314.3.1, R314.7.3 to read:

R314.7.3 Permanent fixture. Where a household fire alarm system is installed, it shall become a permanent fixture of the dwelling unit.

[ 23. ] ~~Delete [ 22. ]~~ Change Section R315.3, R315.1.1 to read:

~~24. Change Section R315.4 to read:~~

~~R315.4 Alarm requirements. Single station carbon~~ R315.1.1 Listings. Carbon monoxide alarms shall be hard wired, plug-in or battery type; listed as complying with UL 2034; and installed in accordance with this code and the manufacturer's installation instructions. Combination carbon monoxide and smoke alarms shall be listed in accordance with UL 2034 and UL 217.

[ ~~23.~~ 24. ] Change Section R315.2 to read:

R315.2 Where required. Carbon monoxide alarms shall be provided in accordance with this section.

[ ~~24.~~ 25. ] Delete Section R315.2.2.

[ ~~25.~~ 26. ] Delete Section R315.5.

[ ~~26.~~ 27. ] Change Section R315.6.3 to read:

R315.6.3 Permanent fixture. Where a household carbon monoxide detection system is installed, it shall become a permanent fixture of the occupancy.

~~25. Add Exception 3 to Section R317.1.4 to read:~~

~~3. Deck posts supported by concrete piers or metal pedestals projecting a minimum of one inch (25.4 mm) above a concrete floor or six inches (152 mm) above exposed earth.~~

26. [ ~~27.~~ 28. ] Add Section R320.2 to read:

R320.2 Universal design features for accessibility in dwellings. Dwellings constructed under the IRC not subject to Section R320.1 may comply with Section 1109.16 of the USBC and be approved by the local building department as dwellings containing universal design features for accessibility.

[ 29. Add Section R326.1.1 to read:

R326.1.1 Changes to the ISPSC. The following change shall be made to the ISPSC:

1. Change Section 305.2.9 to read:

305.2.9 Equipment clear zone. Equipment, including pool equipment such as pumps, filters, and heaters shall not be installed within 36 inches (914 mm) of the exterior of the barrier when located on the same property. ]

~~27. [ 28. 30. ]~~ Add Section ~~R324~~ R327 Radon-Resistant Construction.

~~28. [ 29. 31. ]~~ Add Section ~~R324.1~~ R327.1 to read:

~~R324.1~~ R327.1 Local enforcement of radon requirements. Following official action under Article 7 (§ 15.2-2280 et seq.) of Chapter 22 of Title 15.2 of the Code of Virginia by a locality in areas of high radon potential, as indicated by Zone 1 on the U.S. EPA Map of Radon Zones (IRC Figure AF101), such locality shall enforce the provisions contained in Appendix F.

Exception: Buildings or portions thereof with crawl space foundations which are ventilated to the exterior, shall not be required to provide radon-resistant construction.

~~29. Add Section R325 Swimming Pools.~~

~~30. Add Section R325.1 to read:~~

~~R325.1 Swimming pools. In addition to other applicable provisions of this code, swimming pools, as defined in the USBC, shall comply with the applicable provisions of the ISPSC.~~

~~31. [ 30. 32. ]~~ Add Section ~~R326~~ R328 Patio Covers.

~~32. [ 31. 33. ]~~ Add Section ~~R326.1~~ R328.1 to read:

~~R326.1~~ R328.1 Use of Appendix H for patio covers. Patio covers shall comply with the provisions in Appendix H.

~~33. [ 32. 34. ]~~ Add Section ~~R327~~ R329 Sound Transmission.

~~34. [ 33. 35. ]~~ Add Section ~~R327.1~~ R329.1 to read:

~~R327.1~~ R329.1 Sound transmission between dwelling units. Construction assemblies separating dwelling units shall provide airborne sound insulation as required in Appendix K.

~~35. [ 34. 36. ]~~ Add Section ~~R327.2~~ R329.2 to read:

~~R327.2~~ R329.2 Airport noise attenuation. This section applies to the construction of the exterior envelope of detached one-family and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress

within airport noise zones when enforced by a locality pursuant to § 15.2-2295 of the Code of Virginia. The exterior envelope of such structures shall comply with Section 1207.4 of the state amendments to the IBC.

~~36. [ 35. 37. ]~~ Add Section ~~R328~~ R330 Fire Extinguishers.

~~37. [ 36. 38. ]~~ Add Section ~~R328.1~~ R330.1 to read:

~~R328.1~~ R330.1 Kitchen areas. Other than where the dwelling is equipped with an approved sprinkler system in accordance with Section R313, a fire extinguisher having a rating of 2-A:10-B:C or an approved equivalent type of fire extinguisher shall be installed in the kitchen area.

~~[ 37. 39. ]~~ Add Section R331 Interior Passage.

~~[ 38. 40. ]~~ Add Sections R331.1 through R331.6 to read:

R331.1 General. This section applies to new dwelling units that have both a kitchen and a living area on the same floor level as the egress door required by Section R311.2. This section is not applicable to additions, reconstruction, alteration, or repair.

R331.2 Kitchen. One interior passage route from the egress door to the kitchen shall comply with R331.6.

R331.3 Living area. One interior passage route from the egress door to at least one living area shall comply with R331.6.

R331.4 Bedroom. Where the dwelling unit has a bedroom on the same floor level as the egress door, one interior passage route from the egress door to at least one bedroom shall comply with R331.6.

R331.5 Bathroom. Where a dwelling unit has a bathroom on the same floor level as the egress door, and the bathroom contains a water closet, lavatory, and bathtub or shower, one interior passage route from the egress door to at least one bathroom shall comply with R331.6. Bathroom fixture clearances shall comply with R307 and access to fixtures is not required to comply with R331.6.

R331.6 Opening widths. Opening widths along the interior passage route required by this section shall comply with the following:

1. Cased openings shall provide a minimum 34 inch (864 mm) clear width.

2. Doors shall be a nominal 34 inch (864 mm) minimum width. Double doors are permitted to be used to meet this requirement.

~~38. [ 39. 41. ]~~ Change Section R401.3 to read:

R401.3 Drainage. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection that does not create a hazard to the dwelling unit. Lots shall be graded to drain surface water away

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# Regulations

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from foundation walls. The grade shall fall a minimum of six inches (152 mm) within the first 10 feet (3048 mm).

Exception: Where lot lines, walls, slopes or other physical barriers prohibit six inches (152 mm) of fall within 10 feet (3048 mm), drains or swales shall be constructed to ensure drainage away from the structure. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped a minimum of 2.0% away from the building.

~~39. Change [ 40, 42. ] Add the following exceptions to Section R403.1 to read:~~

~~R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems that shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill.~~

Exceptions:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, not exceeding 256 square feet (23.7824 m<sup>2</sup>) of building area, provided all of the following conditions are met:

1.1. The building eave height is 10 feet or less.

1.2. The maximum height from the finished floor level to grade does not exceed 18 inches.

1.3. The supporting structural elements in direct contact with the ground shall be placed level on firm soil and when such elements are wood they shall be approved pressure preservative treated suitable for ground contact use.

1.4. The structure is anchored to withstand wind loads as required by this code.

1.5. The structure shall be of light-frame construction whose vertical and horizontal structural elements are primarily formed by a system of repetitive wood or light gauge steel framing members, with walls and roof of light weight material, not slate, tile, brick or masonry.

2. Footings are not required for ramps serving dwelling units in Group R-3 and R-5 occupancies where the height of the entrance is no more than 30 inches (762 mm) above grade.

[ ~~43. Delete Section R404.1.9.2.~~

~~44. ] Change the exception to Section R408.2 to read:~~

Exception: The total area of ventilation openings shall be permitted to be reduced to 1/1,500 of the under-floor area where the ground surface is covered with an approved Class I vapor retarder material and the required openings are placed to provide cross ventilation of the space. The installation of operable louvers shall not be prohibited nor shall the required openings need to be within three feet (915 mm) of each corner provided there is cross ventilation of the space.

~~40. [ 42, 45. ] Add Section R408.3.1 to read [ as follows and delete Section R501.3 in its entirety ]:~~

R408.3.1 Termite inspection. Where an unvented crawl space is installed and meets the criteria in Section R408, the vertical face of the sill plate shall be clear and unobstructed and an inspection gap shall be provided below the sill plate along the top of any interior foundation wall covering. The gap shall be a minimum of one inch (25.4 mm) and a maximum of two inches (50.8 mm) in width and shall extend throughout all parts of any foundation that is enclosed. Joints between the sill plate and the top of any interior wall covering may be sealed.

Exceptions:

1. In areas not subject to damage by termites as indicated by Table R301.2(1).

2. Where other approved means are provided to inspect for potential damage.

Where pier and curtain foundations are installed as depicted in Figure R404.1.5(1), the inside face of the rim joist and sill plate shall be clear and unobstructed except for construction joints which may be sealed.

Exception: Fiberglass or similar insulation may be installed if easily removable.

41. Change the indicated rows of Table R502.3.1(1) to read:

Joist Spacing (inches)	Species and Grade	Dead Load = 10 psf				Dead Load = 20 psf			
		2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
		Maximum floor joist spans							
		(ft. in.)	(ft. in.)	(ft. in.)	(ft. in.)	(ft. in.)	(ft. in.)	(ft. in.)	(ft. in.)
12	Southern Pine SS	12-3	16-2	20-8	25-1	12-3	16-2	20-8	25-1
	Southern Pine #1	11-10	15-7	19-10	24-2	11-10	15-7	18-7	22-0
	Southern Pine #2	11-3	14-11	18-1	21-4	10-9	13-8	16-2	19-1
	Southern Pine #3	9-2	11-6	14-0	16-6	8-2	10-3	12-6	14-9
16	Southern Pine SS	11-2	14-8	18-9	22-10	11-2	14-8	18-9	22-10
	Southern Pine #1	10-9	14-2	18-0	21-4	10-9	13-9	16-1	19-1
	Southern Pine #2	10-3	13-3	15-8	18-6	9-4	11-10	14-0	16-6
	Southern Pine #3	7-11	10-0	12-1	14-4	7-1	8-11	10-10	12-10
19.2	Southern Pine SS	10-6	13-10	17-8	21-6	10-6	13-10	17-8	21-6
	Southern Pine #1	10-1	13-4	16-5	19-6	9-11	12-7	14-8	17-5
	Southern Pine #2	9-6	12-1	14-4	16-10	8-6	10-10	12-10	15-1
	Southern Pine #3	7-3	9-1	11-0	13-1	6-5	8-2	9-10	11-8
24	Southern Pine SS	9-9	12-10	16-5	19-11	9-9	12-10	16-5	19-8
	Southern Pine #1	9-4	12-4	14-8	17-5	8-10	11-3	13-1	15-7
	Southern Pine #2	8-6	10-10	12-10	15-1	7-7	9-8	11-5	13-6
	Southern Pine #3	6-5	8-2	9-10	11-8	5-9	7-3	8-10	10-5



# Regulations

42. Change the indicated rows of Table R502.3.1(2) to read:

Joist Spacing (inches)	Species and Grade	Dead Load = 10 psf				Dead Load = 20 psf			
		2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
		Maximum floor joist spans							
		(ft.-in.)	(ft. in.)	(ft. in.)	(ft. in.)	(ft.-in.)	(ft. in.)	(ft. in.)	(ft. in.)
12	Southern Pine SS	11-2	14-8	18-9	22-10	11-2	14-8	18-9	22-10
	Southern Pine #1	10-9	14-2	18-0	21-11	10-9	14-2	16-11	20-1
	Southern Pine #2	10-3	13-6	16-2	19-1	9-10	12-6	14-9	17-5
	Southern Pine #3	8-2	10-3	12-6	14-9	7-5	9-5	11-5	13-6
16	Southern Pine SS	10-2	13-4	17-0	20-9	10-2	13-4	17-0	20-9
	Southern Pine #1	9-9	12-10	16-1	19-1	9-9	12-7	14-8	17-5
	Southern Pine #2	9-4	11-10	14-0	16-6	8-6	10-10	12-10	15-1
	Southern Pine #3	7-1	8-11	10-10	12-10	6-5	8-2	9-10	11-8
19.2	Southern Pine SS	9-6	12-7	16-0	19-6	9-6	12-7	16-0	19-6
	Southern Pine #1	9-2	12-1	14-8	17-5	9-0	11-5	13-5	15-11
	Southern Pine #2	8-6	10-10	12-10	15-1	7-9	9-10	11-8	13-9
	Southern Pine #3	6-5	8-2	9-10	11-8	5-11	7-5	9-0	10-8
24	Southern Pine SS	8-10	11-8	14-11	18-1	8-10	11-8	14-11	18-0
	Southern Pine #1	8-6	11-3	13-1	15-7	8-1	10-3	12-0	14-3
	Southern Pine #2	7-7	9-8	11-5	13-6	7-0	8-10	10-5	12-4
	Southern Pine #3	5-9	7-3	8-10	10-5	5-3	6-8	8-1	9-6

43. Change footnote "b" in Table R502.3.3(1) to read:

b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir larch, hem fir, and spruce pine fir for repetitive (three or more) members. No. 1 or better grade lumber shall be used for southern pine.

44. Change footnote "a" in Table R502.3.3(2) to read:

a. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir larch, hem fir, and spruce pine fir for repetitive (three or more) members. No. 1 or better grade lumber shall be used for southern pine.

45. Change Section R502.5 to read:

R502.5 Allowable girder and header spans. The allowable spans of girders and headers fabricated of dimension lumber shall not exceed the values set forth in Tables R502.5(1) through R502.5(3).

46. Change the title and footnote "b" of Table R502.5(1) to read:

Table R502.5(1)

Girder Spans<sup>a,b</sup> and Header Spans<sup>a,b</sup> for Exterior Bearing Walls

(Maximum Spans for Douglas fir larch, hem fir, southern pine, and spruce pine fir<sup>b</sup> and required number of jack studs)

b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir larch, hem fir, and spruce pine fir. No. 1 or better grade lumber shall be used for southern pine.

47. Change the title and footnote "b" of Table R502.5(2) to read:



Table R502.5(2)

Girder Spans<sup>a,b</sup> and Header Spans<sup>a,b</sup> for Interior Bearing Walls

(Maximum Spans for Douglas fir larch, hem fir, southern pine, and spruce pine fir<sup>b</sup> and required number of jack studs)

b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir larch, hem fir, and spruce pine fir. No. 1 or better grade lumber shall be used for southern pine.

48. Add Table R502.5(3) to read:

Table R502.5(3)			
Girder and Header Spans <sup>a</sup> for Porches <sup>b,c</sup>			
(Maximum span for southern pine)			
Supporting	Size	Porch Width (ft)	
		8	14
 Roof	2-2x4	6' 11"	5' 3"
	2-2x6	9' 11"	7' 6"
	2-2x8	12' 10"	9' 8"
	2-2x10	16' 8"	12' 7"
	2-2x12	19' 6"	14' 9"
 Floor	2-2x4	5' 1"	3' 10"
	2-2x6	7' 4"	5' 6"
	2-2x8	9' 5"	7' 1"
	2-2x10	12' 2"	9' 3"
	2-2x12	14' 4"	10' 10"

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Spans are given in feet and inches.

b. Tabulated values based on 30 psf ground snow load, L/240 deflection and No. 2 grade lumber.

c. The values of this table shall be equivalent to a roof live load of 20 psf.

# Regulations

49. [ ~~43, 46.~~ ] Change Section R506.2.1 to read:

R506.2.1 Fill. Fill material shall be free of vegetation and foreign material and shall be natural nonorganic material that is not susceptible to swelling when exposed to moisture. The fill shall be compacted to assure uniform support of the slab, and except where approved, the fill depth shall not exceed 24 inches (610 mm) for clean sand or gravel and 8 inches (203 mm) for earth.

Exception: Material other than natural material may be used as fill material when accompanied by a certification from an RDP and approved by the building official.

50. [ ~~44, 47.~~ ] Change Section R506.2.2 to read:

R506.2.2 Base. A 4-inch-thick (102 mm) base course consisting of clean graded sand, gravel or crushed stone passing a 2-inch (51 mm) sieve shall be placed on the prepared subgrade when the slab is below grade.

Exception: A base course is not required when the concrete slab is installed on well drained or sand-gravel mixture soils classified as Group I according to the United Soil Classification System in accordance with Table R405.1. Material other than natural material may be used as base course material when accompanied by a certification from an RDP and approved by the building official.

51. ~~Change Section R507.1 to read:~~

~~R507.1 Decks. Wood framed decks shall be in accordance with this section or Section R301 for materials and conditions not prescribed in this section. Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads. Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal. Where positive connection to the primary building structure cannot be verified during inspection, decks shall be self supporting. For decks with cantilevered framing members, connections to exterior walls or other framing members shall be designed and constructed to resist uplift resulting from the full live load specified in Table R301.5 acting on the cantilevered portion of the deck.~~

52. ~~Add Sections R507.4 through R507.8 to read:~~

~~R507.4 Decking. Maximum allowable spacing for wood joists supporting decking shall be in accordance with Table R507.4. Wood decking shall be attached to each supporting member with a minimum of two 8d nails or two #8 wood screws.~~

Table R507.4 Maximum Joist Spacing (inches)		
Material Type and Nominal Size	Maximum Joist Spacing	
	Perpendicular to Joist	Diagonal to Joist <sup>a</sup>
5/4 inch thick wood	16	12
2 inch thick wood	24	16
Wood/plastic composite	per R507.3	per R507.3

For SI: 1 inch = 25.4 mm  
a. Maximum angle of 45 degrees from perpendicular for wood deck boards.

Editor's Note - Figures R507.5, R507.6, R507.7.1, R507.8.1, and R602.3(2) in this section are being deleted in this action.

~~R507.5 Deck joists. Maximum allowable spans for wood deck joists, as shown in Figure R507.5, shall be in accordance with Table R507.5. Deck joist shall be permitted to cantilever a maximum of one fourth of the actual, adjacent joist span.~~

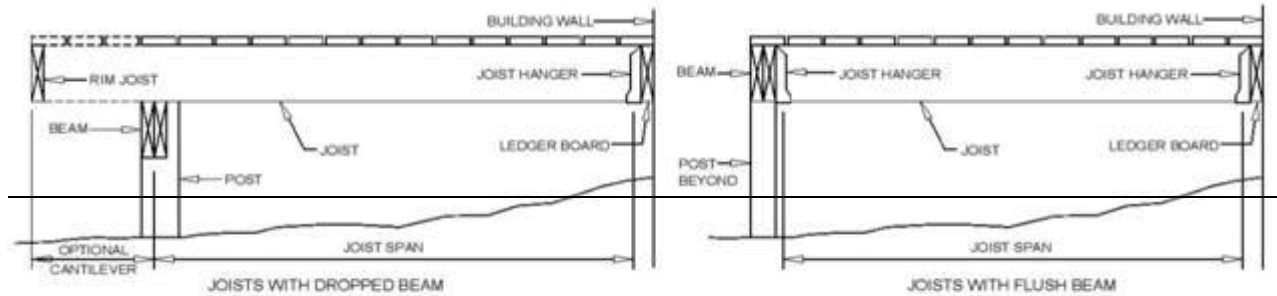


FIGURE R507.5  
TYPICAL DECK JOIST SPANS

Table R507.5 Deck Joist Spans <sup>a</sup> and Cantilevers <sup>a</sup> for Common Lumber Species							
Species <sup>b</sup>	Size	Allowable Joist Span <sup>e</sup>			Allowable Cantilever <sup>d,e</sup>		
		Spacing of deck joists (in.)			Spacing of deck joists (in.)		
		12	16	24	12	16	24
Southern pine	2 x 6	9-11	9-0	7-7	1-3	1-4	1-6
	2 x 8	13-1	11-10	9-8	2-1	2-3	2-5
	2 x 10	16-2	14-0	11-5	3-4	3-6	2-10
	2 x 12	18-0	16-6	13-6	4-6	4-2	3-4
Douglas fir-larch <sup>f</sup> , hem fir <sup>f</sup> , spruce-pine-fir <sup>f</sup>	2 x 6	9-6	8-4	6-10	1-2	1-3	1-5
	2 x 8	12-6	11-1	9-1	1-11	2-1	2-3
	2 x 10	15-8	13-7	11-1	3-1	3-5	2-9
	2 x 12	18-0	15-9	12-10	4-6	3-11	3-3
Redwood, western cedars, ponderosa pine <sup>g</sup> , red pine <sup>g</sup>	2 x 6	8-10	8-0	6-10	1-0	1-1	1-2
	2 x 8	11-8	10-7	8-8	1-8	1-10	2-0
	2 x 10	14-11	13-0	10-7	2-8	2-10	2-8
	2 x 12	17-5	15-1	12-4	3-10	3-9	3-1

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.  
a. Spans and cantilevers are given in feet and inches.  
b. No. 2 grade with wet service factor.  
c. Ground snow load, live load = 40 psf, dead load = 10 psf, L/A = 360.  
d. Ground snow load, live load = 40 psf, dead load = 10 psf, L/A = 360 at main span, L/A = 180 at cantilever with a 220 pound point load applied to end.  
e. Maximum allowable cantilever shall not exceed one fourth of the actual joist span.  
f. Includes incising factor.  
g. Northern species with no incising factor.

R507.5.1 Lateral restraint at supports. Joist ends and bearing locations shall be provided with lateral restraint to prevent rotation. Where lateral restraint is provided by joist hangers or blocking between joists, their depth shall equal not less than 60% of the joist depth. Where lateral restraint is provided by rim joists, they shall be secured to the end of each joist with a minimum of (3)10d (3-inch x 0.128-inch) nails or (3)#10x3-inch (76 mm) long wood screws.

# Regulations

R507.6 Deck beams. Maximum allowable spans for wood deck beams, as shown in Figure R507.6, shall be in accordance with Table R507.6. Beam plies shall be fastened with two rows of 10d (3 inch x 0.128 inch) nails minimum at 16 inches (406 mm) on center along each edge. Beams shall be permitted to cantilever at each end up to one fourth of the beam span. Splices of multi-span beams shall be located at interior post locations.

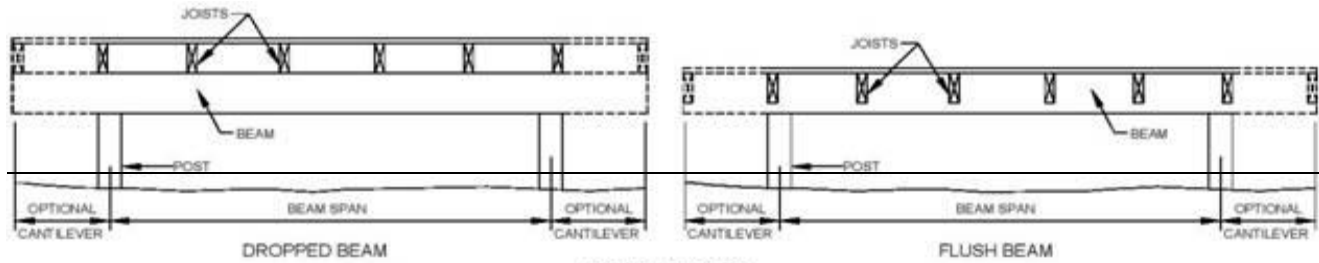


FIGURE R507.6  
TYPICAL DECK BEAM SPANS

Table R507.6  
Deck Beam Span<sup>a</sup> Lengths<sup>b,c</sup>

Species <sup>d</sup>	Size <sup>e</sup>	Deck Joist Span (feet) Less Than or Equal To:						
		6	8	10	12	14	16	18
Southern pine	2-2x6	6-11	5-11	5-4	4-10	4-6	4-3	4-0
	2-2x8	8-9	7-7	6-9	6-2	5-9	5-4	5-0
	2-2x10	10-4	9-0	8-0	7-4	6-9	6-4	6-0
	2-2x12	12-2	10-7	9-5	8-7	8-0	7-6	7-0
	3-2x6	8-2	7-5	6-8	6-1	5-8	5-3	5-0
	3-2x8	10-10	9-6	8-6	7-9	7-2	6-8	6-4
	3-2x10	13-0	11-3	10-0	9-2	8-6	7-11	7-6
	3-2x12	15-3	13-3	11-10	10-9	10-0	9-4	8-10
Douglas fir-larch <sup>f</sup> , hem fir <sup>f</sup> , spruce- pine fir <sup>f</sup> , redwood, western cedars, ponderosa pine <sup>g</sup> , red pine <sup>g</sup>	3x6 or 2-2x6	5-5	4-8	4-2	3-10	3-6	3-1	2-9
	3x8 or 2-2x8	6-10	5-11	5-4	4-10	4-6	4-1	3-8
	3x10 or 2- 2x10	8-4	7-3	6-6	5-11	5-6	5-1	4-8
	3x12 or 2- 2x12	9-8	8-5	7-6	6-10	6-4	5-11	5-7
	4x6	6-5	5-6	4-11	4-6	4-2	3-11	3-8
	4x8	8-5	7-3	6-6	5-11	5-6	5-2	4-10
	4x10	9-11	8-7	7-8	7-0	6-6	6-1	5-8
	4x12	11-5	9-11	8-10	8-1	7-6	7-0	6-7
	3-2x6	7-4	6-8	6-0	5-6	5-1	4-9	4-6
	3-2x8	9-8	8-6	7-7	6-11	6-5	6-0	5-8
	3-2x10	12-0	10-5	9-4	8-6	7-10	7-4	6-11
	3-2x12	13-11	12-1	10-9	9-10	9-1	8-6	8-1

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. Spans are given in feet and inches.
- b. Ground snow load, live load = 40 psf, dead load = 10 psf,  $L/\Delta = 360$  at main span,  $L/\Delta = 180$  at cantilever with a 220 pound point load applied at the end.
- c. Beams supporting deck joists from one side only.
- d. No. 2 grade, wet service factor.
- e. Beam depth shall be greater than or equal to depth of joists with a flush beam condition.
- f. Includes incising factor.
- g. Northern species with no incising factor.

**R507.7 Deck joist and deck beam bearing.** The ends of each joist and beam shall have not less than 1.5 inches (38 mm) of bearing on wood or metal and not less than three inches (76 mm) on concrete or masonry for the entire width of the beam. Joist framing into the side of a ledger board or beam shall be supported by approved joist hangers. Joists bearing on a beam shall be attached to the beam to resist lateral displacement.

**R507.7.1 Deck beam to deck post.** Deck beams shall be attached to deck posts in accordance with Figure R507.7.1 or by other equivalent means capable to resist lateral displacement. Manufactured post to beam connectors shall be sized for the post and beam sizes. All bolts shall have washers under the head and nut.

Exception: Where deck beams bear directly on footings in accordance with Section R507.8.1.

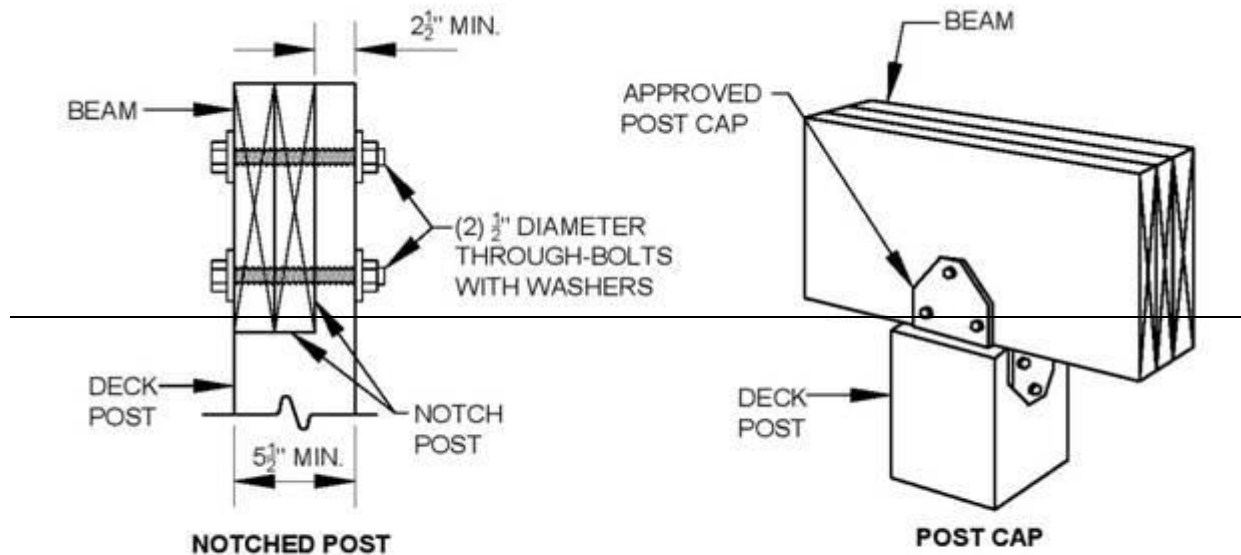


FIGURE R507.7.1  
DECK BEAM TO DECK POST

**R507.8 Deck posts.** For single level wood framed decks with beams sized in accordance with Table R507.6, deck post size shall be in accordance with Table R507.8.

Deck Post Size	Maximum Height <sup>a</sup>
4x4	8
4x6	8
6x6	14

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.  
a. Measured to the underside of the beam.

# Regulations

R507.8.1 Deck post to deck footing. Posts shall bear on footings in accordance with Section R403 and Figure R507.8.1. Posts shall be restrained to prevent lateral displacement at the footing. Lateral restraint shall be provided by manufactured connectors installed in accordance with the manufacturers' installation instructions or by a minimum post embedment of 12 inches (304.8 mm) in surrounding soils or concrete piers.

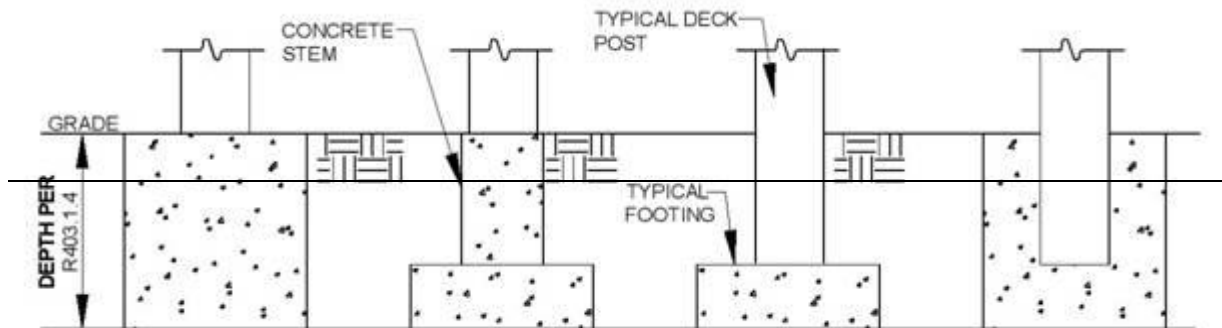


Figure R507.8.1

## Typical Deck Posts to Deck Footings

53. Change Section R602.3.1 to read:

~~R602.3.1 Stud size, height, and spacing. The size, height, and spacing of studs shall be in accordance with Table R602.3(5).~~

Exceptions:

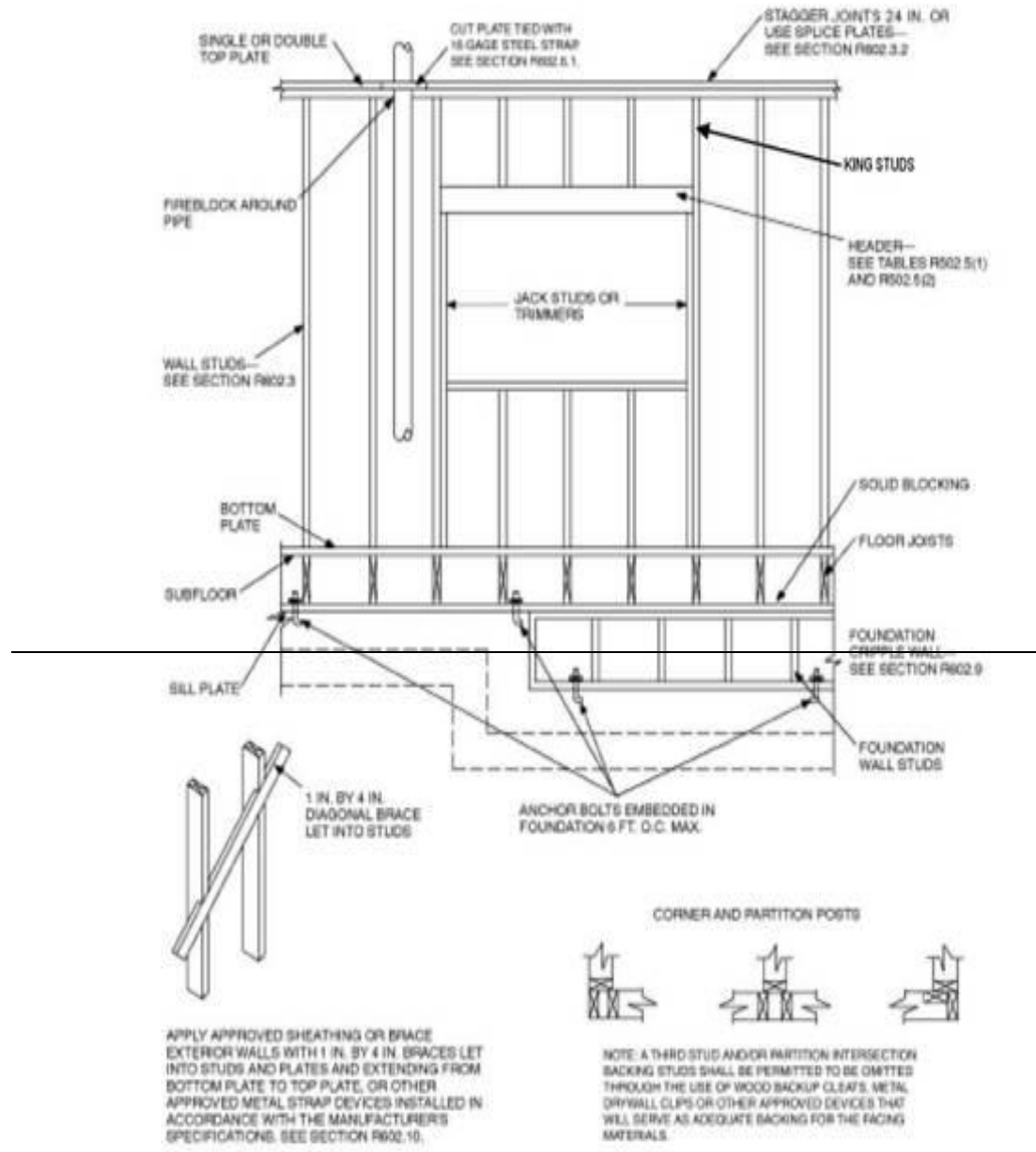
1. Utility grade studs shall not be spaced more than 16 inches (406 mm) on center, shall not support more than a roof and ceiling, and shall not exceed eight feet (2438 mm) in height for exterior walls and load bearing walls or 10 feet (3048 mm) for interior nonload bearing walls.
2. Where snow loads are less than or equal to 25 pounds per square foot (1.198 kPa), and the ultimate design wind speed is less than or equal to 130 mph (58.11 m/s), 2 inch by 6 inch (38 mm by 140 mm) studs supporting a roof load with not more than six feet (1829 mm) of tributary length shall have a maximum height of 18 feet (5486 mm) where spaced at 16 inches (406 mm) on center, or 20 feet (6096 mm) where spaced at 12 inches (305 mm) on center. Studs shall be minimum No. 2 grade lumber.

54. Delete Table R602.3.1.

[ 48. Change Item 4 in Table R602.3(1) to read:

4	<u>Ceiling joist attached to parallel rafter (heel joint) (see Sections R802.3.1 and R802.3.2 and Table R802.5.1(9))</u>	<u>Table R802.5.2</u>	<u>Face nail ]</u>
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55. Change Figure R602.3(2) to read:



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

FIGURE R602.3(2) FRAMING DETAILS



# Regulations

[ ~~45- 49.~~ ] Change Table R602.7(1) to read:

Table R602.7.1(1)																			
Girder Spans <sup>a</sup> and Header Spans <sup>a</sup> for Exterior Bearing Walls																			
(Maximum spans for Douglas Fir-Larch, Hem-Fir, Southern Pine, and Spruce-Pine-Fir <sup>b</sup> and required number of jack studs)																			
Girders and Headers Supporting	Size	Ground Snow Load (psf) <sup>c</sup>																	
		30						50						70					
		Building Width <sup>c</sup> (feet)																	
		12		24		36		12		24		36		12		24		36	
	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	
Roof and ceiling	1-2 x 6	4-0	1	3-1	2	2-7	2	3-5	1	2-8	2	2-3	2	3-0	2	2-4	2	2-0	2
	1-2 x 8	5-1	2	3-11	2	3-3	2	4-4	2	3-4	2	2-10	2	3-10	2	3-0	2	2-6	3
	1-2 x 10	6-0	2	4-8	2	3-11	2	5-2	2	4-0	2	3-4	2	4-7	2	3-6	3	3-0	3
	1-2 x 12	7-1	2	5-5	2	4-7	3	6-1	2	4-8	3	3-11	3	5-5	2	4-2	3	3-6	3
	2-2 x 4	4-0	1	3-1	1	2-7	1	3-5	1	2-7	1	2-2	1	3-0	1	2-4	1	2-0	1
	2-2 x 6	6-0	1	4-7	1	3-10	1	5-1	1	3-11	1	3-3	2	4-6	1	3-6	2	2-11	2
	2-2 x 8	7-7	1	5-9	1	4-10	2	6-5	1	5-0	2	4-2	2	5-9	1	4-5	2	3-9	2
	2-2 x 10	9-0	1	6-10	2	5-9	2	7-8	2	5-11	2	4-11	2	6-9	2	5-3	2	4-5	2
	2-2 x 12	10-7	2	8-1	2	6-10	2	9-0	2	6-11	2	5-10	2	8-0	2	6-2	2	5-2	3
	3-2 x 8	9-5	1	7-3	1	6-1	1	8-1	1	6-3	1	5-3	2	7-2	1	5-6	2	4-8	2

	$\frac{3-2}{x}$ 10	<u>11-3</u>	1	<u>8-7</u>	1	<u>7-3</u>	2	<u>9-7</u>	1	<u>7-4</u>	2	<u>6-2</u>	2	<u>8-6</u>	1	<u>6-7</u>	2	<u>5-6</u>	2
	$\frac{3-2}{x}$ 12	<u>13-2</u>	1	<u>10-1</u>	2	<u>8-6</u>	2	<u>11-3</u>	2	<u>8-8</u>	2	<u>7-4</u>	2	<u>10-0</u>	2	<u>7-9</u>	2	<u>6-6</u>	2
	$\frac{4-2}{x}$ 8	<u>10-</u> <u>11</u>	1	<u>8-4</u>	1	<u>7-0</u>	1	<u>9-4</u>	1	<u>7-2</u>	1	<u>6-0</u>	1	<u>8-3</u>	1	<u>6-4</u>	1	<u>5-4</u>	2
	$\frac{4-2}{x}$ 10	<u>12-</u> <u>11</u>	1	<u>9-11</u>	1	<u>8-4</u>	1	<u>11-1</u>	1	<u>8-6</u>	1	<u>7-2</u>	2	<u>9-10</u>	1	<u>7-7</u>	2	<u>6-4</u>	2
	$\frac{4-2}{x}$ 12	<u>15-3</u>	1	<u>11-8</u>	1	<u>9-10</u>	2	<u>13-0</u>	1	<u>10-0</u>	2	<u>8-5</u>	2	<u>11-7</u>	1	<u>8-11</u>	2	<u>7-6</u>	2
Roof ceiling, and one center- bearing floor	$\frac{1-2}{x}$ 6	<u>3-3</u>	1	<u>2-7</u>	2	<u>2-2</u>	2	<u>3-0</u>	2	<u>2-4</u>	2	<u>2-0</u>	2	<u>2-9</u>	2	<u>2-2</u>	2	<u>1-10</u>	2
	$\frac{1-2}{x}$ 8	<u>4-1</u>	2	<u>3-3</u>	2	<u>2-9</u>	2	<u>3-9</u>	2	<u>3-0</u>	2	<u>2-6</u>	3	<u>3-6</u>	2	<u>2-9</u>	2	<u>2-4</u>	3
	$\frac{1-2}{x}$ 10	<u>4-11</u>	2	<u>3-10</u>	2	<u>3-3</u>	3	<u>4-6</u>	2	<u>3-6</u>	3	<u>3-0</u>	3	<u>4-1</u>	2	<u>3-3</u>	3	<u>2-9</u>	3
	$\frac{1-2}{x}$ 12	<u>5-9</u>	2	<u>4-6</u>	3	<u>3-10</u>	3	<u>5-3</u>	2	<u>4-2</u>	3	<u>3-6</u>	3	<u>4-10</u>	3	<u>3-10</u>	3	<u>3-3</u>	4
	$\frac{2-2}{x}$ 4	<u>3-3</u>	1	<u>2-6</u>	1	<u>2-2</u>	1	<u>3-0</u>	1	<u>2-4</u>	1	<u>2-0</u>	1	<u>2-8</u>	1	<u>2-2</u>	1	<u>1-10</u>	1
	$\frac{2-2}{x}$ 6	<u>4-10</u>	1	<u>3-9</u>	1	<u>3-3</u>	2	<u>4-5</u>	1	<u>3-6</u>	2	<u>3-0</u>	2	<u>4-1</u>	1	<u>3-3</u>	2	<u>2-9</u>	2
	$\frac{2-2}{x}$ 8	<u>6-1</u>	1	<u>4-10</u>	2	<u>4-1</u>	2	<u>5-7</u>	2	<u>4-5</u>	2	<u>3-9</u>	2	<u>5-2</u>	2	<u>4-1</u>	2	<u>3-6</u>	2
	$\frac{2-2}{x}$ 10	<u>7-3</u>	2	<u>5-8</u>	2	<u>4-10</u>	2	<u>6-8</u>	2	<u>5-3</u>	2	<u>4-5</u>	2	<u>6-1</u>	2	<u>4-10</u>	2	<u>4-1</u>	2
	$\frac{2-2}{x}$ 12	<u>8-6</u>	2	<u>6-8</u>	2	<u>5-8</u>	2	<u>7-10</u>	2	<u>6-2</u>	2	<u>5-3</u>	3	<u>7-2</u>	2	<u>5-8</u>	2	<u>4-10</u>	3

# Regulations

	$\frac{3-2}{x 8}$	7-8	1	6-0	1	5-1	2	7-0	1	5-6	2	4-8	2	6-5	1	5-1	2	4-4	2
	$\frac{3-2}{x 10}$	9-1	1	7-2	2	6-1	2	8-4	1	6-7	2	5-7	2	7-8	2	6-1	2	5-2	2
	$\frac{3-2}{x 12}$	10-8	2	8-5	2	7-2	2	9-10	2	7-8	2	6-7	2	9-0	2	7-1	2	6-1	2
	$\frac{4-2}{x 8}$	8-10	1	6-11	1	5-11	1	8-1	1	6-4	1	5-5	2	7-5	1	5-11	1	5-0	2
	$\frac{4-2}{x 10}$	10-6	1	8-3	2	7-0	2	9-8	1	7-7	2	6-5	2	8-10	1	7-0	2	6-0	2
	$\frac{4-2}{x 12}$	12-4	1	9-8	2	8-3	2	11-4	2	8-11	2	7-7	2	10-4	2	8-3	2	7-0	2
Roof, ceiling, and one clear span roof	$\frac{1-2}{x 6}$	2-11	2	2-3	2	1-11	2	2-9	2	2-1	2	1-9	2	2-7	2	2-0	2	1-8	2
	$\frac{1-2}{x 8}$	3-9	2	2-10	2	2-5	3	3-6	2	2-8	2	2-3	3	3-3	2	2-6	3	2-2	3
	$\frac{1-2}{x 10}$	4-5	2	3-5	3	2-10	3	4-2	2	3-2	3	2-8	3	3-11	2	3-0	3	2-6	3
	$\frac{1-2}{x 12}$	5-2	2	4-0	3	3-4	3	4-10	3	3-9	3	3-2	4	4-7	3	3-6	3	3-0	4
	$\frac{2-2}{x 4}$	2-11	1	2-3	1	1-10	1	2-9	1	2-1	1	1-9	1	2-7	1	2-0	1	1-8	1
	$\frac{2-2}{x 6}$	4-4	1	3-4	2	2-10	2	4-1	1	3-2	2	2-8	2	3-10	1	3-0	2	2-6	2
	$\frac{2-2}{x 8}$	5-6	2	4-3	2	3-7	2	5-2	2	4-0	2	3-4	2	4-10	2	3-9	2	3-2	2
	$\frac{2-2}{x 10}$	6-7	2	5-0	2	4-2	2	6-1	2	4-9	2	4-0	2	5-9	2	4-5	2	3-9	3

	$\frac{2-2}{x 12}$	7-9	2	5-11	2	4-11	3	7-2	2	5-7	2	4-8	3	6-9	2	5-3	3	4-5	3
	$\frac{3-2}{x 8}$	6-11	1	5-3	2	4-5	2	6-5	1	5-0	2	4-2	2	6-1	1	4-8	2	4-0	2
	$\frac{3-2}{x 10}$	8-3	2	6-3	2	5-3	2	7-8	2	5-11	2	5-0	2	7-3	2	5-7	2	4-8	2
	$\frac{3-2}{x 12}$	9-8	2	7-5	2	6-2	2	9-0	2	7-0	2	5-10	2	8-6	2	6-7	2	5-6	3
	$\frac{4-2}{x 8}$	8-0	1	6-1	1	5-1	2	7-5	1	5-9	2	4-10	2	7-0	1	5-5	2	4-7	2
	$\frac{4-2}{x 10}$	9-6	1	7-3	2	6-1	2	8-10	1	6-10	2	5-9	2	8-4	1	6-5	2	5-5	2
	$\frac{4-2}{x 12}$	11-2	2	8-6	2	7-2	2	10-5	2	8-0	2	6-9	2	9-10	2	7-7	2	6-5	2
Roof, ceiling, and two center bearing floors	$\frac{1-2}{x 6}$	2-8	2	2-1	2	1-10	2	2-7	2	2-0	2	1-9	2	2-5	2	1-11	2	1-8	2
	$\frac{1-2}{x 8}$	3-5	2	2-8	2	2-4	3	3-3	2	2-7	2	2-2	3	3-1	2	2-5	3	2-1	3
	$\frac{1-2}{x 10}$	4-0	2	3-2	3	2-9	3	3-10	2	3-1	3	2-7	3	3-8	2	2-11	3	2-5	3
	$\frac{1-2}{x 12}$	4-9	3	3-9	3	3-2	4	4-6	3	3-7	3	3-1	4	4-3	3	3-5	3	2-11	4
	$\frac{2-2}{x 4}$	2-8	1	2-1	1	1-9	1	2-6	1	2-0	1	1-8	1	2-5	1	1-11	1	1-7	1
	$\frac{2-2}{x 6}$	4-0	1	3-2	2	2-8	2	3-9	1	3-0	2	2-7	2	3-7	1	2-10	2	2-5	2
	$\frac{2-2}{x 8}$	5-0	2	4-0	2	3-5	2	4-10	2	3-10	2	3-3	2	4-7	2	3-7	2	3-1	2

# Regulations

	$\frac{2-2}{x}$ $\frac{10}{10}$	6-0	2	4-9	2	4-0	2	5-8	2	4-6	2	3-10	3	5-5	2	4-3	2	3-8	3
	$\frac{2-2}{x}$ $\frac{12}{12}$	7-0	2	5-7	2	4-9	3	6-8	2	5-4	3	4-6	3	6-4	2	5-0	3	4-3	3
	$\frac{3-2}{x}$ $\frac{8}{8}$	6-4	1	5-0	2	4-3	2	6-0	1	4-9	2	4-1	2	5-8	2	4-6	2	3-10	2
	$\frac{3-2}{x}$ $\frac{10}{10}$	7-6	2	5-11	2	5-1	2	7-1	2	5-8	2	4-10	2	6-9	2	5-4	2	4-7	2
	$\frac{3-2}{x}$ $\frac{12}{12}$	8-10	2	7-0	2	5-11	2	8-5	2	6-8	2	5-8	3	8-0	2	6-4	2	5-4	3
	$\frac{4-2}{x}$ $\frac{8}{8}$	7-3	1	5-9	1	4-11	2	5-11	1	5-6	2	4-8	2	6-7	1	5-2	2	4-5	2
	$\frac{4-2}{x}$ $\frac{10}{10}$	8-8	1	6-10	2	5-10	2	8-3	2	6-6	2	5-7	2	7-10	2	6-2	2	5-3	2
	$\frac{4-2}{x}$ $\frac{12}{12}$	10-2	2	8-1	2	6-10	2	9-8	2	7-8	2	6-7	2	9-2	2	7-3	2	6-2	2
Roof, ceiling, and two clear span floors	$\frac{1-2}{x}$ $\frac{6}{6}$	2-3	2	1-9	2	1-5	2	2-3	2	1-9	2	1-5	3	2-2	2	1-8	2	1-5	3
	$\frac{1-2}{x}$ $\frac{8}{8}$	2-10	2	2-2	3	1-10	3	2-10	2	2-2	3	1-10	3	2-9	2	2-1	3	1-10	3
	$\frac{1-2}{x}$ $\frac{10}{10}$	3-4	2	2-7	3	2-2	3	3-4	3	2-7	3	2-2	4	3-3	3	2-6	3	2-2	4
	$\frac{1-2}{x}$ $\frac{12}{12}$	4-0	3	3-0	3	2-7	4	4-0	3	3-0	4	2-7	4	3-10	3	3-0	4	2-6	4
	$\frac{2-2}{x}$ $\frac{4}{4}$	2-3	1	1-8	1	1-4	1	2-3	1	1-8	1	1-4	1	2-2	1	1-8	1	1-4	2
	$\frac{2-2}{x}$ $\frac{6}{6}$	3-4	1	2-6	2	2-2	2	3-4	2	2-6	2	2-2	2	3-3	2	2-6	2	2-1	2

$\frac{2-2}{x 8}$	<u>4-3</u>	<u>2</u>	<u>3-3</u>	<u>2</u>	<u>2-8</u>	<u>2</u>	<u>4-3</u>	<u>2</u>	<u>3-3</u>	<u>2</u>	<u>2-8</u>	<u>2</u>	<u>4-1</u>	<u>2</u>	<u>3-2</u>	<u>2</u>	<u>2-8</u>	<u>3</u>
$\frac{2-2}{x 10}$	<u>5-0</u>	<u>2</u>	<u>3-10</u>	<u>2</u>	<u>3-2</u>	<u>3</u>	<u>5-0</u>	<u>2</u>	<u>3-10</u>	<u>2</u>	<u>3-2</u>	<u>2</u>	<u>4-10</u>	<u>2</u>	<u>3-9</u>	<u>3</u>	<u>3-2</u>	<u>3</u>
$\frac{2-2}{x 12}$	<u>5-11</u>	<u>2</u>	<u>4-6</u>	<u>3</u>	<u>3-9</u>	<u>3</u>	<u>5-11</u>	<u>2</u>	<u>4-6</u>	<u>3</u>	<u>3-9</u>	<u>3</u>	<u>5-8</u>	<u>2</u>	<u>4-5</u>	<u>3</u>	<u>3-9</u>	<u>3</u>
$\frac{3-2}{x 8}$	<u>5-3</u>	<u>1</u>	<u>4-0</u>	<u>2</u>	<u>3-5</u>	<u>2</u>	<u>5-3</u>	<u>2</u>	<u>4-0</u>	<u>2</u>	<u>3-5</u>	<u>2</u>	<u>5-1</u>	<u>2</u>	<u>3-11</u>	<u>2</u>	<u>3-4</u>	<u>2</u>
$\frac{3-2}{x 10}$	<u>6-3</u>	<u>2</u>	<u>4-9</u>	<u>2</u>	<u>4-0</u>	<u>2</u>	<u>6-3</u>	<u>2</u>	<u>4-9</u>	<u>2</u>	<u>4-0</u>	<u>2</u>	<u>6-1</u>	<u>2</u>	<u>4-8</u>	<u>2</u>	<u>4-0</u>	<u>3</u>
$\frac{3-2}{x 12}$	<u>7-5</u>	<u>2</u>	<u>5-8</u>	<u>2</u>	<u>4-9</u>	<u>3</u>	<u>7-5</u>	<u>2</u>	<u>5-8</u>	<u>2</u>	<u>4-9</u>	<u>3</u>	<u>7-2</u>	<u>2</u>	<u>5-6</u>	<u>3</u>	<u>4-8</u>	<u>3</u>
$\frac{4-2}{x 8}$	<u>6-1</u>	<u>1</u>	<u>4-8</u>	<u>2</u>	<u>3-11</u>	<u>2</u>	<u>6-1</u>	<u>1</u>	<u>4-8</u>	<u>2</u>	<u>3-11</u>	<u>2</u>	<u>5-11</u>	<u>1</u>	<u>4-7</u>	<u>2</u>	<u>3-11</u>	<u>2</u>
$\frac{4-2}{x 10}$	<u>7-3</u>	<u>2</u>	<u>5-6</u>	<u>2</u>	<u>4-8</u>	<u>2</u>	<u>7-3</u>	<u>2</u>	<u>5-6</u>	<u>2</u>	<u>4-8</u>	<u>2</u>	<u>7-0</u>	<u>2</u>	<u>5-5</u>	<u>2</u>	<u>4-7</u>	<u>2</u>
$\frac{4-2}{x 12}$	<u>8-6</u>	<u>2</u>	<u>6-6</u>	<u>2</u>	<u>5-6</u>	<u>2</u>	<u>8-6</u>	<u>2</u>	<u>6-6</u>	<u>2</u>	<u>5-6</u>	<u>2</u>	<u>8-3</u>	<u>2</u>	<u>6-4</u>	<u>2</u>	<u>5-4</u>	<u>3</u>

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kPa.

a. Spans are given in feet and inches.

b. Spans are based on the minimum design properties for No. 2 grade lumber of Douglas Fir-Larch, Hem-Fir, Southern Pine, and Spruce-Pine Fir.

c. Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.

d. NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to the header.

e. Use 30 psf ground snow load for cases in which ground snow load is less than 30 psf and the roof live load is equal to or less than 20 psf.

f. Spans are calculated assuming the top of the header or girder is laterally braced by perpendicular framing. Where the top of the header or girder is not laterally braced (e.g. cripple studs bearing on the header), tabulated spans for headers consisting of 2x8, 2x10, or 2x12 sizes shall be multiplied by 0.70 or the header shall be designed.

# Regulations

[ 46- 50. ] Change Table R602.7(2) to read:

Table R602.7(2)

Girder Spans<sup>a</sup> and Header Spans<sup>a</sup> for Interior Bearing Walls

(Maximum spans for Douglas Fir-Larch, Hem-Fir, Southern Pine, and Spruce-Pine Fir<sup>b</sup> and required number of jack studs)

Headers and Girders Supporting	Size	Building Width <sup>c</sup> (feet)					
		12		24		36	
		Span <sup>e</sup>	NJ <sup>d</sup>	Span <sup>e</sup>	NJ <sup>d</sup>	Span <sup>e</sup>	NJ <sup>d</sup>
One floor only	2-2 x 4	4-1	1	2-10	1	2-4	1
	2-2 x 6	6-1	1	4-4	1	3-6	1
	2-2 x 8	7-9	1	5-5	1	4-5	2
	2-2 x 10	9-2	1	6-6	2	5-3	2
	2-2 x 12	10-9	1	7-7	2	6-3	2
	3-2 x 8	9-8	1	6-10	1	5-7	1
	3-2 x 10	11-5	1	8-1	1	6-7	2
	3-2 x 12	13-6	1	9-6	2	7-9	2
	4-2 x 8	11-2	1	7-11	1	6-5	1
	4-2 x 10	13-3	1	9-4	1	7-8	1
4-2 x 12	15-7	1	11-0	1	9-0	2	
Two floors	2-2 x 4	2-7	1	1-11	1	1-7	1
	2-2 x 6	3-11	1	2-11	2	2-5	2
	2-2 x 8	5-0	1	3-8	2	3-1	2
	2-2 x 10	5-11	2	4-4	2	3-7	2
	2-2 x 12	6-11	2	5-2	2	4-3	3
	3-2 x 8	6-3	1	4-7	2	3-10	2
	3-2 x 10	7-5	1	5-6	2	4-6	2
	3-2 x 12	8-8	2	6-5	2	5-4	2
	4-2 x 8	7-2	1	5-4	1	4-5	2
	4-2 x 10	8-6	1	6-4	2	5-3	2
4-2 x 12	10-1	1	7-5	2	6-2	2	

a. Spans are given in feet and inches.

b. Spans are based on the minimum design properties for No. 2 grade lumber of Douglas Fir-Larch, Hem-Fir, Southern Pine, and Spruce-Pine Fir.

c. Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.

d. NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to the header.

e. Spans are calculated assuming the top of the header or girder is laterally braced by perpendicular framing. Where the top of the header or girder is not laterally braced (e.g., cripple studs bearing on the header), tabulated spans for headers consisting of 2x8, 2x10, or 2x12 sizes shall be multiplied by 0.70 or the header shall be designed.

56. Change the column entries under the heading "Wood Species" in Table R602.7.1 to read:

Spruce Pine Fir
Hem Fir
Douglas Fir or No. 1 Grade Southern Pine

57. Add Section R602.7.4 to read:

~~R602.7.4 Supports for headers. Headers shall be supported on each end with one or more jack studs in accordance with Table R505.5(1) or Table R502.5(2). A king stud shall be adjacent to the jack stud on each end of the header and nailed at each end of the header with 4 12d nails.~~

58. [ ~~47, 51.~~ ] Change Section R602.10 to read:

R602.10 Wall bracing. Buildings shall be braced in accordance with this section or Section R602.12. Where a building, or portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with Section R301.1.

The building official shall be permitted to require the permit applicant to identify braced wall lines and braced wall panels on the construction documents as described in this section and provide associated analysis. The building official shall be permitted to waive the analysis of the upper floors where the cumulative length of wall openings of each upper floor wall is less than or equal to the length of the openings of the wall directly below.

59. Change the following row and footnotes in Table R602.10.3(1) to read:

Basic Wind Speed (mph)	Story Location	Braced Wall Line Spacing <sup>b</sup> (feet)	Method LIB <sup>e</sup>	Method GB	Methods DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP, ABW, PFH, PFG, CS SFB <sup>d</sup>	Methods CS-WSP, CS-G, CS-PF
<p>For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 mile per hour = 0.447 m/s.</p> <p><del>a. Linear interpolation shall be permitted.</del></p> <p><del>b. Where a braced wall line has parallel braced wall lines on one or both sides of differing dimensions, the average dimension shall be permitted to be used for braced wall line spacing.</del></p> <p><del>c. Method LIB shall have gypsum board fastened to at least one side with nails or screws per Table R602.3(1) for exterior sheathing or Table R702.3.5 for interior gypsum board. Spacing of fasteners at panel edges shall not exceed eight inches (203 mm).</del></p> <p><del>d. Method CS SFB does not apply where the wind speed is greater than 100 mph.</del></p>						

60. Change Section R602.10.4.1 to read:

R602.10.4.1 Mixing methods. Mixing of bracing methods shall be permitted as follows:

- ~~1. Mixing bracing methods from braced wall line to braced wall line shall be permitted.~~
- ~~2. Mixing intermittent bracing methods along a braced wall line shall be permitted in Seismic Design Categories A and B, and detached dwellings in Seismic Design Category C, provided the length of bracing in accordance with Table R602.10.3(1) or R602.10.3(3) is the highest value of all bracing methods used.~~
- ~~3. Mixing of methods CS WSP, CS G, CS PF, ABW, PFH, and PFG along a braced wall line shall be permitted.~~
- ~~4. In Seismic Design Categories A and B, and detached dwellings in Seismic Design Category C, mixing of intermittent bracing methods along the interior portion of a braced wall line with continuous sheathing methods along the exterior~~



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# Regulations

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portion of the same braced wall line shall be permitted. The length of required bracing shall be the highest value of all bracing methods used in accordance with Table R602.10.3(1) or R602.10.3(3). The requirements of Section R602.10.7 shall apply to each end of the continuously sheathed portions of the braced wall line.

61. Change the "CS-PF" row of Table R602.10.5 to read:

CS-PF	16	18	20	22 <sup>e</sup>	24 <sup>e</sup>	1.5 x Actual <sup>b</sup>
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62. Change Items 3.3 and 3.4 of Section R602.10.8.2 to read:

~~3.3. Blocking panels provided by the roof truss manufacturer and designed in accordance with Section R802.10.~~

~~3.4. Blocking, blocking panels, or other methods of lateral load transfer designed in accordance with the AWC WFCM or accepted engineering practice.~~

[ 52. Change Section R602.10.9 to read:

R602.10.9 Braced wall panel support. Braced wall panel support shall be provided as follows:

1. Cantilevered floor joists complying with Section R502.3.3 shall be permitted to support braced wall panels.

2. Raised floor system post or pier foundations supporting braced wall panels shall be designed in accordance with accepted engineering practice.

3. Masonry stem walls with a length of 48 inches (1219 mm) or less supporting braced wall panels shall be reinforced in accordance with Figure R602.10.9. Masonry stem walls with a length greater than 48 inches (1219 mm) supporting braced wall panels shall be constructed in accordance with Section R403.1 Methods ABW and PFH shall not be permitted to attach to masonry stem walls.

4. Concrete stem walls with a length of 48 inches (1219 mm) or less, greater than 12 inches (305 mm) tall and less than 6 inches (152 mm) thick shall have reinforcement sized and located in accordance with Figure R602.10.9.

Exception: For masonry stem walls, an approved post-installed adhesive anchoring system shall be permitted as an alternative to the Optional Stem Wall Reinforcement detail in Figure R602.10.9. A minimum of two anchors shall be installed as indicated in Figure R602.10.9. Anchors shall be located not more than 4 inches (102 mm) from each end of the stem wall. Anchors shall be installed into the concrete footing as follows:

1. Five-eighth inch (16 mm) threaded rod using a 3/4 inch (19 mm) diameter drilled hole with a minimum embedment of 6 inches (152 mm).

2. Number 4 size reinforcing bar using a 5/8-inch (16 mm) diameter drilled hole with a minimum embedment of 4-1/2 inches (114 mm).

A minimum footing thickness of 8 inches (203 mm) is required and the minimum distance from each anchor to the edge of the footing shall be 3-3/4 inches (95 mm). The anchoring adhesive and anchors shall be installed in accordance with the manufacturer's instructions and have a minimum tensile capacity of 5,000 lbs. (22 kN). The bond beam reinforcement and attachment of braced wall panels to the stem wall shall be as shown in Figure R602.10.9. ]

63. Change Item 3 of Section R602.10.10 to read:

~~3. Where the bracing length provided is at least twice the minimum length required by Table R602.10.3(1) and Table R602.10.3(3), blocking at horizontal joints shall not be required in braced wall panels constructed using Methods WSP, SFB, GB, PBS, HPS, CS-WSP or CS-SFB.~~

64. Change Section R602.10.11 to read:

~~R602.10.11 Cripple wall bracing. Cripple walls shall be constructed in accordance with Section R602.9 and braced in accordance with this section. Cripple walls shall be braced with the length and method of bracing used for the wall above in accordance with Tables R602.10.3(1) and R602.10.3(3), and the applicable adjustment factors in Tables R602.10.3(2) and R602.10.3(4), respectively, except the length of the cripple wall bracing shall be multiplied by a factor of 1.15. Cripple wall bracing shall comply with Section R602.10.4.3.~~

65. [ ~~48. 53.~~ ] Replace Section R602.12, including all subsections, with the following:

R602.12 Practical wall bracing. All buildings in Seismic Design Categories A and B and detached buildings in Seismic Design Category C shall be permitted to be braced in accordance with this section as an alternative to the requirements of Section R602.10. Where a building, or portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with Section R301.1. The use of other bracing provisions of Section R602.10, except as specified herein, shall not be permitted.

The building official shall be permitted to require the permit applicant to identify bracing on the construction documents and provide associated analysis. The building official shall be permitted to waive the analysis of the upper floors where the cumulative length of wall openings of each upper floor wall is less than or equal to the length of the openings of the wall directly below.

R602.12.1 Sheathing materials. The following materials shall be permitted for use as sheathing for wall bracing. Exterior walls shall be sheathed on all sheathable surfaces, including infill areas between bracing locations, above and below wall openings, and on gable end walls.

1. Wood structural panels with a minimum thickness of 7/16 inch (9.5 mm) fastened in accordance with Table R602.3(3).
2. Structural fiberboard sheathing with a minimum thickness of 1/2 inch (12.7 mm) fastened in accordance with Table R602.3(1).
3. Gypsum board with a minimum thickness of 1/2 inch (12.7 mm) fastened in accordance with Table R702.3.5 on interior walls only.

R602.12.2 Braced wall panels. Braced wall panels shall be full-height wall sections sheathed with the materials listed in Section R602.12.1 and complying with the following:

1. Exterior braced wall panels shall have a minimum length based on the height of the adjacent opening as specified in Table R602.12.2. Panels with openings on both sides of differing heights shall be governed by the taller opening when determining panel length.
2. Interior braced wall panels shall have a minimum length of 48 inches (1220 mm) when sheathing material is applied to one side. Doubled-sided applications shall be permitted to be considered two braced wall panels.
3. Braced wall panels shall be permitted to be constructed of Methods ABW, PFH, PFG, and CS-PF in accordance with Section R602.10.4.
4. Exterior braced wall panels, other than the methods listed in Item 3 above shall have a finish material installed on the interior. The finish material shall consist of 1/2 inch (12.7 mm) gypsum board or equivalent and shall be permitted to be omitted where the required length of bracing, as determined in Section R602.12.4, is multiplied by 1.40, unless otherwise required by Section R302.6.
5. Vertical sheathing joints shall occur over and be fastened to common studs.
6. Horizontal sheathing joints shall be edge nailed to 1-1/2 inch (38 mm) minimum thick common blocking.

Table R602.12.2 Braced Wall Panel Lengths					
Location	Wall Height (feet)				
	8	9	10	11	12
	Minimum Panel Length (inches)				
Adjacent garage door of one-story garage <sup>a</sup>	24	27	30	33	36
Adjacent all other openings <sup>b</sup>					
Clear opening height (inches) ≤ 64	24	27	30	33	36
Clear opening height (inches) ≤ 72	27	27	30	33	36

# Regulations

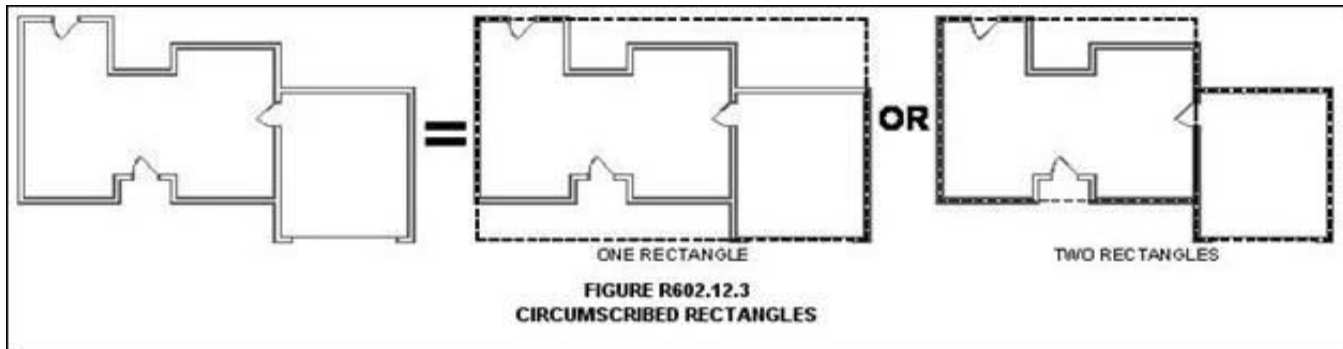
Clear opening height (inches) ≤ 80	30	30	30	33	36
Clear opening height (inches) > 80	36	36	36	40	40

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. Braced wall panels supporting a gable end wall or roof load only.

b. Interpolation shall be permitted.

R602.12.3 Circumscribed rectangle. Required length of bracing shall be determined by circumscribing one or more rectangles around the entire building or portions thereof as shown in Figure R602.12.3. Rectangles shall surround all enclosed offsets and projections such as sunrooms and attached garages. Chimneys, partial height projections, and open structures, such as carports and decks, shall be excluded from the rectangle. Each rectangle shall have no side greater than 80 feet (24 384 mm) with a maximum 3:1 ratio between the long and short side. Rectangles shall be permitted to be skewed to accommodate angled projections as shown in Figure R602.12.4.3.



R602.12.4 Required length of bracing. The required length of bracing for each side of a circumscribed rectangle shall be determined using Table R602.12.4. Where multiple rectangles share a common side or sides, the required length of bracing shall equal the sum of the required lengths from all shared rectangle sides.

Wind Speed	Eave-to-Ridge Height (feet)	Number of Floor Levels Above <sup>e,f</sup>	Required Length of Bracing on Front/Rear Side (feet)								Required Length of Bracing on Left/Right Side (feet)							
			Length of Left/Right Side (feet)								Length of Front/Rear Side (feet)							
			10	20	30	40	50	60	70	80	10	20	30	40	50	60	70	80
<b>90 115</b>	10	0	2.0	3.5	5.0	6.0	7.5	9.0	10.5	12.0	2.0	3.5	5.0	6.0	7.5	9.0	10.5	12.0
		1 <sup>d</sup>	3.5	6.5	9.0	12.0	14.5	17.0	19.8	22.6	3.5	6.5	9.0	12.0	14.5	17.0	19.8	22.6
		2 <sup>d</sup>	5.0	9.5	13.5	17.5	21.5	25.0	29.2	33.4	5.0	9.5	13.5	17.5	21.5	25.0	29.2	33.4
	15	0	2.6	4.6	6.5	7.8	9.8	11.7	13.7	15.7	2.6	4.6	6.5	7.8	9.8	11.7	13.7	15.7
		1 <sup>d</sup>	4.0	7.5	10.4	13.8	16.7	19.6	22.9	26.2	4.0	7.5	10.4	13.8	16.7	19.6	22.9	26.2
		2 <sup>d</sup>	5.5	10.5	14.9	19.3	23.7	27.5	32.1	36.7	5.5	10.5	14.9	19.3	23.7	27.5	32.1	36.7
	20	0	2.9	5.2	7.3	8.8	11.1	13.2	15.4	17.6	2.9	5.2	7.3	8.8	11.1	13.2	15.4	17.6
		1 <sup>d</sup>	4.5	8.5	11.8	15.6	18.9	22.1	25.8	29.5	4.5	8.5	11.8	15.6	18.9	22.1	25.8	29.5
		2 <sup>d</sup>	6.2	11.9	16.8	21.8	27.3	31.1	36.3	41.5	6.2	11.9	16.8	21.8	27.3	31.1	36.3	41.5

<del>100</del> 130	10	0	2.5	4.0	6.0	7.5	9.5	11.0	12.8	14.6	2.5	4.0	6.0	7.5	9.5	11.0	12.8	14.6
		1 <sup>d</sup>	4.5	8.0	11.0	14.5	18.0	21.0	24.5	28.0	4.5	8.0	11.0	14.5	18.0	21.0	24.5	28.0
		2 <sup>d</sup>	6.0	11.5	16.5	21.5	26.5	31.0	36.2	41.4	6.0	11.5	16.5	21.5	26.5	31.0	36.2	41.4
	15	0	3.4	5.2	7.8	9.8	12.4	14.3	16.7	19.1	3.4	5.2	7.8	9.8	12.4	14.3	16.7	19.1
		1 <sup>d</sup>	5.2	9.2	12.7	16.7	20.7	24.2	28.2	32.2	5.2	9.2	12.7	16.7	20.7	24.2	28.2	32.2
		2 <sup>d</sup>	6.6	12.7	18.2	23.7	29.2	34.1	39.8	45.5	6.6	12.7	18.2	23.7	29.2	34.1	39.8	45.5
	20	0	3.8	5.9	8.8	11.1	14.0	16.2	18.9	21.6	3.8	5.9	8.8	11.1	14.0	16.2	18.9	21.6
		1 <sup>d</sup>	5.9	10.4	14.4	18.9	23.4	27.3	31.8	36.3	5.9	10.4	14.4	18.9	23.4	27.3	31.8	36.3
		2 <sup>d</sup>	7.5	14.4	20.6	26.8	33.0	38.5	44.9	51.3	7.5	14.4	20.6	26.8	33.0	38.5	44.9	51.3

For SI: 1 ft = 304.8 mm.

- a. Interpolation shall be permitted; extrapolation shall be prohibited.
- b. For Exposure Category C, multiply the required length of bracing by a factor of 1.20 for a one-story building, 1.30 for a two-story building, and 1.40 for a three-story building.
- c. For wall height adjustments multiply the required length of bracing by the following factors: 0.90 for 8 feet (2438 mm), 0.95 for 9 feet (2743 mm), 1.0 for 10 feet (3048 mm), 1.05 for 11 feet (3353 mm), and 1.10 for 12 feet (3658 mm).
- d. Where braced wall panels supporting stories above have been sheathed in wood structural panels with edge fasteners spaced at 4 inches (102 mm) on center, multiply the required length of bracing by 0.83.
- e. A floor level, habitable or otherwise, contained wholly within the roof rafters or trusses shall not be considered a floor level for purposes of determining the required length of bracing.
- f. A rectangle side with differing number of floor levels above shall use the greatest number when determining the required length of bracing.

R602.12.4.1 Braced wall panel assignment to rectangle sides. Braced wall panels shall be assigned to the applicable rectangle side and contribute to its required length of bracing. Panels shall be assigned as specified below and as shown in Figure R602.12.4.1.

1. Exterior braced wall panels shall be assigned to the parallel rectangle side on which they are located or in which they face.
2. Interior braced wall panels shall be assigned to the parallel rectangle side on which they are located or in which they face up to 4 feet (1220 mm) away. Interior braced wall panels more than 4 feet (1220 mm) away from a parallel rectangle side shall not contribute.
3. The projections of angled braced wall panels shall be assigned to the adjacent rectangle sides.

# Regulations

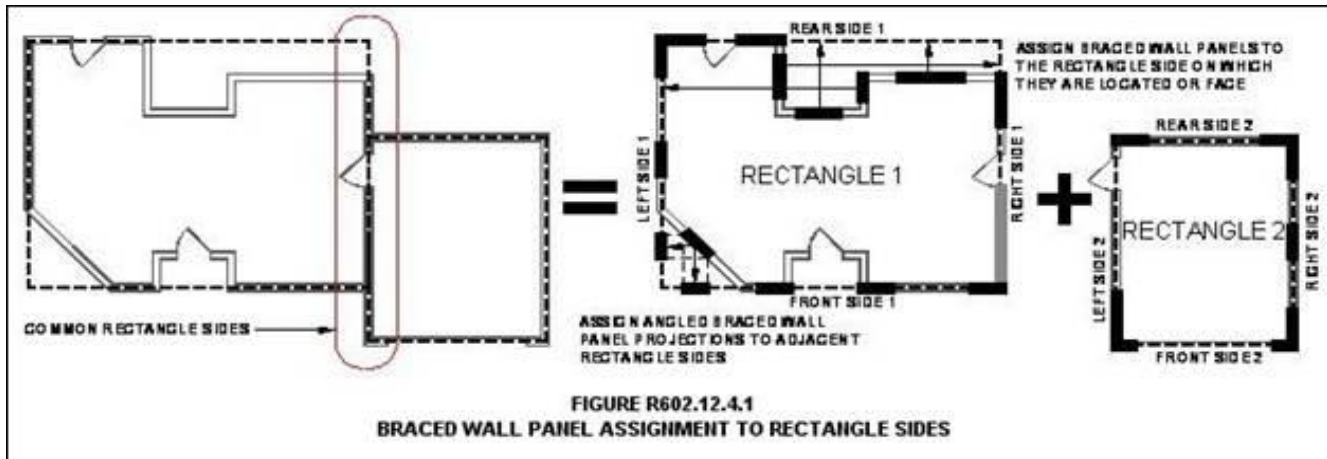


FIGURE R602.12.4.1

BRACED WALL PANEL ASSIGNMENT TO RECTANGLE SIDES

R602.12.4.2 Contributing length. The cumulative contributing length of braced wall panels assigned to a rectangle side shall be greater than or equal to the required length of bracing as determined in Section R602.12.4. The contributing length of a braced wall panel shall be as specified below. When applying contributing length to angled braced wall panels, apply the requirements below to each projection:

1. Exterior braced wall panels shall contribute their actual length.
2. Interior braced wall panels shall contribute one-half of their actual length.
3. The contributing length of Methods ABW, PFH, PFG, and CS-PF shall be in accordance with Table R602.10.5.

R602.12.4.3 Common sides with skewed rectangles. Braced wall panels located on a common wall where skewed rectangles intersect, as shown in Figure R602.12.4.3, shall be permitted to be assigned to the parallel rectangle side, and their projections shall be permitted to be assigned to the adjacent skewed rectangle sides.

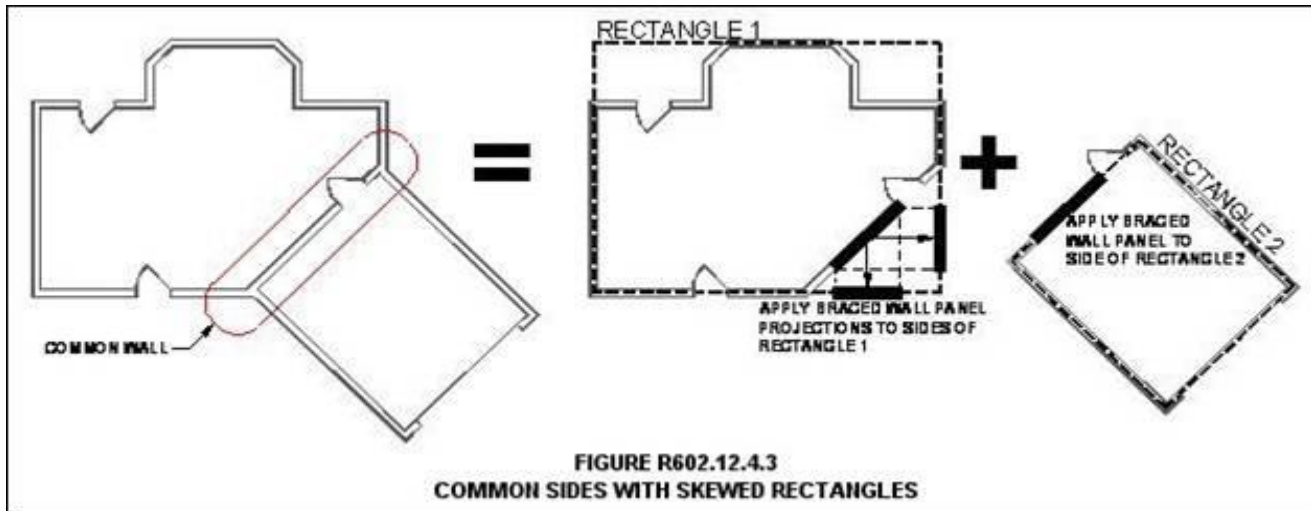


FIGURE R602.12.4.3

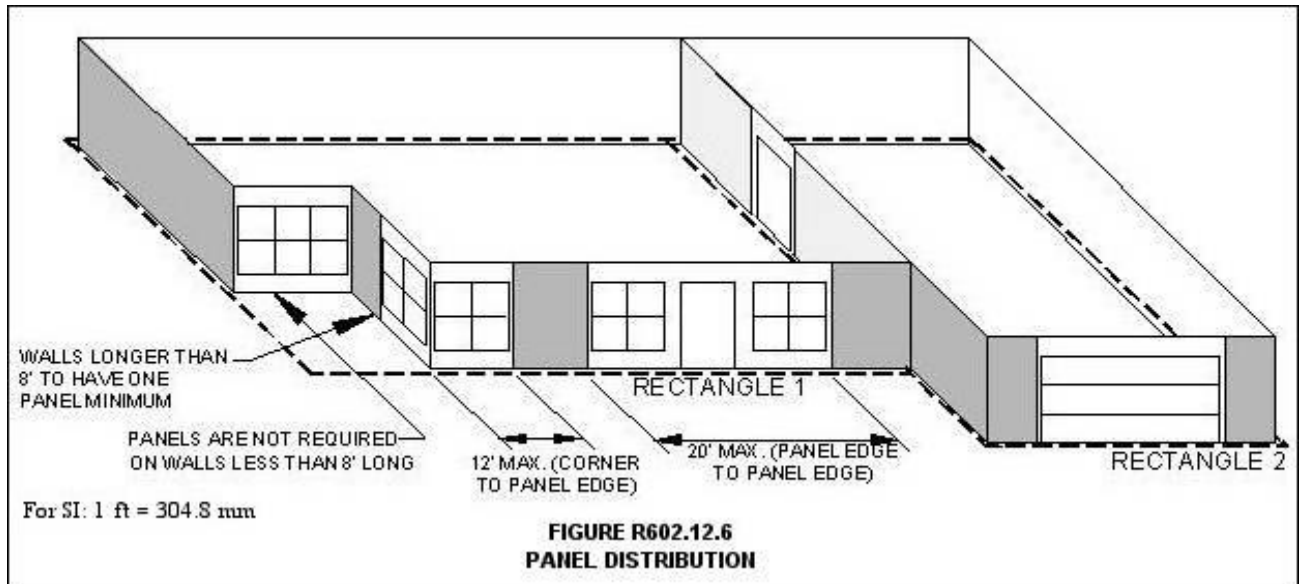
COMMON SIDES WITH SKEWED RECTANGLES

R602.12.5 Cripple walls and framed walls of walk-out basements. For rectangle sides with cripple walls having a maximum height of 48 inches (1220 mm), the required length of bracing shall be as determined in Section R602.12.4. For rectangle sides with cripple walls having a height greater than 48 inches (1220 mm) at any location or framed walls of a walk-out basement, the required length of bracing shall be determined using Table R602.12.4. Braced wall panels within cripple walls and walls of walk-out basements shall comply with Item 4 of Section R602.12.2.

R602.12.6 Distribution of braced wall panels. Braced wall panels shall be distributed in accordance with the following requirements as shown in Figure R602.12.6.

1. The edge of a braced wall panel shall be no more than 12 feet (3658 mm) from any building corner or rectangle corner.
2. The distance between adjacent edges of braced wall panels shall be no more than 20 feet (6096 mm).

3. Segments of exterior walls greater than 8 feet (2438 mm) in length shall have a minimum of one braced wall panel.
4. Segments of exterior wall 8 feet (2438 mm) or less in length shall be permitted to have no braced wall panels.



R602.12.6.1 Panels adjacent to balloon framed walls. Braced wall panels shall be placed on each side of each story adjacent to balloon framed walls designed in accordance with Section R602.3 with a maximum height of two stories.

R602.12.7 Braced wall panel connection. Braced wall panels shall be connected to other structural elements in accordance with Section R602.10.8.

R602.12.8 Braced wall panel support. Braced wall panels shall be supported in accordance with Section R602.10.9.

[ 54. Change Sections R802.2 and R802.3 to read:

R802.2 Design and construction. The roof and ceiling assembly shall provide continuous ties across the structure to prevent roof thrust from being applied to the supporting walls. The assembly shall be designed and constructed in accordance with the provisions of this chapter and Figures R606.11(1), R606.11(2) and R606.11(3) or in accordance with AWC NDS.

R802.3 Ridge. A ridge board used to connect opposing rafters shall be not less than 1 inch (25 mm) nominal thickness and not less in depth than the cut end of the rafter. Where ceiling joist or rafter ties do not provide a continuous ties across the structure, a ridge beam shall be provided and supported on each end by a wall or girder.

55. Delete Sections R802.3.1, R802.3.2 and R802.3.3.

56. Change Section R802.4 and add Section R802.4.1 to read:

R802.4 Rafters. Rafters shall be in accordance with this section.

R802.4.1 Rafter size. Rafters shall be sized based on the rafter spans in Tables R802.4.1(1) through R802.4.1(8). Rafter spans shall be measured along the horizontal projection of the rafter. For other grades and species and for other loading conditions, refer to the AWC STJR.

57. Change the titles of Tables R802.4(1) and R802.4(2) to Tables R802.5.1(1) and R802.5.1(2), respectively, and change the titles of Tables R802.5.1(1) through R802.5.1(8) to Tables R802.4.1(1) through R802.4.1(8), respectively. ]

# Regulations

66. Change the indicated rows of Table R802.4(1) to read:

Ceiling Joist Spacing (inches)	Species and Grade	Dead Load = 5 psf			
		2x4	2x6	2x8	2x10
		Maximum ceiling joist spans			
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	12-11	20-3	Note a	Note a
	Southern Pine #1	12-5	19-6	25-8	Note a
	Southern Pine #2	11-10	18-8	24-7	Note a
	Southern Pine #3	10-1	14-11	18-9	22-9
16	Southern Pine SS	11-9	18-5	24-3	Note a
	Southern Pine #1	11-3	17-8	23-4	Note a
	Southern Pine #2	10-9	16-11	21-7	25-7
	Southern Pine #3	8-9	12-11	16-3	19-9
19.2	Southern Pine SS	11-0	17-4	22-10	Note a
	Southern Pine #1	10-7	16-8	22-0	Note a
	Southern Pine #2	10-2	15-7	19-8	23-5
	Southern Pine #3	8-0	11-9	14-10	18-0
24	Southern Pine SS	10-3	16-1	21-2	Note a
	Southern Pine #1	9-10	15-6	20-5	24-0
	Southern Pine #2	9-3	13-11	17-7	20-11
	Southern Pine #3	7-2	10-6	13-3	16-1

67. Change the indicated rows of Table R802.4(2) to read:

Ceiling Joist Spacing (inches)	Species and Grade	Dead Load = 10 psf			
		2x4	2x6	2x8	2x10
		Maximum ceiling joist spans			
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	10-3	16-1	21-2	Note a
	Southern Pine #1	9-10	15-6	20-5	24-0
	Southern Pine #2	9-3	13-11	17-7	20-11
	Southern Pine #3	7-2	10-6	13-3	16-1
16	Southern Pine SS	9-4	14-7	19-3	24-7
	Southern Pine #1	8-11	14-0	17-9	20-9
	Southern Pine #2	8-0	12-0	15-3	18-1
	Southern Pine #3	6-2	9-2	11-6	14-0

19.2	Southern Pine SS	8-9	13-9	18-2	23-1
	Southern Pine #1	8-5	12-9	16-2	18-11
	Southern Pine #2	7-4	11-0	13-11	16-6
	Southern Pine #3	5-8	8-4	10-6	12-9
24	Southern Pine SS	8-1	12-9	16-10	21-6
	Southern Pine #1	7-8	11-5	14-6	16-11
	Southern Pine #2	6-7	9-10	12-6	14-9
	Southern Pine #3	5-1	7-5	9-5	11-5

[ 58. Add Sections R802.4.2 through R802.4.5 to read:

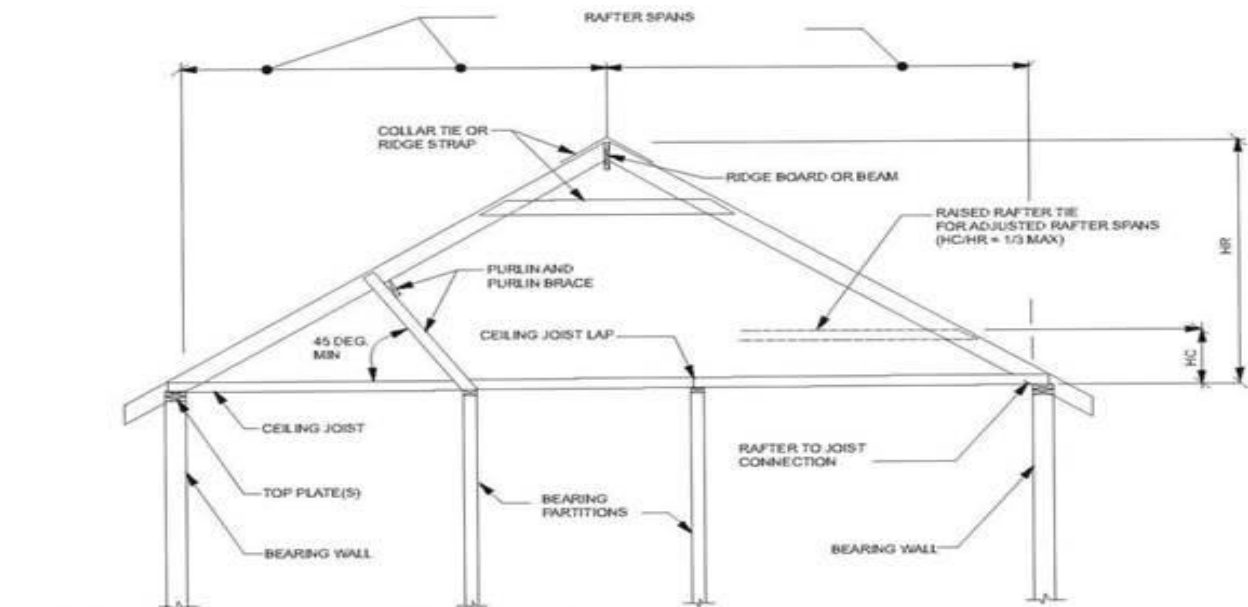
R802.4.2 Framing details. Rafters shall be framed not more than 1-1/2 inches (38 mm) offset from each other to a ridge board or directly opposite from each other with a collar tie, gusset plate or ridge strap in accordance with Table R602.3(1). Rafters shall be nailed to the top wall plates in accordance with Table R602.3(1) unless the roof assembly is required to comply with the uplift requirements of Section R802.11.

R802.4.3 Hips and valleys. Hip and valley rafters shall be not less than 2 inches (51 mm) nominal in thickness and not less in depth than the cut end of the rafter. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point.

R802.4.4 Rafter supports. Where the roof pitch is less than 3:12 (25% slope), structural members that support rafters, such as ridges, hips and valleys, shall be designed as beams, and bearing shall be provided for rafters in accordance with Section R802.6.

R802.4.5 Purlins. Installation of purlins to reduce the span of rafters is permitted as shown in Figure R802.4.5. Purlins shall be sized not less than the required size of the rafters that they support. Purlins shall be continuous and shall be supported by 2-inch by 4-inch (51 mm by 102 mm) braces installed to bearing walls at a slope not less than 45 degrees (0.79 rad) from the horizontal. The braces shall be spaced not more than 4 feet (1219 mm) on center and the unbraced length of braces shall not exceed 8 feet (2438 mm).

59. Add Figure R802.4.5 to read:



For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 degree = 0.018 rad.

$H_c$  = Height of ceiling joists or rafter ties measured vertically above the top of rafter support walls.

$H_r$  = Height of roof ridge measured vertically above the top of the rafter support walls.

**FIGURE R802.4.5  
BRACED RAFTER CONSTRUCTION**



# Regulations

60. Add Section R802.4.6 to read:

R802.4.6 Collar ties. Where collar ties are used to connect opposing rafters, they shall be located in the upper third of the attic space and fastened in accordance with Table R602.3(1). Collar ties shall be not less than 1 inch by 4 inches (25 mm by 102 mm) nominal, spaced not more than 4 feet (1219 mm) on center. Ridge straps in accordance with Table R602.3(1) shall be permitted to replace collar ties. ]

68. Change the indicated rows of Table R802.5.1(1) to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 psf					Dead Load = 20 psf				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans <sup>a</sup>									
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	11-3	17-8	23-4	Note b	Note b	11-3	17-8	23-4	Note b	Note b
	Southern Pine #1	10-10	17-0	22-5	Note b	Note b	10-6	15-8	19-10	23-2	Note b
	Southern Pine #2	10-4	15-7	19-8	23-5	Note b	9-0	13-6	17-1	20-3	23-10
	Southern Pine #3	8-0	11-9	14-10	18-0	21-4	6-11	10-2	12-10	15-7	18-6
16	Southern Pine SS	10-3	16-1	21-2	Note b	Note b	10-3	16-1	21-2	25-7	Note b
	Southern Pine #1	9-10	15-6	19-10	23-2	Note b	9-1	13-7	17-2	20-1	23-10
	Southern Pine #2	9-0	13-6	17-1	20-3	23-10	7-9	11-8	14-9	17-6	20-8
	Southern Pine #3	6-11	10-2	12-10	15-7	18-6	6-0	8-10	11-2	13-6	16-0
19.2	Southern Pine SS	9-8	15-2	19-11	25-5	Note b	9-8	15-2	19-7	23-4	Note b
	Southern Pine #1	9-3	14-3	18-1	21-2	25-2	8-4	12-4	15-8	18-4	21-9
	Southern Pine #2	8-2	12-3	15-7	18-6	21-9	7-1	10-8	13-6	16-0	18-10
	Southern Pine #3	6-4	9-4	11-9	14-3	16-10	5-6	8-1	10-2	12-4	14-7
24	Southern Pine SS	8-11	14-1	18-6	23-8	Note b	8-11	13-10	17-6	20-10	24-8
	Southern Pine #1	8-7	12-9	16-2	18-11	22-6	7-5	11-1	14-0	16-5	19-6
	Southern Pine #2	7-4	11-0	13-11	16-6	19-6	6-4	9-6	12-1	14-4	16-10
	Southern Pine #3	5-8	8-4	10-6	12-9	15-1	4-11	7-3	9-1	11-0	13-1

69. Change the indicated rows of Table R802.5.1(2) to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 psf					Dead Load = 20 psf				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans <sup>a</sup>									
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	10-3	16-1	21-2	Note b	Note b	10-3	16-1	21-2	Note b	Note b
	Southern Pine #1	9-10	15-6	20-5	Note b	Note b	9-10	15-6	19-10	23-2	Note b
	Southern Pine #2	9-5	14-9	19-6	23-5	Note b	9-0	13-6	17-1	20-3	23-10
	Southern Pine #3	8-0	11-9	14-10	18-0	21-4	6-11	10-2	12-10	15-7	18-6
16	Southern Pine SS	9-4	14-7	19-3	24-7	Note b	9-4	14-7	19-3	24-7	Note b
	Southern Pine #1	8-11	14-1	18-6	23-2	Note b	8-11	13-7	17-2	20-1	23-10
	Southern Pine #2	8-7	13-5	17-1	20-3	23-10	7-9	11-8	14-9	17-6	20-8
	Southern Pine #3	6-11	10-2	12-10	15-7	18-6	6-0	8-10	11-2	13-6	16-0
19.2	Southern Pine SS	8-9	13-9	18-2	23-1	Note b	8-9	13-9	18-2	23-1	Note b
	Southern Pine #1	8-5	13-3	17-5	21-2	25-2	8-4	12-4	15-8	18-4	21-9
	Southern Pine #2	8-1	12-3	15-7	16-6	21-9	7-1	10-8	13-6	16-0	18-10
	Southern Pine #3	6-4	9-4	11-9	14-3	16-10	5-6	8-1	10-2	12-4	14-7
24	Southern Pine SS	8-1	12-9	16-10	21-6	Note b	8-1	12-9	16-10	20-10	24-8
	Southern Pine #1	7-10	12-3	16-2	18-11	22-6	7-6	11-1	14-0	16-5	19-6
	Southern Pine #2	7-4	11-0	13-11	16-6	19-6	6-4	9-6	12-1	14-4	16-10
	Southern Pine #3	5-8	8-4	10-6	12-9	15-1	4-11	7-3	9-1	11-0	13-1

# Regulations

70. Change the indicated rows of Table R802.5.1(3) to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 psf					Dead Load = 20 psf				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans <sup>a</sup>									
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	9-10	15-6	20-5	Note b	Note b	9-10	15-6	20-5	25-4	Note b
	Southern Pine #1	9-6	14-10	19-0	22-3	Note b	9-0	13-5	17-0	19-11	23-7
	Southern Pine #2	8-7	12-11	16-4	19-5	22-10	7-8	11-7	14-8	17-4	20-5
	Southern Pine #3	6-7	9-9	12-4	15-0	17-9	5-11	8-9	11-0	13-5	15-10
16	Southern Pine SS	8-11	14-1	18-6	23-8	Note b	8-11	14-1	18-5	21-11	25-11
	Southern Pine #1	8-7	13-0	16-6	19-3	22-10	7-10	11-7	14-9	17-3	20-5
	Southern Pine #2	7-6	11-2	14-2	16-10	19-10	6-8	10-0	12-8	15-1	17-9
	Southern Pine #3	5-9	8-6	10-8	13-0	15-4	5-2	7-7	9-7	11-7	13-9
19.2	Southern Pine SS	8-5	13-3	17-5	22-3	Note b	8-5	13-3	16-10	20-0	23-7
	Southern Pine #1	8-0	11-10	15-1	17-7	20-11	7-1	10-7	13-5	15-9	18-8
	Southern Pine #2	6-10	10-2	12-11	15-4	18-1	6-1	9-2	11-7	13-9	16-2
	Southern Pine #3	5-3	7-9	9-9	11-10	14-0	4-8	6-11	8-9	10-7	12-6
24	Southern Pine SS	7-10	12-3	16-2	20-0	23-7	7-10	11-10	15-0	17-11	21-2
	Southern Pine #1	7-1	10-7	13-5	15-9	18-8	6-4	9-6	12-0	14-1	16-8
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-5	8-2	10-4	12-3	14-6
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-2	6-2	7-10	9-6	11-2

71. Change the indicated rows of Table R802.5.1(4) to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 psf					Dead Load = 20 psf				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans <sup>a</sup>									
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	8-4	13-1	17-2	21-11	Note b	8-4	13-1	17-2	21-5	25-3
	Southern Pine #1	8-0	12-3	15-6	18-2	21-7	7-7	11-4	14-5	16-10	20-0
	Southern Pine #2	7-0	10-6	13-4	15-10	18-8	6-6	9-9	12-4	14-8	17-3
	Southern Pine #3	5-5	8-0	10-1	12-3	14-6	5-0	7-5	9-4	11-4	13-5
16	Southern Pine SS	7-6	11-10	15-7	19-11	23-7	7-6	11-10	15-7	18-6	21-10
	Southern Pine #1	7-1	10-7	13-5	15-9	18-8	6-7	9-10	12-5	14-7	17-3
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-8	8-5	10-9	12-9	15-0
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-4	6-5	8-1	9-10	11-7
19.2	Southern Pine SS	7-1	11-2	14-8	18-3	21-7	7-1	11-2	14-2	16-11	20-0
	Southern Pine #1	6-6	9-8	12-3	14-4	17-1	6-0	9-0	11-4	13-4	15-9
	Southern Pine #2	5-7	8-4	10-7	12-6	14-9	5-2	7-9	9-9	11-7	13-8
	Southern Pine #3	4-3	6-4	8-0	9-8	11-5	4-0	5-10	7-4	8-11	10-7
24	Southern Pine SS	6-7	10-4	13-8	16-4	19-3	6-7	10-0	12-8	15-2	17-10
	Southern Pine #1	5-10	8-8	11-0	12-10	15-3	5-5	8-0	10-2	11-11	14-1
	Southern Pine #2	5-0	7-5	9-5	11-3	13-2	4-7	6-11	8-9	10-5	12-3
	Southern Pine #3	3-10	5-8	7-1	8-8	10-3	3-6	5-3	6-7	8-0	9-6

# Regulations

72. Change the indicated rows of Table R802.5.1(5) to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 psf					Dead Load = 20 psf				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans*									
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	8-11	14-1	18-6	23-8	Note-b	8-11	14-1	18-6	23-8	Note-b
	Southern Pine #1	8-7	13-6	17-10	22-3	Note-b	8-7	13-5	17-0	19-11	23-7
	Southern Pine #2	8-3	12-11	16-4	19-5	22-10	7-8	11-7	14-8	17-4	20-5
	Southern Pine #3	6-7	9-9	12-4	15-0	17-9	5-11	8-9	11-0	13-5	15-10
16	Southern Pine SS	8-1	12-9	16-10	21-6	Note-b	8-1	12-9	16-10	21-6	25-11
	Southern Pine #1	7-10	12-3	16-2	19-3	22-10	7-10	11-7	14-9	17-3	20-5
	Southern Pine #2	7-6	11-2	14-2	16-10	19-10	6-8	10-0	12-8	15-1	17-9
	Southern Pine #3	5-9	8-6	10-8	13-0	15-4	5-2	7-7	9-7	11-7	13-9
19.2	Southern Pine SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-10	20-0	23-7
	Southern Pine #1	7-4	11-7	15-1	17-7	20-11	7-1	10-7	13-5	15-9	18-8
	Southern Pine #2	6-10	10-2	12-11	15-4	18-1	6-1	9-2	11-7	13-9	16-2
	Southern Pine #3	5-3	7-9	9-9	11-10	14-0	4-8	6-11	8-9	10-7	12-6
24	Southern Pine SS	7-1	11-2	14-8	18-9	22-10	7-1	11-2	14-8	17-11	21-2
	Southern Pine #1	6-10	10-7	13-5	15-9	18-8	6-4	9-6	12-0	14-1	16-8
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-5	8-2	10-4	12-3	14-6
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-2	6-2	7-10	9-6	11-2

73. Change the indicated rows of Table R802.5.1(6) to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 psf					Dead Load = 20 psf				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans*									
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	7-6	11-0	15-7	19-11	24-3	7-6	11-10	15-7	19-11	24-3
	Southern Pine #1	7-3	11-5	15-0	18-2	21-7	7-3	11-4	14-5	16-10	20-0
	Southern Pine #2	6-11	10-6	13-4	15-10	18-8	6-6	9-9	12-4	14-8	17-3
	Southern Pine #3	5-5	8-0	10-1	12-3	14-6	5-0	7-5	9-4	11-4	13-5
16	Southern Pine SS	6-10	10-9	14-2	18-1	22-0	6-10	10-9	14-2	18-1	21-10
	Southern Pine #1	6-7	10-4	13-5	15-9	18-8	6-7	9-10	12-5	14-7	17-3
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-8	8-5	10-9	12-9	15-0
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-4	6-5	8-1	9-10	11-7
19.2	Southern Pine SS	6-5	10-2	13-4	17-0	20-9	6-5	10-2	13-4	16-11	20-0
	Southern Pine #1	6-2	9-8	12-3	14-4	17-1	6-0	9-0	11-4	13-4	13-8
	Southern Pine #2	5-7	8-4	10-7	12-6	14-9	5-2	7-9	9-9	11-7	15-9
	Southern Pine #3	4-3	6-4	8-0	9-8	11-5	4-0	5-10	7-4	8-11	10-7
24	Southern Pine SS	6-0	9-5	12-5	15-10	19-3	6-0	9-5	12-5	15-2	17-10
	Southern Pine #1	5-9	8-8	11-0	12-10	15-3	5-5	8-0	10-2	11-11	14-1
	Southern Pine #2	5-0	7-5	9-5	11-3	13-2	4-7	6-11	8-9	10-5	12-3
	Southern Pine #3	3-10	5-8	7-1	8-8	10-3	3-6	5-3	6-7	8-0	9-6

# Regulations

74. Change the indicated rows of Table R802.5.1(7) to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 psf					Dead Load = 20 psf				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans <sup>a</sup>									
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	7-5	11-8	15-4	19-7	23-7	7-5	11-8	15-4	18-10	22-3
	Southern Pine #1	7-1	10-7	13-5	15-9	18-8	6-9	10-0	12-8	14-10	17-7
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-9	8-7	10-11	12-11	15-3
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-5	6-6	8-3	10-0	11-10
16	Southern Pine SS	6-9	10-7	14-0	17-4	20-5	6-9	10-7	13-9	16-4	19-3
	Southern Pine #1	6-2	9-2	11-8	13-8	16-2	5-10	8-8	11-0	12-10	15-3
	Southern Pine #2	5-3	7-11	10-0	11-11	14-0	5-0	7-5	9-5	11-3	13-2
	Southern Pine #3	4-1	6-0	7-7	9-2	10-10	3-10	5-8	7-1	8-8	10-3
19.2	Southern Pine SS	6-4	10-0	13-2	15-10	18-8	6-4	9-10	12-6	14-11	17-7
	Southern Pine #1	5-8	8-5	10-8	12-5	14-9	5-4	7-11	10-0	11-9	13-11
	Southern Pine #2	4-10	7-3	9-2	10-10	12-9	4-6	6-10	8-8	10-3	12-1
	Southern Pine #3	3-8	5-6	6-11	8-4	9-11	3-6	5-2	6-6	7-11	9-4
24	Southern Pine SS	5-11	9-3	11-11	14-2	16-8	5-11	8-10	11-2	13-4	15-9
	Southern Pine #1	5-0	7-6	9-6	11-1	13-2	4-9	7-1	9-0	10-6	12-5
	Southern Pine #2	4-4	6-5	8-2	9-9	11-5	4-1	6-1	7-9	9-2	10-9
	Southern Pine #3	3-4	4-11	6-2	7-6	8-10	3-1	4-7	5-10	7-1	8-4

75. Change the indicated rows of Table R802.5.1(8) to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 psf					Dead Load = 20 psf				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans <sup>#</sup>									
		(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)	(feet-inches)
12	Southern Pine SS	6-9	10-7	14-0	17-10	21-8	6-9	10-7	14-0	17-10	21-8
	Southern Pine #1	6-6	10-2	13-5	15-9	18-8	6-6	10-0	12-8	14-10	17-7
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-9	8-7	10-11	12-11	15-3
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-5	6-6	8-3	10-0	11-10
16	Southern Pine SS	6-1	9-7	12-8	16-2	19-8	6-1	9-7	12-8	16-2	19-3
	Southern Pine #1	5-11	9-2	11-8	13-8	16-2	5-10	8-8	11-0	12-10	15-3
	Southern Pine #2	5-3	7-11	10-0	11-11	14-0	5-0	7-5	9-5	11-3	13-2
	Southern Pine #3	4-1	6-0	7-7	9-2	10-10	3-10	5-8	7-1	8-8	10-3
19.2	Southern Pine SS	5-9	9-1	11-11	15-3	18-6	5-9	9-1	11-11	14-11	17-7
	Southern Pine #1	5-6	8-5	10-8	12-5	14-9	5-4	7-11	10-0	11-9	13-11
	Southern Pine #2	4-10	7-3	9-2	10-10	12-9	4-6	6-10	8-8	10-3	12-1
	Southern Pine #3	3-8	5-6	6-11	8-4	9-11	3-6	5-2	6-6	7-11	9-4
24	Southern Pine SS	5-4	8-5	11-1	14-2	16-8	5-4	8-5	11-1	13-4	15-9
	Southern Pine #1	5-0	7-6	9-6	11-1	13-2	4-9	7-1	9-0	10-6	12-5
	Southern Pine #2	4-4	6-5	8-2	9-9	11-5	4-1	6-1	7-9	9-2	10-9
	Southern Pine #3	3-4	4-11	6-2	7-6	8-10	3-1	4-7	5-10	7-1	8-4

[ 61. Change Sections R802.5 and R802.5.1 to read:

R802.5 Ceiling joists. Ceiling joists shall be continuous across the structure or securely joined where they meet over interior partitions in accordance with Table R802.5.2.

R802.5.1 Ceiling joist size. Ceiling joists shall be sized based on the joist spans in Tables R802.4(1) and R802.4(2). For other grades and species and for other loading conditions, refer to the AWC STJR.

62. Delete Figure R802.5.1 and change the title of Table R802.5.1(9) to Table R802.5.2.

63. Add Section R802.5.2 to read:

R802.5.2 Ceiling joist and rafter connections. Where ceiling joists run parallel to rafters, they shall be connected to rafters at the top wall plate in accordance with Table R802.5.2. Where ceiling joists are not connected to the rafters at the top wall plate, they shall be installed in the bottom third of the rafter height in



# Regulations

accordance with Figure R802.4.5 and Table R802.5.2. Where the ceiling joists are installed above the bottom third of the rafter height, the ridge shall be designed as a beam. Where ceiling joists do not run parallel to rafters, the ceiling joists shall be connected to top plates in accordance with Table R602.3(1). Each rafter shall be tied across the structure with a rafter tie or a 2-inch by 4-inch (51 mm x 102 mm) kicker connected to the ceiling diaphragm with nails equivalent in capacity to Table R802.5.2.

64. Add Sections R802.5.2.1 through R802.5.2.3 to read:

R802.5.2.1 Ceiling joists lapped. Ends of ceiling joists shall be lapped a minimum of 3 inches (76 mm) or butted over bearing partitions or beams and toenailed to the bearing member. Where ceiling joists are used to provide resistance to rafter thrust, lapped joists shall be nailed together in accordance with Table R802.5.2, and butted joists shall be tied together in a manner to resist such thrust. Joists that do not resist thrust shall be permitted to be nailed in accordance with Table R602.3(1). Wood structural panel roof sheathing, in accordance with Table R503.2.1.1(1), shall not cantilever more than 9 inches (229 mm) beyond the gable endwall unless supported by gable overhang framing.

R802.5.2.2 Rafter ties. Wood rafter ties shall be not less than 2 inches by 4 inches (51 mm by 102 mm) installed in accordance with Table R802.5.2 at each rafter. Other approved rafter tie methods shall be permitted.

R802.5.2.3 Blocking. Blocking shall be not less than utility grade lumber. ]

76. Change Section R807.1 to read:

~~R807.1 Attic access. Buildings with combustible ceiling or roof construction shall have an attic access opening to attic areas 30 square feet (2.8 m<sup>2</sup>) or larger having a vertical height of not less than 30 inches (762 mm). The vertical height shall be measured from the top of the ceiling framing members to the underside of the roof framing members.~~

The rough framed opening shall not be less than 22 inches by 30 inches (559 mm by 762 mm) and shall be located in a hallway or other readily accessible location. When located in a wall, the opening shall be a minimum of 22 inches wide by 30 inches high (559 mm wide by 762 mm high). When the access is located in a ceiling, minimum unobstructed headroom in the attic space shall be 30 inches (762 mm) at some point above the access measured vertically from the bottom of ceiling framing members. See Section M1305.1.3 for access requirements where mechanical equipment is located in attics.

77. [ ~~49, 65.~~ ] Delete Section R905.2.8.5.

78. [ ~~50, 66.~~ ] Change Section R1001.8 to read:

R1001.8 Smoke chamber. Smoke chamber walls shall be constructed of solid masonry units, hollow masonry units grouted solid, stone, or concrete. The total minimum thickness of front, back, and side walls shall be 8 inches (203 mm) of solid masonry. When the inside surface of the smoke chamber is formed by corbelled masonry, the inside surface shall be parged smooth. When a lining of firebrick at least 2 inches (51 mm) thick, or a lining of vitrified clay at least 5/8 inch (16 mm) thick, is provided, the total minimum thickness of front, back, and side walls shall be 6 inches (152 mm) of solid masonry, including the lining. Firebrick shall conform to ASTM C 1261 and shall be laid with medium duty refractory mortar conforming to ASTM C 199. Vitrified clay linings shall conform to ASTM C 315.

[ 67. Change Section N1101.13 (R401.2) to read:

N1101.13 (R401.2) Compliance. Projects shall comply with all provisions of Chapter 11 labeled "Mandatory" and one of the following:

1. Sections N1101.14 through N1104.

2. Section N1105.

3. Section N1106.

4. The most recent version of REScheck, keyed to the 2015 IECC.

Note: See REScheck compliance guidance issued by DHCD, available at the Department's website. ]

79. [ ~~51, 68.~~ ] Delete Section ~~N1101.16~~ N1101.14 (R401.3).

80. [ ~~52, 69.~~ ] Change the ceiling R-value and wood frame wall R-value categories for climate zone "4 except Marine" in Table ~~N1102.1.1 (R402.1.1)~~ N1102.1.2 (R402.1.2) to read:

Ceiling R-Value	Wood Frame Wall R-Value
38	15 or 13 + 1 <sup>h</sup>

81. [ ~~53, 70.~~ ] Change the ceiling U-factor and frame wall U-factor categories for climate zone "4 except Marine" in Table ~~N1102.1.3 (R402.1.3)~~ N1102.1.4 (R402.1.4) to read:

Ceiling U-Factor	Frame Wall U-Factor
0.030	0.079

82. [ ~~54~~, 71. ] Change Sections N1102.2.1 (R402.2.1) and Section N1102.2.4 (R402.2.4) to read:

~~N1102.2.1 (R402.2.1) Ceilings with attic spaces. When Section N1102.1.1 would require R 38 in the ceiling, installing R 30 over 100% of the ceiling area shall be deemed to satisfy the requirement for R 38 wherever the full height of uncompressed R 30 insulation extends over the wall top plate at the eaves. Similarly, when Section N1102.1.1 would require R 49 in the ceiling, installing R 38 over 100% of the ceiling area shall be deemed to satisfy the requirement for R 49 wherever the full height of uncompressed R 38 insulation extends over the wall top plate at the eaves. This reduction shall not apply to the U factor alternative approach in Section N1102.1.3 and the total UA alternative in Section N1102.1.4.~~

N1102.2.4 (R402.2.4) Access hatches and doors. Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weatherstripped and insulated in accordance with the following values:

1. Hinged vertical doors shall have a minimum overall R-5 insulation value;
2. Hatches and scuttle hole covers shall be insulated to a level equivalent to the insulation on the surrounding surfaces; and
3. Pull down stairs shall have a minimum of 75% of the panel area having R-5 rigid insulation.

Access shall be provided to all equipment that prevents damaging or compressing the insulation. A wood framed or equivalent baffle or retainer is required to be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the attic access is opened, and to provide a permanent means of maintaining the installed R-value of the loose fill insulation.

83. ~~Delete Section N1102.3.6 (R402.3.6) and change [ 55-72. ]~~ Change Sections N1102.4 (R402.4) and N1102.4.1.1 (R402.4.1.1) to read:

N1102.4 (R402.4) Air leakage. The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections N1102.4.1 through N1102.4.4.

N1102.4.1.1 (R402.4.1.1) Installation (Mandatory). The components of the building thermal envelope as listed in Table N1102.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table N1102.4.1.1, as applicable to the method of construction. Where required by the code official, an approved third party shall inspect all components and verify compliance.

84. [ ~~56~~, 73. ] Change the title of the "Criteria" "Insulation Installation Criteria" category of Table N1102.4.1.1 (R402.4.1.1); change the "Walls," "Shower/tub on exterior wall," and "Fireplace" categories category of Table N1102.4.1.1 (R402.4.1.1), and add footnotes "b" and "c" to Table N1102.4.1.1 (R402.4.1.1) to read:

Component	Criteria <sup>a,b</sup>
Walls	<p>Cavities within corners and headers shall be insulated by completely filling the cavity with a material having a minimum thermal resistance of R 3 per inch.</p> <p>The junction of the foundation and sill plate shall be sealed.</p> <p>The junction of the top plate and top of exterior walls shall be sealed.</p> <p>Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.</p> <p>Knee walls shall be sealed.</p>
Shower/tub on exterior wall <sup>c</sup>	<p>Exterior walls adjacent to showers and tubs shall be insulated, and an air barrier shall be installed on the interior side of the exterior wall, adjacent to the shower or tub.</p>
Fireplace	<p>An air barrier shall be installed on fireplace walls. Fireplaces shall have gasketed doors or tight fitting flue dampers.</p>
<p>b. Structural integrity of headers shall be in accordance with the applicable building code.</p> <p>c. Air barriers used behind showers and tubs on exterior walls shall be of a permeable material that does not cause the entrapment of moisture in the stud cavity.</p>	

# Regulations

<u>Component</u>	<u>Air Barrier Criteria</u>	<u>Insulation Installation Criteria<sup>b</sup></u>
<u>Shower/tub on exterior wall<sup>c</sup></u>	<u>The air barrier installed at exterior walls adjacent to showers and tubs shall be installed on the interior side and separate the exterior walls from the showers and tubs.</u>	<u>Exterior walls adjacent to showers and tubs shall be insulated.</u>
<p><u>b. Structural integrity of headers shall be in accordance with the applicable building code.</u></p> <p><u>c. Air barriers used behind showers and tubs on exterior walls shall be of a permeable material that does not cause the entrapment of moisture in the stud cavity.</u></p>		

~~85.~~ [ ~~57, 74.~~ ] Change Section N1102.4.1.2 (R402.4.1.2) and add Sections N1102.4.1.2.1 (R402.4.1.2.1), N1102.4.1.2.2 (R402.4.1.2.2), and N1102.4.1.3 (R402.4.1.3) to read:

N1102.4.1.2 (R402.4.1.2) Air sealing. Building envelope air tightness shall be demonstrated to comply with either Section N1102.4.1.2.1 or N1102.4.1.2.2.

N1102.4.1.2.1 (R402.4.1.2.1) Testing option. The building or dwelling unit shall be tested for air leakage. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pa). Where required by the building official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the building official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

During testing:

1. Exterior windows and doors and fireplace and stove doors shall be closed, but not sealed beyond the intended weatherstripping or other infiltration control measures;
2. Dampers, including exhaust, intake, makeup air, backdraft, and flue dampers shall be closed, but not sealed beyond intended infiltration control measures;
3. Interior doors, if installed at the time of the test, shall be open;
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;

5. Heating and cooling systems, if installed at the time of the test, shall be turned off; and

6. Supply and return registers, if installed at the time of the test, shall be fully open.

N1102.4.1.2.2 (R402.4.1.2.2) Visual inspection option. Building envelope tightness shall be considered acceptable when the items listed in Table N1102.4.1.1, applicable to the method of construction, are field verified. Where required by the building official, an approved party, independent from the installer, shall inspect the air barrier. When this option is chosen, whole-house mechanical ventilation shall be provided in accordance with Section M1507.3.

N1102.4.1.3 (R402.4.1.3) Leakage rate (Prescriptive). The building or dwelling unit shall have an air leakage rate less than 5 changes per hour as verified in accordance with Section N1102.4.1.2.

~~86.~~ Change Section N1103.1.1 (R403.1.1) to read:

~~N1103.1.1 (R403.1.1) Programmable thermostat. The thermostat controlling the primary heating or cooling system of the dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. This thermostat shall include the capability to set back or temporarily operate the system to maintain zone temperatures down to 55°F (13°C) or up to 85°F (29°C). The thermostat shall initially be programmed with a heating temperature set point no higher than 70°F (21°C) and a cooling temperature set point no lower than 78°F (26°C).~~

~~87.~~ [ ~~58.~~ Change Section ] N1103.2.2 (R403.2.2) [ ~~N1103.3.2 (R403.3.2)~~ to read: ]

~~N1103.2.2 (R403.2.2) [ N1103.3.2 (R403.3.2) Sealing (Mandatory). Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with either the International Mechanical Code or Section M1601.4.1 of this code, as applicable. Verification of compliance with this section shall be in accordance with either ] Section N1103.2.2.1 [ Sections N1103.3.3 and N1103.3.4 when the testing option is chosen or ] N1103.2.2.2 [ N1103.3.4 when the visual inspection option is chosen.~~

Exceptions:

- ~~1. Air impermeable spray foam products shall be permitted to be applied without additional joint seals. ]~~
- ~~2. Where a duct connection is made that is partially inaccessible, three screws or rivets shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.~~
- ~~3. Continuously welded and locking type longitudinal joints and seams in ducts operating at [ 2. For ducts~~

~~having a static ] pressures [ pressure of less than 2 inches of water column (500 Pa) ] pressure classification shall not require [ ] additional closure systems shall not be required for continuously welded joints and seams and locking type joints and seams of other than the snap lock and button lock types.~~

75. Change Section N1103.3.3 (R403.3.3) to read:

N1103.3.3 (R403.3.3) Duct testing (Mandatory). Ducts shall be pressure tested to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. All registers shall be taped or otherwise sealed during the test.

2. Postconstruction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.

Exception: A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.

A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. The licensed mechanical contractor installing the mechanical system shall be permitted to perform the duct testing. The contractor shall have been trained on the equipment used to perform the test. ]

88. [ ~~59.~~ Change Section ] N1103.2.2.1 (R403.2.2.1) [ ~~N1103.3.5 (R403.3.5)~~ to read: ]

~~N1103.2.2.1 (R403.2.2.1) Testing option. Duct tightness shall be verified by either of the following:~~

~~1. Post construction test: Total leakage shall be less than or equal to 6 cfm (169.9 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.~~

~~2. Rough in test: Total leakage shall be less than or equal to 5 cfm (141.5 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 5 cfm (141.5 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area.~~

~~Exception: The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope.~~

~~When this option is chosen, testing shall be performed by approved qualified individuals, testing agencies or contractors. Testing and results shall be as prescribed in Section N1103.2.2 and approved recognized industry standards.~~

89. Add Section N1103.2.2.2 (R403.2.2.2) to read:

~~N1103.2.2.2 (R403.2.2.2) [ ~~N1103.3.5 (R403.3.5)~~ Visual inspection option. In addition to the inspection of ducts otherwise required by this code, when the air handler and all ducts are not within conditioned space and this option is chosen to verify duct tightness, duct tightness shall be considered acceptable when the requirements of Section N1103.2.2 ~~N1103.3.2~~ are field verified. ]~~

90. [ ~~60.~~ Add Section ] N1103.2.2.3 (R403.2.2.3) [ ~~N1103.3.6 (R403.3.6)~~ to read: ]

~~N1103.2.2.3 (R403.2.2.1) Sealed air handler. Air handlers shall have a manufacturer's designation for an air leakage of no more than 2.0% of the design air flow rate when tested in accordance with ASHRAE 193.~~

91. Change Section N1103.4.2 (R403.4.2) to read:

~~N1103.4.2 (R403.4.2) Hot water pipe insulation (Prescriptive). Insulation for hot water pipe with a minimum thermal resistance (R value) of R-3 shall be applied to the following:~~

- ~~1. Piping larger than 3/4 inch nominal diameter.~~
- ~~2. Piping serving more than one dwelling unit.~~
- ~~3. Piping located outside the conditioned space.~~
- ~~4. Piping from the water heater to a distribution manifold.~~
- ~~5. Piping located under a floor slab.~~
- ~~6. Buried piping.~~
- ~~7. Supply and return piping in recirculation systems other than demand recirculation systems.~~

92. Delete Table N1103.4.2 (R403.4.2).

~~[ ~~N1103.3.6 (R403.3.6)~~ Building cavities (mandatory). Building framing cavities shall not be used as ducts or plenums. ]~~

93. [ ~~61.~~ 76. ] Change Section N1103.6 (R403.6) N1103.7 (R403.7) to read:

~~N1103.6 (R403.6) N1103.7 (R403.7) Equipment and appliance sizing. Heating and cooling equipment and appliances shall be sized in accordance with ACCA Manual S or other approved sizing methodologies based~~

# Regulations

on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies.

Exception: Heating and cooling equipment and appliance sizing shall not be limited to the capacities determined in accordance with Manual S or other approved sizing methodologies where any of the following conditions apply:

1. The specified equipment or appliance utilizes multi-stage technology or variable refrigerant flow technology and the loads calculated in accordance with the approved heating and cooling methodology fall within the range of the manufacturer's published capacities for that equipment or appliance.
2. The specified equipment or appliance manufacturer's published capacities cannot satisfy both the total and sensible heat gains calculated in accordance with the approved heating and cooling methodology and the next larger standard size unit is specified.
3. The specified equipment or appliance is the lowest capacity unit available from the specified manufacturer.

94. Change Section N1104.1 (R404.1) to read:

N1104.1 (R404.1) Lighting equipment (Mandatory). A minimum of 50% of the lamps in permanently installed luminaires shall be high efficacy lamps, or a minimum of 50% of the permanently installed luminaires shall contain only high efficacy lamps.

Exception: Low voltage lighting shall not be required to utilize high efficiency lamps.

95. [ ~~62. Change the~~ ] "Glazing" [ "~~Vertical fenestration other than opaque doors~~" and "Air exchange rate" categories of Table N1105.5.2(1) (Table R405.5.2(1)) to read:

Building Component	Standard Reference Design	Proposed Design ]
Glazing* [ <del>Vertical fenestration other than opaque doors</del>	Total area <sup>b</sup> is 15% of the conditioned floor area.	As proposed ]
Glazing* [ <del>Vertical fenestration other than opaque doors</del>	Orientation: equally distributed to four cardinal compass orientations (North, East, South & West).	As proposed ]

Glazing* [ <del>Vertical fenestration other than opaque doors</del>	U factor: from Table ] N1102.1.3 (R402.1.3) [ <del>N1102.1.4.</del>	As proposed ]
Glazing* [ <del>Vertical fenestration other than opaque doors</del>	SHGC: From Table ] N1102.1.1 (R402.1.1) [ <del>N1102.1.2</del> except that for climates with no requirement (NR) SHGC = 0.40 shall be used.	As proposed ]
Glazing* [ <del>Vertical fenestration other than opaque doors</del>	Interior shade fraction: 0.92 (0.21 x SHGC for the standard reference design).	0.92 (0.21 x SHGC as proposed) ]
Glazing* [ <del>Vertical fenestration other than opaque doors</del>	External shading: none.	As proposed
Air exchange rate	Air leakage rate of 5 air changes per hour at a pressure of 0.2 inches w.g (50 Pa). The mechanical ventilation rate shall be in addition to the air leakage rate and the same as in the proposed design, but no greater than $0.01 \times CFA + 7.5 \times (N_{br} + 1)$ where: CFA = conditioned floor area N <sub>br</sub> = number of bedrooms Energy recovery shall not be assumed for mechanical ventilation.	For residences that are not tested, the same air leakage rate as the standard reference design. For tested residences, the measured air exchange rate <sup>c-d</sup> . The mechanical ventilation rate <sup>d</sup> shall be in addition to the air leakage rate and shall be as proposed.

a. Where required by the code official, testing shall be conducted by an approved party. Hourly calculations as specified in the ASHRAE Handbook of Fundamentals, or the equivalent shall be used to determine the energy loads resulting from infiltration.

b. The combined air exchange rate for infiltration and mechanical ventilation shall be determined in accordance with Equation 43 of 2001 ASHRAE Handbook of Fundamentals, page 26.24 and the "Whole house Ventilation" provisions of 2001 ASHRAE Handbook of Fundamentals, page 26.19 for intermittent mechanical ventilation.

77. Change Table N1106.4 (R406.4) to read:

Table N1106.4 (R406.4)	
Maximum Energy Rating Index <sup>a</sup>	
Climate Zone	Energy Rating Index
1	52
2	52
3	51
4	62
5	55
6	54
7	53
8	53

a. When onsite renewable energy is included for compliance using the ERI analysis per Section N1106.4 (R406.4), the building shall meet the mandatory requirements of Section N1106.2 (R406.2) and the building thermal envelope shall be greater than or equal to levels of energy efficiency and solar heat gain coefficient in Table N1102.1.2 (R402.1.2), with a ceiling R-value of 49 and a wood frame wall R-value of 20 or 13+5, or Table N1102.1.4 (R402.1.4), with a ceiling U-factor of 0.026 and a frame wall U-factor of 0.060.

~~63~~. 78. ] Delete Section N1109.1.1.1 (R503.1.1.1).

96. [ ~~64~~. 79. ] Change Section M1401.3 to read:

M1401.3 Equipment and appliance sizing. Heating and cooling equipment and appliances shall be sized in accordance with ACCA Manual S or other approved sizing methodologies based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies.

Exception: Heating and cooling equipment and appliance sizing shall not be limited to the capacities determined in accordance with Manual S or other approved sizing

methodologies where any of the following conditions apply:

1. The specified equipment or appliance utilizes multi-stage technology or variable refrigerant flow technology and the loads calculated in accordance with the approved heating and cooling methodology fall within the range of the manufacturer's published capacities for that equipment or appliance.

2. The specified equipment or appliance manufacturer's published capacities cannot satisfy both the total and sensible heat gains calculated in accordance with the approved heating and cooling methodology, and the next larger standard size unit is specified.

3. The specified equipment or appliance is the lowest capacity unit available from the specified manufacturer.

97. [ ~~65~~. 80. ] Add Section M1501.2 to read:

M1501.2 Transfer air. Air transferred from occupiable spaces other than kitchens, baths, and toilet rooms shall not be prohibited from serving as makeup air for exhaust systems. Transfer openings between spaces shall be of the same cross-sectional area as the free area of the makeup air openings. Where louvers and grilles are installed, the required size of openings shall be based on the net free area of each opening. Where the design and free area of louvers and grilles are not known, it shall be assumed that wood louvers will have 25% free area and metal louvers and grilles will have 75% free area.

[ ~~66~~. 81. ] Change Section M1502.4.2 to read:

M1502.4.2 Duct installation. Exhaust ducts shall be supported at 4-foot (1219 mm) intervals and shall be secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners that protrude into the inside of the duct.

98. [ ~~67~~. 82. ] Change Section M1503.4 and add Section M1503.4.4 to read:

M1503.4 Makeup air required. Exhaust hood systems capable of exhausting more than 400 cubic feet per minute (0.19 m<sup>3</sup>/s) shall be provided with makeup air at a rate approximately equal to the exhaust air rate in excess of 400 cubic feet per minute (0.19 m<sup>3</sup>/s). Such makeup air systems shall be equipped with a means of closure and shall be automatically controlled to start and operate simultaneously with the exhaust system.

Exception: Intentional openings for makeup air are not required for kitchen exhaust systems capable of exhausting not greater than 600 cubic feet per minute (0.28 m<sup>3</sup>/s) provided that one of the following conditions is met:

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# Regulations

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1. Where the floor area within the air barrier of a dwelling unit is at least 1500 square feet (139.35 m<sup>2</sup>), and where natural draft or mechanical draft space-heating or water-heating appliances are not located within the air barrier.

2. Where the floor area within the air barrier of a dwelling unit is at least 3000 square feet (278.71 m<sup>2</sup>), and where natural draft space-heating or water-heating appliances are not located within the air barrier.

~~M1503.4.1 Location. Kitchen exhaust makeup air shall be provided in the same room as the exhaust system or in a room or duct system communicating through one or more permanent openings with the room in which such exhaust system is located. Permanent openings shall be at least of the same net cross-sectional area as the required area of the makeup air openings.~~

~~99.~~ [ ~~68.~~ 83. ] Add Section M1801.1.1 to read:

M1801.1.1 Equipment changes. Upon the replacement or new installation of any fuel-burning appliances or equipment in existing buildings, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:

1. Vent or chimney systems are sized in accordance with this code.
2. Vent or chimney systems are clean, free of any obstruction or blockages, defects or deterioration and are in operable condition.

Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.

[ ~~69.~~ 84. ] Change Sections G2411.1 and G2411.1.1 to read:

G2411.1 Pipe and tubing. Each above-group portion of a gas piping system that is likely to become energized shall be electrically continuous and bonded to an effective ground-fault current path. Gas piping shall be considered to be bonded where it is connected to appliances that are connected to the equipment grounding conductor of the circuit supplying that appliance. Corrugated stainless steel tubing (CSST) piping systems listed with an arc resistant jacket or coating system in accordance with ANSI LC 1/CSA 6.26 shall comply with this section. Where any CSST segments of a piping system are not listed with an arc resistant jacket or coating system in accordance with ANSI LC 1/CSA 6.26, Section G2411.1.1 shall apply.

G2411.1.1 CSST without arc resistant jacket or coating system. CSST gas piping systems and piping systems

containing one or more segments of CSST not listed with an arc resistant jacket or coating system in accordance with ANSI LC 1/CSA 6.26 shall be bonded to the electrical service grounding electrode system or, where provided, the lightning protection electrode system and shall comply with Sections G2411.1.1.1 through G2411.1.1.5.

~~100.~~ [ ~~70.~~ 85. ] Add Section G2425.1.1 to read:

G2425.1.1 Equipment changes. Upon the replacement or new installation of any fuel-burning appliances or equipment in existing buildings, an inspection or inspections shall be conducted to ensure that the connected vent or chimney systems comply with the following:

1. Vent or chimney systems are sized in accordance with this code.
2. Vent or chimney systems are clean, free of any obstruction or blockages, defects, or deterioration and are in operable condition.

Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.

[ ~~71.~~ 86. ] Change Section G2439.7.2 to read:

G2439.7.2 Duct installation. Exhaust ducts shall be supported at 4-foot (1219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners that protrude into the inside of the duct.

~~101.~~ [ ~~72.~~ 87. ] Change Section P2601.2 to read:

P2601.2 Connections. Plumbing fixtures, drains and appliances used to receive or discharge liquid wastes or sewage shall be directly connected to the sanitary drainage system of the building or premises, in accordance with the requirements of this code. This section shall not be construed to prevent indirect waste systems.

Exception: Bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to discharge to the sanitary drainage system where such fixtures discharge to an approved nonpotable gray water system in accordance with the applicable provisions of Sections ~~P2909~~, P2910, ~~and P2911~~, and P2912.

~~102.~~ [ ~~73.~~ 88. ] Change Section P2602.1 to read:

P2602.1 General. The water and drainage system of any building or premises where plumbing fixtures are installed shall be connected to a public or private water supply and a public or private sewer system. As provided

for in Section [ ~~403.10~~ 103.5 ] of Part I of the Virginia Uniform Statewide Building Code (13VAC5-63) for functional design, water supply sources and sewage disposal systems are regulated and approved by the Virginia Department of Health and the Virginia Department of Environmental Quality.

Note: See also the Memorandums of Agreement in the "Related Laws Package," which is available from the Virginia Department of Housing and Community Development.

[ ~~74. 89.~~ ] Add Section P2602.3 to read:

P2602.3 Tracer wire. Nonmetallic water service piping that connects to public systems shall be locatable. An insulated copper tracer wire, 18 AWG minimum in size and suitable for direct burial or an equivalent product, shall be utilized. The wire shall be installed in the same trench as the water service piping and within 12 inches (305 mm) of the pipe and shall be installed to within five feet (1524 mm) of the building wall to the point where the building water service pipe intersects with the public water supply. At a minimum, one end of the wire shall terminate above grade to provide access to the wire in a location that is resistant to physical damage, such as with a meter vault or at the building wall.

~~403.~~ [ ~~75. 90.~~ ] Add Section P2901.1.1 to read:

P2901.1.1 Nonpotable fixtures and outlets. Nonpotable water shall be permitted to serve nonpotable type fixtures and outlets in accordance with the applicable provisions of Sections ~~P2909~~, P2910, ~~and P2911~~, and P2912.

~~404.~~ [ ~~76. 91.~~ ] Change Section P2903.5 to read:

P2903.5 Water hammer. The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A water-hammer arrestor shall be installed where quick-closing valves are utilized, unless otherwise approved. Water hammer arrestors shall be installed in accordance with manufacturer's specifications. Water hammer arrestors shall conform to ASSE 1010.

~~405.~~ Add Section ~~P3002.2.1~~ to read as follows and delete Section ~~P3009~~ in its entirety:

~~P3002.2.1 Tracer wire. Nonmetallic sanitary sewer piping that discharges to public systems shall be locatable. An insulated copper tracer wire, 18 AWG minimum in size and suitable for direct burial or an equivalent product, shall be utilized. The wire shall be installed in the same trench as the sewer within 12 inches (305 mm) of the pipe and shall be installed from within five feet of the building wall to the point where the building sewer intersects with the public system. At a minimum, one end of the wire shall terminate above~~

~~grade in an accessible location that is resistant to physical damage, such as with a cleanout or at the building wall.~~

~~406.~~ Add an exception to Section ~~P3301.1~~ to read:

~~Exception: Rainwater nonpotable water systems shall be permitted in accordance with the applicable provisions of Sections ~~P2909~~ and ~~2911~~.~~

~~407.~~ Add Section ~~P2909~~ Nonpotable Water Systems.

~~408.~~ Add [ ~~77. 92.~~ ] Change Sections ~~P2909.1~~ P2910.1 through ~~P2909.18~~ P2910.14, including subsections, to read:

~~P2909.1~~ P2910.1 Scope. The provisions of this section shall govern the materials, design, construction, and installation of nonpotable water systems subject to this code.

~~P2909.1.1~~ P2910.1.1 Design of nonpotable water systems. All portions of nonpotable water systems subject to this code shall be constructed using the same standards and requirements for the potable water systems or drainage systems as provided for in this code unless otherwise specified in this section or Section ~~P2910~~ or ~~P2911~~ or ~~P2912~~, as applicable.

~~P2909.2~~ P2910.2 Makeup water. Makeup water shall be provided for all nonpotable water supply systems. The makeup water system shall be designed and installed to provide supply of water in the amounts and at the pressures specified in this code. The makeup water supply shall be potable and be protected against backflow in accordance with the applicable requirements of Section P2902.

~~P2909.2.1~~ P2910.2.1 Makeup water sources. Nonpotable water shall be permitted to serve as makeup water for gray water and rainwater systems.

~~P2909.2.2~~ P2910.2.2 Makeup water supply valve. A full-open valve shall be provided on the makeup water supply line.

~~P2909.2.3~~ P2910.2.3 Control valve alarm. Makeup water systems shall be fitted with a warning mechanism that alerts the user to a failure of the inlet control valve to close correctly. The alarm shall activate before the water within the storage tank begins to discharge into the overflow system.

~~P2909.3~~ P2910.3 Sizing. Nonpotable water distribution systems shall be designed and sized for peak demand in accordance with approved engineering practice methods that comply with the applicable provisions of this chapter.

~~P2909.4~~ P2910.4 Signage required. All nonpotable water outlets, other than water closets and urinals, such as hose connections, open ended pipes, and faucets shall be



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# Regulations

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identified at the point of use for each outlet with signage that reads as follows: "Nonpotable water is utilized for (insert application name). Caution: nonpotable water. DO NOT DRINK." The words shall be legibly and indelibly printed on a tag or sign constructed of corrosion-resistant waterproof material or shall be indelibly printed on the fixture. The letters of the words shall be not less than 0.5 inches (12.7 mm) in height and in colors in contrast to the background on which they are applied. The pictograph shown in Figure ~~P2909.4~~ P2910.4 shall appear on the signage required by this section.

Editor's Note: Figure P2909.4 is being deleted and Figure P2910.4 is being added in this action.



~~P2909.5~~ P2910.5 Potable water supply system connections. Where a potable water supply system is connected to a nonpotable water system, the potable water supply shall be protected against backflow in accordance with the applicable provisions of Section P2902.

~~P2909.6~~ P2910.6 Nonpotable water system connections. Where a nonpotable water system is connected and supplies water to another nonpotable water system, the nonpotable water system that supplies water shall be protected against backflow in accordance with the applicable provisions of Section P2902.

~~P2909.7~~ P2910.7 Approved components and materials. Piping, plumbing components, and materials used in the nonpotable water drainage and distribution systems shall be approved for the intended application and compatible with the water and any disinfection or treatment systems used.

~~P2909.8~~ P2910.8 Insect and vermin control. Nonpotable water systems shall be protected to prevent the entrance of insects and vermin into storage and piping systems. Screen materials shall be compatible with system material and shall not promote corrosion of system components.

~~P2909.9~~ P2910.9 Freeze protection. Nonpotable water systems shall be protected from freezing in accordance with the applicable provisions of Chapter 26.

~~P2909.10~~ P2910.10 Nonpotable water storage tanks. Nonpotable water storage tanks shall be approved for the intended application and comply with Sections ~~P2909.10.1~~ P2910.10.1 through ~~P2909.10.12~~ P2910.10.12.

~~P2909.10.1~~ P2910.10.1 Sizing. The holding capacity of storage tanks shall be sized for the intended use.

~~P2909.10.2~~ P2910.10.2 Inlets. Storage tank inlets shall be designed to introduce water into the tank and avoid agitating the contents of the storage tank. The water supply to storage tanks shall be controlled by fill valves or other automatic supply valves designed to stop the flow of incoming water before the tank contents reach the overflow pipes.

~~P2909.10.3~~ P2910.10.3 Outlets. Outlets shall be located at least 4 inches (102 mm) above the bottom of the storage tank and shall not skim water from the surface.

~~P2909.10.4~~ P2910.10.4 Materials and location. Storage tanks shall be constructed of material compatible with treatment systems used to treat water. Above grade storage vessels shall be constructed using opaque, UV-resistant materials such as tinted plastic, lined metal, concrete, or wood or painted to prevent algae growth. Above grade storage tanks shall be protected from direct sunlight unless their design specifically incorporates the use of the sunlight heat transfer. Wooden storage tanks shall be provided with a flexible liner. Storage tanks and their manholes shall not be located directly under soil or waste piping or sources of contamination.

~~P2909.10.5~~ P2910.10.5 Foundation and supports. Storage tanks shall be supported on a firm base capable of withstanding the storage tank's weight when filled to capacity. Storage tanks shall be supported in accordance with the applicable provisions of the IBC.

~~P2909.10.5.1~~ P2910.10.5.1 Ballast. Where the soil can become saturated, an underground storage tank shall be

ballasted, or otherwise secured, to prevent the effects of buoyancy. The combined weight of the tank and hold down ballast shall meet or exceed the buoyancy force of the tank. Where the installation requires a foundation, the foundation shall be flat and shall be designed to support the storage tank weight when full, consistent with the bearing capability of adjacent soil.

~~P2909.10.5.2~~ P2910.10.5.2 Structural support. Where installed below grade, storage tank installations shall be designed to withstand earth and surface structural loads without damage.

~~P2909.10.6~~ P2910.10.6 Overflow. The storage tank shall be equipped with an overflow pipe having a diameter not less than that shown in Table ~~P2909.10.6~~ P2910.10.6. The overflow outlet shall discharge at a point not less than 6 inches (152 mm) above the roof or roof drain, floor or floor drain, or over an open water-supplied fixture. The overflow outlet shall terminate through a check valve. Overflow pipes shall not be directed on walkways. The overflow drain shall not be equipped with a shutoff valve. A minimum of one cleanout shall be provided on each overflow pipe in accordance with the applicable provisions of Section P3005.2.

Table <del>P2909.10.6</del> <u>P2910.10.6</u> Sizes for Overflow Pipes for Water Supply Tanks	
Maximum Capacity of Water Supply Line to Tank (gpm)	Diameter of Overflow Pipe (inches)
0 - 50	2
50 - 150	2-1/2
150 - 200	3
200 - 400	4
400 - 700	5
700 - 1,000	6
Over 1,000	8
For SI: 1 inch = 25.4 mm, 1 gallon per minute = 3.785 L/m.	

~~P2909.10.7~~ P2910.10.7 Access. A minimum of one access opening shall be provided to allow inspection and cleaning of the tank interior. Access openings shall have an approved locking device or other approved method of securing access. Below grade storage tanks, located outside of the building, shall be provided with either a manhole not less than 24 inches (610 mm) square or a manhole with an inside diameter not less than 24 inches (610 mm). The design and installation of access openings shall prohibit surface water from entering the tank. Each

manhole cover shall have an approved locking device or other approved method of securing access.

Exception: Storage tanks under 800 gallons (3028 L) in volume installed below grade shall not be required to be equipped with a manhole, but shall have an access opening not less than 8 inches (203 mm) in diameter to allow inspection and cleaning of the tank interior.

~~P2909.10.8~~ P2910.10.8 Venting. Storage tanks shall be vented. Vents shall not be connected to the sanitary drainage system. Vents shall be at least equal in size to the internal diameter of the drainage inlet pipe or pipes connected to the tank. Where installed at grade, vents shall be protected from contamination by means of a U-bend installed with the opening directed downward. Vent outlets shall extend a minimum of 12 inches (304.8 mm) above grade, or as necessary to prevent surface water from entering the storage tank. Vent openings shall be protected against the entrance of vermin and insects. Vents serving gray water tanks shall terminate in accordance with the applicable provisions of Sections P3103 and ~~P2909.8~~ P2910.8.

~~P2909.10.9~~ P2910.10.9 Drain. Where drains are provided, they shall be located at the lowest point of the storage tank. The tank drain pipe shall discharge as required for overflow pipes and shall not be smaller in size than specified in Table ~~P2909.10.6~~ P2910.10.6. A minimum of one cleanout shall be provided on each drain pipe in accordance with Section P3005.2.

~~P2909.10.10~~ P2910.10.10 Labeling and signage. Each nonpotable water storage tank shall be labeled with its rated capacity and the location of the upstream bypass valve. Underground and otherwise concealed storage tanks shall be labeled at all access points. The label shall read: "CAUTION: NONPOTABLE WATER - DO NOT DRINK." Where an opening is provided that could allow the entry of personnel, the opening shall be marked with the words: "DANGER - CONFINED SPACE." Markings shall be indelibly printed on a tag or sign constructed of corrosion-resistant waterproof material mounted on the tank or shall be indelibly printed on the tank. The letters of the words shall be not less than 0.5 inches (12.7 mm) in height and shall be of a color in contrast with the background on which they are applied.

~~P2909.10.11~~ P2910.10.11 Storage tank tests. Storage tanks shall be tested in accordance with the following:

1. Storage tanks shall be filled with water to the overflow line prior to and during inspection. All seams and joints shall be left exposed and the tank shall remain water tight without leakage for a period of 24 hours.
2. After 24 hours, supplemental water shall be introduced for a period of 15 minutes to verify proper drainage of the overflow system and verify that there are no leaks.

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# Regulations

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3. Following a successful test of the overflow system, the water level in the tank shall be reduced to a level that is at 2 inches (50.8 mm) below the makeup water offset point. The tank drain shall be observed for proper operation. The makeup water system shall be observed for proper operation, and successful automatic shutoff of the system at the refill threshold shall be verified. Water shall not be drained from the overflow at any time during the refill test.

4. Air tests shall be permitted in lieu of water testing as recommended by the tank manufacturer or the tank standard.

~~P2909.10.12~~ P2910.10.12 Structural strength. Storage tanks shall meet the applicable structural strength requirements of the IBC.

~~P2909.11~~ P2910.11 Trenching requirements for nonpotable water system piping. Underground nonpotable water system piping shall be horizontally separated from the building sewer and potable water piping by 5 feet [ ~~(1524 mm)~~ (1524 mm) ] of undisturbed or compacted earth. Nonpotable water system piping shall not be located in, under, or above sewage systems cesspools, septic tanks, septic tank drainage fields, or seepage pits. Buried nonpotable water system piping shall comply with the requirements of this code for the piping material installed.

Exceptions:

1. The required separation distance shall not apply where the bottom of the nonpotable water pipe within 5 feet (1524 mm) of the sewer is equal to or greater than 12 inches (305 mm) above the top of the highest point of the sewer and the pipe materials conforms to Table P3002.2.

2. The required separation distance shall not apply where the bottom of the potable water service pipe within 5 feet (1524 mm) of the nonpotable water pipe is a minimum of 12 inches (305 mm) above the top of the highest point of the nonpotable water pipe and the pipe materials comply with the requirements of Table ~~P2905.5~~ P2906.5.

3. Nonpotable water pipe is permitted to be located in the same trench with building sewer piping, provided that such sewer piping is constructed of materials that comply with the requirements of Table P3002.1(2).

4. The required separation distance shall not apply where a nonpotable water pipe crosses a sewer pipe, provided that the pipe is sleeved to at least 5 feet (1524 mm) horizontally from the sewer pipe centerline on both sides of such crossing with pipe materials that comply with Table P3002.1(2).

5. The required separation distance shall not apply where a potable water service pipe crosses a nonpotable water pipe provided that the potable water service pipe is

sleeved for a distance of at least 5 feet (1524 mm) horizontally from the centerline of the nonpotable pipe on both sides of such crossing with pipe materials that comply with Table P3002.1(2).

~~P2909.12~~ P2910.12 Outdoor outlet access. Sillcocks, hose bibs, wall hydrants, yard hydrants, and other outdoor outlets that are supplied by nonpotable water shall be located in a locked vault or shall be operable only by means of a removable key.

~~P2909.13~~ P2910.13 Drainage and vent piping and fittings. Nonpotable drainage and vent pipe and fittings shall comply with the applicable material standards and installation requirements in accordance with provisions of Chapter 30.

~~P2909.13.1~~ P2910.13.1 Labeling and marking. Identification of nonpotable drainage and vent piping shall not be required.

~~P2909.14~~ P2910.14 Pumping and control system. Mechanical equipment, including pumps, valves, and filters, shall be accessible and removable in order to perform repair, maintenance, and cleaning. The minimum flow rate and flow pressure delivered by the pumping system shall be designed for the intended application in accordance with the applicable provisions of Section P2903.

[ ~~78~~, 93. ] Add Sections P2910.15 through P2910.18, including subsections, to read:

~~P2909.15~~ P2910.15 Water-pressure reducing valve or regulator. Where the water pressure supplied by the pumping system exceeds 80 psi (552 kPa) static, a pressure-reducing valve shall be installed to reduce the pressure in the nonpotable water distribution system piping to 80 psi (552 kPa) static or less. Pressure-reducing valves shall be specified and installed in accordance with the applicable provisions of Section P2903.3.1.

~~P2909.16~~ P2910.16 Distribution pipe. Distribution piping utilized in nonpotable water stems shall comply with Sections ~~P2909.16.1~~ P2910.16.1 through ~~P2909.16.4~~ P2910.16.4.

~~P2909.16.1~~ P2910.16.1 Materials, joints, and connections. Distribution piping and fittings shall comply with the applicable material standards and installation requirements in accordance with applicable provisions of Chapter 29.

~~P2909.16.2~~ P2910.16.2 Design. Distribution piping shall be designed and sized in accordance with the applicable provisions of Chapter 29.

~~P2909.16.3~~ P2910.16.3 Labeling and marking. Distribution piping labeling and marking shall comply with Section P2901.1.

~~P2909.16.4~~ P2910.16.4 Backflow prevention. Backflow preventers shall be installed in accordance with the applicable provisions of Section P2902.

~~P2909.17~~ P2910.17 Tests and inspections. Tests and inspections shall be performed in accordance with Sections ~~P2909.17.1~~ P2910.17.1 through ~~P2909.17.5~~ P2910.17.5.

~~P2909.17.1~~ P2910.17.1 Drainage and vent pipe test. Drain, waste, and vent piping used for gray water and rainwater nonpotable water systems shall be tested in accordance with the applicable provisions of Section P2503.

~~P2909.17.2~~ P2910.17.2 Storage tank test. Storage tanks shall be tested in accordance with the Section ~~P2909.10.11~~ P2910.10.11.

~~P2909.17.3~~ P2910.17.3 Water supply system test. Nonpotable distribution piping shall be tested in accordance with Section P2503.7.

~~P2909.17.4~~ P2910.17.4 Inspection and testing of backflow prevention assemblies. The testing of backflow preventers and backwater valves shall be conducted in accordance with Section P2503.8.

~~P2909.17.5~~ P2910.17.5 Inspection of vermin and insect protection. Inlets and vent terminations shall be visually inspected to verify that each termination is installed in accordance with Section ~~P2909.10.8~~ P2910.10.8.

~~P2909.18~~ P2910.18 Operation and maintenance manuals. Operations and maintenance materials for nonpotable water systems shall be provided as prescribed by the system component manufacturers and supplied to the owner to be kept in a readily accessible location.

409. Add [ 79, 94. ] Change the title of Section P2910.2911 to "Gray Water Nonpotable Water Systems."

410. Add [ 80, 95. ] Change Sections P2910.4 P2911.1 through P2910.6 P2911.6, including subsections, to read:

~~P2910.4~~ P2911.1 Gray water nonpotable water systems. This code is applicable to the plumbing fixtures, piping or piping systems, storage tanks, drains, appurtenances, and appliances that are part of the distribution system for gray water within buildings and to storage tanks and associated piping that are part of the distribution system for gray water outside of buildings. This code does not regulate equipment used for, or the methods of, processing, filtering, or treating gray water, which may be regulated by the Virginia Department of Health or the Virginia Department of Environmental Quality.

~~P2910.1.1~~ P2911.1.1 Separate systems. Gray water nonpotable water systems, unless approved otherwise under the permit from the Virginia Department of Health, shall be separate from the potable water system of a building with no cross connections between the two systems except as permitted by the Virginia Department of Health.

~~P2910.2~~ P2911.2 Water quality. Each application of gray water reuse shall meet the minimum water quality requirements set forth in Sections ~~P2910.2.1~~ P2911.2.1 through ~~P2910.2.4~~ P2911.2.4 unless otherwise superseded by other state agencies.

~~P2910.2.1~~ P2911.2.1 Disinfection. Where the intended use or reuse application for nonpotable water requires disinfection or other treatment or both, it shall be disinfected as needed to ensure that the required water quality is delivered at the point of use or reuse.

~~P2910.2.2~~ P2911.2.2 Residual disinfectants. Where chlorine is used for disinfection, the nonpotable water shall contain not more than 4 parts per million (4 mg/L) of free chlorine, combined chlorine, or total chlorine. Where ozone is used for disinfection, the nonpotable water shall not exceed 0.1 parts per million (by volume) of ozone at the point of use.

~~P2910.2.3~~ P2911.2.3 Filtration. Water collected for reuse shall be filtered as required for the intended end use. Filters shall be accessible for inspection and maintenance. Filters shall utilize a pressure gauge or other approved method to indicate when a filter requires servicing or replacement. Shutoff valves installed immediately upstream and downstream of the filter shall be included to allow for isolation during maintenance.

~~P2910.2.4~~ P2911.2.4 Filtration required. Gray water utilized for water closet and urinal flushing applications shall be filtered by a 100 micron or finer filter.

~~P2910.3~~ P2911.3 Storage tanks. Storage tanks utilized in gray water nonpotable water systems shall comply with Section ~~P2909.10~~ P2910.10.

~~P2910.4~~ P2911.4 Retention time limits. Untreated gray water shall be retained in storage tanks for a maximum of 24 hours.

~~P2910.5~~ P2911.5 Tank location. Storage tanks shall be located with a minimum horizontal distance between various elements as indicated in Table ~~P2910.5.1~~ P2911.5.1.

# Regulations

Table ~~P2910.5.1~~ P2911.5.1  
Location of Nonpotable Gray Water Reuse Storage Tanks

Element	Minimum Horizontal Distance from Storage Tank (feet)
Lot line adjoining private lots	5
Sewage systems	5
Septic tanks	5
Water wells	50
Streams and lakes	50
Water service	5
Public water main	10

~~P2910.6~~ P2911.6 Valves. Valves shall be supplied on gray water nonpotable water drainage systems in accordance with Sections ~~P2910.6.1~~ P2911.6.1 and ~~P2910.6.2~~ P2911.6.2.

~~P2910.6.1~~ P2911.6.1 Bypass valve. One three-way diverter valve certified to NSF 50 or other approved device shall be installed on collection piping upstream of each storage tank, or drainfield, as applicable, to divert untreated gray water to the sanitary sewer to allow servicing and inspection of the system. Bypass valves shall be installed downstream of fixture traps and vent connections. Bypass valves shall be labeled to indicate the direction of flow, connection, and storage tank or drainfield connection. Bypass valves shall be provided with access for operation and maintenance. Two shutoff valves shall not be installed to serve as a bypass valve.

~~P2910.6.2~~ P2911.6.2 Backwater valve. Backwater valves shall be installed on each overflow and tank drain pipe to prevent unwanted water from draining back into the storage tank. If the overflow and drain piping arrangement is installed to physically not allow water to drain back into the tank, such as in the form of an air gap, backwater valves shall not be required. Backwater valves shall be constructed and installed in accordance with Section P3008.

~~11. Add [ 81, 96. ]~~ Change the title of Section P2911.2.1 to "Rainwater Nonpotable Water Systems."

~~12. Add [ 82, 97. ]~~ Change Sections P2911.1 P2912.1 through P2911.10 P2912.10, including subsections, to read:

~~P2911.1~~ P2912.1 General. The provisions of this section shall govern the design, construction, installation, alteration, and repair of rainwater nonpotable water

systems for the collection, storage, treatment, and distribution of rainwater for nonpotable applications.

~~P2911.2~~ P2912.2 Water quality. Each application of rainwater reuse shall meet the minimum water quality requirements set forth in Sections ~~P2911.2.1~~ P2912.2.1 through ~~P2911.2.4~~ P2912.2.4 unless otherwise superseded by other state agencies.

~~P2911.2.1~~ P2912.2.1 Disinfection. Where the intended use or reuse application for nonpotable water requires disinfection or other treatment or both, it shall be disinfected as needed to ensure that the required water quality is delivered at the point of use or reuse.

~~P2911.2.2~~ P2912.2.2 Residual disinfectants. Where chlorine is used for disinfection, the nonpotable water shall contain not more than 4 parts per million (4 mg/L) of free chlorine, combined chlorine, or total chlorine. Where ozone is used for disinfection, the nonpotable water shall not exceed 0.1 parts per million (by volume) of ozone at the point of use.

~~P2911.2.3~~ P2912.2.3 Filtration. Water collected for reuse shall be filtered as required for the intended end use. Filters shall be accessible for inspection and maintenance. Filters shall utilize a pressure gauge or other approved method to indicate when a filter requires servicing or replacement. Shutoff valves installed immediately upstream and downstream of the filter shall be included to allow for isolation during maintenance.

~~P2911.2.4~~ P2912.2.4 Filtration required. Rainwater utilized for water closet and urinal flushing applications shall be filtered by a 100 micron or finer filter.

~~P2911.3~~ P2912.3 Collection surface. Rainwater shall be collected only from aboveground impervious roofing surfaces constructed from approved materials. Overflow or discharge piping from appliances or equipment or both, including but not limited to evaporative coolers, water heaters, and solar water heaters shall not discharge onto rainwater collection surfaces.

~~P2911.4~~ P2912.4 Collection surface diversion. At a minimum, the first 0.04 inches (1.016 mm) of each rain event of 25 gallons (94.6 L) per 1000 square feet (92.9 m<sup>2</sup>) shall be diverted from the storage tank by automatic means and not require the operation of manually operated valves or devices. Diverted water shall not drain onto other collection surfaces that are discharging to the rainwater system or to the sanitary sewer. Such water shall be diverted from the storage tank and discharged in an approved location.

~~P2911.5~~ P2912.5 Pre-tank filtration. Downspouts, conductors, and leaders shall be connected to a pre-tank filtration device. The filtration device shall not permit materials larger than 0.015 inches (0.4 mm).

~~P2911.6~~ P2912.6 Roof gutters and downspouts. Gutters and downspouts shall be constructed of materials that are compatible with the collection surface and the rainwater quality for the desired end use. Joints shall be made watertight.

~~P2911.6.1~~ P2912.6.1 Slope. Roof gutters, leaders, and rainwater collection piping shall slope continuously toward collection inlets. Gutters and downspouts shall have a slope of not less than 1 unit in 96 units along their entire length, and shall not permit the collection or pooling of water at any point.

~~P2911.6.2~~ P2912.6.2 Size. Gutters and downspouts shall be installed and sized in accordance with local rainfall rates.

~~P2911.6.3~~ P2912.6.3 Cleanouts. Cleanouts or other approved openings shall be provided to permit access to all filters, flushes, pipes, and downspouts.

~~P2911.7~~ P2912.7 Storage tanks. Storage tanks utilized in rainwater nonpotable water systems shall comply with Section ~~P2909.10~~ P2910.10.

~~P2911.8~~ P2912.8 Location. Storage tanks shall be located with a minimum horizontal distance between various elements as indicated in Table ~~P2911.8.1~~ P2912.8.1.

Table <del>P2911.8.1</del> <u>P2912.8.1</u> Location of Rainwater Storage Tanks	
Element	Minimum Horizontal Distance from Storage Tank (feet)
Lot line adjoining private lots	5
Sewage systems	5
Septic tanks	5

~~P2911.9~~ P2912.9 Valves. Valves shall be installed in collection and conveyance drainage piping of rainwater nonpotable water systems in accordance with Sections ~~P2911.9.1~~ P2912.9.1 and ~~P2911.9.2~~ P2912.9.2.

~~P2911.9.1~~ P2912.9.1 Influent diversion. A means shall be provided to divert storage tank influent to allow maintenance and repair of the storage tank system.

~~P2911.9.2~~ P2912.9.2 Backwater valve. Backwater valves shall be installed on each overflow and tank drain pipe to prevent unwanted water from draining back into the storage tank. If the overflow and drain piping arrangement is installed to physically not allow water to drain back into the tank, such as in the form of an air gap, backwater valves shall not be required. Backwater valves shall be constructed and installed in accordance with Section P3008.

~~P2911.10~~ P2912.10 Tests and inspections. Tests and inspections shall be performed in accordance with Sections ~~P2911.10.1 through P2911.10.2~~ P2912.10.1 and P2912.10.2.

~~P2911.10.1~~ P2912.10.1 Roof gutter inspection and test. Roof gutters shall be inspected to verify that the installation and slope is in accordance with Section ~~P2911.6.1~~ P2912.6.1. Gutters shall be tested by pouring a minimum of one gallon of water into the end of the gutter opposite the collection point. The gutter being tested shall not leak and shall not retain standing water.

~~P2911.10.2~~ P2912.10.2 Collection surface diversion test. A collection surface diversion test shall be performed by introducing water into the gutters or onto the collection surface area. Diversion of the first quantity of water in accordance with the requirements of Section ~~P2911.4~~ P2912.4 shall be verified.

[ ~~83- 98.~~ ] Delete Sections P2912.11 through P2912.16.

[ ~~84- 99.~~ ] Delete Section P2913 in its entirety.

[ ~~85- 100.~~ ] Add Section P3002.2.2 to read:

P3002.2.2 Tracer wire. Nonmetallic sanitary sewer piping that discharges to public systems shall be locatable. An insulated copper tracer wire, 18 AWG minimum in size and suitable for direct burial or an equivalent product, shall be utilized. The wire shall be installed in the same trench as the sewer within 12 inches (305 mm) of the pipe and shall be installed from within five feet of the building wall to the point where the building sewer intersects with the public system. At a minimum, one end of the wire shall terminate above grade in an accessible location that is resistant to physical damage, such as with a cleanout or at the building wall.

[ ~~86- 101.~~ ] Add an exception to Section P3301.1 to read:

Exception: Rainwater nonpotable water systems shall be permitted in accordance with the applicable provisions of Sections P2910 and P2912.

413- [ ~~87- 102.~~ ] Add Section E3601.8 to read:

E3601.8 Energizing service equipment. The building official shall give permission to energize the electrical service equipment of a one-family or two-family dwelling unit when all of the following requirements have been approved:

1. The service wiring and equipment, including the meter socket enclosure, shall be installed and the service wiring terminated.
2. The grounding electrode system shall be installed and terminated.

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# Regulations

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3. At least one receptacle outlet on a ground fault protected circuit shall be installed and the circuit wiring terminated.
4. Service equipment covers shall be installed.
5. The building roof covering shall be installed.
6. Temporary electrical service equipment shall be suitable for wet locations unless the interior is dry and protected from the weather.

~~114.~~ [ ~~88.~~ 103. ] Change Section E3802.4 to read:

E3802.4 In unfinished basements. Where Type SE or NM cable is run at angles with joists in unfinished basements, cable assemblies containing two or more conductors of sizes 6 AWG and larger and assemblies containing three or more conductors of sizes 8 AWG and larger shall not require additional protection where attached directly to the bottom of the joists. Smaller cables shall be run either through bored holes in joists or on running boards. Type NM or SE cable installed on the wall of an unfinished basement shall be permitted to be installed in a listed conduit or tubing or shall be protected in accordance with Table E3802.1. Conduit or tubing shall be provided with a suitable insulating bushing or adapter at the point where cable enters the raceway. The sheath of the Type NM or SE cable shall extend through the conduit or tubing and into the outlet or device box not less than 1/4 inch (6.4 mm). The cable shall be secured within 12 inches (305 mm) of the point where the cable enters the conduit or tubing. Metal conduit, tubing, and metal outlet boxes shall be connected to an equipment grounding conductor complying with Section E3908.13.

~~115.~~ [ ~~89.~~ 104. ] Change Section ~~E3902.12~~ E3902.16 to read:

~~E3902.12~~ E3902.16 Arc-fault protection of bedroom outlets. ~~All branch~~ Branch circuits that supply 120-volt, single phase, 15-ampere and 20-ampere outlets installed in bedrooms shall be protected by a ~~combination-type arc fault circuit interrupter installed to provide protection of the branch circuit.~~ any of the following:

1. A listed combination-type arc-fault circuit interrupter installed to provide protection of the entire branch circuit.
2. A listed branch/feeder-type AFCI installed at the origin of the branch-circuit in combination with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit. The first outlet box in the branch circuit shall be marked to indicate that it is the first outlet of the circuit.
3. A listed supplemental arc protection circuit breaker installed at the origin of the branch circuit in combination

with a listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet box on the branch circuit where all of the following conditions are met:

3.1. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.

3.2. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 50 feet (15.2 m) for 14 AWG conductors and 70 feet (21.3 m) for 12 AWG conductors.

3.3. The first outlet box on the branch circuit shall be marked to indicate that it is the first outlet on the circuit.

4. A listed outlet branch-circuit type arc-fault circuit interrupter installed at the first outlet on the branch circuit in combination with a listed branch-circuit overcurrent protective device where all of the following conditions are met:

4.1. The branch-circuit wiring shall be continuous from the branch-circuit overcurrent device to the outlet branch-circuit arc-fault circuit interrupter.

4.2. The maximum length of the branch-circuit wiring from the branch-circuit overcurrent device to the first outlet shall not exceed 50 feet (15.2 m) for 14 AWG conductors and 70 feet (21.3 m) for 12 AWG conductors.

4.3. The first outlet box on the branch circuit shall be marked to indicate that it is the first outlet on the circuit.

4.4. The combination of the branch-circuit overcurrent device and outlet branch-circuit AFCI shall be identified as meeting the requirements for a system combination-type AFCI and shall be listed as such.

5. Where metal outlet boxes and junction boxes and RMC, IMC, EMT, Type MC or steel-armored Type AC cables meeting the requirements of Section E3908.8, metal wireways or metal auxiliary gutters are installed for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, a listed branch-circuit type AFCI installed at the first outlet shall be considered as providing protection for the remaining portion of the branch circuit.

6. Where a listed metal or nonmetallic conduit or tubing or Type MC cable is encased in not less than two inches (50.8 mm) of concrete for the portion of the branch circuit between the branch-circuit overcurrent device and the first outlet, a listed outlet branch-circuit type AFCI installed at the first outlet shall be considered as providing protection for the remaining portion of the branch circuit.

Exceptions Exception:

~~1. Where an outlet branch circuit Type AFCI is installed at the first outlet to provide protection for the remaining portion of the branch circuit, the portion of the branch circuit between the branch circuit overcurrent device and the first outlet shall be installed with metal outlet and junction boxes and RMC, IMC, EMT, Type MC or steel armored Type AC cables meeting the requirements of Section E3908.8.~~

~~2. Where an outlet branch circuit Type AFCI is installed at the first outlet to provide protection for the remaining portion of the branch circuit, the portion of the branch circuit between the branch circuit overcurrent device and the first outlet shall be installed with metal or nonmetallic conduit or tubing that is encased in not less than 2 inches (51 mm) of concrete.~~

~~3. AFCI protection is not required for an individual branch circuit supplying only a fire alarm system where the branch circuit is wired with metal outlet and junction boxes and RMC, IMC, EMT or steel-sheathed armored cable Type AC, or Type MC meeting the requirements of Section E3908.8.~~

~~416. Add [90, 105.] Change the following referenced standards to in Chapter 44 as follows (standards not shown remain the same):~~

Standard Reference Number	Title	Referenced in Code Section Number
<del>ANSI LC1/CSA 6.26-14</del>	<del>Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST)</del>	<del>G2411.1, G2411.1.1, G2414.5.3</del>
<del>ICC ISPS 12</del>	<del>International Swimming Pool and Spa Code</del>	<del>R325.1</del>
<del>NFPA 13R-10</del>	<del>Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height</del>	<del>R310.1</del>
<del>NSF 50-09</del>	<del>Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities</del>	<del>P2910.6.1 P2911.6.1</del>

~~F. U. Add "Marinas" to the list of occupancies in Section 312.1 of the IBC.~~

**13VAC5-63-220. Chapter 4 Special detailed requirements based on use and occupancy.**

A. Delete Section 403.4.5 of the IBC.

B. Change Section 407.4.1.1 of the IBC to read:

407.4.1.1 Special locking arrangement. Means of egress doors shall be permitted to contain locking devices restricting the means of egress in areas in which the clinical needs of the patients require restraint of movement, where all of the following conditions are met:

1. The locks release upon activation of the fire alarm system or the loss of power.
2. The building is equipped with an approved automatic sprinkler system in accordance with Section 903.3.1.1.
3. A manual release device is provided at a nursing station responsible for the area.
4. A key-operated switch or other manual device is provided adjacent to each door equipped with the locking device. Such switch or other device, when operated, shall result in direct interruption of power to the lock -- independent of the control system electronics.
5. All staff shall have keys or other means to unlock the switch or other device or each door provided with the locking device.

C. Add Section 407.11 to the IBC to read:

407.11 Emergency power systems. Emergency power shall be provided for medical life support equipment, operating, recovery, intensive care, emergency rooms, fire detection and alarm systems in any Group I-2 occupancy licensed by the Virginia Department of Health as a hospital, nursing home or hospice facility.

D. Add Section 408.2.1 to the IBC to read:

408.2.1 Short-term holding areas. Short-term holding areas shall be permitted to comply with Section ~~427~~ 429.

E. Change Section 408.6 of the IBC to read:

408.6 Smoke barrier. Occupancies classified as Group I-3 shall have smoke barriers complying with Sections 408.8 and 709 to divide every story occupied by residents for sleeping, or any other story having an occupant load of 50 or more persons, into no fewer than two smoke compartments.

F. Change Section 408.9 of the IBC and add Sections 408.9.1 through 408.9.3 to the IBC to read:

408.9 Smoke control. Smoke control for each smoke compartment shall be in accordance with Sections 408.9.1 through 408.9.3.

Exception: Smoke compartments with operable windows or windows that are readily breakable.



# Regulations

408.9.1 Locations. An engineered smoke control system shall comply with Section 909 and shall be provided in the following locations:

1. Dormitory areas.
2. Celled areas.
3. General housing areas.
4. Intake areas.
5. Medical celled or medical dormitory areas.
6. Interior recreation areas.

408.9.2 Compliance. The engineered smoke control system shall provide and maintain a tenable environment in the area of origin and shall comply with all of the following:

1. Shall facilitate the timely evacuation and relocation of occupants from the area of origin.
2. Shall be independent of exhaust systems under Chapter 5 of the IMC.
3. Duration of operation in accordance with Section 909.4.6.
4. The pressurization method shall be permitted and shall provide a minimum of 24 air changes per hour of exhaust, and 20 air changes per hour of makeup, and shall comply with Section 909.6. If the pressurization method is not utilized, the exhaust method shall be provided and shall comply with Section 909.8.

408.9.3 Corridors. Egress corridors within smoke compartments shall be kept free and clear of smoke.

G. Add an exception to Section 414.1.1.1 to 414.2 of the IBC to read:

~~414.1.1.1 Amendments. The following changes shall be made to the IFC for the use of this section:~~

- ~~1. Change Section 2306.8.1 of the IFC and add Section 2306.8.6 to the IFC to read:~~

~~2306.8.1 Listed. Dispensers shall be listed in accordance with UL 87A. Hoses, nozzles, breakaway fittings, swivels, flexible connectors or dispenser emergency shutoff valves, vapor recovery systems, leak detection devices, and pumps used in alcohol blended fuel dispensing systems shall be listed for the specific purpose.~~

~~2306.8.6 Compatibility. Dispensers shall only be used with the fuels for which they have been listed, which are marked on the product. Field installed components including hose assemblies, breakaway couplings, swivel connectors, and hose nozzle valves shall be provided in accordance with the listing and the marking on the unit.~~

2. Add the following reference standard to Chapter 80 of the IFC:

Standard reference number	Title	Referenced in code section number
UL 87A-12	Outline of Investigation for Power Operated Dispensing Devices for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 85%	2306.8.1

Exception: Higher education teaching and research laboratories shall be permitted to comply with Section 430.

H. Add Section 414.6.2 to the IBC to read:

414.6.2 Other regulations. The installation, repair, upgrade, and closure of underground and aboveground storage tanks subject to the Virginia State Water Control Board regulations 9VAC25-91 and 9VAC25-580 shall be governed by those regulations, which are hereby incorporated by reference to be an enforceable part of this code. Where differences occur between the provisions of this code and the incorporated provisions of the State Water Control Board regulations, the provisions of the State Water Control Board regulations shall apply. Provisions of the International Fire Code addressing closure of such tanks that are subject to the Virginia State Water Control Board regulations 9VAC25-91 and 9VAC25-580 shall not be applicable.

I. Change the title of Section 420 and change Sections 420.1 and 420.4 of the IBC to read:

Section 420 Groups I-1, R-1, R-2, R-3, and R-4.

420.1 General. Occupancies in Groups I-1, R-1, R-2, R-3, and R-4 shall comply with the provisions of Sections 420.1 through 420.6 and other applicable provisions of this code.

420.4 Smoke barriers in Group I-1 Condition 2. Smoke barriers shall be provided in Group I-1 Condition 2 to subdivide every story used by persons receiving care or treatment or sleeping and to divide other stories, with an occupant load of 50 or more persons, into no fewer than two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m<sup>2</sup>) and the travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be in accordance with Section 709.

~~J.~~ Add Section 420.4.1 to the IBC to read:

~~420.4.1 Refuge area. Refuge areas shall be provided within each smoke compartment. The size of the refuge area shall accommodate the occupants and care recipients from the adjoining smoke compartment. Where a smoke compartment is adjoined by two or more smoke compartments, the minimum area of the refuge area shall accommodate the largest occupant load of the adjoining compartments. The size of the refuge area shall provide the following:~~

- ~~1. Not less than 15 net square feet (1.4 m<sup>2</sup>) for each care recipient.~~
- ~~2. Not less than 6 net square feet (0.56 m<sup>2</sup>) for other occupants.~~

~~Areas or spaces permitted to be included in the calculation of the refuge area are corridors, lounge, or dining areas and other low hazard areas.~~

~~K.~~ Change Section 420.5 of the IBC and add Section 420.6 to the IBC to read:

~~420.5 Automatic sprinkler system. Group R occupancies shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.2.8. Group I-1 occupancies shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.2.6. Quick response or residential automatic sprinklers shall be installed in accordance with Section 903.3.2.~~

~~420.6 Fire alarm systems and smoke alarms. Fire alarm systems and smoke alarms shall be provided in Groups I-1, R-1, R-2, and R-4 occupancies in accordance with Sections 907.2.6, 907.2.8, 907.2.9, and 907.2.10, respectively. Single station or multiple station smoke alarms shall be provided in Groups I-1, R-2, R-3, and R-4 in accordance with Section 907.2.11.~~

~~L.~~ I. Add IBC Section 425 427 Manufactured Homes and Industrialized Buildings.

~~M.~~ J. Add Section 425-~~4~~ 427.1 to the IBC to read:

~~425-4 427.1 General. The provisions of this section shall apply to the installation or erection of manufactured homes subject to the Virginia Manufactured Home Safety Regulations (13VAC5-95) and industrialized buildings subject to the Virginia Industrialized Building Safety Regulations (13VAC5-91).~~

Note: Local building departments are also responsible for the enforcement of certain provisions of the Virginia Manufactured Home Safety Regulations (13VAC5-95) and the Virginia Industrialized Building Safety Regulations (13VAC5-91) as set out in those regulations.

~~N.~~ K. Add Section 425-~~2~~ 427.2 to the IBC to read:

~~425-2 427.2 Site work for manufactured homes. Footing design, basements, grading, drainage, decks, stoops, porches and utility connections shall comply with the provisions of this code applicable to Group R-5 occupancies. Additionally, all applicable provisions of Chapter 1 of this code, including but not limited to requirements for permits, inspections, certificates of occupancy and requiring compliance, are applicable to the installation and set-up of a manufactured home. Where the installation or erection of a manufactured home utilizes components that are to be concealed, the installer shall notify the building official that an inspection is necessary and assure that an inspection is performed and approved prior to concealment of such components, unless the building official has agreed to an alternative method of verification.~~

~~O.~~ L. Add Section 425-~~2-1~~ 427.2.1 to the IBC to read:

~~425-2-1 427.2.1 Relocated manufactured homes. Installation, set-up, and site work for relocated manufactured homes shall comply with the provisions of this code and shall include the option of using the manufacturer's installations instructions or the federal Model Manufactured Home Installation Standards (24 CFR Part 3285) for the technical requirements.~~

~~P.~~ M. Add Section 425-~~2-2~~ 427.2.2 to the IBC to read:

~~425-2-2 427.2.2 Alterations and repairs to manufactured homes. Alterations and repairs to manufactured homes shall either be in accordance with federal Manufactured Home Construction and Safety Standards (24 CFR Part 3280) or in accordance with the alteration and repair provisions this code.~~

~~Q.~~ N. Add Section 425-~~2-3~~ 427.2.3 to the IBC to read:

~~425-2-3 427.2.3 Additions to manufactured homes. Additions to manufactured homes shall comply with this code and shall be structurally independent of the manufactured home, or when not structurally independent, shall be evaluated by an RDP to determine that the addition does not cause the manufactured home to become out of compliance with federal Manufactured Home Construction and Safety Standards (24 CFR Part 3280).~~

~~R.~~ O. Add Section 425-~~3~~ 427.3 to the IBC to read:

~~425-3 427.3 Wind load requirements for manufactured homes. Manufactured homes shall be anchored to withstand the wind loads established by the federal regulation for the area in which the manufactured home is installed. For the purpose of this code, Wind Zone II of the federal regulation shall include the cities of Chesapeake, Norfolk, Portsmouth, and Virginia Beach.~~

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# Regulations

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~~S. P.~~ Add Section ~~425.4~~ 427.4 to the IBC to read:

~~425.4~~ 427.4 Skirting requirements for manufactured homes. As used in this section, "skirting" means a weather-resistant material used to enclose the space from the bottom of the manufactured home to grade. In accordance with § 36-99.8 of the Code of Virginia, manufactured homes installed or relocated shall have skirting installed within 60 days of occupancy of the home. Skirting materials shall be durable, suitable for exterior exposures and installed in accordance with the manufacturer's installation instructions. Skirting shall be secured as necessary to ensure stability, to minimize vibrations, to minimize susceptibility to wind damage and to compensate for possible frost heave. Each manufactured home shall have a minimum of one opening in the skirting providing access to any water supply or sewer drain connections under the home. Such openings shall be a minimum of 18 inches (457 mm) in any dimension and not less than three square feet (.28 m<sup>2</sup>) in area. The access panel or door shall not be fastened in a manner requiring the use of a special tool to open or remove the panel or door. On-site fabrication of the skirting by the owner or installer of the home shall be acceptable, provided that the material meets the requirements of this code. In addition, as a requirement of this code, skirting for the installation and set-up of a new manufactured home shall also comply with the requirements of 24 CFR Part 3285 – Model Manufactured Home Installation Standards.

~~T. Q.~~ Add Section ~~425.5~~ 427.5 to the IBC to read:

~~425.5~~ 427.5 Site work for industrialized buildings. Site work for the erection and installation of an industrialized building shall comply with the manufacturer's installation instructions. To the extent that any aspect of the erection or installation of an industrialized building is not covered by the manufacturer's installation instructions, this code shall be applicable, including the use of the IRC for any construction work where the industrialized building would be classified as a Group R-5 building. In addition, all administrative requirements of this code for permits, inspections, and certificates of occupancy are also applicable. Further, the building official may require the submission of plans and specifications for details of items needed to comprise the finished building that are not included or specified in the manufacturer's instructions, including, but not limited to, footings, foundations, supporting structures, proper anchorage, and the completion of the plumbing, mechanical, and electrical systems. Where the installation or erection of an industrialized building utilizes components that are to be concealed, the installer shall notify the building official that an inspection is necessary and assure that an inspection is performed and approved prior to concealment of such components, unless the building official has agreed to an alternative method of verification.

Exception: Temporary family health care structures installed pursuant to § 15.2-2292.1 of the Code of Virginia shall not be required or permitted to be placed on a permanent foundation, but shall otherwise remain subject to all pertinent provisions of this section.

~~U. R.~~ Add Section ~~425.6~~ 427.6 to the IBC to read:

~~425.6~~ 427.6 Relocated industrialized buildings; alterations and additions. Industrialized buildings constructed prior to January 1, 1972, shall be subject to Section 117 when relocated. Alterations and additions to any existing industrialized buildings shall be subject to pertinent provisions of this code. Building officials shall be permitted to require the submission of plans and specifications for the model to aid in the evaluation of the proposed alteration or addition. Such plans and specifications shall be permitted to be submitted in electronic or other available format acceptable to the building official.

~~V. S.~~ Add Section ~~425.7~~ 427.7 to the IBC to read:

~~425.7~~ 427.7 Change of occupancy of industrialized buildings. Change of occupancy of industrialized buildings is regulated by the Virginia Industrialized Building Safety Regulations (13VAC5-91). When the industrialized building complies with those regulations for the new occupancy, the building official shall issue a new certificate of occupancy under the USBC.

~~W. T.~~ Add IBC Section ~~426~~ 428 Aboveground Liquid Fertilizer Tanks.

~~X. U.~~ Add Sections ~~426.1~~ 428.1 through ~~426.6~~ 428.6 to the IBC to read:

~~426.1~~ 428.1 General. This section shall apply to the construction of ALFSTs and shall supersede any conflicting requirements in other provisions of this code. ALFSTs shall also comply with any applicable nonconflicting requirements of this code.

~~426.1.1~~ 428.1.1 When change of occupancy rules apply. A change of occupancy to use a tank as an ALFST occurs when there is a change in the use of a tank from storing liquids other than liquid fertilizers to a use of storing liquid fertilizer and when the type of liquid fertilizer being stored has a difference of at least 20% of the specific gravity or operating temperature, or both, or a significant change in the material's compatibility.

~~426.2~~ 428.2 Standards. Newly constructed welded steel ALFSTs shall comply with API 650 and TFI RMIP, as applicable. Newly constructed ALFSTs constructed of materials other than welded steel shall be constructed in accordance with accepted engineering practice to prevent the discharge of liquid fertilizer and shall be constructed of materials that are resistant to corrosion, puncture or cracking. In addition, newly constructed ALFSTs

constructed of materials other than welded steel shall comply with TFI RMIP, as applicable. For the purposes of this code, the use of TFI RMIP shall be construed as mandatory and any language in TFI RMIP, such as, but not limited to, the terms "should" or "may" which indicate that a provision is only a recommendation or a guideline shall be taken as a requirement. ALFSTs shall be placarded in accordance with NFPA 704.

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

~~426.3~~ 428.3 Secondary containment. When ALFSTs are newly constructed and when there is a change of occupancy to use a tank as an ALFST, a secondary containment system designed and constructed to prevent any liquid fertilizer from reaching the surface water, groundwater or adjacent land before cleanup occurs shall be provided. The secondary containment system may include dikes, berms or retaining walls, curbing, diversion ponds, holding tanks, sumps, vaults, double-walled tanks, liners external to the tank, or other approved means and shall be capable of holding up to 110% of the capacity of the ALFST as certified by an RDP.

~~426.4~~ 428.4 Repair, alteration and reconstruction of ALFSTs. Repair, alteration and reconstruction of ALFSTs shall comply with applicable provisions of API 653 and TFI RMIP.

~~426.5~~ 428.5 Inspection. Applicable inspections as required by and in accordance with API 653 and TFI RMIP shall be performed for repairs and alterations to ALFSTs, the reconstruction of ALFSTs and when there is a change of occupancy to use a tank as an ALFST. When required by API 653 or TFI RMIP, such inspections shall occur prior to the use of the ALFST.

~~426.6~~ 428.6 Abandoned ALFSTs. Abandoned ALFSTs shall comply with applicable provisions of Section 5704.2.13.2 of the IFC.

~~Y.~~ V. Add IBC Section ~~427~~ 429 Short-term Holding Areas.

~~Z.~~ W. Add Section ~~427.1~~ 429.1 to the IBC to read:

~~427.1~~ 429.1 General. In all groups other than Group E, short-term holding areas shall be permitted to be classified as the main occupancy, provided all of the following are met:

1. Provisions are made for the release of all restrained or detained occupants of short-term holding areas at all times.
2. Aggregate area of short-term holding areas shall not occupy more than 10% of the building area of the story in which they are located and shall not exceed the tabular values for building area in Table ~~503~~ 506.2, without building area increases.

3. Restrained or detained occupant load of each short-term holding area shall not exceed 20.

4. Aggregate restrained or detained occupant load in short-term holding areas per building shall not exceed 80.

5. Compliance with Sections 408.3.7, 408.3.8, 408.4, and 408.7, as would be applicable to I-3 occupancies.

6. Requirements of the main occupancy in which short-term holding areas are located shall be met.

7. Fire areas containing short-term holding areas shall be provided with a fire alarm system and automatic smoke detection system complying with Section 907.2.6.3, as would be applicable to I-3 occupancies.

8. Where each fire area containing short-term holding areas exceeds 12,000 square feet (1115 m<sup>2</sup>), such fire areas shall be provided with an automatic sprinkler system complying with Section 903.3.

9. Short-term holding areas shall be separated from other short-term holding areas and adjacent spaces by smoke partitions complying with Section 710.

X. Add IBC Section 430 Higher Education Laboratories.

Y. Add Sections 430.1 through 430.4 to the IBC to read:

430.1 Scope. Group B teaching and research laboratories in educational occupancies above the 12th grade complying with the requirements of this section shall be permitted to comply with Table 430.3, 430.4(1), or 430.4(2) without requiring classification as a Group H occupancy. Except as specified in this section, such laboratories shall comply with all applicable provisions of this code. In addition, as set out in Section 5001.7 of the SFPC, approval under this section is contingent upon operational requirements in the SFPC being complied with and maintained.

430.2 Application. The provisions of this section shall be applied as exceptions or additions to applicable requirements of this code.

430.3 Laboratory suite construction. Where laboratory suites are provided, they shall be constructed in accordance with this section. The number of laboratory suites and percentage of maximum allowable quantities of hazardous materials in laboratory suites shall be in accordance with Table 430.3.

430.3.1 Separation from adjacent areas. Laboratory suites shall be separated from other portions of the building in accordance with the most restrictive of either (i) Table 430.3 with fire barriers constructed in accordance with Section 707 and horizontal assemblies constructed in accordance with Section 711 or (ii) Section 508.4. Where individual laboratories within a laboratory suite are separated from each other, the separation shall consist of one-hour fire barriers.

# Regulations

Exception: Where an individual laboratory suite occupies more than one story, the fire resistance rating of intermediate floors contained within the laboratory suite shall comply with the requirements of this code.

430.3.2 Separation from other laboratory suites. Laboratory suites shall be separated from other laboratory suites in accordance with Table 430.3.

430.3.3 Floor assembly fire resistance. The floor assembly supporting the laboratory suite and the construction supporting the floor of the laboratory suite shall have a fire resistance rating of not less than two hours.

Exception: The floor assembly of the laboratory suite and the construction supporting the floor of the laboratory suite are allowed to be one-hour fire resistance rated in buildings of Types IIA, IIIA, and VA construction, provided that the building is three or fewer stories.

430.3.4 Maximum number. The maximum number of laboratory suites per floor shall be in accordance with Table 430.3. Where a building contains both laboratory suites complying with Section 430.3 and control areas complying with Section 414.2, the total number of laboratory suites and control areas shall not exceed the maximum number of laboratory suites in accordance with Table 430.3.

430.3.5 Standby or emergency power. Standby or emergency power shall be provided in accordance with Section 414.5.2 where laboratory suites are located above the sixth story above grade plane or located in a story below grade plane.

430.3.6 Ventilation. Ventilation shall be in accordance with the International Mechanical Code. The design and installation of ducts from chemical fume hoods shall be in accordance with NFPA 91.

430.3.7 Liquid tight floor. Portions of the laboratory suite where hazardous materials are present shall be provided with a liquid tight floor.

430.3.8 Automatic fire sprinkler systems. Buildings shall be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

430.3.9 Automatic fire alarm and detection system. Laboratory suites shall be equipped throughout with an automatic fire detection system in accordance with Section 907.2. The building shall be equipped throughout with an automatic fire alarm system in accordance with Section 907.2.

430.3.10 Percentage of maximum allowable quantity in each laboratory suite. The percentage of maximum allowable quantities in each laboratory suite shall be in accordance with Table 430.3.

Table 430.3

Design and Number of Laboratory Suites Per Floor

Floor Level		Percentage of the Maximum Allowable Quantity per Lab Suite <sup>a</sup>	Number of Lab Suites per Floor	Fire-Resistance Rating for Fire Barriers in Hours <sup>b</sup>
Above Grade Plane	21+	5	1	2
	16-20	25	1	2
	11-15	50	1	2
	7-10	50	2	2
	4-6	75	4	1
	3	100	6	1
	1-2	100	8	1
Below Grade Plane	1	75	4	1
	2	50	2	1
	Lower than 2	Not Allowed	Not Allowed	Not Allowed

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2), with all increases allowed in the notes to those tables.

b. Fire barriers shall include walls, floors, and ceilings necessary to provide separation from other portions of the building.

430.4 Teaching and research laboratories utilizing control areas. Group B teaching and research laboratories in educational occupancies above the 12th grade utilizing control areas are permitted to increase amounts of hazardous materials stipulated in Section 414.2 without the laboratories being classified as Group H. The percentage of maximum allowable quantities of hazardous materials per control area and the number of control areas permitted at each floor level within a building shall be permitted to comply with Table 430.4(1) in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or shall be permitted to comply with Table 430.4(2) in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. In addition, as set out in Section 5001.7 of the SFPC, approval under this section

is contingent upon operational requirements in the SFPC being complied with and maintained.

Table 430.4(1) Design and Number of Control Areas in Buildings Equipped Throughout with an Automatic Sprinkler System in Accordance with Section 903.3.1.1 with Group B Teaching and Research Laboratories in Educational Occupancies above the 12th Grade				
Floor Level		Percentage of the Maximum Allowable Quantity per Control Area <sup>a</sup>	Number of Control Areas per Floor	Fire-Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours <sup>b</sup>
Above Grade Plane	Higher than 20	5	1	2
	11-20	10	1	2
	7-10	25	2	2
	4-6	50	2	2
	3	75	3	1
	1-2	100	4	1
	Below Grade Plane	1	75	3
2		50	2	1
Lower than 2		Not Allowed	Not Allowed	Not Allowed

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2), with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

Table 430.4(2) Design and Number of Control Areas in Buildings Not Equipped Throughout with an Automatic Sprinkler System in Accordance with Section 903.3.1.1 with Group B Teaching and Research Laboratories in Educational Occupancies above the 12th Grade				
Floor Level		Percentage of the Maximum Allowable Quantity per Control Area <sup>a</sup>	Number of Control Areas per Floor	Fire-Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours <sup>b</sup>
Above Grade Plane	Higher than 9	5	1	2
	7-9	10	2	2
	4-6	25	2	2
	3	75	2	1
Below Grade Plane	1-2	100	4	1
	1	75	3	1
	2	50	2	1
	Lower than 2	Not Allowed	Not Allowed	Not Allowed

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2), with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

430.4.1 Separation requirements. Control areas shall be separated from each other and from other non-control areas by fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.

430.4.2 Fire resistance rating requirements. The required fire-resistance rating for fire barriers shall be in accordance with Table 430.4(1) in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or in accordance with Table 430.4(2) in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The floor assembly of the control area and the construction supporting the floor of the control area shall have a fire-resistance rating in accordance with Table 430.4(1) in buildings equipped throughout with an automatic sprinkler

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# Regulations

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system in accordance with Section 903.3.1.1 or in accordance with Table 430.4(2) in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

Exception: The floor assembly of the control area and the construction supporting the floor of the control area are allowed to be one-hour fire resistance rated in buildings of Types IIA, IIIA, and VA construction, provided that the building is three or fewer stories.

430.4.3 Standby or emergency power. Standby or emergency power shall be provided where control areas are located above the sixth floor level above grade plane or located in a floor level below grade plane.

430.4.4 Restricted materials in storage and use. Where approved by the building official, the storage and use of the following hazardous materials prohibited by Table 307.1(1) in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, shall be allowed within a control area at 25% of Table 307.1(1) limits for a building equipped throughout with an automatic sprinkler system:

1. Pyrophorics.
2. Class 4 oxidizers.

No additional quantity increases shall be allowed. All such materials shall be stored and used in accordance with Section 5001.7 of the SFPC.

430.4.5 Automatic fire alarm and detection system. The building shall be equipped throughout with an automatic fire alarm system in accordance with Section 907.2, and control areas where hazardous materials are used or stored shall be equipped throughout with an automatic fire detection system in accordance with Section 907.2.

430.4.6 Ventilation. Ventilation shall be in accordance with the International Mechanical code.

## **13VAC5-63-225. Chapter 5 General building heights and areas. (Repealed.)**

**A. Change Section 504.2 of the IBC to read:**

~~504.2 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum building height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one. These increases are permitted in addition to the building area increase in accordance with Sections 506.2 and 506.3. For Group R buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum building height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one, but shall~~

~~not exceed 60 feet (18 288 mm) or four stories, respectively.~~

~~Exception: The use of an automatic sprinkler system to increase building heights shall not be permitted for the following conditions:~~

- ~~1. Buildings, or portions of buildings, classified as Group I-1 Condition 2, of Type IIB, III, IV, or V construction or Group I-2 occupancies of Type IIB, III, IV, or V construction.~~
- ~~2. Buildings, or portions of buildings, classified as a Group H-1, H-2, H-3, or H-5 occupancy.~~
- ~~3. Buildings where an automatic sprinkler system is substituted for fire resistance rated construction in accordance with Table 601, Note d.~~

**B. Change Section 508.2.3 of the IBC to read:**

~~508.2.3 Allowable building area and height. The allowable building area and height of the building containing accessory occupancies shall be based on the allowable building area and height for the main occupancy in accordance with Section 503.1. The building area of the accessory occupancies shall be in accordance with Section 508.2.1.~~

## **13VAC5-63-230. Chapter 7 Fire and smoke protection features.**

**A. Change Section 703.7 of the IBC to read:**

~~703.7 Fire-resistance assembly marking. Where there is a concealed floor, floor-ceiling, or attic space, the fire walls, fire barriers, fire partitions, smoke barriers, or any other wall required to have protected openings or penetrations shall be designated above ceilings and on the inside of all ceiling access doors that provide access to such fire rated assemblies by signage having letters no smaller than one inch (25.4 mm) in height. Such signage shall indicate the fire-resistance rating of the assembly and the type of assembly and be provided at horizontal intervals of no more than eight feet (2438 mm).~~

~~Note: An example of suggested formatting for the signage would be "ONE HOUR FIRE PARTITION."~~

**B. Change the exceptions to Section 705.2 of the IBC to read:**

~~Exceptions:~~

- ~~1. Buildings on the same lot and considered as portions of one building in accordance with Section 705.3 are not required to comply with this section.~~
- ~~2. Decks and open porches of buildings of Groups R-3 and R-4.~~

C. Add Exception 4 to Section 706.5.2 of the IBC to read:

4. Decks and open porches of buildings in Groups R-3 and R-4.

D. ~~Change Section 709.5 of the IBC to read:~~

~~709.5 Openings. Openings in a smoke barrier shall be protected in accordance with Section 716.~~

~~Exceptions:~~

~~1. In Group I-1 Condition 2, Group I-2, and ambulatory care facilities where doors are installed across corridors, a pair of opposite swinging doors without a center mullion shall be installed having vision panels with fire-protection rated glazing materials in fire protection rated frames, the area of which shall not exceed that tested. The doors shall be close fitting within operational tolerances and shall not have undercuts in excess of 3/4-inch, louvers, or grilles. The doors shall have head and jamb stops, astragals, or rabbets at meeting edges and shall be automatic closing by smoke detection in accordance with Section 716.5.9.3. Where permitted by the door manufacturer's listing, positive latching devices are not required.~~

~~2. In Group I-1 Condition 2, Group I-2, and ambulatory care facilities, horizontal sliding doors installed in accordance with Section 1008.1.4.3 and protected in accordance with Section 716.~~

E. ~~Delete Sections 713.14.1 and 713.14.1.1.~~

F. Change Section 716.5.3.1 of the IBC to read:

716.5.3.1 Smoke and draft control. Fire door assemblies located in smoke barrier walls shall also meet the requirements for a smoke and draft control door assembly tested in accordance with UL 1784. The air leakage rate of the door assembly shall not exceed 3.0 cubic feet per minute per square foot (0.01524 m<sup>3</sup>/s · m<sup>2</sup>) of door opening at 0.10 inch (24.9 Pa) of water for both the ambient temperature and elevated temperature tests. Louvers shall be prohibited. Installation of smoke doors shall be in accordance with NFPA 105.

E. Change Section 717.5.3 of the IBC to read:

717.5.3 Shaft enclosures. Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with approved fire and smoke dampers installed in accordance with their listing.

Exceptions:

1. Fire and smoke dampers are not required where steel exhaust subducts extend at least 22 inches (559 mm) vertically in exhaust shafts, provided there is a continuous airflow upward to the outside.

2. Fire dampers are not required where penetrations are tested in accordance with ASTM E119 as part of the fire resistance-rated assembly.

3. Fire and smoke dampers are not required where ducts are used as part of an approved smoke control system in accordance with Section 909.

4. Fire and smoke dampers are not required where the penetrations are in parking garage exhaust or supply shafts that are separated from other building shafts by not less than two-hour fire-resistance-rated construction.

5. Smoke dampers are not required where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

[ F. Add Section 717.6.2.2 to the IBC to read:

717.6.2.2 Equipment shutdown. Where ceiling radiation dampers are listed as static dampers, the HVAC equipment shall be effectively shut down to stop the airflow prior to the damper closing using one of the following methods:

1. A duct detector installed in the return duct.

2. An area smoke detector interlocked with the HVAC equipment.

3. A listed heat sensor installed in the return duct. ]

### 13VAC5-63-235. Chapter 8 Interior finishes.

Change Section ~~806.1.2~~ 806.3 of the IBC to read:

~~806.1.2~~ 806.3 Combustible decorative materials. ~~The permissible amount of decorative materials meeting the flame propagation performance criteria of NFPA 701 In other than Group I-3, curtains, draperies, fabric hangings, and similar combustibles decorative materials suspended from walls or ceilings shall comply with Section 806.4 and shall not exceed 10% of the specific wall or ceiling area to which it is attached.~~

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

Exceptions:

1. In auditoriums or similar types of spaces in Group A, the permissible amount of curtains, draperies, fabric hangings, and similar combustibles decorative material meeting the flame propagation performance criteria of NFPA 701 materials suspended from walls or ceilings shall not exceed 75% of the aggregate wall area where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1,



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# Regulations

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and where the material is installed in accordance with Section ~~803.14~~ 803.13 of this code.

2. In auditoriums or similar types of spaces in Group A, the permissible amount of decorative materials suspended from the ceiling, located no more than 12 inches (305 mm) from the wall, not supported by the floor, and meeting the flame propagation performance criteria of NFPA 701, shall not exceed 75% of the aggregate wall area when the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

3. In Group R-2 dormitories, within sleeping units and dwelling units, the permissible amount of curtains, draperies, fabric hangings, and similar decorative materials suspended from walls or ceiling shall not exceed 50% of the aggregate walls areas where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.

~~The~~ 4. In Group B and M occupancies, the amount of [combustible] fabric partitions suspended from the ceiling and not supported by the floor in Groups B and M occupancies shall comply with Section 806.4 and shall not be limited.

## 13VAC5-63-240. Chapter 9 Fire protection systems.

A. Add the following to the list of terms in Section 902.1 of the IBC:

Emergency communication equipment.

Emergency public safety personnel.

B. Change Section 903.2.1.2 of the IBC to read:

903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for fire areas containing Group A-2 occupancies and intervening floors of the building where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464.5m<sup>2</sup>);
2. The fire area has an occupant load of 100 or more in night clubs or 300 or more in other Group A-2 occupancies;~~or,~~
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The fire area contains a multitheater complex.

C. Change Item 2 of Section 903.2.1.3 of the IBC to read:

2. In Group A-3 occupancies other than places of religious worship, the fire area has an occupant load of 300 or more [~~or,~~]

D. Change Section 903.2.3 of the IBC to read:

903.2.3 Group E. An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 20,000 square feet (1858 m<sup>2</sup>) in area.
2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

E. ~~Change~~ Add Exception 4 to Section 903.2.6 to read:

~~903.2.6 Group I. An automatic sprinkler system shall be provided throughout all 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 at least one 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 and 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<sup>2</sup>) or less in Group I-3 facilities, provided such buildings and overhangs are of noncombustible construction.

F. Change Section 903.2.7 of the IBC to read:

903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 12,000 square feet (1115 m<sup>2</sup>).
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m<sup>2</sup>).

G. Change Sections Section 903.2.8, ~~903.2.8.1~~, and ~~903.2.8.2~~ of the IBC to read:

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area, except for Group R-2 occupancies listed in the exceptions to this section when the necessary water pressure or volume, or both, for the system is not available:

Exceptions:

1. Group R-2 occupancies that do not exceed two stories, including basements that are not considered as a story above grade, and with a maximum of 16 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve that dwelling unit.

2. Group R-2 occupancies where all dwelling units are not more than two stories above the lowest level of exit discharge and not more than one story below the highest level of exit discharge of exits serving the dwelling unit and a two-hour fire barrier is provided between each pair of dwelling units. Each bedroom of a dormitory or boarding house shall be considered a dwelling unit under this exception.

~~903.2.8.1 Group R 3. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R 3.~~

~~903.2.8.2 Group R 4 Condition 1. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R 4 Condition 1.~~

H. Add Sections ~~903.2.8.3~~, ~~903.2.8.3.1~~, ~~903.2.8.3.2~~, and ~~903.2.8.4~~ to the IBC to read:

~~903.2.8.3 Group R 4 Condition 2. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group R 4 Condition 2. Attics shall be protected in accordance with Section 903.2.8.3.1 or 903.2.8.3.2.~~

~~903.2.8.3.1 Attics used for living purposes, storage, or fuel fired equipment. Attics used for living purposes, storage, or fuel fired equipment shall be protected throughout with automatic sprinkler system installed in accordance with Section 903.3.1.2.~~

~~903.2.8.3.2 Attics not used for living purposes, storage, or fuel fired equipment. Attics not used for living purposes, storage, or fuel fired equipment shall be protected in accordance with one of the following:~~

~~1. Attics protected throughout by a heat detector system arranged to activate the building fire alarm system in accordance with Section 907.2.10.~~

~~2. Attics constructed of noncombustible materials.~~

~~3. Attics constructed of fire retardant treated wood framing complying with Section 2303.2.~~

~~4. The automatic fire sprinkler system shall be extended to provide protection throughout the attic space.~~

~~903.2.8.4 Care facilities. An automatic sprinkler system installed in accordance with 903.3.1.3 shall be permitted in care facilities with 5 or fewer individuals in a single family dwelling.~~

~~F. Add Section 903.3.1.2.2 to the IBC to read:~~

~~903.3.1.2.2 Attics. Sprinkler protection shall be provided for attics in buildings of Type III, IV or V construction in Group R-2 occupancies that are designed or developed and marketed to senior citizens 55 years of age or older and in Group I-1 occupancies in accordance with Section 7.2 of NFPA 13R.~~

~~J. Change Section 903.3.1.3 of the IBC to read:~~

~~903.3.1.3 NFPA 13D sprinkler systems. Automatic sprinkler systems installed in one family and two family dwellings, Group R 3, Group R 4 Condition 1 and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D.~~

[ I. Add Section 903.3.5.1.1 to the IBC and change Section 903.3.5.2 of the IBC to Section 903.3.5.1.2; both to read as follows:

903.3.5.1.1 Limited area sprinkler systems. Limited area sprinkler systems serving fewer than 20 sprinklers on any single connection are permitted to be connected to the domestic service where a wet automatic standpipe is not available. Limited area sprinkler systems connected to domestic water supplies shall comply with each of the following requirements:

1. Valves shall not be installed between the domestic water riser control valve and the sprinklers.

Exception: An approved indicating control valve supervised in the open position in accordance with Section 903.4.

2. The domestic service shall be capable of supplying the simultaneous domestic demand and the sprinkler demand required to be hydraulically calculated by NFPA 13, NFPA 13R, or NFPA 13D.

903.3.5.1.2 Residential combination services. A single combination water supply shall be allowed provided that the domestic demand is added to the sprinkler demand as required by NFPA 13R.

J. Delete Section 903.3.5.2 of the IBC and Sections 903.3.8 through 903.3.8.5 of the IBC.

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# Regulations

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K. ~~I~~ ] Change Section 903.4.2 of the IBC to read:

903.4.2 Alarms. Approved audible devices shall be connected to every automatic sprinkler system. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Group R-2 occupancies that contain 16 or more dwelling units or sleeping units, any dwelling unit or sleeping unit two or more stories above the lowest level of exit discharge, or any dwelling unit or sleeping unit more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit shall provide a manual fire alarm box at an approved location to activate the suppression system alarm.

[ L. ~~J~~. Add an exception to Change ] Section [ ~~905.2~~ 905.3.1 ] of the IBC to read:

[ ~~Exception: The residual pressure of 100 psi for 2 1/2 inch hose connection and 65 psi for 1 1/2 inch hose connection is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and where the highest floor level is not more than 150 feet above the lowest level of fire department vehicle access.~~

905.3.1 Height. Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm) above the lowest level of fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access.

Exceptions:

1. Class I standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Class I manual wet standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1 or Section 903.3.2 and where the highest floor is located not more than 150 feet (45,720 mm) above the lowest level of fire department vehicle access.
3. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45,720 mm) above the lowest level of fire department vehicle access.
4. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as

required for Class II standpipes in accordance with Section 905.5.

5. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.

6. In determining the lowest level of fire department vehicle access, it shall not be required to consider either of the following:

6.1. Recessed loading docks for four vehicles or less.

6.2. Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.

M. ~~K~~ ] Change Item 1 of Section 906.1 of the IBC to read:

1. In Groups A, B, E, F, H, I, M, R-1, R-4, and S occupancies.

Exceptions:

1. In Groups A, B, and E occupancies equipped throughout with quick response sprinklers, portable fire extinguishers shall be required only in locations specified in Items 2 through 6.

2. In Group I-3 occupancies, portable fire extinguishers shall be permitted to be located at staff locations and the access to such extinguishers shall be permitted to be locked.

[ N. ~~L~~ ] Change Section 907.2.1.1 of the IBC to read:

907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more and in certain night clubs. Activation of the fire alarm in Group A occupancies with an occupant load of 1,000 or more and in night clubs with an occupant load of 300 or more shall initiate a signal using an emergency voice and alarm communications system in accordance with Section 907.5.2.2.

Exception: Where approved, the prerecorded announcement is allowed to be manually deactivated for a period of time, not to exceed three minutes, for the sole purpose of allowing a live voice announcement from an approved, constantly attended location.

[ ~~M~~. O. ] Add Section 907.2.2.2 to the IBC to read:

907.2.2.2 Higher education laboratories. An automatic fire alarm and detection system shall be provided in Group B occupancies where an increase in hazardous materials is permitted in accordance with Section 430.

○ [ ~~N~~. P. ] Change Section 907.2.3 of the IBC to read:

907.2.3 Group E. A manual fire alarm system that activates the occupant notification system meeting the requirements of Section 907.5 and installed in accordance with Section 907.6 shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are

installed, such systems or detectors shall be connected to the building fire alarm system.

Exceptions:

1. A manual fire alarm system is not required in Group E occupancies with an occupant load of 50 or less.
2. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
  - 2.1. Interior corridors are protected by smoke detectors.
  - 2.2. Auditoriums, cafeterias, gymnasiums, and similar areas are protected by heat detectors or other approved detection devices.
  - 2.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
3. Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, the occupant notification system will activate on sprinkler water flow and manual activation is provided from a normally occupied location.

~~P. Change Section 907.2.6.1 of the IBC to read:~~

~~907.2.6.1 Group I-1. In Group I-1 occupancies, an automatic smoke detection system shall be installed in corridors, waiting areas open to corridors, and habitable spaces other than sleeping units and kitchens. The system shall be activated in accordance with Section 907.5.~~

~~Exceptions:~~

- ~~1. For Group I-1 Condition 1, smoke detection in habitable spaces is not required where the facility is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.~~
- ~~2. Smoke detection is not required for exterior balconies.~~

[ Q. Q. ] Add an exception to Section 907.5.2.1.1 of the IBC to read:

Exception: Sound pressure levels in Group I-3 occupancies shall be permitted to be limited to only the notification of occupants in the affected smoke compartment.

~~R. Change Sections 908.7 and 908.7.1 of the IBC and add Sections 908.7.2 and 908.7.3 to the IBC to read:~~

~~908.7 Carbon monoxide alarms. Carbon monoxide alarms shall comply with this section.~~

~~908.7.1 Group I or R. Group I or R occupancies located in a building containing a fuel burning appliance or in a building which has an attached garage shall be equipped with single station carbon monoxide alarms. The carbon monoxide alarms shall be listed as complying with UL~~

~~2034 and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in Chapter 2, or an enclosed parking garage ventilated in accordance with Section 404 of the IMC shall not be considered an attached garage.~~

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

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

~~908.7.2 Group E. Classrooms in E occupancies located in a building containing a fuel burning appliance or in a building which has an attached garage or small engine or vehicle shop shall be equipped with single station carbon monoxide alarms. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in Chapter 2, or an enclosed parking garage ventilated in accordance with Section 404 of the IMC shall not be considered an attached garage.~~

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

- ~~1. The classroom is located more than 100 feet from the fuel burning appliance or attached garage or located more than one story above or below any story which contains a fuel burning appliance or attached garage; and~~
- ~~2. The classroom is not connected by duct work or ventilation shafts to any room containing a fuel burning appliance.~~

~~908.7.3 Carbon monoxide detection systems. Carbon monoxide detection systems, which include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.~~

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# Regulations

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~~S.~~ [ ~~P.~~ ~~R.~~ ] Change Section 909.6 of the IBC to read:

909.6 Pressurization method. When approved by the building official, the means of controlling smoke shall be permitted by pressure differences across smoke barriers. Maintenance of a tenable environment is not required in the smoke-control zone of fire origin.

~~T.~~ [ ~~Q.~~ ~~S.~~ ] Change Section 911.1.3 of the IBC to read:

911.1.3 Size. The fire command center shall be a minimum of 96 square feet (9 m<sup>2</sup>) in area with a minimum dimension of eight feet (2438 mm).

Exception: Where it is determined by the building official, after consultation with the fire chief, that specific building characteristics require a larger fire command center, the building official may increase the minimum required size of the fire command center up to 200 square feet (19 m<sup>2</sup>) in area with a minimum dimension of up to 10 feet (3048 mm).

[ ~~T.~~ Change Sections 912.4 and 912.4.2 of the IBC to read:

912.4 Access. Immediate access to fire department connections shall be 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 chief.

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 chief.

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 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 chief.

~~R.~~ ~~U.~~ ] Replace Section 915 of the IBC with the following:

915.1 Carbon monoxide alarms. Carbon monoxide alarms shall comply with this section.

915.2 Group I or R. Group I or R occupancies located in a building containing a fuel-burning appliance or in a building that has an attached garage shall be equipped with single-station carbon monoxide alarms. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in Chapter 2, or an enclosed parking garage ventilated in accordance with Section 404 of the IMC shall not be considered an attached garage.

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

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

915.3 Group E. Classrooms in E occupancies located in a building containing a fuel-burning appliance or in a building that has an attached garage or small engine or vehicle shop shall be equipped with single-station carbon monoxide alarms. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in Chapter 2, or an enclosed parking garage ventilated in accordance with Section 404 of the IMC shall not be considered an attached garage.

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

1. The classroom is located more than 100 feet from the fuel burning appliance or attached garage or located more than one story above or below any story which contains a fuel-burning appliance or attached garage; and
2. The classroom is not connected by duct work or ventilation shafts to any room containing a fuel-burning appliance.

915.4 Carbon monoxide detection systems. Carbon monoxide detection systems, which include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.

~~U.~~ [ ~~S.~~ ~~V.~~ ] Change the title of IBC Section ~~915~~ 916 to read:

In-Building Emergency Communications Coverage.

~~V.~~ [ ~~T.~~ ~~W.~~ ] Change Section ~~915.4~~ 916.1 of the IBC to read:

~~915.4~~ 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.
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.

~~W.~~ [ ~~U.~~ ~~X.~~ ] Add Sections ~~915.1.1~~, ~~915.1.2~~ 916.1.1, 916.1.2, and ~~915.1.3~~ 916.1.3 to the IBC to read:

~~915.1.1~~ 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 locality shall be responsible for the installation of any additional communication equipment required for the operation of the system.

~~915.1.2~~ 916.1.2 Operations. 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.

~~915.1.3~~ 916.1.3 Inspection. In accordance with Section 113.3, all installations shall be inspected prior to concealment.

~~X.~~ [ ~~V.~~ ~~Y.~~ ] Add Section ~~915.2~~ 916.2 to the IBC to read:

~~915.2~~ 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.

**13VAC5-63-245. Chapter 10 Means of egress.**

A. Delete Section 1001.4 of the IBC.

B. Change Section 1004.3 of the IBC to read:

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

C. Change ~~the exception to~~ Exception 1 of Section 1005.3.1 of the IBC to read:

~~Exception:~~

1. For other than Groups H and I-2 occupancies, the capacity, in inches (mm), of means of egress stairways shall be calculated by multiplying the occupant load served by such stairway by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant in buildings equipped with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

D. Change ~~the exception to~~ Exception 1 of Section 1005.3.2 of the IBC to read:

~~Exception:~~

1. For other than Groups H and I-2 occupancies, the capacity, in inches (mm), of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.15 inch (3.8 mm) per occupant in buildings equipped with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

E. Change Exception 1 of Section 1006.2.1 of the IBC to read:

1. In Group R-2 and R-3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the common path of egress travel does not exceed 125 feet (38 100 mm). This exception shall also apply to Group R-2 occupancies where Section 903.2.8, Exception 1 or 2 is applicable.

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# Regulations

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F. Change the number "49" to "50" in the "Maximum Occupant Load of Space" column in the "A<sup>c</sup>, E, M," "B," "F," and "U" rows of Table 1006.2.1 of the IBC.

G. Change the number "49" to "50" in the "Maximum Occupant Load per Story" column of the "A, B<sup>b</sup>, E, F, M, U" row of Table 1006.3.2(2).

H. Change Section ~~1007.6.2~~ 1009.6.4 of the IBC to read:

~~1007.6.2~~ 1009.6.4 Separation. Each area of refuge shall be separated from the remainder of the story by a smoke barrier complying with Section 709 or a horizontal exit complying with Section ~~1025~~ 1026. Each area of refuge shall be designed to minimize the intrusion of smoke.

Exceptions:

1. Areas of refuge located within an exit enclosure for interior exit stairways complying with Section 1023.
2. Areas of refuge in outdoor facilities where exit access is essentially open to the outside.
3. Areas of refuge where the area of refuge and areas served by the area of refuge are equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

F. I. Change Item 2 of Section ~~1008.1.9.3~~ 1010.1.9.3 of the IBC to read:

2. In buildings in occupancy Groups B, F, M and S, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:

- 2.1. The locking device is readily distinguishable as locked.
- 2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING THIS SPACE IS OCCUPIED. The sign shall be in letters one inch (25 mm) high on a contrasting background.
- 2.3. The use of the key-operated locking device is revokable by the building official for due cause.

G. J. Delete Section ~~1008.1.9.6~~ 1010.1.9.6 of the IBC.

H. Change Sections ~~1008.1.9.7~~ and ~~1008.1.9.8~~ K. Add an exception to Section 1010.1.9.7 of the IBC to read:

~~1008.1.9.7~~ Delayed egress locks. In other than Groups A, E, and H, approved, listed, delayed egress locks shall be permitted to be installed on doors in buildings which are 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 unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through

~~more than one door equipped with a delayed egress lock before entering an exit.~~

- ~~1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.~~
- ~~2. The doors unlock upon loss of power controlling the lock or lock mechanism.~~
- ~~3. The door locks shall have the capability of being unlocked by a signal from the fire command center.~~
- ~~4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.~~

~~Exception: Where approved, a delay of not more than 30 seconds is permitted.~~

~~5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.~~

~~Exception: Where approved, such sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 30 SECONDS.~~

6. Emergency lighting shall be provided at the door.

Exception: Approved, listed, delayed egress locks shall be permitted to be installed on doors serving Group A-3 airport facilities, provided they are installed in accordance with this section.

~~1008.1.9.8~~ Sensor release of electronically locked egress doors. The electric locks on sensor released doors located in a means of egress in buildings with an occupancy in Group A, B, E, I-1, I-2, I-4, M, R-1, or R-2 and entrance doors to tenant spaces in occupancies in Group A, B, E, I-1, I-2, I-4, M, R-1, or R-2 are permitted where installed and operated in accordance with all of the following criteria:

- ~~1. The sensor shall be installed on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.~~
- ~~2. Loss of power to the lock or locking system shall automatically unlock the doors.~~
- ~~3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016 mm to 1219 mm) vertically above the floor and within five feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the~~

device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock independent of locking system electronics and the doors shall remain unlocked for not less than 30 seconds.

~~4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.~~

~~5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.~~

~~6. The door locking system units shall be listed in accordance with UL 294.~~

L. Change Section 1010.1.6 of the IBC to read:

1010.1.6 Landings at doors. Landings shall have a width not less than the width of the stairway or the door, whichever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7 inches (178 mm). Where a landing serves an occupant load of 50 or more, other doors, gates, or turnstiles in any position shall not reduce the landing to less than one-half its required width nor prevent a door, gate, or turnstile from opening to less than one-half of the required landing width. Landings shall have a length measured in the direction of travel of not less than 44 inches (1118 mm).

Exception: Landing length in the direction of travel in Groups R-3 and U and within individual units of Group R-2 need not exceed 36 inches (914 mm).

~~I. Delete the exception in M. Change Section 4008.1.10 1010.1.10 of the IBC; to read:~~

~~1010.1.10 Panic and fire exit hardware. Doors serving a Group H occupancy and doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy shall not be provided with a latch or lock other than panic hardware or fire exit hardware.~~

~~Exception: Doors serving a Group A or E occupancy shall be permitted to be electromagnetically locked in accordance with Section 1010.1.9.9.~~

~~J. N. Add Section 4008.1.11 1010.1.11 to the IBC to read:~~

~~4008.1.11 1010.1.11 Locking certain residential sliding doors. In dwelling units of Group R-2 buildings, exterior sliding doors which are one story or less above grade, or shared by two dwelling units, or are otherwise accessible from the outside, shall be equipped with locks. The mounting screws for the lock case shall be inaccessible from the outside. The lock bolt shall engage the strike in a~~

manner that will prevent it from being disengaged by movement of the door.

Exception: Exterior sliding doors which are equipped with removable metal pins or charlie bars.

~~K. O. Add Section 4008.1.12 1010.1.12 to the IBC to read:~~

~~4008.1.12 1010.1.12 Door viewers in certain residential buildings. Entrance doors to dwelling units of Group R-2 buildings shall be equipped with door viewers with a field of vision of not less than 180 degrees.~~

Exception: Entrance doors having a vision panel or side vision panels.

~~L. P. Change Exception 5 3 of Section 4009.7.2 1011.5.2 of the IBC to read:~~

~~5. 3. In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual dwelling units in Group R-2 occupancies; the maximum riser height shall be 8.25 inches (210 mm); the minimum tread depth shall be 9 inches (229 mm); the minimum winder tread depth at the walk line shall be 10 inches (254 mm); and the minimum winder tread depth shall be 6 inches (152 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).~~

Q. Change Section 1011.6 of the IBC to read:

1011.6 Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall be not less than the width of stairways served. Every landing shall have a minimum width measured perpendicular to the direction of travel equal to the width of the stairway. Where the stairway has a straight run the depth need not exceed 48 inches (1219 mm). Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. Where wheelchair spaces are required on the stairway landing in accordance with Section 1009.6.3, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.

Exceptions:

1. Where stairways connect stepped aisles to cross aisles or concourses, stairway landings are not required at the transition between stairways and stepped aisles constructed in accordance with Section 1029.

2. A floor or landing is not required at the top of an interior flight of exit access stairs within individual dwelling units and sleeping units of Group R-2 occupancies and dwelling units of Group R-3



# Regulations

occupancies, including stairs in an enclosed private garage serving only an individual dwelling unit, provided that a door does not swing over the stairs.

~~M. R. ] Change Section 1011.16 of the IBC to read:~~

~~1011.16 Ladders. Permanent ladders shall not serve as a part of the means of egress from occupied spaces within a building. Permanent ladders shall be permitted to provide access to the following areas:~~

- ~~1. Spaces frequented only by personnel for maintenance, repair, or monitoring of equipment.~~
- ~~2. Nonoccupiable spaces accessed only by catwalks, crawl spaces, freight elevators, or very narrow passageways.~~
- ~~3. Raised areas used primarily for purposes of security, life safety, or fire safety including observation galleries, prison guard towers, fire towers, or lifeguard stands.~~
- ~~4. Elevated levels in Group U not open to the general public.~~
- ~~5. Nonoccupied roofs that are not required to have stairway access in accordance with Section 1011.12.1.~~

~~S. ] Change Section 4013.8 1015.8 of the IBC to read:~~

~~4013.8 1015.8 Window sills openings. In Occupancy Groups Windows in Group R-2 and R-3, one family and two family and multiple family dwellings, buildings including dwelling units where the opening top of the sill portion of an operable window opening is located less than 18 inches (457 mm) above the finished floor and more than 72 inches (1829 mm) above the finished grade or other surface below, the lowest part of the clear opening of the window shall be at a height not less than 18 inches (457 mm) above the finished floor surface of the room in which the window is located. Operable sections of windows shall not permit openings that allow passage of a 4 inch diameter (102 mm) sphere where such openings are located within 18 inches (457 mm) of the finished floor. on the exterior of the building shall comply with one of the following:~~

~~Exceptions:~~

- ~~1. Operable windows where the top of the sill portion of the opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F 2006.~~
- ~~2. Windows whose Operable windows where the openings will not allow a 4-inch diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.~~

~~3. Openings that Operable windows where the openings are provided with window fall prevention devices that comply with ASTM F 2090.~~

~~4. Windows Operable windows that are provided with window opening control devices that comply with Section 4013.8.1 1015.8.1.~~

~~N. [ S. T. ] Add Exception 3 to Item 4 5 of Section 4014.2 1016.2 of the IBC to read:~~

~~3. A maximum of one exit access is permitted to pass through kitchens, store rooms, closets or spaces used for similar purposes provided such a space is not the only means of exit access.~~

~~O. Change Exception 1 in Item 1 of Section 1015.1 of the IBC to read:~~

~~1. In Groups R 2 and R 3 occupancies, one means of egress is permitted within and from individual dwelling units with a maximum occupant load of 20 where the dwelling unit is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. This exception shall also apply to Group R 2 occupancies where Section 903.2.8, Exception 1 or 2 is applicable.~~

~~P. Change Table 1015.1 of the IBC to read:~~

Table 1015.1 Spaces With One Exit or Exit Access Doorway	
Occupancy	Maximum Occupant Load
A, B, E, F, M, U	50
H 1, H 2, H 3	3
H 4, H 5, I 1, I 3, I 4, R	10
S	29

~~Q. Change Exception 2 of Section 1015.2.1 of the IBC to read:~~

~~2. Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the exit doors or exit access doorways shall not be less than one-fourth of the length of the maximum overall diagonal dimension of the area served.~~

~~R. Add Section 1016.2.2 to the IBC to read:~~

~~1016.2.2 Group F 1 and S 1 increase. The maximum exit access travel distance shall be 400 feet (122 m) in Group F 1 or S 1 occupancies where all of the following are met:~~

- ~~1. The portion of the building classified as Group F 1 or S 1 is limited to one story in height;~~

2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm); and

3. The building is equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1.

S. Add the following text to footnote "a" of Table 1016.2 of the IBC to read:

Section 1016.2.2: For increase distance limitation in Group F-1 and Group S-1.

T. Change Exception 2 of Section 1018.1 of the IBC to read:

2. A fire resistance rating is not required for corridors contained within a dwelling or sleeping unit in an occupancy in Group I-1 and Group R.

[ U. ~~U.~~ ] Change Table 4018.4 1020.1 of the IBC to read:

Table 4018.4 1020.1 Corridor Fire-Resistance Rating			
Occupancy	Occupant Load Served By Corridor	Required Fire-Resistance Rating (hours)	
		Without sprinkler system	With sprinkler system <sup>b</sup>
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	1	0.5
I-2 <sup>a</sup> , I-4	All	Not Permitted	0
I-1, I-3	All	Not Permitted	0
a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3. b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.			

[ V. ~~U.~~ ] Add an additional row to Table 4018.2 1020.2 of the IBC to read:

Occupancy	Width (minimum)
In corridors of Group I-2 assisted living facilities licensed by the Virginia Department of Social Services serving areas with wheelchair, walker, and gurney traffic where residents are capable of self-preservation or where resident rooms have a means of egress door leading directly to the outside.	44 inches

W. Change the first row in Table 1021.2(2) to read:

Story	Occupancy	Maximum Occupants per Story	Maximum Exit Access Travel Distance
First story or basement	A, B <sup>b</sup> , E, F <sup>b</sup> , M, U, S <sup>b</sup>	50 occupants	75 feet

[ W. Change Section 1023.5 of the IBC to read:

1023.5 Penetrations. Penetrations into or through interior exit stairways and ramps are prohibited except for equipment and ductwork necessary for independent ventilation or pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication systems, and electrical raceway serving the interior exit stairway and ramp and terminating at a steel box not exceeding 16 square inches (0.010 m<sup>2</sup>). Such penetrations shall be protected in accordance with Section 714. There shall not be penetrations or communication openings, whether protected or not, between adjacent interior exit stairways and ramps.

Exceptions:

1. Membrane penetrations shall be permitted on the outside of the interior exit stairway and ramp. Such penetrations shall be protected in accordance with Section 714.3.2.

2. For buildings in other than Group H, with no more than two stories above grade plane and are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, structural members, other than columns, that are part of the primary structural frame supporting the roof sheathing, roof slab or roof deck only and structural members that are secondary members supporting the roof sheathing, roof slab or roof deck only, shall be permitted to penetrate an

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# Regulations

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interior exit stairway enclosure or a ramp enclosure. Such penetrations shall be protected in accordance with Section 714.

X. ~~V.~~ ] Change Section ~~4022.9~~ 1023.9 of the IBC to read:

~~4022.9~~ 1023.9 Floor identification signs. A sign shall be provided at each floor landing in exit enclosures connecting more than three stories designating the floor level, the terminus of the top and bottom of the exit enclosure and the identification of the stair or ramp by designation with a letter of the alphabet. The signage shall also state the story of, and the direction to, the exit discharge and the availability of roof access from the enclosure for the fire department. The sign shall be located five feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. Floor level identification signs in tactile characters complying with ICC A117.1 shall be located at each floor level landing adjacent to the door leading from the enclosure into the corridor to identify the floor level.

[ Y. Change Section 1024.6 of the IBC to read:

1024.6 Penetrations. Penetrations into or through an exit passageway are prohibited except for equipment and ductwork necessary for independent pressurization, sprinkler piping, standpipes, electrical raceway for fire department communication and electrical raceway serving the exit passageway and terminating at a steel box not exceeding 16 square inches (0.010 m<sup>2</sup>). Such penetrations shall be protected in accordance with Section 714. There shall not be penetrations or communicating openings, whether protected or not, between adjacent exit passageways.

Exceptions:

1. Membrane penetrations shall be permitted on the outside of the exit passageway. Such penetrations shall be protected in accordance with Section 714.3.2.

2. For buildings in other than Group H, with no more than two stories above grade plane and are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, structural members, other than columns, which are part of the primary structural frame supporting the roof sheathing, roof slab or roof deck only and structural members which are secondary members supporting the roof sheathing, roof slab or roof deck only, shall be permitted to penetrate an interior exit stairway enclosure or a ramp enclosure. Such penetrations shall be protected in accordance with Section 714. ]

~~Y.~~ [ ~~W.~~ Z. ] Change Section ~~4024.4~~ 1025.1 of the IBC to read:

~~4024.4~~ 1025.1 General. Approved luminous egress path markings delineating the exit path shall be provided in

buildings of Groups A, B, E, I, M and R-1 having occupied floors located more than 420 feet (128 016 mm) above the lowest level of fire department vehicle access in accordance with Sections ~~4024.4~~ 1025.1 through ~~4024.5~~ 1025.5.

Exception: Luminous egress path markings shall not be required on the level of exit discharge in lobbies that serve as part of the exit path in accordance with Section ~~4027.4~~ 1028.1, Exception 1.

[ AA. Change Section 1030.1 of the IBC to read:

1030.1 General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue openings in Group R-2 occupancies in accordance with Tables 1006.3.2(1) and 1006.3.2(2) and in Group R-3 and R-4 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with this section. Where basements contain one or more sleeping rooms, emergency escape and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a public way or to a yard or court that opens to a public way.

Exceptions:

1. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue openings.

2. Emergency escape and rescue openings are not required from basements or sleeping rooms that have an exit door or exit access door that opens directly into a public way or to a yard, court or exterior exit balcony that opens to a public way.

3. Basements without habitable spaces and having not more than 200 square feet (18.6 m<sup>2</sup>) in floor area shall not be required to have emergency escape and rescue openings. ]

## **13VAC5-63-250. Chapter 11 Accessibility.**

A. Add an exception to Section 1101.2 of the IBC to read:

Exception: Wall-mounted visible alarm notification appliances in Group I-3 occupancies shall be permitted to be a maximum of 120 inches (3048 mm) above the floor or ground, measured to the bottom of the appliance. Such appliances shall otherwise comply with all applicable requirements.

B. ~~Add~~ Change Section ~~4403.2.16~~ to 1103.2.8 of the IBC to read:

~~4403.2.16~~ 1103.2.8 Raised and lowered areas in places of religious worship. Raised or lowered areas in places of religious worship are not required to be accessible or to be

served by an accessible route provided such areas are used exclusively for the performance of religious ceremonies and are located within an accessible story or mezzanine.

C. Change Section 1106.1 of the IBC and replace Table 1106.1 of the IBC with Tables 1106.1(1) and 1106.1(2) to read:

1106.1 Required. Where parking is provided, accessible parking spaces shall be provided in compliance with Tables 1106.1(1) and 1106.1(2), as applicable, except as required by Sections 1106.2 through 1106.4. Where more than one parking facility is provided on a site, the number of parking spaces required to be accessible shall be calculated separately for each parking facility. Exception: This section does not apply to parking spaces used exclusively for buses, trucks, other delivery vehicles, law-enforcement vehicles, or vehicular impound and motor pools where lots accessed by the public are provided with an accessible passenger loading zone.

Table 1106.1(1) Accessible Parking Spaces for Groups A, B, E, M, R-1, R-2, and I <sup>a</sup>	
Total Parking Spaces Provided	Required Minimum Number of Accessible Spaces
1 - 25	1
26 - 50	2
51 - 75	3
76 - 100	4
101 - 125	5
126 - 150	6
151 - 200	7
201 - 300	8
301 - 400	9
401 - 500	10
501 - 1,000	2.33% of total
1,001 and over	23, plus one for each 100, or fraction thereof, over 1,000
a. Condominium parking in Group R-2 occupancies where parking is part of the unit purchase shall be in accordance with Table 1106.1(2).	

Table 1106.1(2) Accessible Parking Spaces for Groups F, S, H, R-3, R-4, and U	
Total Parking Spaces Provided	Required Minimum Number of Accessible Spaces
1 - 25	1
26 - 50	2
51 - 75	3
76 - 100	4
101 - 150	5
151 - 200	6
201 - 300	7
301 - 400	8
401 - 500	9
501 - 1,000	2.0% of total
1,001 and over	20, plus one for each 100, or fraction thereof, over 1,000

D. Add Section 1106.8 to the IBC to read:

1106.8 Identification of accessible parking spaces. In addition to complying with applicable provisions of this chapter, all accessible parking spaces shall be identified by above grade signs. A sign or symbol painted or otherwise displayed on the pavement of a parking space shall not constitute an above grade sign. All above grade parking space signs shall have the bottom edge of the sign no lower than four feet (1219 mm) nor higher than seven feet (2133 mm) above the parking surface. All disabled parking signs shall include the following language: PENALTY, \$100-500 Fine, TOW-AWAY ZONE. Such language may be placed on a separate sign and attached below existing above grade disabled parking signs, provided that the bottom edge of the attached sign is no lower than four feet above the parking surface.

E. Add Sections 1109.16 and 1109.16.1 to the IBC to read:

1109.16 Dwellings containing universal design features for accessibility. Group R-5 occupancies not subject to Section R320.1 of the IRC and Group R-3 occupancies not subject to Section 1107.6.3 may comply with this section and be approved by the local building department as dwellings containing universal design features for accessibility.

1109.16.1 Standards for dwellings containing universal design features for accessibility. When the following requirements are met, approval shall be issued by the local building department indicating that a dwelling has been constructed in accordance with these standards and is

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# Regulations

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deemed to be a dwelling containing universal design features for accessibility.

1. The dwelling must comply with the requirements for Type C units under Section 1005 of ICC A117.1 with the following changes to ~~the~~ those requirements:

1.1. That at least one bedroom be added to the interior spaces required by Section 1005.4 of ICC A117.1.

1.2. In the toilet room or bathroom required by Section 1005 of ICC A117.1, in addition to the lavatory and water closet, a shower or bathtub complying with Section 1004.11.3.2.3 of ICC A117.1 shall be provided and shall include reinforcement for future installation of grab bars in accordance with Section 1004.11.1 of ICC A117.1.

1.3. That the exception to Section 1005.4 of ICC A117.1 is not applicable.

1.4. That there be a food preparation area complying with Section 1005.7 of ICC A117.1 on the entrance level.

1.5. That any thermostat for heating or cooling on the entrance level comply with Section 1005.8 of ICC A117.1.

F. Change Item 1 of Section ~~1110.1~~ 1111.1 of the IBC to read:

1. Accessible parking spaces required by Section 1106.1.

## **13VAC5-63-260. Chapter 12 Interior environment.**

A. Add the following to the list of terms in Section 1202.1 of the IBC:

Day-night average sound level (Ldn).

Sound transmission class (STC) rating.

B. Add Section ~~1203.4.4~~ 1203.5.4 to the IBC to read:

~~1203.4.4~~ 1203.5.4 Insect screens in occupancies other than Group R. Every door, window and other outside opening for natural ventilation serving structures classified as other than a residential group containing habitable rooms, food preparation areas, food service areas, or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged, or stored, shall be supplied with approved tightly fitting screens of not less than 16 mesh per inch (16 mesh per 25 mm) and every screen door used for insect control shall have a self-closing device.

Exception: Screen doors shall not be required for out swinging doors or other types of openings which make screening impractical, provided other approved means, such as air curtains or insect repellent fans are provided.

C. Add Section ~~1203.4.5~~ 1203.5.5 to the IBC to read:

~~1203.4.5~~ 1203.5.5 Insect screens in Group R occupancies. Every door, window and other outside opening required for natural ventilation purposes which serves a structure

classified as a residential group shall be supplied with approved tightly fitted screens of not less than 16 mesh per inch (16 mesh per 25 mm) and every screen door used for insect control shall have a self-closing device.

D. Add Section ~~1203.6~~ 1203.7 to the IBC to read:

~~1203.6~~ 1203.7 Smoking areas in restaurants. Smoking areas in restaurants, as defined in § 15.2-2820 of the Code of Virginia, shall comply with the following:

1. The area where smoking may be permitted shall be structurally separated from the portion of the restaurant in which smoking is prohibited. For the purposes of this section, structurally separated means a stud wall covered with drywall or other building material or like barrier, which, when completed, extends from the floor to the ceiling, resulting in a physically separated room. Such wall or barrier may include portions that are glass or other gas-impervious building material and shall be permitted to have a door leading to areas in which smoking is prohibited, provided the door is capable of being closed at all times.
2. The area where smoking may be permitted shall be separately vented to prevent the recirculation of air from such area to the area of the restaurant where smoking is prohibited.

Exception: The above requirements do not apply if a restaurant is exempt from, or meets any of the exceptions to, the Virginia Indoor Clean Air Act (Chapter 28.2 of Title 15.2 (§ 15.2-2820 et seq.) of the Code of Virginia).

E. Change Section 1207.1 of the IBC to read:

1207.1 Scope. Sections 1207.2 and 1207.3 shall apply to common interior walls, partitions and floor/ceiling assemblies between adjacent dwelling units or between dwelling units and adjacent public areas such as halls, corridors, stairs or service areas. Section 1207.4 applies to the construction of the exterior envelope of Group R occupancies within airport noise zones and to the exterior envelope of Group A, B, E, I and M occupancies in any locality in whose jurisdiction, or adjacent jurisdiction, is located a United States Master Jet Base, a licensed airport or United States government or military air facility, when such requirements are enforced by a locality pursuant to § 15.2-2295 of the Code of Virginia.

F. Add Section 1207.4 to the IBC to read:

1207.4 Airport noise attenuation standards. Where the Ldn is determined to be 65 dBA or greater, the minimum STC rating of structure components shall be provided in compliance with Table 1207.4. As an alternative to compliance with Table 1207.4, structures shall be permitted to be designed and constructed so as to limit the interior noise level to no greater than 45 Ldn. Exterior structures, terrain and permanent plantings shall be permitted to be included as part of the alternative design. The alternative design shall be certified by an RDP.

G. Add Table 1207.4 to the IBC to read:

Table 1207.4 Airport Noise Attenuation Standards		
Ldn	STC of exterior walls and roof/ceiling assemblies	STC of doors and windows
65–69	39	25
70–74	44	33
75 or greater	49	38

**13VAC5-63-264. Chapter 13 Energy efficiency.**

Add Section 1301.1.1.1 to the IBC to read:

1301.1.1.1 Changes to the IECC. The following changes shall be made to the IECC:

1. [ Change Table C402.4 to read:

Table C402.4 Building Envelope Requirements: Fenestration								
Climate Zone	1	2	3	4 (Except Marine)	5 and Marine 4	6	7	8
<u>Vertical fenestration</u>								
<u>U-factor</u>								
<u>Fixed fenestration</u>	<u>0.50</u>	<u>0.50</u>	<u>0.46</u>	<u>0.38</u>	<u>0.38</u>	<u>0.36</u>	<u>0.29</u>	<u>0.29</u>
<u>Operable fenestration</u>	<u>0.65</u>	<u>0.65</u>	<u>0.60</u>	<u>0.45</u>	<u>0.45</u>	<u>0.43</u>	<u>0.37</u>	<u>0.37</u>
<u>Entrance doors</u>	<u>1.10</u>	<u>0.83</u>	<u>0.77</u>	<u>0.77</u>	<u>0.77</u>	<u>0.77</u>	<u>0.77</u>	<u>0.77</u>
<u>SHGC</u>								
<u>SHGC</u>	<u>0.25</u>	<u>0.25</u>	<u>0.25</u>	<u>0.40</u>	<u>0.40</u>	<u>0.40</u>	<u>0.45</u>	<u>0.45</u>
<u>Skylights</u>								
<u>U-factor</u>	<u>0.75</u>	<u>0.65</u>	<u>0.55</u>	<u>0.50</u>	<u>0.50</u>	<u>0.50</u>	<u>0.50</u>	<u>0.50</u>
<u>SHGC</u>	<u>0.35</u>	<u>0.35</u>	<u>0.35</u>	<u>0.40</u>	<u>0.40</u>	<u>0.40</u>	<u>NR</u>	<u>NR</u>
NR = No requirement.								

2. Change Section C402.4.3 to read:

C402.4.3 Maximum U-factor and SHGC. The maximum U-factor and solar heat gain coefficient (SHGC) for fenestration shall be as specified in Table C402.4.

The window projection factor shall be determined in accordance with Equation 4-5.

(Equation 4-5)

PF = A/B

where:

PF = Projection factor (decimal).

A = Distance measured horizontally from the farthest continuous extremity of any overhand, eave, or

permanently attached shading device to the vertical surface of the glazing.

B = Distance measured vertically from the bottom of the glazing to the underside of the overhang, eave, or permanently attached shading device.

Where different windows or glass doors have different PF values, they shall each be evaluated separately.

Where the fenestration projection factor for a specific vertical fenestration product is greater than or equal to 0.20, the required maximum SHGC from Table C402.4 shall be adjusted by multiplying the required maximum SHGC by the multiplier specified in Table C402.4.3 corresponding with the orientation of the fenestration product and the projection factor.

# Regulations

3. Add Table C402.4.3 to read:

Table C402.4.3 SHGC Adjustment Multipliers		
Projection factor	Oriented within 45 degrees of true north	All other orientations
$0.2 \leq PF < 0.5$	1.1	1.2
$PF < 0.5$	1.2	1.6

4. ] Add ~~Exception 3 to an~~ exception to the first paragraph of Section ~~C402.4.5.2~~ C403.2.4.3 to read:

~~3. Exception:~~ Any grease duct serving a Type I hood installed in accordance with IMC Section 506.3 shall not be required to have a motorized or gravity damper.

[ 5. Add Section C403.2.6.3 to read:

C403.2.6.3 Dwelling unit mechanical ventilation. Mechanical ventilation shall be provided for dwelling units in accordance with the IMC.

2. ] ~~Change Section C402.4.8 to read:~~

~~C402.4.8 Recessed lighting. Recessed luminaires installed in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned spaces. All recessed luminaires shall be IC rated and labeled as having an air leakage rate or not more 2.0 cfm (0.944 L/s) when tested in accordance with ASTM E 283 at a 1.57 psf (75 Pa) pressure differential. All recessed luminaires installed in the thermal envelope shall be sealed with a gasket or caulk between the housing and interior wall or ceiling covering.~~

3. Add Exception 4 to Section C403.2.4.4 to read:

~~4. Any grease duct serving a Type I hood installed in accordance with IMC Section 506.3 shall not be required to have a motorized or gravity damper.~~

4. Change the exception to Section C405.1 to read:

~~Exception: Dwelling units within commercial buildings shall not be required to comply with Sections C405.2 through C405.5, provided that not less than 75% of the permanently installed luminaires, other than low voltage lighting, shall be fitted for, and contain only, high efficacy lamps.~~

5. [ 6. ] Change Section ~~C405.6~~ C405.5 to read:

~~C405.6~~ C405.5 Exterior lighting (Mandatory). All exterior lighting, other than low-voltage landscape lighting, shall comply with ~~Sections C405.6.1 and C405.6.2~~ Section C405.5.1.

Exception: Where approved because of historical, safety, signage, or emergency considerations.

[ 7. Change Section R401.2 to read:

R401.2 Compliance. Projects shall comply with all provisions of Chapter 4 labeled "Mandatory" and one of the following:

1. Sections R401 through R404.

2. Section R405.

3. Section R406.

4. The most recent version of REScheck, keyed to the 2015 IECC.

Note: See REScheck compliance guidance issued by DHCD, available at the Department's website. ]

6. [ ~~3. 8.~~ ] Delete Section R401.3.

7. [ 4. 9. ] Change the ceiling R-value and wood frame wall R-value categories for climate zone "4 except Marine" in Table ~~R402.1.1~~ R402.1.2 to read:

Ceiling R-Value	Wood Frame Wall R-Value
38	15 or 13 + 1 <sup>h</sup>

8. [ ~~5. 10.~~ ] Change the ceiling U-factor and frame wall U-factor categories for climate zone "4 except Marine" in Table ~~R402.1.3~~ R402.1.4 to read:

Ceiling U-Factor	Frame Wall U-Factor
0.030	0.079

9. [ ~~6. 11.~~ ] Change ~~Sections R402.2.1 and~~ Section R402.2.4 to read:

~~R402.2.1 Ceilings with attic spaces. When Section R402.1.1 would require R 38 in the ceiling, installing R-30 over 100% of the ceiling area shall be deemed to satisfy the requirement for R 38 wherever the full height of uncompressed R 30 insulation extends over the wall top plate at the eaves. Similarly, when Section R402.1.1 would require R 49 in the ceiling, installing R 38 over 100% of the ceiling area shall be deemed to satisfy the requirement for R 49 wherever the full height of uncompressed R 38 insulation extends over the wall top plate at the eaves. This reduction shall not apply to the U-factor alternative approach in Section R402.1.3 and the total UA alternative in Section R402.1.4.~~

R402.2.4 Access hatches and doors. Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weatherstripped and insulated in accordance with the following values:

1. Hinged vertical doors shall have a minimum overall R-5 insulation value;

2. Hatches and scuttle hole covers shall be insulated to a level equivalent to the insulation on the surrounding surfaces; and

3. Pull down stairs shall have a minimum of 75% of the panel area having R-5 rigid insulation.

Access shall be provided to all equipment that prevents damaging or compressing the insulation. A wood framed or equivalent baffle or retainer is required to be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the attic access is opened and to provide a permanent means of maintaining the installed R-value of the loose fill insulation.

10. ~~Delete Section R402.3.6 and change [ 7, 12. ] Change Sections R402.4 and R402.4.1.1 to read:~~

R402.4 Air leakage. The building thermal envelope shall be constructed to limit air leakage in accordance with the requirements of Sections R402.4.1 through R402.4.4.

R402.4.1.1 Installation (Mandatory). The components of the building thermal envelope as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction. Where required by the code official, an approved third party shall inspect all components and verify compliance.

11. [ 8, 13. ] Change the title of the "Criteria" "Insulation Installation Criteria" category of Table R402.4.1.1; change the "Walls," "Shower/tub on exterior wall" and "Fireplace" categories category of Table R402.4.1.1, and add footnotes "b" and "c" to Table R402.4.1.1 to read:

Component	Criteria <sup>a,b</sup>
Walls	<p><del>Cavities within corners and headers shall be insulated by completely filling the cavity with a material having a minimum thermal resistance of R-3 per inch. The junction of the foundation and sill plate shall be sealed. The junction of the top plate and top of exterior walls shall be sealed. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier. Knee walls shall be sealed.</del></p>

Shower or tub on exterior wall <sup>c</sup>	Exterior walls adjacent to showers and tubs shall be insulated and an air barrier installed on the interior side of the exterior wall, adjacent to the shower or tub.
Fireplace	An air barrier shall be installed on fireplace walls. Fireplaces shall have gasketed doors or tight fitting flue dampers.

~~b. Structural integrity of headers shall be in accordance with the applicable building code.~~

~~c. Air barriers used behind showers and tubs on exterior walls shall be of a permeable material that does not cause the entrapment of moisture in the stud cavity.~~

Component	Air Barrier Criteria	Insulation Installation Criteria <sup>b</sup>
Shower/tub on exterior wall <sup>c</sup>	The air barrier installed at exterior walls adjacent to showers and tubs shall be installed on the interior side and separate the exterior walls from the showers and tubs.	Exterior walls adjacent to showers and tubs shall be insulated.

~~b. Structural integrity of headers shall be in accordance with the applicable building code.~~

~~c. Air barriers used behind showers and tubs on exterior walls shall be of a permeable material that does not cause the entrapment of moisture in the stud cavity.~~

12. [ 9, 14. ] Change Section R402.4.1.2 and add Sections R402.4.1.2.1, R402.4.1.2.2, and R402.4.1.3 to read:

R402.4.1.2 Air sealing. Building envelope air tightness shall be demonstrated to comply with either Section R402.4.1.2.1 or R402.4.1.2.2.

R402.4.1.2.1 Testing option. The building or dwelling unit shall be tested for air leakage. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the building



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# Regulations

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official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the building official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope.

During testing:

1. Exterior windows and doors and fireplace and stove doors shall be closed, but not sealed beyond the intended weatherstripping or other infiltration control measures;
2. Dampers, including exhaust, intake, makeup air, backdraft, and flue dampers, shall be closed, but not sealed beyond intended infiltration control measures;
3. Interior doors, if installed at the time of the test, shall be open;
4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;
5. Heating and cooling systems, if installed at the time of the test, shall be turned off; and
6. Supply and return registers, if installed at the time of the test, shall be fully open.

R402.4.1.2.2 Visual inspection option. Building envelope tightness shall be considered acceptable when the items listed in Table R402.4.1.1, applicable to the method of construction, are field verified. Where required by the building official, an approved party, independent from the installer, shall inspect the air barrier. When this option is chosen, the dwelling unit shall be ventilated by mechanical means in accordance with Section 403 of the IMC.

R402.4.1.3 Leakage rate (Prescriptive). The building or dwelling unit shall have an air leakage rate not exceeding 5 changes per hour as verified in accordance with Section R402.4.1.2.

## 13. Change Section R403.1.1 to read:

~~R403.1.1 Programmable thermostat. The thermostat controlling the primary heating or cooling system of the dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature set points at different times of the day. This thermostat shall include the capability to set back or temporarily operate the system to maintain zone temperatures down to 55°F (13°C) or up to 85°F (29°C). The thermostat shall initially be programmed with a heating temperature set point no higher than 70°F (21°C) and a cooling temperature set point no lower than 78°F (26°C).~~

## 14. [ ~~10. Change Section~~ ] R403.2.2 [ ~~R403.3.2 to read:~~ ]

~~R403.2.2 [ R403.3.2 Sealing (Mandatory). Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with either the IMC or the IRC, as applicable. Verification of compliance with this section shall be in accordance with either ] Section R403.2.2.1 [ Sections R403.3.3 and R403.3.4 when the testing option is chosen ] or Section R403.2.2.2 [ R403.3.5 when the visual inspection option is chosen.~~

~~Exceptions:~~

- ~~1. Air impermeable spray foam products shall be permitted to be applied without additional joint seals.~~
- ~~2. ] Where a duct connection is made that is partially inaccessible, three screws or rivets shall be equally spaced on the exposed portion of the joint so as to prevent a hinge effect.~~
- ~~3. Continuously welded and locking type longitudinal joints and seams in ducts operating at [ For ducts having a static ] pressures [ pressure of less than 2 inches of water column (500 Pa) ] pressure classification shall not require [ ~~additional closure systems shall not be required for continuously welded joints and seams and locking type joints and seams of other than the snap lock and button lock types.~~~~

## 15. Change Section R403.3.3 to read:

R403.3.3 Duct testing (Mandatory). Ducts shall be pressure tested to determine air leakage by one of the following methods:

1. Rough-in test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure if installed at the time of the test. All registers shall be taped or otherwise sealed during the test.

2. Postconstruction test: Total leakage shall be measured with a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. Registers shall be taped or otherwise sealed during the test.

Exception: A duct air leakage test shall not be required where the ducts and air handlers are located entirely within the building thermal envelope.

A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. The licensed mechanical contractor installing the mechanical system shall be permitted to perform the duct testing. The contractor shall have been trained on the equipment used to perform the test. ]

15. [ ~~11.~~ Change Section ] R403.2.2.1 [ ~~R403.3.5~~ to read: ]

R403.2.2.1 Testing option. Duct tightness shall be verified by either of the following:

1. Post construction test: Total leakage shall be less than or equal to 6 cfm (169.9 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.

2. Rough in test: Total leakage shall be less than or equal to 5 cfm (141.5 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inch w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 5 cfm (141.5 L/min) per 100 square feet (9.29 m<sup>2</sup>) of conditioned floor area.

~~Exception: The total leakage test is not required for ducts and air handlers located entirely within the building thermal envelope.~~

~~When this option is chosen, testing shall be performed by approved qualified individuals, testing agencies or contractors. Testing and results shall be as prescribed in Section R403.2.2 and approved recognized industry standards.~~

16. Add Section R403.2.2.2 to read:

~~R403.2.2.2 [ ~~R403.3.5~~ Visual inspection option. In addition to the inspection of ducts otherwise required by this code, when the air handler and all ducts are not within conditioned space and this option is chosen to verify duct tightness, duct tightness shall be considered acceptable when the requirements of Section ] R403.2.2 [ ~~R403.3.5~~ are field verified. ]~~

17. [ ~~12.~~ Add Section ] R403.2.2.3 [ ~~R403.3.6~~ to read: ]

R403.2.2.3 Sealed air handler. Air handlers shall have a manufacturer's designation for an air leakage of no more than 2.0% of the design air flow rate when tested in accordance with ASHRAE 193.

~~[ ~~R403.3.6~~ Building cavities (Mandatory). Building framing cavities shall not be used as ducts or plenums. ]~~

18. Change Section R403.4.2 to read:

~~R403.4.2 Hot water pipe insulation (Prescriptive). Insulation for hot water pipe with a minimum thermal resistance (R value) of R 3 shall be applied to the following:~~

~~1. Piping larger than 3/4 inch nominal diameter.~~

~~2. Piping serving more than one dwelling unit.~~

~~3. Piping located outside the conditioned space.~~

~~4. Piping from the water heater to a distribution manifold.~~

~~5. Piping located under a floor slab.~~

~~6. Buried piping.~~

~~7. Supply and return piping in recirculation systems other than demand recirculation systems.~~

~~19. Delete Table R403.4.2.~~

20. [ ~~13.~~ 16. ] Change Section ~~R403.6~~ ~~R403.7~~ to read:

~~R403.6~~ ~~R403.7~~ Equipment and appliance sizing. Heating and cooling equipment and appliances shall be sized in accordance with ACCA Manual S or other approved sizing methodologies based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies.

Exception: Heating and cooling equipment and appliance sizing shall not be limited to the capacities determined in accordance with Manual S or other approved sizing methodologies where any of the following conditions apply:

1. The specified equipment or appliance utilizes multi-stage technology or variable refrigerant flow technology and the loads calculated in accordance with the approved heating and cooling methodology fall within the range of the manufacturer's published capacities for that equipment or appliance.

2. The specified equipment or appliance manufacturer's published capacities cannot satisfy both the total and sensible heat gains calculated in accordance with the approved heating and cooling methodology and the next larger standard size unit is specified.

3. The specified equipment or appliance is the lowest capacity unit available from the specified manufacturer.

21. Change Section R404.1 to read:

~~R404.1 Lighting equipment (Mandatory). A minimum of 50% of the lamps in permanently installed luminaires shall be high efficacy lamps or a minimum of 50% of the permanently installed luminaires shall contain only high efficacy lamps.~~

Exception: Low voltage lighting shall not be required to utilize high efficiency lamps.

# Regulations

22. [ ~~14.~~ Change the ] "Glazing" [ "Vertical fenestration other than opaque doors" and "Air exchange rate" categories of Table R405.5.2(1) to read:

[ Building Component	Standard Reference Design	Proposed Design ]
<u>Glazing</u> <sup>a</sup> [ <u>Vertical fenestration other than opaque doors</u>	Total area <sup>b</sup> is 15% of the conditioned floor area.	As proposed ]
<u>Glazing</u> <sup>a</sup> [ <u>Vertical fenestration other than opaque doors</u>	Orientation: equally distributed to four cardinal compass orientations (North, East, South & West).	As proposed ]
<u>Glazing</u> <sup>a</sup> [ <u>Vertical fenestration other than opaque doors</u>	U factor: from Table ] R402.1.3 [ <u>R402.1.4</u>	As proposed ]
<u>Glazing</u> <sup>a</sup> [ <u>Vertical fenestration other than opaque doors</u>	SHGC: From Table ] R402.1.1 [ <u>R402.1.2</u> except that for climates with no requirement (NR) SHGC = 0.40 shall be used.	As proposed ]
<u>Glazing</u> <sup>a</sup> [ <u>Vertical fenestration other than opaque doors</u>	Interior shade fraction:  0.92 (0.21 x SHGC for the standard reference design)	0.92 (0.21 x SHGC as proposed) ]
<u>Glazing</u> <sup>a</sup> [ <u>Vertical fenestration other than opaque doors</u>	External shading: none.	As proposed
Air exchange rate	Air leakage rate of 5 air changes per hour at a pressure of 0.2 inches w.g. (50 Pa). The mechanical ventilation rate shall be in addition to the air leakage rate and the same as in the proposed design, but no greater than $0.01 \times CFA + 7.5 \times (N_{br} + 1)$ where:  CFA = conditioned floor area N <sub>br</sub> = number of bedrooms	For residences that are not tested, the same air leakage rate as the standard reference design. For tested residences, the measured air exchange rate <sup>c-d</sup> . The mechanical ventilation rate <sup>d-h</sup> shall be in addition to the air

Energy recovery shall not be assumed for mechanical ventilation.

leakage rate and shall be as proposed.

a. Where required by the code official, testing shall be conducted by an approved party. Hourly calculations as specified in the ASHRAE Handbook of Fundamentals, or the equivalent shall be used to determine the energy loads resulting from infiltration.

b. The combined air exchange rate for infiltration and mechanical ventilation shall be determined in accordance with Equation 43 of 2001 ASHRAE Handbook of Fundamentals, page 26.24 and the "Whole house Ventilation" provisions of 2001 ASHRAE Handbook of Fundamentals, page 26.19 for intermittent mechanical ventilation.

17. Change Table R406.4 to read:

Table R406.4 Maximum Energy Rating Index <sup>a</sup>	
Climate Zone	Energy Rating Index
1	52
2	52
3	51
4	62
5	55
6	54
7	53
8	53

a. When onsite renewable energy is included for compliance using the ERI analysis per Section R406.4, the building shall meet the mandatory requirements of Section R406.2 and the building thermal envelope shall be greater than or equal to levels of energy efficiency and solar heat gain coefficient in Table R402.1.2, with a ceiling R-value of 49 and a wood frame wall R-value of 20 or 13+5, or Table R402.1.4, with a ceiling U-factor of 0.026 and a frame wall U-factor of 0.060.

~~15.~~ 18. ] Delete Section R503.1.1.1.

## **13VAC5-63-268. Chapter 15 Roof assemblies and rooftop structures.**

A. Change the title of IBC Section 1511 to read:

Roofing and Roofing Repair.

B. Change Section 1511.1 of the IBC to read as follows and delete the remainder of Section 1511 of the IBC:

1511.1 General. Materials and methods of application used for reroofing and roof repair shall comply with the applicable requirements of Chapter 15 and the requirements of Section 303 of the VEBC.

**13VAC5-63-270. Chapter 16 Structural design.**

A. Change Section 1609.3 of the IBC to read:

1609.3 Basic wind speed. The ultimate design wind speed,  $V_{ult}$ , in miles per hour (mph), for the determination of the wind loads shall be determined by Figures ~~1609A 1609.3(1)~~, ~~1609B 1609.3(2)~~, and ~~1609C 1609.3(3)~~. The ultimate design wind speed,  $V_{ult}$ , for use in the design of Risk Category II buildings and structures shall be obtained from Figure ~~1609A 1609.3(1)~~. The ultimate design wind speed,  $V_{ult}$ , for use in the design of Risk Categories III and IV buildings and structures shall be obtained from Figure ~~1609B 1609.3(2)~~. The ultimate design wind speed,  $V_{ult}$ , for use in the design of Risk Category I buildings and structures shall be obtained from Figure ~~1609C 1609.3(3)~~. The ultimate design wind speeds for localities in special wind regions, near mountainous terrains, and near gorges shall be based on elevation. Areas at 4,000 feet in elevation or higher shall use 142 V mph (62.5 m/s) and areas under 4,000 feet in elevation shall use 116 V mph (51 m/s). Gorge areas shall be based on the highest recorded speed per locality or in accordance with local jurisdiction requirements determined in accordance with Section 26.5.1 of ASCE 7.

In nonhurricane-prone regions, when the ultimate design wind speed,  $V_{ult}$ , is estimated from regional climatic data, the ultimate design wind speed,  $V_{ult}$ , shall be determined in accordance with Section 26.5.3 of ASCE 7.

B. Add Section 1612.1.1 to the IBC to read:

1612.1.1 Elevation of manufactured homes. New or replacement manufactured homes to be located in any flood hazard zone shall be placed in accordance with the applicable elevation requirements of this code.

Exception: Manufactured homes installed on sites in an existing manufactured home park or subdivision shall be permitted to be placed so that the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches (914 mm) above grade in lieu of being elevated at or above the base flood elevation provided no manufactured home at the same site has sustained flood damage exceeding 50% of the market value of the home before the damage occurred.

**13VAC5-63-280. Chapter 17 Special inspections and tests.**

A. Change Section 1703.1 of the IBC to read:

1703.1 Approved agency. An approved agency responsible for laboratory testing or special inspections, or both, must

comply with the qualification, certification and experience requirements of ASTM E329 or the alternatives listed herein.

B. Change Section 1703.1.1 of the IBC to read:

1703.1.1 Independence. An approved agency shall be objective and competent. The agency shall also disclose possible conflicts of interest so that objectivity can be confirmed. The special inspector and their agents shall be independent from the person, persons or contractor responsible for the physical construction of the project requiring special inspections.

C. Change Section 1703.1.3 of the IBC to read:

1703.1.3 Personnel. An approved agency shall employ experienced personnel educated in conducting, supervising and evaluating tests or inspections, or both. Upon request by the building official, documentation shall be provided demonstrating the applicable agency's accreditation as noted in ASTM E329 and individuals' resumes indicating pertinent training, certifications and other qualifications for special inspection personnel associated with the proposed construction requiring special inspections. The building official may prescribe the manner of qualification documentation and frequency of updating information regarding agency or individual inspector approval.

Firms providing special inspection services or individual inspectors seeking approval of alternative certifications or qualifications, or both, listed in ASTM E329 may submit documentation demonstrating equivalency. This documentation may include evidence of meeting other recognized standards or alternative certifications to demonstrate that the minimum qualifications, certification and experience intended by ASTM E329 have been met. The building official may, if satisfied that equivalency has been demonstrated, approve the credentials of the firm or individual.

D. Change Section 1704.2 of the IBC to read:

1704.2 Special inspections. Where application is made for construction as described in this section, the owner shall employ one or more special inspectors to provide inspections and tests during construction on the types of work listed under Section ~~1704~~ 1705. All individuals or agents performing special inspection functions shall operate under the direct supervision of an RDP in responsible charge of special inspection activities, also known as the "special inspector." The special inspector shall ensure that the individuals under their charge are performing only those special inspections or laboratory testing that are consistent with their knowledge, training and certification for the specified inspection or laboratory testing.

# Regulations

Exceptions:

1. ~~[ Special ]~~ The building official shall be permitted to waive special inspections and tests ~~[ are not required for ]~~ work ~~[ construction of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official ]~~.

2. Special inspections ~~[ and tests ]~~ are not required for ~~[ building components unless the design involves the practice of professional engineering or architecture as defined by the laws of this Commonwealth and regulations governing the professional registration and certification of engineers and architects ]~~.

2.1. One story buildings under 20 feet (6096 mm) in height which do not exceed 5000 square feet (565 m<sup>2</sup>) in building area; or

2.2. Alterations to Group U structures which do not increase loads in accordance with Sections 403.3 and 403.4 of the VEBC ].

3. Unless otherwise required by the building official, special inspections ~~[ and tests ]~~ are not required for occupancies in Groups R-3, R-4 or R-5 and occupancies in Group U that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.

4. Special inspections and tests are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 2308.

5. The contractor is permitted to employ the approved agencies where the contractor is also the owner.

E. Change Section 1704.2.3 of the IBC to read:

1704.2.3 Statement of special inspections. The permit applicant shall submit a statement of special inspections prepared by the RDP in responsible charge in accordance with Section 111.1. This statement shall be in accordance with Section 1704.3.

~~Exceptions~~ Exception:

~~1. A statement of special inspections is not required for structures designed and constructed in accordance with the conventional construction provisions of Section 2308.~~

~~2.~~ The statement of special inspections is permitted to be prepared by a qualified person approved by the building official for construction not designed by a registered design professional.

F. Change category "12" of Table 1705.3 of the IBC to read:

Verification and inspection Type	Continuous Special Inspection	Periodic Special Inspection	Referenced Standard <sup>a</sup>	IBC Reference
12. Inspect formwork for shape, location and dimensions of the concrete member being formed, shoring and reshoring.	--	X	ACI 318: <del>6.1.1</del> <u>26.10.1(b)</u>	--

G. Delete Sections ~~1705.16~~ 1705.17, ~~1705.16.1~~ 1705.17.1, and ~~1705.16.2~~ 1705.17.2 of the IBC.

## 13VAC5-63-290. Chapter 18 Soils and foundations.

A. Change the exception to Section ~~1804.5~~ 1804.6 of the IBC to read:

Exception: Compacted fill material less than 12 inches (305 mm) in depth need not comply with an approved report, provided it is a natural non-organic material that is not susceptible to swelling when exposed to moisture and it has been compacted to a minimum of 90% Modified Proctor in accordance with ASTM D1557. The compaction shall be verified by a qualified inspector approved by the building official. Material other than natural material may be used as fill material when accompanied by a certification from an RDP and approved by the building official.

B. Add an exception to Section 1808.1 of the IBC to read:

Exception: One-story detached accessory structures not exceeding 256 square feet (23.78m<sup>2</sup>) of building area, provided all of the following conditions are met:

1. The building eave height is 10 feet (3048 mm) or less.
2. The maximum height from the finished floor level to grade does not exceed 18 inches (457.2 mm).
3. The supporting structural elements in direct contact with the ground shall be placed level on firm soil and when such elements are wood they shall be approved pressure preservative treated suitable for ground contact use.
4. The structure is anchored to withstand wind loads as required by this code.
5. The structure shall be of light-frame construction with walls and roof of light weight material, not slate, tile, brick or masonry.

**13VAC5-63-295. Chapter 23 Wood.**

A. Change Item ~~3-2.2~~ 2 of Section ~~2308.2~~ 2308.2.3 of the IBC to read:

~~3-2.2.2.~~ 2. Live loads shall not exceed 40 psf (1916 N/m<sup>2</sup>) for floors.

Exception: Concrete slab-on-grade live load limited only by allowable soil bearing pressure.

B. Change the indicated rows of Table 2308.8(1) of the IBC to read:

Joist Spacing (inches)	Species and Grade	Dead Load = 10 pounds per square foot				Dead Load = 20 pounds per square foot			
		2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
		Maximum floor joist spans							
		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Southern Pine SS	12-3	16-2	20-8	25-1	12-3	16-2	20-8	25-1
	Southern Pine #1	11-10	15-7	19-10	24-2	11-10	15-7	18-7	22-0
	Southern Pine #2	11-3	14-11	18-1	21-4	10-9	13-8	16-2	19-1
	Southern Pine #3	9-2	11-6	14-0	16-6	8-2	10-3	12-6	14-9
16	Southern Pine SS	11-2	14-8	18-9	22-10	11-2	14-8	18-9	22-10
	Southern Pine #1	10-9	14-2	18-0	21-4	10-9	13-9	16-1	19-1
	Southern Pine #2	10-3	13-3	15-8	18-6	9-4	11-10	14-0	16-6
	Southern Pine #3	7-11	10-0	12-1	14-4	7-1	8-11	10-10	12-10
19.2	Southern Pine SS	10-6	13-10	17-8	21-6	10-6	13-10	17-8	21-6
	Southern Pine #1	10-1	13-4	16-5	19-6	9-11	12-7	14-8	17-5
	Southern Pine #2	9-6	12-1	14-4	16-10	8-6	10-10	12-10	15-1
	Southern Pine #3	7-3	9-1	11-0	13-1	6-5	8-2	9-10	11-8
24	Southern Pine SS	9-9	12-10	16-5	19-11	9-9	12-10	16-5	19-8
	Southern Pine #1	9-4	12-4	14-8	17-5	8-10	11-3	13-1	15-7
	Southern Pine #2	8-6	10-10	12-10	15-1	7-7	9-8	11-5	13-6
	Southern Pine #3	6-5	8-2	9-10	11-8	5-9	7-3	8-10	10-5

C. Change the indicated rows of Table 2308.8(2) of the IBC to read:

Joist Spacing (inches)	Species and Grade	Dead Load = 10 pounds per square foot				Dead Load = 20 pounds per square foot			
		2x6	2x8	2x10	2x12	2x6	2x8	2x10	2x12
		Maximum floor joist spans							
		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Southern Pine SS	11-2	14-8	18-9	22-10	11-2	14-8	18-9	22-10
	Southern Pine #1	10-9	14-2	18-0	21-11	10-9	14-2	16-11	20-1
	Southern Pine #2	10-3	13-6	16-2	19-1	9-10	12-6	14-9	17-5
	Southern Pine #3	8-2	10-3	12-6	14-9	7-5	9-5	11-5	13-6

# Regulations

16	Southern Pine SS	10-2	13-4	17-0	20-9	10-2	13-4	17-0	20-9
	Southern Pine #1	9-9	12-10	16-1	19-1	9-9	12-7	14-8	17-5
	Southern Pine #2	9-4	11-10	14-0	16-6	8-6	10-10	12-10	15-1
	Southern Pine #3	7-1	8-11	10-10	12-10	6-5	8-2	9-10	11-8
19.2	Southern Pine SS	9-6	12-7	16-0	19-6	9-6	12-7	16-0	19-6
	Southern Pine #1	9-2	12-1	14-8	17-5	9-0	11-5	13-5	15-11
	Southern Pine #2	8-6	10-10	12-10	15-1	7-9	9-10	11-8	13-9
	Southern Pine #3	6-5	8-2	9-10	11-8	5-11	7-5	9-0	10-8
24	Southern Pine SS	8-10	11-8	14-11	18-1	8-10	11-8	14-11	18-0
	Southern Pine #1	8-6	11-3	13-1	15-7	8-1	10-3	12-0	14-3
	Southern Pine #2	7-7	9-8	11-5	13-6	7-0	8-10	10-5	12-4
	Southern Pine #3	5-9	7-3	8-10	10-5	5-3	6-8	8-1	9-6

D. Change the title and footnote "b" of Table 2308.9.5 of the IBC to read:

Table 2308.9.5

Header and Girder Spans<sup>a,b</sup> for Exterior Bearing Walls

(Maximum Spans for Douglas Fir Larch, Hem Fir, Southern Pine, and Spruce Pine Fir and Required Number of Jack Studs)

b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir larch, hem fir, and spruce pine fir. No. 1 or better grade lumber shall be used for southern pine.

E. Change the title and footnote "b" of Table 2308.9.6 of the IBC to read:

Table 2308.9.6

Header and Girder Spans<sup>a,b</sup> for Interior Bearing Walls

(Maximum Spans for Douglas Fir Larch, Hem Fir, Southern Pine, and Spruce Pine Fir and Required Number of Jack Studs)

b. Spans are based on minimum design properties for No. 2 Grade lumber of Douglas fir larch, hem fir, and spruce pine fir. No. 1 or better grade lumber shall be used for southern pine.

F. Change the indicated rows of Table 2308.10.2(1) of the IBC to read:

Ceiling Joist Spacing	Species and Grade	Dead Load = 5 pounds per square foot			
		2x4	2x6	2x8	2x10
		Maximum ceiling joist spans			
		(ft. in.)	(ft. in.)	(ft. in.)	(ft. in.)
12	Southern Pine SS	12-11	20-3	26-0	26-0
	Southern Pine #1	12-5	19-6	25-8	26-0
	Southern Pine #2	11-10	18-8	24-7	26-0
	Southern Pine #3	10-1	14-11	18-9	22-9
16	Southern Pine SS	11-9	18-5	24-3	26-0
	Southern Pine #1	11-3	17-8	23-4	26-0
	Southern Pine #2	10-9	16-11	21-7	25-7
	Southern Pine #3	8-9	12-11	16-3	19-9
19.2	Southern Pine SS	11-0	17-4	22-10	26-0
	Southern Pine #1	10-7	16-8	22-0	26-0
	Southern Pine #2	10-2	15-7	19-8	23-5
	Southern Pine #3	8-0	11-9	14-10	18-0

24	Southern Pine SS	10-3	16-1	21-2	26-0
	Southern Pine #1	9-10	15-6	20-5	24-0
	Southern Pine #2	9-3	13-11	17-7	20-11
	Southern Pine #3	7-2	10-6	13-3	16-1

G. Change the indicated rows of Table 2308.10.2(2) of the IBC to read:

Ceiling Joist Spacing	Species and Grade	Dead Load = 10 pounds per square foot			
		2x4	2x6	2x8	2x10
		Maximum ceiling joist spans			
		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Southern Pine SS	10-3	16-1	21-2	26-0
	Southern Pine #1	9-10	15-6	20-5	24-0
	Southern Pine #2	9-3	13-11	17-7	20-11
	Southern Pine #3	7-2	10-6	13-3	16-1
16	Southern Pine SS	9-4	14-7	19-3	24-7
	Southern Pine #1	8-11	14-0	17-9	20-9
	Southern Pine #2	8-0	12-0	15-3	18-1
	Southern Pine #3	6-2	9-2	11-6	14-0
19.2	Southern Pine SS	8-9	13-9	18-2	23-1
	Southern Pine #1	8-5	12-9	16-2	18-11
	Southern Pine #2	7-4	11-0	13-11	16-6
	Southern Pine #3	5-8	8-4	10-6	12-9
24	Southern Pine SS	8-1	12-9	16-10	21-6
	Southern Pine #1	7-8	11-5	14-6	16-11
	Southern Pine #2	6-7	9-10	12-6	14-9
	Southern Pine #3	5-1	7-5	9-5	11-5

H. Change the indicated rows of Table 2308.10.3(1) of the IBC to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 pounds per square foot					Dead Load = 20 pounds per square foot				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans									
		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Southern Pine SS	11-3	17-8	23-4	26-0	26-0	11-3	17-8	23-4	26-0	26-0
	Southern Pine #1	10-10	17-0	22-5	26-0	26-0	10-6	15-8	19-10	23-2	26-0
	Southern Pine #2	10-4	15-7	19-8	23-5	26-0	9-0	13-6	17-1	20-3	23-10
	Southern Pine #3	8-0	11-9	14-10	18-0	21-4	6-11	10-2	12-10	15-7	18-6
16	Southern Pine SS	10-3	16-1	21-2	26-0	26-0	10-3	16-1	21-2	25-7	26-0
	Southern Pine #1	9-10	15-6	19-10	23-2	26-0	9-1	13-7	17-2	20-1	23-10
	Southern Pine #2	9-0	13-6	17-1	20-3	23-10	7-9	11-8	14-9	17-6	20-8
	Southern Pine #3	6-11	10-2	12-10	15-7	18-6	6-0	8-10	11-2	13-6	16-0



# Regulations

19.2	Southern Pine SS	9-8	15-2	19-11	25-5	26-0	9-8	15-2	19-7	23-4	26-0
	Southern Pine #1	9-3	14-3	18-1	21-2	25-2	8-4	12-4	15-8	18-4	21-9
	Southern Pine #2	8-2	12-3	15-7	18-6	21-9	7-1	10-8	13-6	16-0	18-10
	Southern Pine #3	6-4	9-4	11-9	14-3	16-10	5-6	8-1	10-2	12-4	14-7
24	Southern Pine SS	8-11	14-1	18-6	23-8	26-0	8-11	13-10	17-6	20-10	24-8
	Southern Pine #1	8-7	12-9	16-2	18-11	22-6	7-5	11-1	14-0	16-5	19-6
	Southern Pine #2	7-4	11-0	13-11	16-6	19-6	6-4	9-6	12-1	14-4	16-10
	Southern Pine #3	5-8	8-4	10-6	12-9	15-1	4-11	7-3	9-1	11-0	13-1

I. Change the indicated rows of Table 2308.10.3(2) of the IBC to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 pounds per square foot					Dead Load = 20 pounds per square foot				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans									
		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Southern Pine SS	10-3	16-1	21-2	26-0	26-0	10-3	16-1	21-2	26-0	26-0
	Southern Pine #1	9-10	15-6	20-5	26-0	26-0	9-10	15-6	19-10	23-2	26-0
	Southern Pine #2	9-5	14-9	19-6	23-5	26-0	9-0	13-6	17-1	20-3	23-10
	Southern Pine #3	8-0	11-9	14-10	18-0	21-4	6-11	10-2	12-10	15-7	18-6
16	Southern Pine SS	9-4	14-7	19-3	24-7	26-0	9-4	14-7	19-3	24-7	26-0
	Southern Pine #1	8-11	14-1	18-6	23-2	26-0	8-11	13-7	17-2	20-1	23-10
	Southern Pine #2	8-7	13-5	17-1	20-3	23-10	7-9	11-8	14-9	17-6	20-8
	Southern Pine #3	6-11	10-2	12-10	15-7	18-6	6-0	8-10	11-2	13-6	16-0
19.2	Southern Pine SS	8-9	13-9	18-2	23-1	26-0	8-9	13-9	18-2	23-1	26-0
	Southern Pine #1	8-5	13-3	17-5	21-2	25-2	8-4	12-4	15-8	18-4	21-9
	Southern Pine #2	8-1	12-3	15-7	16-6	21-9	7-1	10-8	13-6	16-0	18-10
	Southern Pine #3	6-4	9-4	11-9	14-3	16-10	5-6	8-1	10-2	12-4	14-7
24	Southern Pine SS	8-1	12-9	16-10	21-6	26-0	8-1	12-9	16-10	20-10	24-8
	Southern Pine #1	7-10	12-3	16-2	18-11	22-6	7-6	11-1	14-0	16-5	19-6
	Southern Pine #2	7-4	11-0	13-11	16-6	19-6	6-4	9-6	12-1	14-4	16-10
	Southern Pine #3	5-8	8-4	10-6	12-9	15-1	4-11	7-3	9-1	11-0	13-1

J. Change the indicated rows of Table 2308.10.3(3) of the IBC to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 pounds per square foot					Dead Load = 20 pounds per square foot				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans									
		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Southern Pine SS	9-10	15-6	20-5	26-0	26-0	9-10	15-6	20-5	25-4	26-0
	Southern Pine #1	9-6	14-10	19-0	22-3	26-0	9-0	13-5	17-0	19-11	23-7
	Southern Pine #2	8-7	12-11	16-4	19-5	22-10	7-8	11-7	14-8	17-4	20-5
	Southern Pine #3	6-7	9-9	12-4	15-0	17-9	5-11	8-9	11-0	13-5	15-10
16	Southern Pine SS	8-11	14-1	18-6	23-8	26-0	8-11	14-1	18-5	21-11	25-11
	Southern Pine #1	8-7	13-0	16-6	19-3	22-10	7-10	11-7	14-9	17-3	20-5
	Southern Pine #2	7-6	11-2	14-2	16-10	19-10	6-8	10-0	12-8	15-1	17-9
	Southern Pine #3	5-9	8-6	10-8	13-0	15-4	5-2	7-7	9-7	11-7	13-9
19.2	Southern Pine SS	8-5	13-3	17-5	22-3	26-0	8-5	13-3	16-10	20-0	23-7
	Southern Pine #1	8-0	11-10	15-1	17-7	20-11	7-1	10-7	13-5	15-9	18-8
	Southern Pine #2	6-10	10-2	12-11	15-4	18-1	6-1	9-2	11-7	13-9	16-2
	Southern Pine #3	5-3	7-9	9-9	11-10	14-0	4-8	6-11	8-9	10-7	12-6
24	Southern Pine SS	7-10	12-3	16-2	20-0	23-7	7-10	11-10	15-0	17-11	21-2
	Southern Pine #1	7-1	10-7	13-5	15-9	18-8	6-4	9-6	12-0	14-1	16-8
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-5	8-2	10-4	12-3	14-6
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-2	6-2	7-10	9-6	11-2

# Regulations

K. Change the indicated rows of Table 2308.10.3(4) of the IBC to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 pounds per square foot					Dead Load = 20 pounds per square foot				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans									
		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Southern Pine SS	8-4	13-1	17-2	21-11	26-0	8-4	13-1	17-2	21-5	25-3
	Southern Pine #1	8-0	12-3	15-6	18-2	21-7	7-7	11-4	14-5	16-10	20-0
	Southern Pine #2	7-0	10-6	13-4	15-10	18-8	6-6	9-9	12-4	14-8	17-3
	Southern Pine #3	5-5	8-0	10-1	12-3	14-6	5-0	7-5	9-4	11-4	13-5
16	Southern Pine SS	7-6	11-10	15-7	19-11	23-7	7-6	11-10	15-7	18-6	21-10
	Southern Pine #1	7-1	10-7	13-5	15-9	18-8	6-7	9-10	12-5	14-7	17-3
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-8	8-5	10-9	12-9	15-0
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-4	6-5	8-1	9-10	11-7
19.2	Southern Pine SS	7-1	11-2	14-8	18-3	21-7	7-1	11-2	14-2	16-11	20-0
	Southern Pine #1	6-6	9-8	12-3	14-4	17-1	6-0	9-0	11-4	13-4	15-9
	Southern Pine #2	5-7	8-4	10-7	12-6	14-9	5-2	7-9	9-9	11-7	13-8
	Southern Pine #3	4-3	6-4	8-0	9-8	11-5	4-0	5-10	7-4	8-11	10-7
24	Southern Pine SS	6-7	10-4	13-8	16-4	19-3	6-7	10-0	12-8	15-2	17-10
	Southern Pine #1	5-10	8-8	11-0	12-10	15-3	5-5	8-0	10-2	11-11	14-1
	Southern Pine #2	5-0	7-5	9-5	11-3	13-2	4-7	6-11	8-9	10-5	12-3
	Southern Pine #3	3-10	5-8	7-1	8-8	10-3	3-6	5-3	6-7	8-0	9-6

# Regulations

L. Change the indicated rows of Table 2308.10.3(5) of the IBC to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 pounds per square foot					Dead Load = 20 pounds per square foot				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans									
		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Southern Pine SS	8-11	14-1	18-6	23-8	26-0	8-11	14-1	18-6	23-8	26-0
	Southern Pine #1	8-7	13-6	17-10	22-3	26-0	8-7	13-5	17-0	19-11	23-7
	Southern Pine #2	8-3	12-11	16-4	19-5	22-10	7-8	11-7	14-8	17-4	20-5
	Southern Pine #3	6-7	9-9	12-4	15-0	17-9	5-11	8-9	11-0	13-5	15-10
16	Southern Pine SS	8-1	12-9	16-10	21-6	26-0	8-1	12-9	16-10	21-6	25-11
	Southern Pine #1	7-10	12-3	16-2	19-3	22-10	7-10	11-7	14-9	17-3	20-5
	Southern Pine #2	7-6	11-2	14-2	16-10	19-10	6-8	10-0	12-8	15-1	17-9
	Southern Pine #3	5-9	8-6	10-8	13-0	15-4	5-2	7-7	9-7	11-7	13-9
19.2	Southern Pine SS	7-8	12-0	15-10	20-2	24-7	7-8	12-0	15-10	20-0	23-7
	Southern Pine #1	7-4	11-7	15-1	17-7	20-11	7-1	10-7	13-5	15-9	18-8
	Southern Pine #2	6-10	10-2	12-11	15-4	18-1	6-1	9-2	11-7	13-9	16-2
	Southern Pine #3	5-3	7-9	9-9	11-10	14-0	4-8	6-11	8-9	10-7	12-6
24	Southern Pine SS	7-1	11-2	14-8	18-9	22-10	7-1	11-2	14-8	17-11	21-2
	Southern Pine #1	6-10	10-7	13-5	15-9	18-8	6-4	9-6	12-0	14-1	16-8
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-5	8-2	10-4	12-3	14-6
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-2	6-2	7-10	9-6	11-2

# Regulations

M. Change the indicated rows of Table 2308.10.3(6) of the IBC to read:

Rafter Spacing (inches)	Species and Grade	Dead Load = 10 pounds per square foot					Dead Load = 20 pounds per square foot				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
		Maximum rafter spans									
		(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12	Southern Pine SS	7-6	11-0	15-7	19-11	24-3	7-6	11-10	15-7	19-11	24-3
	Southern Pine #1	7-3	11-5	15-0	18-2	21-7	7-3	11-4	14-5	16-10	20-0
	Southern Pine #2	6-11	10-6	13-4	15-10	18-8	6-6	9-9	12-4	14-8	17-3
	Southern Pine #3	5-5	8-0	10-1	12-3	14-6	5-0	7-5	9-4	11-4	13-5
16	Southern Pine SS	6-10	10-9	14-2	18-1	22-0	6-10	10-9	14-2	18-1	21-10
	Southern Pine #1	6-7	10-4	13-5	15-9	18-8	6-7	9-10	12-5	14-7	17-3
	Southern Pine #2	6-1	9-2	11-7	13-9	16-2	5-8	8-5	10-9	12-9	15-0
	Southern Pine #3	4-8	6-11	8-9	10-7	12-6	4-4	6-5	8-1	9-10	11-7
19.2	Southern Pine SS	6-5	10-2	13-4	17-0	20-9	6-5	10-2	13-4	16-11	20-0
	Southern Pine #1	6-2	9-8	12-3	14-4	17-1	6-0	9-0	11-4	13-4	15-9
	Southern Pine #2	5-7	8-4	10-7	12-6	14-9	5-2	7-9	9-9	11-7	13-8
	Southern Pine #3	4-3	6-4	8-0	9-8	11-5	4-0	5-10	7-4	8-11	10-7
24	Southern Pine SS	6-0	9-5	12-5	15-10	19-3	6-0	9-5	12-5	15-2	17-10
	Southern Pine #1	5-9	8-8	11-0	12-10	15-3	5-5	8-0	10-2	11-11	14-1
	Southern Pine #2	5-0	7-5	9-5	11-3	13-2	4-7	6-11	8-9	10-5	12-3
	Southern Pine #3	3-10	5-8	7-1	8-8	10-3	3-6	5-3	6-7	8-0	9-6

B. Change Table 2308.4.1.1(1) of the IBC to read:

Table 2308.4.1.1(1)																			
Header and Girder Spans <sup>a</sup> , <sup>b</sup> for Exterior Bearing Walls																			
(Maximum spans for Douglas Fir-Larch, Hem-Fir, Southern Pine, and Spruce-Pine-Fir <sup>b</sup> and required number of jack studs)																			
Girders and Headers Supporting	Size	Ground Snow Load (psf) <sup>c</sup>																	
		30						50						70					
		Building Width <sup>c</sup> (feet)																	
		12		24		36		12		24		36		12		24		36	
	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	Span <sup>f</sup>	NJ <sup>d</sup>	
Roof and ceiling	1-2 x 6	4-0	1	3-1	2	2-7	2	3-5	1	2-8	2	2-3	2	3-0	2	2-4	2	2-0	2
	1-2 x 8	5-1	2	3-11	2	3-3	2	4-4	2	3-4	2	2-10	2	3-10	2	3-0	2	2-6	3
	1-2 x 10	6-0	2	4-8	2	3-11	2	5-2	2	4-0	2	3-4	2	4-7	2	3-6	3	3-0	3
	1-2 x 12	7-1	2	5-5	2	4-7	3	6-1	2	4-8	3	3-11	3	5-5	2	4-2	3	3-6	3
	2-2 x 4	4-0	1	3-1	1	2-7	1	3-5	1	2-7	1	2-2	1	3-0	1	2-4	1	2-0	1
	2-2 x 6	6-0	1	4-7	1	3-10	1	5-1	1	3-11	1	3-3	2	4-6	1	3-6	2	2-11	2
	2-2 x 8	7-7	1	5-9	1	4-10	2	6-5	1	5-0	2	4-2	2	5-9	1	4-5	2	3-9	2
	2-2 x 10	9-0	1	6-10	2	5-9	2	7-8	2	5-11	2	4-11	2	6-9	2	5-3	2	4-5	2
	2-2 x 12	10-7	2	8-1	2	6-10	2	9-0	2	6-11	2	5-10	2	8-0	2	6-2	2	5-2	3

1

# Regulations

	$\frac{3-2}{\times 8}$	9-5	1	7-3	1	6-1	1	8-1	1	6-3	1	5-3	2	7-2	1	5-6	2	4-8	2
	$\frac{3-2}{\times 10}$	11-3	1	8-7	1	7-3	2	9-7	1	7-4	2	6-2	2	8-6	1	6-7	2	5-6	2
	$\frac{3-2}{\times 12}$	13-2	1	10-1	2	8-6	2	11-3	2	8-8	2	7-4	2	10-0	2	7-9	2	6-6	2
	$\frac{4-2}{\times 8}$	$\frac{10-}{11}$	1	8-4	1	7-0	1	9-4	1	7-2	1	6-0	1	8-3	1	6-4	1	5-4	2
	$\frac{4-2}{\times 10}$	$\frac{12-}{11}$	1	9-11	1	8-4	1	11-1	1	8-6	1	7-2	2	9-10	1	7-7	2	6-4	2
	$\frac{4-2}{\times 12}$	15-3	1	11-8	1	9-10	2	13-0	1	10-0	2	8-5	2	11-7	1	8-11	2	7-6	2
Roof, ceiling, and one center- bearing floor	$\frac{1-2}{\times 6}$	3-3	1	2-7	2	2-2	2	3-0	2	2-4	2	2-0	2	2-9	2	2-2	2	1-10	2
	$\frac{1-2}{\times 8}$	4-1	2	3-3	2	2-9	2	3-9	2	3-0	2	2-6	3	3-6	2	2-9	2	2-4	3
	$\frac{1-2}{\times 10}$	4-11	2	3-10	2	3-3	3	4-6	2	3-6	3	3-0	3	4-1	2	3-3	3	2-9	3
	$\frac{1-2}{\times 12}$	5-9	2	4-6	3	3-10	3	5-3	2	4-2	3	3-6	3	4-10	3	3-10	3	3-3	4
	$\frac{2-2}{\times 4}$	3-3	1	2-6	1	2-2	1	3-0	1	2-4	1	2-0	1	2-8	1	2-2	1	1-10	1
	$\frac{2-2}{\times 6}$	4-10	1	3-9	1	3-3	2	4-5	1	3-6	2	3-0	2	4-1	1	3-3	2	2-9	2
	$\frac{2-2}{\times 8}$	6-1	1	4-10	2	4-1	2	5-7	2	4-5	2	3-9	2	5-2	2	4-1	2	3-6	2
	$\frac{2-2}{\times 10}$	7-3	2	5-8	2	4-10	2	6-8	2	5-3	2	4-5	2	6-1	2	4-10	2	4-1	2

	$\frac{2-2}{x}$ 12	8-6	2	6-8	2	5-8	2	7-10	2	6-2	2	5-3	3	7-2	2	5-8	2	4-10	3
	$\frac{3-2}{x}$ 8	7-8	1	6-0	1	5-1	2	7-0	1	5-6	2	4-8	2	6-5	1	5-1	2	4-4	2
	$\frac{3-2}{x}$ 10	9-1	1	7-2	2	6-1	2	8-4	1	6-7	2	5-7	2	7-8	2	6-1	2	5-2	2
	$\frac{3-2}{x}$ 12	10-8	2	8-5	2	7-2	2	9-10	2	7-8	2	6-7	2	9-0	2	7-1	2	6-1	2
	$\frac{4-2}{x}$ 8	8-10	1	6-11	1	5-11	1	8-1	1	6-4	1	5-5	2	7-5	1	5-11	1	5-0	2
	$\frac{4-2}{x}$ 10	10-6	1	8-3	2	7-0	2	9-8	1	7-7	2	6-5	2	8-10	1	7-0	2	6-0	2
	$\frac{4-2}{x}$ 12	12-4	1	9-8	2	8-3	2	11-4	2	8-11	2	7-7	2	10-4	2	8-3	2	7-0	2
Roof, ceiling, and one clear span roof	$\frac{1-2}{x}$ 6	2-11	2	2-3	2	1-11	2	2-9	2	2-1	2	1-9	2	2-7	2	2-0	2	1-8	2
	$\frac{1-2}{x}$ 8	3-9	2	2-10	2	2-5	3	3-6	2	2-8	2	2-3	3	3-3	2	2-6	3	2-2	3
	$\frac{1-2}{x}$ 10	4-5	2	3-5	3	2-10	3	4-2	2	3-2	3	2-8	3	3-11	2	3-0	3	2-6	3
	$\frac{1-2}{x}$ 12	5-2	2	4-0	3	3-4	3	4-10	3	3-9	3	3-2	4	4-7	3	3-6	3	3-0	4
	$\frac{2-2}{x}$ 4	2-11	1	2-3	1	1-10	1	2-9	1	2-1	1	1-9	1	2-7	1	2-0	1	1-8	1
	$\frac{2-2}{x}$ 6	4-4	1	3-4	2	2-10	2	4-1	1	3-2	2	2-8	2	3-10	1	3-0	2	2-6	2
	$\frac{2-2}{x}$ 8	5-6	2	4-3	2	3-7	2	5-2	2	4-0	2	3-4	2	4-10	2	3-9	2	3-2	2



# Regulations

$\frac{2-2}{x 10}$	<u>6-7</u>	2	<u>5-0</u>	2	<u>4-2</u>	2	<u>6-1</u>	2	<u>4-9</u>	2	<u>4-0</u>	2	<u>5-9</u>	2	<u>4-5</u>	2	<u>3-9</u>	3	
$\frac{2-2}{x 12}$	<u>7-9</u>	2	<u>5-11</u>	2	<u>4-11</u>	3	<u>7-2</u>	2	<u>5-7</u>	2	<u>4-8</u>	3	<u>6-9</u>	2	<u>5-3</u>	3	<u>4-5</u>	3	
$\frac{3-2}{x 8}$	<u>6-11</u>	1	<u>5-3</u>	2	<u>4-5</u>	2	<u>6-5</u>	1	<u>5-0</u>	2	<u>4-2</u>	2	<u>6-1</u>	1	<u>4-8</u>	2	<u>4-0</u>	2	
$\frac{3-2}{x 10}$	<u>8-3</u>	2	<u>6-3</u>	2	<u>5-3</u>	2	<u>7-8</u>	2	<u>5-11</u>	2	<u>5-0</u>	2	<u>7-3</u>	2	<u>5-7</u>	2	<u>4-8</u>	2	
$\frac{3-2}{x 12}$	<u>9-8</u>	2	<u>7-5</u>	2	<u>6-2</u>	2	<u>9-0</u>	2	<u>7-0</u>	2	<u>5-10</u>	2	<u>8-6</u>	2	<u>6-7</u>	2	<u>5-6</u>	3	
$\frac{4-2}{x 8}$	<u>8-0</u>	1	<u>6-1</u>	1	<u>5-1</u>	2	<u>7-5</u>	1	<u>5-9</u>	2	<u>4-10</u>	2	<u>7-0</u>	1	<u>5-5</u>	2	<u>4-7</u>	2	
$\frac{4-2}{x 10}$	<u>9-6</u>	1	<u>7-3</u>	2	<u>6-1</u>	2	<u>8-10</u>	1	<u>6-10</u>	2	<u>5-9</u>	2	<u>8-4</u>	1	<u>6-5</u>	2	<u>5-5</u>	2	
$\frac{4-2}{x 12}$	<u>11-2</u>	2	<u>8-6</u>	2	<u>7-2</u>	2	<u>10-5</u>	2	<u>8-0</u>	2	<u>6-9</u>	2	<u>9-10</u>	2	<u>7-7</u>	2	<u>6-5</u>	2	
Roof, ceiling, and two center-bearing floors	$\frac{1-2}{x 6}$	<u>2-8</u>	2	<u>2-1</u>	2	<u>1-10</u>	2	<u>2-7</u>	2	<u>2-0</u>	2	<u>1-9</u>	2	<u>2-5</u>	2	<u>1-11</u>	2	<u>1-8</u>	2
	$\frac{1-2}{x 8}$	<u>3-5</u>	2	<u>2-8</u>	2	<u>2-4</u>	3	<u>3-3</u>	2	<u>2-7</u>	2	<u>2-2</u>	3	<u>3-1</u>	2	<u>2-5</u>	3	<u>2-1</u>	3
	$\frac{1-2}{x 10}$	<u>4-0</u>	2	<u>3-2</u>	3	<u>2-9</u>	3	<u>3-10</u>	2	<u>3-1</u>	3	<u>2-7</u>	3	<u>3-8</u>	2	<u>2-11</u>	3	<u>2-5</u>	3
	$\frac{1-2}{x 12}$	<u>4-9</u>	3	<u>3-9</u>	3	<u>3-2</u>	4	<u>4-6</u>	3	<u>3-7</u>	3	<u>3-1</u>	4	<u>4-3</u>	3	<u>3-5</u>	3	<u>2-11</u>	4
	$\frac{2-2}{x 4}$	<u>2-8</u>	1	<u>2-1</u>	1	<u>1-9</u>	1	<u>2-6</u>	1	<u>2-0</u>	1	<u>1-8</u>	1	<u>2-5</u>	1	<u>1-11</u>	1	<u>1-7</u>	1
	$\frac{2-2}{x 6}$	<u>4-0</u>	1	<u>3-2</u>	2	<u>2-8</u>	2	<u>3-9</u>	1	<u>3-0</u>	2	<u>2-7</u>	2	<u>3-7</u>	1	<u>2-10</u>	2	<u>2-5</u>	2

$\frac{2-2}{x8}$	5-0	2	4-0	2	3-5	2	4-10	2	3-10	2	3-3	2	4-7	2	3-7	2	3-1	2	
$\frac{2-2}{x10}$	6-0	2	4-9	2	4-0	2	5-8	2	4-6	2	3-10	3	5-5	2	4-3	2	3-8	3	
$\frac{2-2}{x12}$	7-0	2	5-7	2	4-9	3	6-8	2	5-4	3	4-6	3	6-4	2	5-0	3	4-3	3	
$\frac{3-2}{x8}$	6-4	1	5-0	2	4-3	2	6-0	1	4-9	2	4-1	2	5-8	2	4-6	2	3-10	2	
$\frac{3-2}{x10}$	7-6	2	5-11	2	5-1	2	7-1	2	5-8	2	4-10	2	6-9	2	5-4	2	4-7	2	
$\frac{3-2}{x12}$	8-10	2	7-0	2	5-11	2	8-5	2	6-8	2	5-8	3	8-0	2	6-4	2	5-4	3	
$\frac{4-2}{x8}$	7-3	1	5-9	1	4-11	2	5-11	1	5-6	2	4-8	2	6-7	1	5-2	2	4-5	2	
$\frac{4-2}{x10}$	8-8	1	6-10	2	5-10	2	8-3	2	6-6	2	5-7	2	7-10	2	6-2	2	5-3	2	
$\frac{4-2}{x12}$	10-2	2	8-1	2	6-10	2	9-8	2	7-8	2	6-7	2	9-2	2	7-3	2	6-2	2	
Roof, ceiling, and two clear span floors	$\frac{1-2}{x6}$	2-3	2	1-9	2	1-5	2	2-3	2	1-9	2	1-5	3	2-2	2	1-8	2	1-5	3
	$\frac{1-2}{x8}$	2-10	2	2-2	3	1-10	3	2-10	2	2-2	3	1-10	3	2-9	2	2-1	3	1-10	3
	$\frac{1-2}{x10}$	3-4	2	2-7	3	2-2	3	3-4	3	2-7	3	2-2	4	3-3	3	2-6	3	2-2	4
	$\frac{1-2}{x12}$	4-0	3	3-0	3	2-7	4	4-0	3	3-0	4	2-7	4	3-10	3	3-0	4	2-6	4
	$\frac{2-2}{x4}$	2-3	1	1-8	1	1-4	1	2-3	1	1-8	1	1-4	1	2-2	1	1-8	1	1-4	2

# Regulations

$\frac{2-2}{x6}$	<u>3-4</u>	1	<u>2-6</u>	2	<u>2-2</u>	2	<u>3-4</u>	2	<u>2-6</u>	2	<u>2-2</u>	2	<u>3-3</u>	2	<u>2-6</u>	2	<u>2-1</u>	2
$\frac{2-2}{x8}$	<u>4-3</u>	2	<u>3-3</u>	2	<u>2-8</u>	2	<u>4-3</u>	2	<u>3-3</u>	2	<u>2-8</u>	2	<u>4-1</u>	2	<u>3-2</u>	2	<u>2-8</u>	3
$\frac{2-2}{x10}$	<u>5-0</u>	2	<u>3-10</u>	2	<u>3-2</u>	3	<u>5-0</u>	2	<u>3-10</u>	2	<u>3-2</u>	2	<u>4-10</u>	2	<u>3-9</u>	3	<u>3-2</u>	3
$\frac{2-2}{x12}$	<u>5-11</u>	2	<u>4-6</u>	3	<u>3-9</u>	3	<u>5-11</u>	2	<u>4-6</u>	3	<u>3-9</u>	3	<u>5-8</u>	2	<u>4-5</u>	3	<u>3-9</u>	3
$\frac{3-2}{x8}$	<u>5-3</u>	1	<u>4-0</u>	2	<u>3-5</u>	2	<u>5-3</u>	2	<u>4-0</u>	2	<u>3-5</u>	2	<u>5-1</u>	2	<u>3-11</u>	2	<u>3-4</u>	2
$\frac{3-2}{x10}$	<u>6-3</u>	2	<u>4-9</u>	2	<u>4-0</u>	2	<u>6-3</u>	2	<u>4-9</u>	2	<u>4-0</u>	2	<u>6-1</u>	2	<u>4-8</u>	2	<u>4-0</u>	3
$\frac{3-2}{x12}$	<u>7-5</u>	2	<u>5-8</u>	2	<u>4-9</u>	3	<u>7-5</u>	2	<u>5-8</u>	2	<u>4-9</u>	3	<u>7-2</u>	2	<u>5-6</u>	3	<u>4-8</u>	3
$\frac{4-2}{x8}$	<u>6-1</u>	1	<u>4-8</u>	2	<u>3-11</u>	2	<u>6-1</u>	1	<u>4-8</u>	2	<u>3-11</u>	2	<u>5-11</u>	1	<u>4-7</u>	2	<u>3-11</u>	2
$\frac{4-2}{x10}$	<u>7-3</u>	2	<u>5-6</u>	2	<u>4-8</u>	2	<u>7-3</u>	2	<u>5-6</u>	2	<u>4-8</u>	2	<u>7-0</u>	2	<u>5-5</u>	2	<u>4-7</u>	2
$\frac{4-2}{x12}$	<u>8-6</u>	2	<u>6-6</u>	2	<u>5-6</u>	2	<u>8-6</u>	2	<u>6-6</u>	2	<u>5-6</u>	2	<u>8-3</u>	2	<u>6-4</u>	2	<u>5-4</u>	3

For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.0479 kPa.

a. Spans are given in feet and inches.

b. Spans are based on the minimum design properties for No. 2 grade lumber of Douglas Fir-Larch, Hem-Fir, Southern Pine, and Spruce-Pine Fir.

c. Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.

d. NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to the header.

e. Use 30 psf ground snow load for cases in which ground snow load is less than 30 psf and the roof live load is equal to or less than 20 psf.

f. Spans are calculated assuming the top of the header or girder is laterally braced by perpendicular framing. Where the top of the header or girder is not laterally braced (e.g. cripple studs bearing on the header), tabulated spans for headers consisting of 2x8, 2x10, or 2x12 sizes shall be multiplied by 0.70 or the header shall be designed.

C. Change Table 2308.4.1.1(2) of the IBC to read:

Table 2308.4.1.1(2)							
Header and Girder Spans <sup>a, b</sup> for Interior Bearing Walls							
(Maximum spans for Douglas Fir-Larch, Hem-Fir, Southern Pine, and Spruce-Pine-Fir <sup>b</sup> and required number of jack studs)							
Headers and Girders Supporting	Size	Building Width <sup>c</sup> (feet)					
		12		24		36	
		Span <sup>e</sup>	NJ <sup>d</sup>	Span <sup>e</sup>	NJ <sup>d</sup>	Span <sup>e</sup>	NJ <sup>d</sup>
<u>One floor only</u>	2-2 x 4	4-1	1	2-10	1	2-4	1
	2-2 x 6	6-1	1	4-4	1	3-6	1
	2-2 x 8	7-9	1	5-5	1	4-5	2
	2-2 x 10	9-2	1	6-6	2	5-3	2
	2-2 x 12	10-9	1	7-7	2	6-3	2
	3-2 x 8	9-8	1	6-10	1	5-7	1
	3-2 x 10	11-5	1	8-1	1	6-7	2
	3-2 x 12	13-6	1	9-6	2	7-9	2
	4-2 x 8	11-2	1	7-11	1	6-5	1
	4-2 x 10	13-3	1	9-4	1	7-8	1
4-2 x 12	15-7	1	11-0	1	9-0	2	
<u>Two floors</u>	2-2 x 4	2-7	1	1-11	1	1-7	1
	2-2 x 6	3-11	1	2-11	2	2-5	2
	2-2 x 8	5-0	1	3-8	2	3-1	2
	2-2 x 10	5-11	2	4-4	2	3-7	2
	2-2 x 12	6-11	2	5-2	2	4-3	3
	3-2 x 8	6-3	1	4-7	2	3-10	2
	3-2 x 10	7-5	1	5-6	2	4-6	2
	3-2 x 12	8-8	2	6-5	2	5-4	2
	4-2 x 8	7-2	1	5-4	1	4-5	2
	4-2 x 10	8-6	1	6-4	2	5-3	2
4-2 x 12	10-1	1	7-5	2	6-2	2	

a. Spans are given in feet and inches.

b. Spans are based on the minimum design properties for No. 2 grade lumber of Douglas Fir-Larch, Hem-Fir, Southern Pine, and Spruce-Pine Fir.

c. Building width is measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.

d. NJ - Number of jack studs required to support each end. Where the number of required jack studs equals one, the header is permitted to be supported by an approved framing anchor attached to the full-height wall stud and to the header.

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# Regulations

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e. Spans are calculated assuming the top of the header or girder is laterally braced by perpendicular framing. Where the top of the header or girder is not laterally braced (e.g., cripple studs bearing on the header), tabulated spans for headers consisting of 2x8, 2x10, or 2x12 sizes shall be multiplied by 0.70 or the header shall be designed.

## 13VAC5-63-298. Chapter 26 Plastic.

Change Section 2603.5.5 of the IBC to read:

2603.5.5 Vertical and lateral fire propagation. Exterior wall assemblies shall be tested in accordance with, and comply with, acceptance criteria of NFPA 285. Where noncombustible materials or combustible materials permitted by Sections 603, 803, 806 or 1406 differ from assembly to assembly or within an assembly, multiple tests shall not be required.

~~Exception~~ Exceptions: ~~Exterior wall assemblies are not required to be tested in accordance with, and comply with, acceptance criteria of NFPA 285 where any of the following conditions are met:~~

1. One-story buildings [~~complying with Section 2603.4.1.4 where the exterior wall covering is noncombustible~~].
2. Wall assemblies where the foam plastic insulation is covered on each face by ~~a minimum of not less than~~ 1-inch (25 mm) thickness of masonry or concrete ~~complying with either and meeting one~~ of the following:
  - 2.1. There is no air space between the insulation and the concrete or masonry; ~~or,~~
  - 2.2. The insulation has a flame spread index of not more than 25 as determined in accordance with ASTM E 84 or UL 723 and the maximum air space between the insulation and the concrete or masonry is not more than 1 inch (25 mm).
3. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

## 13VAC5-63-300. Chapter 27 Electrical.

A. Change Section 2701.1 of the IBC to read:

2701.1 Scope. This chapter governs the electrical components, equipment and systems used in buildings and structures covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of this code and NFPA 70.

B. Add Section 2701.1.1 to the IBC to read:

2701.1.1 Changes to NFPA 70. The following [~~change changes~~] shall be made to NFPA 70:

1. Change Sections 334.10(2) and 334.10(3) of NFPA 70 to read:

(2) Multifamily dwellings not exceeding four floors above grade and multifamily dwellings of any height permitted to be of Types III, IV and V construction except in any case as prohibited in 334.12.

(3) Other structures not exceeding four floors above grade and other structures of any height permitted to be of Types III, IV and V construction except in any case as prohibited in 334.12. In structures exceeding four floors above grade, cables shall be concealed within walls, floors or ceilings that provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies.

For the purpose of Items 2 and 3 above, the first floor of a building shall be that floor that has 50% or more of the exterior wall surface area level with or above finished grade. One additional level that is the first level and not designed for human habitation and used only for vehicle parking, storage or similar use shall be permitted.

2. Change ~~Exception 2~~ to Section ~~700.12(F)~~ 700.12(F)(2)(6) of NFPA 70 to read:

~~Exception No. 2 (6)~~ Where the normal power branch circuits that supply luminaires providing illumination immediately on the inside and outside of exit doors are supplied by the same service or feeder, the remote heads providing emergency illumination for the exterior of an exit door shall be permitted to be supplied by the unit equipment serving the area immediately inside the exit door.

C. Add Section 2701.1.2 to the IBC to read:

2701.1.2 Temporary connection to dwelling units. The building official shall give permission to energize the electrical service equipment of a one-family or two-family dwelling unit when all of the following requirements have been approved:

1. The service wiring and equipment, including the meter socket enclosure, shall be installed and the service wiring terminated.
2. The grounding electrode system shall be installed and terminated.
3. At least one receptacle outlet on a ground fault protected circuit shall be installed and the circuit wiring terminated.
4. Service equipment covers shall be installed.
5. The building roof covering shall be installed.

6. Temporary electrical service equipment shall be suitable for wet locations unless the interior is dry and protected from the weather.

D. Add Section 2701.1.3 to the IBC to read:

2701.1.3 Assisted living facility generator requirements. Generators installed to comply with regulations for assisted living facilities licensed by the Virginia Department of Social Services shall be permitted to be optional standby systems.

E. Change Section 2702.2.17 of the IBC to read:

2702.2.17 Group I-2 and I-3 occupancies. Emergency power shall be provided in accordance with Section ~~407.14~~ 407.10 for Group I-2 occupancies licensed by the Virginia Department of Health as a hospital, nursing or hospice facility. Emergency power shall be provided for doors in Group I-3 occupancies in accordance with Section 408.4.2.

**13VAC5-63-310. Chapter 28 Mechanical systems.**

A. Change Section 2801.1 of the IBC to read:

2801.1 Scope. Mechanical appliances, equipment and systems shall be constructed and installed in accordance with this chapter, the IMC and the IFGC. Masonry chimneys, fireplaces and barbecues shall comply with the IMC and Chapter 21 of this code.

Exception: This code shall not govern the construction of water heaters, boilers and pressure vessels to the extent which they are regulated by the Virginia Boiler and Pressure Vessel Regulations (16VAC25-50). However, the building official may require the owner of a structure to submit documentation to substantiate compliance with those regulations.

B. Add Section 2801.1.1 to the IBC to read:

2801.1.1 Required heating in dwelling units. Heating facilities shall be required in every dwelling unit or portion thereof which is to be rented, leased or let on terms, either expressed or implied, to furnish heat to the occupants thereof. The heating facilities shall be capable of maintaining the room temperature at 65°F (18°C) during the period from October 15 to May 1 during the hours between 6:30 a.m. and 10:30 p.m. of each day and not less than 60°F (16°C) during other hours when measured at a point three feet (914 mm) above the floor and three feet (914 mm) from the exterior walls. The capability of the heating system shall be based on the outside design temperature required for the locality by this code.

C. Add Section 2801.1.2 to the IBC to read:

2801.1.2 Required heating in nonresidential structures. Heating facilities shall be required in every enclosed occupied space in nonresidential structures. The heating facilities shall be capable of producing sufficient heat

during the period from October 1 to May 15 to maintain a temperature of not less than 65°F (18°C) during all working hours. The required room temperature shall be measured at a point three feet (914 mm) above the floor and three feet (914 mm) from the exterior walls.

Processing, storage and operation areas that require cooling or special temperature conditions and areas in which persons are primarily engaged in vigorous physical activities are exempt from these requirements.

D. Add Section 2801.1.3 to the IBC to read:

2801.1.3 Changes to the IMC. The following changes shall be made to the IMC:

1. Add the following definition to Section 202 of the IMC to read:

Pollution control unit. Manufactured equipment that is installed in a grease exhaust duct system for the purpose of extracting smoke, grease particles, and odors from the exhaust flow by means of a series of filters.

2. [ Change Section 401.2 of the IMC to read:

401.2 Ventilation required. Every occupied space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403. Group R dwelling unit units shall be ventilated by mechanical means in accordance with Section 403. Ambulatory care facilities and Group I-2 occupancies shall be ventilated by mechanical means in accordance with Section 407.

3. ] Change Section ~~403.3~~ 403.3.1.1 of the IMC to read:

~~403.3~~ 403.3.1.1 Outdoor airflow rate. Ventilation systems shall be designed to have the capacity to supply the minimum outdoor airflow rate determined in accordance with this section. In each occupiable space, the ventilation system shall be designed to deliver the required rate of outdoor airflow to the breathing zone. The occupant load utilized for design of the ventilation system shall not be less than the number determined from the estimated maximum occupant load rate indicated in Table ~~403.3~~ 403.3.1.1. Ventilation rates for occupancies not represented in Table ~~403.3~~ 403.3.1.1 shall be those for a listed occupancy classification that is most similar in terms of occupant density, activities and building construction; or shall be determined by an approved engineering analysis. The ventilation system shall be designed to supply the required rate of ventilation air continuously during the period the building is occupied, except as otherwise stated in other provisions of the code.

With the exception of smoking lounges and other designated areas where smoking is permitted, the ventilation rates in Table ~~403.3~~ 403.3.1.1 are based on the absence of smoking in occupiable spaces.

# Regulations

Exception: The occupant load is not required to be determined based on the estimated maximum occupant load rate indicated in Table 403.3 403.3.1.1 where approved statistical data document the accuracy of an alternate anticipated occupant density.

2- [ ~~3- 4.~~ ] Add [ and change ] the following areas [ ~~to in~~ ] Table 403.3 403.3.1.1 of the IMC [ ~~in the occupancy classifications shown to read~~ ]:

OCCUPANCY CLASSIFICATION	Occupant Density #/1000 ft <sup>2</sup> a	People Outdoor Airflow Rate in Breathing Zone, R <sub>p</sub> cfm/person	Area Outdoor Airflow Rate in Breathing Zone, R <sub>a</sub> cfm/ft <sup>2a</sup>	Exhaust Airflow Rate Cfm/ft <sup>2a</sup>
Food and beverage service				
Bars or cocktail lounges designated as an area where smoking is permitted <sup>b</sup>	100	30	--	--
Cafeteria or fast food designated as an area where smoking is permitted <sup>b</sup>	100	20	--	--
Dining rooms designated as an area where smoking is permitted <sup>b</sup>	70	20	--	--
Public spaces				
Lounges designated as an area where smoking is permitted <sup>b</sup>	100	30	--	--

[ 4- 5. ] Change Section 504.8.2 of the IMC to read:

504.8.2 Duct installation. Exhaust ducts shall be supported at 4-foot (1219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners that protrude into the inside of the duct.

3- [ ~~5- 6.~~ ] Change Section 505.1 of the IMC to read:

505.1 Domestic systems. Where domestic range hoods and domestic appliances equipped with downdraft exhaust are provided, such hoods and appliances shall discharge to the outdoors through sheet metal ducts constructed of galvanized steel, stainless steel, aluminum, or copper. Such ducts shall have smooth inner walls, shall be air tight, shall be equipped with a backdraft damper, and shall be independent of all other exhaust systems.

Exceptions:

1. In Group R buildings, where installed in accordance with the manufacturer's installation instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled

ductless range hoods shall not be required to discharge to the outdoors.

2. Ducts for domestic kitchen cooking appliances equipped with downdraft exhaust systems shall be permitted to be constructed of Schedule 40 PVC pipe and fittings provided that the installation complies with all of the following:

2.1. The PVC duct shall be installed under a concrete slab poured on grade.

2.2. The underfloor trench in which the PVC duct is installed shall be completely backfilled with sand or gravel.

2.3. The PVC duct shall extend not more than 1 inch (25 mm) above the indoor concrete floor surface.

2.4. The PVC duct shall extend not more than 1 inch (25 mm) above grade outside of the building.

2.5. The PVC duct shall be solvent cemented.

4- Add [ 6- 7. ] Change Section ~~505.3~~ 505.4 to the IMC to read:

~~505.3~~ 505.4 Other than Group R. In other than Group R occupancies, where electric domestic cooking appliances are utilized for domestic purposes, such appliances shall

be provided with domestic range hoods. Hoods and exhaust systems for such electric domestic cooking appliances shall be in accordance with Sections 505.1 and 505.2. In other than Group R occupancies, where fuel-fired domestic cooking appliances are utilized for domestic purposes, a Type I or Type II hood shall be provided as required for the type of appliances and processes in accordance with Section ~~507.2~~ 507.1.

5. Change Section 507.2.3 of the IMC to read:

~~507.2.3 Domestic cooking appliances used for commercial purposes. Domestic cooking appliances utilized for commercial purposes shall be provided with a Type I or Type II hood as required for the type of appliances and processes in accordance with Sections 507.2, 507.2.1, and 507.2.2. Domestic cooking appliances utilized for domestic purposes shall comply with Section 505.~~

6. Change Section 908.5 of the IMC to read:

~~908.5 Water supply. Cooling towers, evaporative coolers, and fluid coolers shall be provided with an approved water supply and sized for peak demand. The quality of the water shall be provided in accordance the equipment manufacturer's recommendations. The piping system and protection of the potable water supply shall be installed as required by the IPC.~~

7. Change Item 4 of Section 928.1 of the IMC to read:

~~4. Be provided with an approved water supply and sized for peak demand. The quality of the water shall be provided in accordance the equipment manufacturer's recommendations. The piping system and protection of the potable water supply shall be installed as required by the IPC.~~

[ ~~7, 8.~~ ] Change Section 506.5 of the IMC to read:

~~506.5 Exhaust equipment. Exhaust equipment, including fans and grease reservoirs, shall comply with Sections 506.5.1 through 506.5.6 and shall be of an approved design or shall be listed for the application.~~

[ ~~8, 9.~~ ] Add Section 506.5.6 to the IMC to read:

506.5.6 Pollution control units. The installation of pollution control units shall be in accordance with the manufacturer's installation instructions and all of the following:

1. Pollution control units shall be listed and labeled in accordance with UL 1978.
2. Fans serving pollution control units shall be listed and labeled in accordance with UL 762.
3. Pollution control units shall be mounted and secured in accordance with the manufacturer's installation instructions and the International Building Code.

4. Pollution control units located indoors shall be listed and labeled for such use. Where enclosed duct systems, as required by Section 506.3.11, are connected to a pollution control unit, such unit shall be located in a room or space having the same fire-resistance rating as the duct enclosure. Access shall be provided for serving and cleaning of the unit. The space or enclosure shall be ventilated in accordance with the manufacturer's installation instructions.

5. A clearance of not less than 18 inches (457 mm) shall be maintained between the pollution control unit and combustible material.

6. Roof mounted pollution control units shall be listed for exterior installation and shall be mounted not less than 18 inches (457 mm) above the roof.

7. Exhaust outlets for pollution control units shall be in accordance with Section 506.3.13.

8. An airflow differential pressure control shall be provided to monitor the pressure drop across the filter sections of a pollution control unit. When the airflow is reduced below the design velocity, the airflow differential pressure control shall activate a visual alarm located in the area where cooking operations occur.

9. Pollution control units shall be provided with a factory installed fire suppression system.

10. Service space shall be provided in accordance with the manufacturer's instructions for the pollution control unit and the requirements of Section 306.

11. Wash down drains shall discharge through a grease interceptor and shall be sized for the flow. Drains shall be sealed with a trap or other approved means to prevent air bypass. Where a trap is utilized it shall have a seal depth that accounts for the system pressurization and evaporation between cleanings.

12. Protection from freezing shall be provided for the water supply and fire suppression systems where such systems are subject to freezing.

13. Duct connections to pollution control units shall be in accordance with Section 506.3.2.3. Where water splash or carryover can occur in the transition duct as a result of a washing operation, the transition duct shall slope downward toward the cabinet drain pan for a length not less than 18 inches (457 mm). Ducts shall transition to the full size of the unit inlet and outlet openings.

14. Extra heavy duty appliance exhaust systems shall not be connected to pollution control units except where such units are specifically designed and listed for use with solid fuels.

15. Pollution control units shall be maintained in accordance with the manufacturer's instructions.



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# Regulations

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[ ~~9~~-10. ] Change Section 607.5.5 of the IMC to read:

607.5.5 Shaft enclosures. Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with approved fire and smoke dampers installed in accordance with their listing.

Exceptions:

1. Fire and smoke dampers are not required where steel exhaust subducts extend at least 22 inches (559 mm) vertically in exhaust shafts, provided there is a continuous airflow upward to the outside.

2. Fire dampers are not required where penetrations are tested in accordance with ASTM E119 as part of the fire-resistance-rated assembly.

3. Fire and smoke dampers are not required where ducts are used as part of an approved smoke control system in accordance with Section 909 of the International Building Code.

4. Fire and smoke dampers are not required where the penetrations are in parking garage exhaust or supply shafts that are separated from other building shafts by not less than two-hour fire-resistance-rated construction.

5. Smoke dampers are not required where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the International Building Code.

[ ~~10~~-11. ] Add Section 607.6.2.2 to the IMC to read:

607.6.2.2 Equipment shutdown. Where ceiling radiation dampers are listed as static dampers, the HVAC equipment shall be effectively shut down to stop the airflow prior to the damper closing using one of the following methods:

1. A duct detector installed in the return duct.

2. An area smoke detector interlocked with the HVAC equipment.

3. A listed heat sensor installed in the return duct.

E. Add Section 2801.1.4 to the IBC to read:

2801.1.4 Changes to the IFGC. The following changes shall be made to the IFGC:

1. Change Section 301.1 of the IFGC to read:

301.1 Scope. This code shall apply to the installation of fuel gas piping systems, fuel gas utilization equipment, and related accessories as follows:

1. Coverage of piping systems shall extend from the point of delivery to the connections with gas utilization equipment. (See "point of delivery.")

2. Systems with an operating pressure of 125 psig (862 kPa gauge) or less.

Piping systems for gas-air mixtures within the flammable range with an operating pressure of 10 psig (69 kPa gauge) or less.

LP-Gas piping systems with an operating pressure of 20 psig (140 kPa gauge) or less.

3. Piping systems requirements shall include design, materials, components, fabrication, assembly, installation, testing and inspection.

4. Requirements for gas utilization equipment and related accessories shall include installation, combustion and ventilation air and venting.

This code shall not apply to the following:

1. Portable LP-Gas equipment of all types that are not connected to a fixed fuel piping system.

2. Installation of farm equipment such as brooders, dehydrators, dryers, and irrigation equipment.

3. Raw material (feedstock) applications except for piping to special atmosphere generators.

4. Oxygen-fuel gas cutting and welding systems.

5. Industrial gas applications using gases such as acetylene and acetylenic compounds, hydrogen, ammonia, carbon monoxide, oxygen, and nitrogen.

6. Petroleum refineries, pipeline compressor or pumping stations, loading terminals, compounding plants, refinery tank farms, and natural gas processing plants.

7. Integrated chemical plants or portions of such plants where flammable or combustible liquids or gases are produced by chemical reactions or used in chemical reactions.

8. LP-Gas installations at utility gas plants.

9. Liquefied natural gas (LNG) installations.

10. Fuel gas piping in power and atomic energy plants.

11. Proprietary items of equipment, apparatus, or instruments such as gas generating sets, compressors, and calorimeters.

12. LP-Gas equipment for vaporization, gas mixing, and gas manufacturing.

13. Temporary LP-Gas piping for buildings under construction or renovation that is not to become part of the permanent piping system.

14. Installation of LP-Gas systems for railroad switch heating.

15. Installation of LP-Gas and compressed natural gas (CNG) systems on vehicles.

16. Except as provided in Section 401.1.1, gas piping, meters, gas pressure regulators, and other appurtenances used by the serving gas supplier in the distribution of gas, other than undiluted LP-Gas.

17. Building design and construction, except as specified herein.

2. Change Sections 310.1 and 310.1.1 of the IFGC to read:

310.1 Pipe and tubing. Each above-ground portion of a gas piping system that is likely to become energized shall be electrically continuous and bonded to an effective ground-fault current path. Gas piping shall be considered to be bonded where it is connected to appliances that are connected to the equipment grounding conductor of the circuit supplying that appliance. Corrugated stainless steel tubing (CSST) piping systems listed with an arc resistant jacket or coating system in accordance with ANSI LC 1/CSA 6.26 shall comply with this section. Where any CSST segments of a piping system are not listed with an arc resistant jacket or coating system in accordance with ANSI LC 1/CSA 6.26, Section 310.1.1 shall apply.

310.1.1 CSST without arc resistant jacket or coating system. CSST gas piping systems and piping systems containing one or more segments of CSST not listed with an arc resistant jacket or coating system in accordance with ANSI LC 1/CSA 6.26 shall be bonded to the electrical service grounding electrode system or, where provided, the lightning protection electrode system and shall comply with Sections 310.1.1.1 through 310.1.1.5.

3. Add Section 404.11.3 to the IFGC to read:

404.11.3 Coating application. Joints in gas piping systems shall not be coated prior to testing and approval.

4. Change Section 614.8.2 of the IFGC to read:

614.8.2 Duct installation. Exhaust ducts shall be supported at 4-foot (1219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners that protrude into the inside of the duct.

5. Change the following referenced standard in Chapter 8 of the IFGC:

<u>Standard Reference Number</u>	<u>Title</u>	<u>Referenced in Code Section Number</u>
<u>ANSI LC1/CSA 6.26-14</u>	<u>Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST)</u>	<u>310.1, 310.1.1, 403.5.4</u>

**13VAC5-63-320. Chapter 29 Plumbing systems.**

A. Change Section 2901.1 of the IBC to read:

2901.1 Scope. The provisions of this chapter and the IPC shall govern the design and installation of all plumbing systems and equipment, except that as provided for in Section [ ~~403.10~~ 103.5 ] for functional design, water supply sources and sewage disposal systems are regulated and approved by the Virginia Department of Health and the Virginia Department of Environmental Quality. The approval of pumping and electrical equipment associated with such water supply sources and sewage disposal systems shall, however, be the responsibility of the building official.

Note: See also the Memorandum of Agreement in the "Related Laws Package," which is available from DHCD.

B. Add Section 2901.1.1 to the IBC to read:

2901.1.1 Changes to the IPC. The following changes shall be made to the IPC:

1. Add the following definitions to the IPC to read:

Nonpotable fixtures and outlets. Fixtures and outlets that are not dependent on potable water for the safe operation to perform their intended use. Such fixtures and outlets may include, but are not limited to water closets, urinals, irrigation, mechanical equipment, and hose connections to perform operations, such as vehicle washing and lawn maintenance.

Nonpotable water systems. Water systems for the collection, treatment, storage, distribution, and use or reuse of nonpotable water. Nonpotable systems include reclaimed water, rainwater, and gray water systems.

~~Rainwater. Natural precipitation, including snow melt, from roof surfaces only.~~

~~Reclaimed water. Reclaimed water means water resulting from the treatment of domestic, municipal, or industrial wastewater that is suitable for a water reuse that would not otherwise occur. Specifically excluded from this definition is "gray water."~~

Stormwater. Precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

2. Change the following ~~definition~~ definitions in the IPC to read:

Gray water. Water discharged from lavatories, bathtubs, showers, clothes washers, and laundry trays.

Rainwater. Natural precipitation, including snow melt, from roof surfaces only.

# Regulations

Reclaimed water. Reclaimed water means water resulting from the treatment of domestic, municipal, or industrial wastewater that is suitable for a water reuse that would not otherwise occur. Specifically excluded from this definition is "gray water."

3. Change the exception to Section 301.3 of the IPC to read:

Exception: Bathtubs, showers, lavatories, clothes washers and laundry trays shall not be required to discharge to the sanitary drainage system where such fixtures discharge to an approved nonpotable gray water system in accordance with the applicable provisions of Chapter 13.

4. Delete Sections 311 and 311.1 of the IPC.

5. Modify the Group A-5 "Description" category of Table 403.1 of the IPC to read:

Stadiums, amusement parks, pools, bleachers, and grandstands for outdoor sporting events and activities [ <sup>h</sup> <sub>f</sub> ]

6. Add footnote "<sup>h</sup>" "<sub>f</sub>" to Table 403.1 of the IPC to read:

<sup>h</sup> <sub>f</sub>. The occupant load for pools shall be in accordance with the "Skating rinks, swimming pools" category of Table 1004.1.2 of the IBC.

7. Add Section 403.1.3 and Table 403.1.3 to the IPC to read:

403.1.3 Marina fixtures. Notwithstanding any provision to the contrary, plumbing fixtures shall be provided for marinas in the minimum number shown in Table 403.1.3. Fixtures shall be located within 500 feet walking distance from the shore end of any dock they serve. Separate facilities shall be provided for each sex with an equal number of fixtures of each type in each facility, except that separate facilities are not required where the number of slips is less than 25. Urinals may be substituted for up to 50% of water closets.

Table 403.1.3 Minimum Number of Required Plumbing Fixtures for Marinas			
Number of Slips	Plumbing Fixtures		
	Water Closets	Lavatories	Showers
1 - 24	1	1	1
25 - 49	4	4	2
50 - 99	6	4	2
100 - 149	8	6	4
150 - 199	10	8	4

200 - 249	12	10	6
250 or greater	Two additional fixtures of each type for each 100 additional slips.		

8. Change Section 403.3.3 of the IPC to read:

403.3.3 Location of toilet facilities in occupancies other than malls. In occupancies other than covered and open mall buildings, the required public and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

Exceptions:

1. The location and maximum ~~travel~~ distances of travel to required employee facilities in factory and industrial occupancies are permitted to exceed that required by this section, provided that the location and maximum travel distance are approved.

2. The location and maximum ~~travel~~ distances of travel to the required public facilities located on cemetery property are permitted to exceed that required by this section, provided that the location and maximum travel distance are located on the same property and approved.

9. Change Section 405.3.2 of the IPC to read:

405.3.2 Public lavatories. In employee and public toilet rooms, the required lavatory shall be located in the same room as the required water closet.

Exception: In educational use occupancies, the required lavatory shall be permitted to be located adjacent to the room or space containing the water closet provided that not more than one operational door is between the water closet and the lavatory.

10. Add Section 602.2.1 to the IPC to read:

602.2.1 Nonpotable fixtures and outlets. Nonpotable water shall be permitted to serve nonpotable type fixtures and outlets in accordance with Chapter 13.

11. Add Section 603.3 to the IPC to read:

603.3 Tracer wire. Nonmetallic water service piping that connects to public systems shall be locatable. An insulated copper tracer wire, 18 AWG minimum in size and suitable for direct burial or an equivalent product, shall be utilized. The wire shall be installed in the same trench as the water service piping and within 12 inches (305 mm) of the pipe and shall be installed to within five feet (1524 mm) of the building wall to the point where the building water service pipe intersects with the public water supply. At a minimum, one end of the wire shall terminate above grade to provide access to the wire in a

location that is resistant to physical damage, such as with a meter vault or at the building wall.

12. Change Section 608.16.10 of the IPC to read:

608.16.10 Coffee machines and noncarbonated beverage dispensers. The water supply connection to coffee machines and noncarbonated beverage dispensers shall be protected against backflow by a backflow preventer conforming to ASSE 1022 or 1024, or by an air gap.

~~12.~~ 13. Delete Section ~~701.9~~ 701.8 of the IPC.

~~13.~~ 14. Add Section ~~703.6~~ 703.7 to the IPC to read:

~~703.6~~ 703.7 Tracer wire. Nonmetallic sanitary sewer piping that discharges to public systems shall be locatable. An insulated copper tracer wire, 18 AWG minimum in size and suitable for direct burial or an equivalent product, shall be utilized. The wire shall be installed in the same trench as the sewer within 12 inches (305 mm) of the pipe and shall be installed to within five feet (1524 mm) of the building wall to the point where the building sewer intersects with the public system. At a

minimum, one end of the wire shall terminate above grade in an accessible location that is resistant to physical damage, such as with a cleanout or at the building wall.

~~14.~~ 15. Add an exception to Section 1101.2 of the IPC to read:

Exception. Rainwater nonpotable water systems shall be permitted in accordance with Chapter 13.

~~15.~~ Change the title of Chapter 13 of the IPC to "Nonpotable Water Systems."

[ 16. Change Section 1106.2 of the IPC to read:

1106.2 Vertical conductors and leaders. Vertical conductors and leaders shall be sized for the maximum projected roof area, in accordance with Tables 1106.2(1) and 1106.2(2).

17. Delete Table 1106.2 of the IPC and add Tables 1106.2(1) and 1106.2(2) to the IPC to read:

Table 1106.2(1) Size of Circular Vertical Conductors and Leaders												
Diameter of Leader (inches <sup>a</sup> )	Horizontally Projected Roof Area (square feet)											
	Rainfall rate (inches per hour)											
	1	2	3	4	5	6	7	8	9	10	11	12
2	2,280	1,440	960	720	575	480	410	360	320	290	260	240
3	8,800	4,400	2,930	2,200	1,760	1,470	1,260	1,100	980	880	800	730
4	18,400	9,200	6,130	4,600	3,680	3,070	2,630	2,300	2,045	1,840	1,675	1,530
5	34,600	17,300	11,530	8,650	6,920	5,765	4,945	4,325	3,845	3,460	3,145	2,880
6	54,000	27,000	17,995	13,500	10,800	9,000	7,715	6,750	6,000	5,400	4,910	4,500
8	116,000	58,000	38,660	29,000	23,200	19,315	16,570	14,500	12,890	11,600	10,545	9,600

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m<sup>2</sup>.

a. Sizes indicated are the diameter of circular piping. This table is applicable to piping of other shapes, provided the cross-sectional shape fully enclosed a circle of the diameter indicated in this table. For rectangular leaders, see Table 1106.2(2). Interpolation is permitted for pipe sizes that fall between those listed in this table.

Table 1106.2(2) Size of Rectangular Vertical Conductors and Leaders												
Dimensions of Common Leader Sizes  width x length (inches) <sup>a,b</sup>	Horizontally Projected Roof Area (square feet)											
	Rainfall rate (inches per hour)											
	1	2	3	4	5	6	7	8	9	10	11	12
1-3/4 x 2-1/2	3,410	1,700	1,130	850	680	560	480	420	370	340	310	280

# Regulations

<u>2 x 3</u>	<u>5,540</u>	<u>2,770</u>	<u>1,840</u>	<u>1,380</u>	<u>1,100</u>	<u>920</u>	<u>790</u>	<u>690</u>	<u>610</u>	<u>550</u>	<u>500</u>	<u>460</u>
<u>2-3/4 x 4-1/4</u>	<u>12,830</u>	<u>6,410</u>	<u>4,270</u>	<u>3,200</u>	<u>2,560</u>	<u>2,130</u>	<u>1,830</u>	<u>1,600</u>	<u>1,420</u>	<u>1,280</u>	<u>1,160</u>	<u>1,060</u>
<u>3 x 4</u>	<u>13,210</u>	<u>6,600</u>	<u>4,400</u>	<u>3,300</u>	<u>2,640</u>	<u>2,200</u>	<u>1,880</u>	<u>1,650</u>	<u>1,460</u>	<u>1,320</u>	<u>1,200</u>	<u>1,100</u>
<u>3-1/2 x 4</u>	<u>15,900</u>	<u>7,950</u>	<u>5,300</u>	<u>3,970</u>	<u>3,180</u>	<u>2,650</u>	<u>2,270</u>	<u>1,980</u>	<u>1,760</u>	<u>1,590</u>	<u>1,440</u>	<u>1,320</u>
<u>3-1/2 x 5</u>	<u>21,310</u>	<u>10,650</u>	<u>7,100</u>	<u>5,320</u>	<u>4,260</u>	<u>3,550</u>	<u>3,040</u>	<u>2,660</u>	<u>2,360</u>	<u>2,130</u>	<u>1,930</u>	<u>1,770</u>
<u>3-3/4 x 4-3/4</u>	<u>21,960</u>	<u>10,980</u>	<u>7,320</u>	<u>5,490</u>	<u>4,390</u>	<u>3,660</u>	<u>3,130</u>	<u>2,740</u>	<u>2,440</u>	<u>2,190</u>	<u>1,990</u>	<u>1,830</u>
<u>3-3/4 x 5-1/4</u>	<u>25,520</u>	<u>12,760</u>	<u>8,500</u>	<u>6,380</u>	<u>5,100</u>	<u>4,250</u>	<u>3,640</u>	<u>3,190</u>	<u>2,830</u>	<u>2,550</u>	<u>2,320</u>	<u>2,120</u>
<u>3-1/2 x 6</u>	<u>27,790</u>	<u>13,890</u>	<u>9,260</u>	<u>6,940</u>	<u>5,550</u>	<u>4,630</u>	<u>3,970</u>	<u>3,470</u>	<u>3,080</u>	<u>2,770</u>	<u>2,520</u>	<u>2,310</u>
<u>4 x 6</u>	<u>32,980</u>	<u>16,490</u>	<u>10,990</u>	<u>8,240</u>	<u>6,590</u>	<u>5,490</u>	<u>4,710</u>	<u>4,120</u>	<u>3,660</u>	<u>3,290</u>	<u>2,990</u>	<u>2,740</u>
<u>5-1/2 x 5-1/2</u>	<u>44,300</u>	<u>22,150</u>	<u>14,760</u>	<u>11,070</u>	<u>8,860</u>	<u>7,380</u>	<u>6,320</u>	<u>5,530</u>	<u>4,920</u>	<u>4,430</u>	<u>4,020</u>	<u>3,690</u>
<u>7-1/2 x 7-1/2</u>	<u>100,500</u>	<u>50,250</u>	<u>33,500</u>	<u>25,120</u>	<u>20,100</u>	<u>16,750</u>	<u>14,350</u>	<u>12,560</u>	<u>11,160</u>	<u>10,050</u>	<u>9,130</u>	<u>8,370</u>

For SI: 1 inch =m, 1 square foot = 0.0929 m<sup>2</sup>.

a. Sizes indicated are nominal width x length of the opening for rectangular piping.

b. For shapes not included in this table, Equation 11-1 shall be used to determine the equivalent circular diameter, De, of rectangular piping for use in interpolation using the data from Table 1106.2(1).

(Equation 11-1)

$$De = (\text{width} \times \text{length})^{1/2}$$

where:

De = equivalent circular diameter and De, width and length are in inches.

## 18. Change Section 1106.3 and Table 1106.3 of the IPC to read:

**1106.3 Building storm drains and sewers.** The size of the building storm drain, building storm sewer and their horizontal branches having a slope of 1/2 unit or less vertical in 12 units horizontal (4% slope) shall be based on the maximum projected roof area in accordance with Table 1106.3. The slope of horizontal branches shall be not less than 1/8 unit vertical in 12 units horizontal (1% slope) unless otherwise approved.

**Table 1106.3**

**Size of Horizontal Storm Drainage Piping**

<u>Size of Horizontal Piping (inches)</u>	<u>Horizontally Projected Roof Area (square feet)</u>					
	<u>Rainfall rate (inches per hour)</u>					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
<u>1/8 unit vertical in 12 units horizontal (1% slope)</u>						
<u>3</u>	<u>3,288</u>	<u>1,644</u>	<u>1,096</u>	<u>822</u>	<u>657</u>	<u>548</u>
<u>4</u>	<u>7,520</u>	<u>3,760</u>	<u>2,506</u>	<u>1,800</u>	<u>1,504</u>	<u>1,253</u>
<u>5</u>	<u>13,360</u>	<u>6,680</u>	<u>4,453</u>	<u>3,340</u>	<u>2,672</u>	<u>2,227</u>
<u>6</u>	<u>21,400</u>	<u>10,700</u>	<u>7,133</u>	<u>5,350</u>	<u>4,280</u>	<u>3,566</u>
<u>8</u>	<u>46,000</u>	<u>23,000</u>	<u>15,330</u>	<u>11,500</u>	<u>9,200</u>	<u>7,600</u>
<u>10</u>	<u>82,800</u>	<u>41,400</u>	<u>27,600</u>	<u>20,700</u>	<u>16,580</u>	<u>13,800</u>
<u>12</u>	<u>133,200</u>	<u>66,600</u>	<u>44,400</u>	<u>33,300</u>	<u>26,650</u>	<u>22,200</u>
<u>15</u>	<u>218,000</u>	<u>109,000</u>	<u>72,800</u>	<u>59,500</u>	<u>47,600</u>	<u>39,650</u>

1/4 unit vertical in 12 units horizontal (2% slope)						
<u>3</u>	<u>4,640</u>	<u>2,320</u>	<u>1,546</u>	<u>1,160</u>	<u>928</u>	<u>773</u>
<u>4</u>	<u>10,600</u>	<u>5,300</u>	<u>3,533</u>	<u>2,650</u>	<u>2,120</u>	<u>1,766</u>
<u>5</u>	<u>18,880</u>	<u>9,440</u>	<u>6,293</u>	<u>4,720</u>	<u>3,776</u>	<u>3,146</u>
<u>6</u>	<u>30,200</u>	<u>15,100</u>	<u>10,066</u>	<u>7,550</u>	<u>6,040</u>	<u>5,033</u>
<u>8</u>	<u>65,200</u>	<u>32,600</u>	<u>21,733</u>	<u>16,300</u>	<u>13,040</u>	<u>10,866</u>
<u>10</u>	<u>116,800</u>	<u>58,400</u>	<u>38,950</u>	<u>29,200</u>	<u>23,350</u>	<u>19,450</u>
<u>12</u>	<u>188,000</u>	<u>94,000</u>	<u>62,600</u>	<u>47,000</u>	<u>37,600</u>	<u>31,350</u>
<u>15</u>	<u>336,000</u>	<u>168,000</u>	<u>112,000</u>	<u>84,000</u>	<u>67,250</u>	<u>56,000</u>
1/2 unit vertical in 12 units horizontal (4% slope)						
<u>3</u>	<u>6,576</u>	<u>3,288</u>	<u>2,295</u>	<u>1,644</u>	<u>1,310</u>	<u>1,096</u>
<u>4</u>	<u>15,040</u>	<u>7,520</u>	<u>5,010</u>	<u>3,760</u>	<u>3,010</u>	<u>2,500</u>
<u>5</u>	<u>26,720</u>	<u>13,360</u>	<u>8,900</u>	<u>6,680</u>	<u>5,320</u>	<u>4,450</u>
<u>6</u>	<u>42,800</u>	<u>21,400</u>	<u>13,700</u>	<u>10,700</u>	<u>8,580</u>	<u>7,140</u>
<u>8</u>	<u>92,000</u>	<u>46,000</u>	<u>30,650</u>	<u>23,000</u>	<u>18,400</u>	<u>15,320</u>
<u>10</u>	<u>171,600</u>	<u>85,800</u>	<u>55,200</u>	<u>41,400</u>	<u>33,150</u>	<u>27,600</u>
<u>12</u>	<u>266,400</u>	<u>133,200</u>	<u>88,800</u>	<u>66,600</u>	<u>53,200</u>	<u>44,400</u>
<u>15</u>	<u>476,000</u>	<u>238,000</u>	<u>158,800</u>	<u>119,000</u>	<u>95,300</u>	<u>79,250</u>

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m<sup>2</sup>.

19. Change Section 1106.6 and Table 1106.6 of the IPC to read:

1106.6 Size of roof gutters. The size of semicircular gutters shall be based on the maximum projected roof area in accordance with Table 1106.6.

Table 1106.6 Size of Semicircular Roof Gutters						
Diameter of Gutters (inches)	Horizontally Projected Roof Area (square feet)					
	Rainfall rate (inches per hour)					
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
1/16 unit vertical in 12 units horizontal (0.5% slope)						
<u>3</u>	<u>680</u>	<u>340</u>	<u>226</u>	<u>170</u>	<u>136</u>	<u>113</u>
<u>4</u>	<u>1,440</u>	<u>720</u>	<u>480</u>	<u>360</u>	<u>288</u>	<u>240</u>
<u>5</u>	<u>2,500</u>	<u>1,250</u>	<u>834</u>	<u>625</u>	<u>500</u>	<u>416</u>
<u>6</u>	<u>3,840</u>	<u>1,920</u>	<u>1,280</u>	<u>960</u>	<u>768</u>	<u>640</u>
<u>7</u>	<u>5,520</u>	<u>2,760</u>	<u>1,840</u>	<u>1,380</u>	<u>1,100</u>	<u>918</u>
<u>8</u>	<u>7,960</u>	<u>3,980</u>	<u>2,655</u>	<u>1,990</u>	<u>1,590</u>	<u>1,325</u>
<u>10</u>	<u>14,400</u>	<u>7,200</u>	<u>4,800</u>	<u>3,600</u>	<u>2,880</u>	<u>2,400</u>
1/8 unit vertical in 12 units horizontal (1% slope)						
<u>3</u>	<u>960</u>	<u>480</u>	<u>320</u>	<u>240</u>	<u>192</u>	<u>160</u>
<u>4</u>	<u>2,040</u>	<u>1,020</u>	<u>681</u>	<u>510</u>	<u>408</u>	<u>340</u>
<u>5</u>	<u>3,520</u>	<u>1,760</u>	<u>1,172</u>	<u>880</u>	<u>704</u>	<u>587</u>
<u>6</u>	<u>5,440</u>	<u>2,720</u>	<u>1,815</u>	<u>1,360</u>	<u>1,085</u>	<u>905</u>
<u>7</u>	<u>7,800</u>	<u>3,900</u>	<u>2,600</u>	<u>1,950</u>	<u>1,560</u>	<u>1,300</u>
<u>8</u>	<u>11,200</u>	<u>5,600</u>	<u>3,740</u>	<u>2,800</u>	<u>2,240</u>	<u>1,870</u>
<u>10</u>	<u>20,400</u>	<u>10,200</u>	<u>6,800</u>	<u>5,100</u>	<u>4,080</u>	<u>3,400</u>

# Regulations

1/4 unit vertical in 12 units horizontal (2% slope)						
<u>3</u>	<u>1,360</u>	<u>680</u>	<u>454</u>	<u>340</u>	<u>272</u>	<u>226</u>
<u>4</u>	<u>2,880</u>	<u>1,440</u>	<u>960</u>	<u>720</u>	<u>576</u>	<u>480</u>
<u>5</u>	<u>5,000</u>	<u>2,500</u>	<u>1,668</u>	<u>1,250</u>	<u>1,000</u>	<u>834</u>
<u>6</u>	<u>7,680</u>	<u>3,840</u>	<u>2,560</u>	<u>1,920</u>	<u>1,536</u>	<u>1,280</u>
<u>7</u>	<u>11,040</u>	<u>5,520</u>	<u>3,860</u>	<u>2,760</u>	<u>2,205</u>	<u>1,840</u>
<u>8</u>	<u>15,920</u>	<u>7,960</u>	<u>5,310</u>	<u>3,980</u>	<u>3,180</u>	<u>2,655</u>
<u>10</u>	<u>28,800</u>	<u>14,400</u>	<u>9,600</u>	<u>7,200</u>	<u>5,750</u>	<u>4,800</u>
1/2 unit vertical in 12 units horizontal (4% slope)						
<u>3</u>	<u>1,920</u>	<u>960</u>	<u>640</u>	<u>480</u>	<u>384</u>	<u>320</u>
<u>4</u>	<u>4,080</u>	<u>2,040</u>	<u>1,360</u>	<u>1,020</u>	<u>816</u>	<u>680</u>
<u>5</u>	<u>7,080</u>	<u>3,540</u>	<u>2,360</u>	<u>1,770</u>	<u>1,415</u>	<u>1,180</u>
<u>6</u>	<u>11,080</u>	<u>5,540</u>	<u>3,695</u>	<u>2,770</u>	<u>2,220</u>	<u>1,850</u>
<u>7</u>	<u>15,600</u>	<u>7,800</u>	<u>5,200</u>	<u>3,900</u>	<u>3,120</u>	<u>2,600</u>
<u>8</u>	<u>22,400</u>	<u>11,200</u>	<u>7,460</u>	<u>5,600</u>	<u>4,480</u>	<u>3,730</u>
<u>10</u>	<u>40,000</u>	<u>20,000</u>	<u>13,330</u>	<u>10,000</u>	<u>8,000</u>	<u>6,660</u>
For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m <sup>2</sup> . ]						

[ ~~46~~. 20. ] Change Sections 1301.1 through 1301.12 and add Sections 1301.13 through 1301.18, including subsections, to the IPC to read:

1301.1 Scope. The provisions of Chapter 13 shall govern the materials, design, construction, and installation of nonpotable water systems subject to this code. In addition to the applicable provision of this section, reclaimed water shall comply with the requirements of Section 1304.

1301.1.1 Design of nonpotable water systems. All portions of nonpotable water systems subject to this code shall be constructed using the same standards and requirements for the potable water systems or drainage systems as provided for in this code unless otherwise specified in this chapter.

1301.2 Makeup water. Makeup water shall be provided for all nonpotable water supply systems. The makeup water system shall be designed and installed to provide supply of water in the amounts and at the pressures specified in this code. The makeup water supply shall be potable and be protected against backflow in accordance with the applicable requirements of Section 608.

1301.2.1 Makeup water sources. Potable water shall be provided as makeup water for reclaimed water systems. Nonpotable water shall be permitted to serve as makeup water for gray water and rainwater systems.

1301.2.2 Makeup water supply valve. A full-open valve shall be provided on the makeup water supply line.

1301.2.3 Control valve alarm. Makeup water systems shall be fitted with a warning mechanism that alerts the user to a failure of the inlet control valve to close correctly. The alarm shall activate before the water

within the storage tank begins to discharge into the overflow system.

1301.3 Sizing. Nonpotable water distribution systems shall be designed and sized for peak demand in accordance with approved engineering practice methods that comply with the applicable provisions of Chapter 6.

1301.4 Signage required. All nonpotable water outlets, other than water closets and urinals, such as hose connections, open-ended pipes, and faucets shall be identified at the point of use for each outlet with signage that reads as follows: "Nonpotable water is utilized for (insert application name). Caution: nonpotable water. DO NOT DRINK." The words shall be legibly and indelibly printed on a tag or sign constructed of corrosion-resistant waterproof material or shall be indelibly printed on the fixture. The letters of the words shall be not less than 0.5 inches (12.7 mm) in height and in colors in contrast to the background on which they are applied. The pictograph shown in Figure 1301.4 shall appear on the signage required by this section.



1301.5 Potable water supply system connections. Where a potable water supply system is connected to a nonpotable water system, the potable water supply shall be protected against backflow in accordance with the applicable provisions of Section 608.

1301.6 Nonpotable water system connections. Where a nonpotable water system is connected and supplies water to another nonpotable water system, the nonpotable water system that supplies water shall be protected against backflow in accordance with the applicable provisions of Section 608.

1301.7 Approved components and materials. Piping, plumbing components, and materials used in the nonpotable water drainage and distribution systems shall be approved for the intended application and compatible with the water and any disinfection or treatment systems used.

1301.8 Insect and vermin control. Nonpotable water systems shall be protected to prevent the entrance of insects and vermin into storage and piping systems. Screen materials shall be compatible with system material and shall not promote corrosion of system components.

1301.9 Freeze protection. Nonpotable water systems shall be protected from freezing in accordance with the applicable provisions of Chapter 3.

1301.10 Nonpotable water storage tanks. Nonpotable water storage tanks shall be approved for the intended application and comply with Sections 1301.10.1 through 1301.10.12.

1301.10.1 Sizing. The holding capacity of storage tanks shall be sized for the intended use.

1301.10.2 Inlets. Storage tank inlets shall be designed to introduce water into the tank and avoid agitating the contents of the storage tank. The water supply to storage tanks shall be controlled by fill valves or other automatic supply valves designed to stop the flow of incoming water before the tank contents reach the overflow pipes.

1301.10.3 Outlets. Outlets shall be located at least 4 inches (102 mm) above the bottom of the storage tank and shall not skim water from the surface.

1301.10.4 Materials and location. Storage tanks shall be constructed of material compatible with treatment systems used to treat water. Above grade storage vessels shall be constructed using opaque, UV-resistant materials such as tinted plastic, lined metal, concrete, or wood or painted to prevent algae growth. Above grade storage tanks shall be protected from direct sunlight unless their design specifically incorporates the use of the sunlight heat transfer. Wooden storage tanks shall be provided with a flexible liner. Storage tanks and their manholes shall not be located directly under soil or waste piping or sources of contamination.

1301.10.5 Foundation and supports. Storage tanks shall be supported on a firm base capable of withstanding the storage tank's weight when filled to capacity. Storage tanks shall be supported in accordance with the applicable provisions of the IBC.

1301.10.5.1 Ballast. Where the soil can become saturated, an underground storage tank shall be ballasted, or otherwise secured, to prevent the effects of buoyancy. The combined weight of the tank and hold down ballast shall meet or exceed the buoyancy force of the tank. Where the installation requires a foundation, the foundation shall be flat and shall be designed to support the storage tank weight when full, consistent with the bearing capability of adjacent soil.

1301.10.5.2 Structural support. Where installed below grade, storage tank installations shall be designed to withstand earth and surface structural loads without damage.

1301.10.6 Overflow. The storage tank shall be equipped with an overflow pipe having a diameter not less than that shown in Table 606.5.4. The overflow outlet shall discharge at a point not less than 6 inches (152 mm) above the roof or roof drain, floor or floor drain, or over an open water-supplied fixture. The overflow outlet shall terminate through a check valve. Overflow pipes shall not be directed on walkways. The overflow drain shall not be equipped with a shutoff valve. A minimum of one cleanout shall be provided on each overflow pipe in accordance with the applicable provisions of Section 708.

1301.10.7 Access. A minimum of one access opening shall be provided to allow inspection and cleaning of the tank interior. Access openings shall have an approved locking device or other approved method of securing access. Below grade storage tanks, located outside of the building, shall be provided with either a manhole not less than 24 inches (610 mm) square or a manhole with an inside diameter not less than 24 inches (610 mm). The



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# Regulations

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design and installation of access openings shall prohibit surface water from entering the tank. Each manhole cover shall have an approved locking device or other approved method of securing access.

Exception: Storage tanks under 800 gallons (3028 L) in volume installed below grade shall not be required to be equipped with a manhole, but shall have an access opening not less than 8 inches (203 mm) in diameter to allow inspection and cleaning of the tank interior.

1301.10.8 Venting. Storage tanks shall be vented. Vents shall not be connected to sanitary drainage system. Vents shall be at least equal in size to the internal diameter of the drainage inlet pipe or pipes connected to the tank. Where installed at grade, vents shall be protected from contamination by means of a U-bend installed with the opening directed downward. Vent outlets shall extend a minimum of 12 inches (304.8 mm) above grade, or as necessary to prevent surface water from entering the storage tank. Vent openings shall be protected against the entrance of vermin and insects. Vents serving gray water tanks shall terminate in accordance with the applicable provisions of Sections 903 and 1301.8.

1301.10.9 Drain. Where drains are provided they shall be located at the lowest point of the storage tank. The tank drain pipe shall discharge as required for overflow pipes and shall not be smaller in size than specified in Table 606.5.7. A minimum of one cleanout shall be provided on each drain pipe in accordance with Section 708.

1301.10.10 Labeling and signage. Each nonpotable water storage tank shall be labeled with its rated capacity and the location of the upstream bypass valve. Underground and otherwise concealed storage tanks shall be labeled at all access points. The label shall read: "CAUTION: NONPOTABLE WATER – DO NOT DRINK." Where an opening is provided that could allow the entry of personnel, the opening shall be marked with the words: "DANGER – CONFINED SPACE." Markings shall be indelibly printed on a tag or sign constructed of corrosion-resistant waterproof material mounted on the tank or shall be indelibly printed on the tank. The letters of the words shall be not less than 0.5 inches (12.7 mm) in height and shall be of a color in contrast with the background on which they are applied.

1301.10.11 Storage tank tests. Storage tanks shall be tested in accordance with the following:

1. Storage tanks shall be filled with water to the overflow line prior to and during inspection. All seams and joints shall be left exposed and the tank shall remain watertight without leakage for a period of 24 hours.

2. After 24 hours, supplemental water shall be introduced for a period of 15 minutes to verify proper drainage of the overflow system and verify that there are no leaks.

3. Following a successful test of the overflow, the water level in the tank shall be reduced to a level that is at 2 inches (50.8 mm) below the makeup water offset point. The tank drain shall be observed for proper operation. The makeup water system shall be observed for proper operation, and successful automatic shutoff of the system at the refill threshold shall be verified. Water shall not be drained from the overflow at any time during the refill test.

4. Air tests shall be permitted in lieu of water testing as recommended by the tank manufacturer or the tank standard.

1301.10.12 Structural strength. Storage tanks shall meet the applicable structural strength requirements of the IBC.

1301.11 Trenching requirements for nonpotable water system piping. Underground nonpotable water system piping shall be horizontally separated from the building sewer and potable water piping by 5 feet [~~(1524 mm)~~ (1524 mm)] of undisturbed or compacted earth. Nonpotable water system piping shall not be located in, under, or above sewage systems cesspools, septic tanks, septic tank drainage fields, or seepage pits. Buried nonpotable system piping shall comply with the requirements of this code for the piping material installed.

Exceptions:

1. The required separation distance shall not apply where the bottom of the nonpotable water pipe within 5 feet (1524 mm) of the sewer is equal to or greater than 12 inches (305 mm) above the top of the highest point of the sewer and the pipe materials conforms to Table 702.3.

2. The required separation distance shall not apply where the bottom of the potable water service pipe within 5 feet (1524 mm) of the nonpotable water pipe is a minimum of 12 inches (305 mm) above the top of the highest point of the nonpotable water pipe and the pipe materials comply with the requirements of Table 605.4.

3. Nonpotable water pipe is permitted to be located in the same trench with building sewer piping, provided that such sewer piping is constructed of materials that comply with the requirements of Table 702.2.

4. The required separation distance shall not apply where a nonpotable water pipe crosses a sewer pipe, provided that the pipe is sleeved to at least 5 feet (1524 mm) horizontally from the sewer pipe centerline on both sides of such crossing with pipe materials that comply with Table 702.2.

5. The required separation distance shall not apply where a potable water service pipe crosses a nonpotable water pipe provided that the potable water service pipe is

sleeved for a distance of at least 5 feet (1524 mm) horizontally from the centerline of the nonpotable pipe on both sides of such crossing with pipe materials that comply with Table 702.2.

1301.12 Outdoor outlet access. Sillcocks, hose bibs, wall hydrants, yard hydrants, and other outdoor outlets that are supplied by nonpotable water shall be located in a locked vault or shall be operable only by means of a removable key.

1301.13 Drainage and vent piping and fittings. Nonpotable drainage and vent pipe and fittings shall comply with the applicable material standards and installation requirements in accordance with provisions of Chapter 7.

1301.13.1. Labeling and marking. Identification of nonpotable drainage and vent piping shall not be required.

1301.14 Pumping and control system. Mechanical equipment, including pumps, valves, and filters, shall be accessible and removable in order to perform repair, maintenance, and cleaning. The minimum flow rate and flow pressure delivered by the pumping system shall be designed for the intended application in accordance with the applicable provisions of Section 604.

1301.15 Water-pressure reducing valve or regulator. Where the water pressure supplied by the pumping system exceeds 80 psi (552 kPa) static, a pressure-reducing valve shall be installed to reduce the pressure in the nonpotable water distribution system piping to 80 psi (552 kPa) static or less. Pressure-reducing valves shall be specified and installed in accordance with the applicable provisions of Section 604.8.

1301.16 Distribution pipe. Distribution piping utilized in nonpotable water stems shall comply with Sections 1301.16.1 through 1301.16.4.

1301.16.1 Materials, joints, and connections. Distribution piping and fittings shall comply with the applicable material standards and installation requirements in accordance with applicable provisions of Chapter 6.

1301.16.2 Design. Distribution piping shall be designed and sized in accordance with the applicable provisions of Chapter 6.

1301.16.3 Labeling and marking. Distribution piping labeling and marking shall comply with Section 608.8.

1301.16.4 Backflow prevention. Backflow preventers shall be installed in accordance with the applicable provisions of Section 608.

1301.17 Tests and inspections. Tests and inspections shall be performed in accordance with Sections 1301.17.1 through 1301.17.5.

1301.17.1 Drainage and vent pipe test. Drain, waste, and vent piping used for gray water and rainwater nonpotable water systems shall be tested in accordance with the applicable provisions of Section 312.

1301.17.2 Storage tank test. Storage tanks shall be tested in accordance with the Section 1301.10.11.

1301.17.3 Water supply system test. Nonpotable distribution piping shall be tested in accordance with Section 312.5.

1301.17.4 Inspection and testing of backflow prevention assemblies. The testing of backflow preventers and backwater valves shall be conducted in accordance with Section 312.10.

1301.17.5 Inspection of vermin and insect protection. Inlets and vent terminations shall be visually inspected to verify that each termination is installed in accordance with Section 1301.10.8.

1301.18 Operation and maintenance manuals. Operations and maintenance materials for nonpotable water systems shall be provided as prescribed by the system component manufacturers and supplied to the owner to be kept in a readily accessible location.

[ ~~47~~. 21. ] Change the title of Section 1302 of the IPC to "Gray Water Nonpotable Water Systems."

[ ~~48~~. 22. ] Change Sections 1302.1 through 1302.6, including subsections, of the IPC to read as follows and delete Sections 1302.7 through 1302.13:

1302.1 Gray water nonpotable water systems. This code is applicable to the plumbing fixtures, piping or piping systems, storage tanks, drains, appurtenances, and appliances that are part of the distribution system for gray water within buildings and to storage tanks and associated piping that are part of the distribution system for gray water outside of buildings. This code does not regulate equipment used for, or the methods of, processing, filtering, or treating gray water, that may be regulated by the Virginia Department of Health or the Virginia Department of Environmental Quality.

1302.1.1 Separate systems. Gray water nonpotable water systems, unless approved otherwise under the permit from the Virginia Department of Health, shall be separate from the potable water system of a building with no cross connections between the two systems except as permitted by the Virginia Department of Health.

1302.2 Water quality. Each application of gray water reuse shall meet the minimum water quality requirements set forth in Sections 1302.2.1 through 1302.2.4 unless otherwise superseded by other state agencies.

1302.2.1 Disinfection. Where the intended use or reuse application for nonpotable water requires disinfection or

# Regulations

other treatment or both, it shall be disinfected as needed to ensure that the required water quality is delivered at the point of use or reuse.

1302.2.2 Residual disinfectants. Where chlorine is used for disinfection, the nonpotable water shall contain not more than 4 parts per million (4 mg/L) of free chlorine, combined chlorine, or total chlorine. Where ozone is used for disinfection, the nonpotable water shall not exceed 0.1 parts per million (by volume) of ozone at the point of use.

1302.2.3 Filtration. Water collected for reuse shall be filtered as required for the intended end use. Filters shall be accessible for inspection and maintenance. Filters shall utilize a pressure gauge or other approved method to indicate when a filter requires servicing or replacement. Shutoff valves installed immediately upstream and downstream of the filter shall be included to allow for isolation during maintenance.

1302.2.4 Filtration required. Gray water utilized for water closet and urinal flushing applications shall be filtered by a 100 micron or finer filter.

1302.3 Storage tanks. Storage tanks utilized in gray water nonpotable water systems shall comply with Section 1301.10.

1302.4 Retention time limits. Untreated gray water shall be retained in storage tanks for a maximum of 24 hours.

1302.5 Tank Location. Storage tanks shall be located with a minimum horizontal distance between various elements as indicated in Table 1302.5.1.

Element	Minimum Horizontal Distance from Storage Tank (feet)
Lot line adjoining private lots	5
Sewage systems	5
Septic tanks	5
Water wells	50
Streams and lakes	50
Water service	5
Public water main	10

1302.6 Valves. Valves shall be supplied on gray water nonpotable water drainage systems in accordance with Sections 1302.6.1 and 1302.6.2.

1302.6.1 Bypass valve. One three-way diverter valve certified to NSF 50 or other approved device shall be installed on collection piping upstream of each storage tank, or drainfield, as applicable, to divert untreated gray water to the sanitary sewer to allow servicing and inspection of the system. Bypass valves shall be installed downstream of fixture traps and vent connections. Bypass valves shall be labeled to indicate the direction of flow, connection, and storage tank or drainfield connection. Bypass valves shall be provided with access for operation and maintenance. Two shutoff valves shall not be installed to serve as a bypass valve.

1302.6.2 Backwater valve. Backwater valves shall be installed on each overflow and tank drain pipe to prevent unwanted water from draining back into the storage tank. If the overflow and drain piping arrangement is installed to physically not allow water to drain back into the tank, such as in the form of an air gap, backwater valves shall not be required. Backwater valves shall be constructed and installed in accordance with Section 715.

[ ~~19~~, 23. ] Change the title of Section 1303 of the IPC to "Rainwater Nonpotable Water Systems."

[ ~~20~~, 24. ] Change Sections 1303.1 through 1303.10, including subsections, of the IPC to read as follows and delete Sections 1303.11 through 1303.16:

1303.1 General. The provisions of this section shall govern the design, construction, installation, alteration, and repair of rainwater nonpotable water systems for the collection, storage, treatment, and distribution of rainwater for nonpotable applications.

1303.2 Water quality. Each application of rainwater reuse shall meet the minimum water quality requirements set forth in Sections 1303.2.1 through 1303.2.4 unless otherwise superseded by other state agencies.

1303.2.1 Disinfection. Where the intended use or reuse application for nonpotable water requires disinfection or other treatment or both, it shall be disinfected as needed to ensure that the required water quality is delivered at the point of use or reuse.

1303.2.2 Residual disinfectants. Where chlorine is used for disinfection, the nonpotable water shall contain not more than 4 parts per million (4 mg/L) of free chlorine, combined chlorine, or total chlorine. Where ozone is used for disinfection, the nonpotable water shall not exceed 0.1 parts per million (by volume) of ozone at the point of use.

1303.2.3 Filtration. Water collected for reuse shall be filtered as required for the intended end use. Filters shall be accessible for inspection and maintenance. Filters shall utilize a pressure gauge or other approved method to indicate when a filter requires servicing or

replacement. Shutoff valves installed immediately upstream and downstream of the filter shall be included to allow for isolation during maintenance.

1303.2.4 Filtration required. Rainwater utilized for water closet and urinal flushing applications shall be filtered by a 100 micron or finer filter.

1303.3 Collection surface. Rainwater shall be collected only from aboveground impervious roofing surfaces constructed from approved materials. Overflow or discharge piping from appliances or equipment, or both, including but not limited to evaporative coolers, water heaters, and solar water heaters shall not discharge onto rainwater collection surfaces.

1303.4 Collection surface diversion. At a minimum, the first 0.04 inches (1.016 mm) of each rain event of 25 gallons (94.6 L) per 1000 square feet (92.9 m<sup>2</sup>) shall be diverted from the storage tank by automatic means and not require the operation of manually operated valves or devices. Diverted water shall not drain onto other collection surfaces that are discharging to the rainwater system or to the sanitary sewer. Such water shall be diverted from the storage tank and discharged in an approved location.

1303.5 Pre-tank filtration. Downspouts, conductors, and leaders shall be connected to a pre-tank filtration device. The filtration device shall not permit materials larger than 0.015 inches (0.4 mm).

1303.6 Roof gutters and downspouts. Gutters and downspouts shall be constructed of materials that are compatible with the collection surface and the rainwater quality for the desired end use. Joints shall be made watertight.

1303.6.1 Slope. Roof gutters, leaders, and rainwater collection piping shall slope continuously toward collection inlets. Gutters and downspouts shall have a slope of not less than 1 unit in 96 units along their entire length and shall not permit the collection or pooling of water at any point.

Exception: Siphonic roof drainage systems installed in accordance with Chapter 11 shall not be required to have slope.

1303.6.2 Size. Gutters and downspouts shall be installed and sized in accordance with Section 1106.6 and local rainfall rates.

1303.6.3 Cleanouts. Cleanouts or other approved openings shall be provided to permit access to all filters, flushes, pipes, and downspouts.

1303.7 Storage tanks. Storage tanks utilized in rainwater nonpotable water systems shall comply with Section 1301.10.

1303.8 Location. Storage tanks shall be located with a minimum horizontal distance between various elements as indicated in Table 1303.8.1.

Table 1303.8.1 Location of Rainwater Storage Tanks	
Element	Minimum Horizontal Distance from Storage Tank (feet)
Lot line adjoining private lots	5
Sewage systems	5
Septic tanks	5

1303.9 Valves. Valves shall be installed in collection and conveyance drainage piping of rainwater nonpotable water systems in accordance with Sections 1303.9.1 and 1303.9.2.

1303.9.1 Influent diversion. A means shall be provided to divert storage tank influent to allow maintenance and repair of the storage tank system.

1303.9.2 Backwater valve. Backwater valves shall be installed on each overflow and tank drain pipe to prevent unwanted water from draining back into the storage tank. If the overflow and drain piping arrangement is installed to physically not allow water to drain back into the tank, such as in the form of an air gap, backwater valves shall not be required. Backwater valves shall be constructed and installed in accordance with Section 715.

1303.10 Tests and inspections. Tests and inspections shall be performed in accordance with Sections 1303.10.1 through 1303.10.2.

1303.10.1 Roof gutter inspection and test. Roof gutters shall be inspected to verify that the installation and slope is in accordance with Section 1303.6.1. Gutters shall be tested by pouring a minimum of one gallon of water into the end of the gutter opposite the collection point. The gutter being tested shall not leak and shall not retain standing water.

1303.10.2 Collection surface diversion test. A collection surface diversion test shall be performed by introducing water into the gutters or onto the collection surface area. Diversion of the first quantity of water in accordance with the requirements of Section 1303.4 shall be verified.

~~[ 21. 25. ] Add Section 1304 entitled "Reclaimed Water Systems" to the IPC.~~

~~22. Add Change Sections 1304.1 and 1304.2 [ to of ] the IPC to read as follows and delete Sections 1304.3 and 1304.4:~~

# Regulations

1304.1 General. Reclaimed water, water reclamation systems, reclaimed water distribution systems, and allowable nonpotable reuses of reclaimed water are as defined or specified in and governed by the Virginia Water Reclamation and Reuse Regulation (9VAC25-740). Permits from the Virginia State Water Control Board are required for such systems and reuses. The provisions of Section 1304 shall govern the design, construction, installation, alterations, and repair of plumbing fixtures, piping or piping systems, storage tanks, drains, appurtenances, and appliances that are part of the distribution system for reclaimed water within buildings and to storage tanks for reclaimed water as defined in the Virginia Water Reclamation and Reuse Regulation (9VAC25-740) and associated piping outside of buildings that deliver reclaimed water into buildings. Where conflicts occur between this code and the Virginia Water Reclamation and Reuse Regulation (9VAC25-740), the provisions of the Virginia Water Reclamation and Reuse Regulation (9VAC25-740) shall apply unless determined otherwise by the Virginia Department of Environmental Quality and DHCD through a memorandum of agreement.

1304.2 Design of reclaimed water systems. The design of reclaimed water systems shall conform to applicable requirements of Section 1301.

Exception: The design of reclaimed water systems shall conform to applicable requirements of the Virginia Water Reclamation and Reuse Regulation (9VAC25-740) for the following:

1. Identification, labeling, and posting of signage for reclaimed water systems in lieu of signage requirements described in Section 1301.4.
2. Sizing of system storage as defined in the Virginia Water Reclamation and Reuse Regulation (9VAC25-740), in addition to storage sizing requirements described in Section 1301.10.1.
3. Signage and labeling for reclaimed water storage in addition to labeling and signage requirements described in Section 1301.10.10.
4. Minimum separation distances and configurations for in-ground reclaimed water distribution piping in lieu of trenching requirements for nonpotable water systems described in Section 1301.11.

~~23. Add the following referenced standard to Chapter 14 of the IPC:~~

Standard Reference Number	Title	Referenced in Code Section Number
NSF 50-09	Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities	1302.6.1

C. Modify the Group A-5 "Description" category of Table 2902.1 of the IBC to read:

Stadiums, amusement parks, pools, bleachers, and grandstands for outdoor sporting events and activities  
[ ~~h~~ f ]

D. Add footnote [ "~~h~~" "f" ] to Table 2902.1 of the IBC to read:

[ ~~h~~ f ] The occupant load for pools shall be in accordance with the "Skating rinks, swimming pools" category of Table 1004.1.2.

## 13VAC5-63-330. Chapter 30 Elevators and conveying systems.

A. Change Section 3002.4 of the IBC to read:

3002.4 Elevator car to accommodate ambulance stretcher. Where elevators are provided in buildings four or more stories above, or four or more stories below, grade plane, at least one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate an ambulance stretcher 24 inches by 84 inches (610 mm by 2134 mm) with not less than five-inch (127 mm) radius corners, in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than three inches (76 mm) high and shall be placed inside on both sides of the hoistway door frame on the designated and alternate landing floors required to be established by ASME A17.1.

Exception: Elevators in multistory dwelling units or guest rooms.

B. Change Section 3003.3 of the IBC to read:

3003.3 Fire service elevator keys. All elevators shall be equipped to operate with either a standardized or non-standardized fire service elevator key in accordance with the IFC.

C. Change Section ~~3006.4~~ 3005.4 of the IBC to read:

~~3006.4~~ 3005.4 Machine and control rooms, control spaces, and machinery spaces. Elevator machine rooms, rooms and spaces housing elevator controllers, and machinery spaces shall be enclosed with fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. The fire-resistance rating shall not be less than the required rating of the hoistway enclosure. Openings in the fire barriers shall be protected with assemblies having a fire protection rating not less than that required for the hoistway enclosure doors.

Exception: In buildings four stories or less above grade plane when elevator machine rooms, rooms and spaces

housing elevator controllers, and machinery spaces do not abut and have no openings to the hoistway enclosure they serve, the elevator machine rooms, rooms and spaces housing elevator controllers, and machinery spaces are not required to be fire-resistance rated.

D. Add Section ~~3006.7~~ 3005.7 to the IBC to read:

~~3006.7~~ 3005.7 Machine-room-less designs. Where machine-room-less designs are utilized they shall comply with the provisions of ASME A17.1 and incorporate the following:

1. Where the elevator car-top will be used as a work platform, it shall be equipped with permanently installed guards on all open sides. Guards shall be permitted to be of collapsible design, but otherwise must conform to all applicable requirements of this code for guards.
2. Where the equipment manufacturer's procedures for machinery removal and replacement depend on overhead structural support or lifting points, such supports or lifting points shall be permanently installed at the time of initial equipment installation.
3. Where the structure that the elevator will be located in is required to be fully sprinklered by this code, the hoistway that the elevator machine is located in shall be equipped with a fire suppression system as a machine room in accordance with NFPA 13. Smoke detectors for the automatic initiation of Phase I Emergency Recall Operation, and heat detectors or other approved devices that automatically disconnect the main line power supply to the elevators, shall be installed within the hoistway.

E. Delete Section 3006 of the IBC in its entirety.

F. Change Section 3008.1 of the IBC to read:

3008.1 General. Where elevators in buildings greater than 420 feet (128 016 mm) in building height are to be used for occupant self-evacuation during fires, all passenger elevators for general public use shall comply with this section.

**[ 13VAC5-63-336. Chapter 31 Special construction.**

A. Change the title of IBC Section 3109 to read:

Swimming Pools, Swimming Pool Enclosures, and Aquatic Recreational Facilities.

B. Change Section 3109.1 of the IBC to read as follows, add Section 3109.1.1 to the IBC to read as follows, and delete the remainder of Section 3109 of the IBC:

3109.1 General. Swimming pools, swimming pool enclosures, and aquatic recreational facilities, as that term is defined in the ISPSC, shall comply with applicable provisions of the ISPSC.

3109.1.1 Changes to the ISPSC. The following changes shall be made to the ISPSC:

1. Add Section 410.2 and related subsections to the ISPSC to read:

410.2 Showers. Showers shall be in accordance with Sections 410.2.1 through 410.2.5.

410.2.1 Deck hand shower or shower spray unit. Not less than one and not greater than half of the total number of showers required by Section 410.1 shall be a hand shower or spray shower unit located on the deck of or at the entrance of each pool.

410.2.2 Anti-scald device. Where heated water is provided to the showers, the shower water supply shall be controlled by an anti-scald device.

~~401.2.3~~ 410.2.3 Water heater and mixing valve. Bather access to water heaters and thermostatically controlled mixing valves for showers shall be prohibited.

~~401.2.4~~ 410.2.4 Flow rate. Each showerhead shall have a water flow of not less than 2 gallons per minute (7.6 lpm).

~~401.2.5~~ 410.2.5 Temperature. At each showerhead, the heated shower water temperature shall not exceed 120°F (49°C) and shall not be less than 90°F (32°C).

2. Change the title of Section 609 of the ISPSC to read:

Dressing and Sanitary Facilities.

3. Change Section 609.3.1 of the ISPSC to read:

609.3.1 Deck hand shower or shower spray unit. Not less than one and not greater than half of the total number of showers required by Section 609.2 shall be a hand shower or shower spray unit located on the deck of or at the entrance of each pool. ]

**13VAC5-63-350. Chapter 34 Existing structures. (Repealed.)**

~~Delete Chapter 34 of the IBC in its entirety.~~

**13VAC5-63-360. Chapter 35 Referenced standards.**

Change the referenced standards in Chapter 35 of the IBC as follows (standards not shown remain the same):

Standard reference number	Title	Referenced in code section number
ASTM E329-02	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	1703.1, 1703.1.3

# Regulations

API 650-09	Welded Steel Tanks for Oil Storage	<del>426.2</del> <u>428.2</u>
API 653-09	Tank Inspection, Repair, Alteration and Reconstruction	<del>426.4</del> <u>428.4</u> , <del>426.5</del> <u>428.5</u>
ASME A17.1-2010/CSA B44-10	Safety Code for Elevators and Escalators	<del>907.3.3,</del> <del>911.1.5,</del> <del>1007.4,</del> <del>1607.9.1,</del> <del>3001.2,</del> <del>3001.4,</del> <del>3002.5,</del> <del>3003.2,</del> <del>3007.1,</del> <del>3007.2,</del> <del>3008.2,</del> <del>3008.2.1,</del> <del>3008.7.6m,</del> <del>3008.8.1</del>
ASME A18.1-2011	Safety Standard for Platform Lifts and Stairway Chairlifts	<del>1109.8,</del> <del>2702.2.6</del>
NFPA 91-15	Standard for Exhaust Systems for Air Conveying of Vapors, Mists and Particulate Solids	<u>430.3.6</u>
ISPSC-12 ISPSC-15	International Swimming Pool and Spa Code	202, 3109.1, 3109.1.1
TFI RMIP-09	Aboveground Storage Tanks Containing Liquid Fertilizer, Recommended Mechanical Integrity Practices	<del>426.2</del> <u>428.2</u> , <del>426.4</del> <u>428.4</u> , <del>426.5</del> <u>428.5</u>
UL 294-10	Access Control System Units	<del>1008.1.9.8</del>
UL 2075-13	Standard for Gas and Vapor Detectors and Sensors	<del>908.7.3</del> <u>915.4</u>

Part II  
~~Rehabilitation~~ Existing Buildings

**13VAC5-63-400. Chapter 1 Administration; Section 101 General.**

A. Section 101.1 Short title. The Virginia Uniform Statewide Building Code, Part II, ~~Rehabilitation~~ Existing Buildings, may be cited as the "~~Virginia Rehabilitation Code,~~" "Virginia Existing Building Code" or as the "~~VRC.~~" "VEBC."

B. Section 101.2 Incorporation by reference. Chapters 2 - 16 of the ~~2012~~ 2015 International Existing Building Code, published by the International Code Council, Inc., are adopted and incorporated by reference to be an enforceable part of the ~~VRC~~ VEBC. The term "IEBC" means the ~~2012~~ 2015 International Existing Building Code, published by the International Code Council, Inc. Any codes and standards referenced in the IEBC are also considered to be part of the incorporation by reference, except that such codes and standards are used only to the prescribed extent of each such reference.

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

D. Section 101.4 Arrangement of code provisions. The ~~VRC~~ VEBC is comprised of the combination of (i) the provisions of Chapter 1, Administration, which are established herein, (ii) Chapters 2 - 16 of the IEBC, which are incorporated by reference in Section 101.2, and (iii) the changes to the text of the incorporated chapters of the IEBC that are specifically identified, including any new chapters added. The terminology "changes to the text of the incorporated chapters of the IEBC that are specifically identified, including any new chapters added" shall also be referred to as the "state amendments to the IEBC." Such state amendments to the IEBC are set out using corresponding chapter and section numbers of the IEBC numbering system. In addition, since Chapter 1 of the IEBC is not incorporated as part of the ~~VRC~~ VEBC, any reference to a provision of Chapter 1 of the IEBC in the provisions of Chapters 2 - 16 of the IEBC is generally invalid. However, where the purpose of such a reference would clearly correspond to a provision of Chapter 1

**13VAC5-63-370. Appendix F ~~Rodent proofing~~ Rodent proofing.**

The following provisions of Appendix F of the IBC are part of this code:

F101.2 Foundation wall ventilation openings.

F101.6 Pier and wood construction. (Includes all provisions.)

established herein, then the reference may be construed to be a valid reference to such corresponding Chapter 1 provision.

E. Section 101.5 Use of terminology and notes. The provisions of this code shall be used as follows:

1. The term "this code," or "the code," where used in the provisions of Chapter 1, in Chapters 2 - 16 of the IEBC, or in the state amendments to the IEBC, means the ~~VRC~~ VEBC, unless the context clearly indicates otherwise.

2. The term "this code," or "the code," where used in a code or standard referenced in the ~~IEBC~~ VEBC, means that code or standard, unless the context clearly indicates otherwise.

3. The term "USBC" where used in this code, means the VCC, unless the context clearly indicates otherwise. ~~In addition, where the phrase "of the International Building Code under which the building was constructed" is used in the IEBC, it shall be construed to mean the USBC or other code that was in effect when the building was built. Further, the~~

4. The use of notes in Chapter 1 is to provide information only and shall not be construed as changing the meaning of any code provision.

5. Notes in the IEBC, in the codes and standards referenced in the IEBC and in the state amendments to the IEBC, may modify the content of a related provision and shall be considered to be a valid part of the provision, unless the context clearly indicates otherwise.

6. References to International Codes and standards, where used in this code, include state amendments made to those International Codes and standards in the VCC.

Note: See Section 101.2 of the VCC for a list of major codes and standards referenced in the VCC.

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

1. The provisions of Chapter 1 of this code supersede any provisions of Chapters 2 - 16 of the IEBC that address the same subject matter and impose differing requirements.

2. The provisions of Chapter 1 of this code supersede any provisions of the codes and standards referenced in the IEBC that address the same subject matter and impose differing requirements.

3. The state amendments to the IEBC supersede any provisions of Chapters 2 - 16 of the IEBC that address the same subject matter and impose differing requirements.

4. The state amendments to the IEBC supersede any provisions of the codes and standards referenced in the IEBC that address the same subject matter and impose differing requirements.

5. The provisions of Chapters 2 - 16 of the IEBC supersede any provisions of the codes and standards referenced in the IEBC that address the same subject matter and impose differing requirements.

G. Section 101.7 Administrative provisions. The provisions of Chapter 1 establish administrative requirements, which include but are not limited to provisions relating to the scope and enforcement of the code. Any provisions of Chapters 2 - 16 of the IEBC or any provisions of the codes and standards referenced in the IEBC that address the same subject matter to a lesser or greater extent are deleted and replaced by the provisions of Chapter 1. Further, any administrative requirements contained in the state amendments to the IEBC shall be given the same precedence as the provisions of Chapter 1. Notwithstanding the above, where administrative requirements of Chapters 2 - 16 of the IEBC or of the codes and standards referenced in the IEBC are specifically identified as valid administrative requirements in Chapter 1 of this code or in the state amendments to the IEBC, then such requirements are not deleted and replaced.

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

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

## **13VAC5-63-410. Section 102 Purpose and scope.**

A. Section 102.1 Purpose. In accordance with § 36-99.01 of the Code of Virginia, the General Assembly of Virginia has declared that (i) there is an urgent need to improve the housing conditions of low and moderate income individuals and families, many of whom live in substandard housing, particularly in the older cities of the Commonwealth; (ii) there are large numbers of older residential buildings in the Commonwealth, both occupied and vacant, which are in urgent need of rehabilitation and must be rehabilitated if the state's citizens are to be housed in decent, sound, and sanitary conditions; and (iii) the application of those building code requirements currently in force to housing rehabilitation has sometimes led to the imposition of costly and time-consuming requirements that result in a significant reduction in the amount of rehabilitation activity taking place.

The General Assembly further declares that (i) there is an urgent need to improve the existing condition of many of the Commonwealth's stock of commercial properties, particularly in older cities; (ii) there are large numbers of older commercial buildings in the Commonwealth, both occupied and vacant, that are in urgent need of rehabilitation and that must be rehabilitated if the citizens of the Commonwealth are



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# Regulations

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to be provided with decent, sound and sanitary work spaces; and (iii) the application of the existing building code to such rehabilitation has sometimes led to the imposition of costly and time-consuming requirements that result in a significant reduction in the amount of rehabilitation activity taking place.

B. Section 102.2 Scope. The provisions of this code shall ~~control~~ the ~~;~~

~~1. The rehabilitation, reconstruction, alteration, and repair]; and change of occupancy [ of existing buildings and structures ] in occupancies other than Group R-5 and shall be permitted to be used as an alternative to compliance with the VCC for additions [ or portions thereof.~~

Exception: The use of the VCC for occupancies classified as Group R-5.

~~2. Additions to existing buildings ] in any occupancy classification and for reconstruction, alteration or repair in Group R-5 occupancies [ and structures or portions thereof.~~

Exception: The use of ] this code [ the VCC shall ] not [ be permitted ] for [ -

~~3. The change of occupancy ] involving [ to other than occupancies classified as Group I-2 or I-3.~~

Exception: The use of the VCC for change of occupancy to occupancies classified as Group R-5 shall be permitted.

~~4. Retrofit provisions provided in Chapter 17 govern construction and rehabilitation activities in existing buildings and structures.~~

C. 102.2.1 Change of occupancy to Group I-2 or I-3. A change of occupancy to Group I-2 or I-3 shall comply with the provisions of the VCC. Written application shall be made to the local building department for a new certificate of occupancy, and the new certificate of occupancy shall be obtained prior to the change of occupancy. When impractical to achieve compliance with the VCC for the new occupancy classification, the building official shall consider modifications upon application and as provided for in Section 106.3 of the VCC.

D. 102.2.2 Reconstruction, alteration, or repair in Group R-5 occupancies. Compliance with this section shall be an acceptable alternative to compliance with this code at the discretion of the owner or owner's agent. The VCC may be used for the reconstruction, alteration, or repair of Group R-5 buildings or structures subject to the following criteria:

1. Any reconstruction, alteration or repair shall not adversely affect the performance of the building or structure, or cause the building or structure to become unsafe or lower existing levels of health and safety.

2. Parts of the building or structure not being reconstructed, altered, or repaired shall not be required to

comply with the requirements of the VCC applicable to newly constructed buildings or structures.

3. The installation of material or equipment, or both, that is neither required nor prohibited shall only be required to comply with the provisions of the VCC relating to the safe installation of such material or equipment.

4. Material or equipment, or both, may be replaced in the same location with material or equipment of a similar kind of capacity.

Exceptions:

1. This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of the VCC.

2. Reconstructed decks, balconies, porches, and similar structures located 30 inches (762 mm) or more above grade shall meet the current code provisions for structural loading capacity, connections, and structural attachment. This requirement excludes the configuration and height of handrails and guardrails.

5. 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 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 of replacement of glass in buildings constructed under any edition of the USBC shall be as required for new installations ].

## [ 13VAC5-63-420. Section 103 Application of code.

A. Section 103.1 General. All administrative provisions of the VCC, including ~~but not limited to~~, requirements for permits, inspections and approvals by the local building department, provisions for appeals from decisions of the local building department and the issuance of modifications, are applicable to the use of this code, except where this code sets out differing requirements. Where there is a conflict between a general requirement and a specific requirement in the IEBC, the specific requirement shall govern.

B. Section 103.1.1 Use of performance code. Compliance with the provisions of a nationally recognized performance code when approved as a modification shall be considered to constitute compliance with this code. All documents submitted as part of such consideration shall be retained in the permanent records of the local building department.

C. Section 103.1.2 Preliminary meeting. When requested by a prospective permit applicant or when determined necessary by the code official, the code official shall meet with the prospective permit applicant prior to the application for a permit to discuss plans for the proposed work or change of occupancy in order to establish the specific applicability of the provisions of this code.

~~D. Section 103.2 Change of occupancy. No Prior to a change of occupancy shall be made in any structure when of the current USBC requires a greater degree of accessibility, structural strength, fire protection, means of egress, ventilation, or sanitation. When such a greater degree is required building or structure, the owner or the owner's agent shall make written application to the local building department for a new certificate of occupancy and shall obtain the new certificate of occupancy prior to the new use of the structure.~~

When impractical to achieve compliance with this code for the new occupancy classification, the building official shall consider modifications upon application and as provided for in Section 106.3 of the VCC.

~~E. Section 103.3 Retrofit requirements. In accordance with Section 103.7 of the VCC, the~~ The local building department shall enforce the provisions of Section ~~1701~~ 1101 that require certain existing buildings to be retrofitted with fire protection systems and other safety equipment. Retroactive fire protection system requirements contained in the IFC shall not be applicable unless required for compliance with the provisions of Section ~~1701~~ 1101.

F. Section 103.4 Nonrequired equipment. The following criteria for nonrequired equipment is in accordance with § 36-103 of the Code of Virginia. Building owners may elect to install partial or full fire alarms or other safety equipment that was not required by the edition of the VCC in effect at the time a building was constructed without meeting current requirements of the code, provided the installation does not create a hazardous condition. Permits for installation shall be obtained in accordance with the VCC. In addition, as a requirement of this code, when such nonrequired equipment is to be installed, the building official shall notify the appropriate fire official or fire chief.

G. Section 103.4.1 Reduction in function or discontinuance of nonrequired fire protection systems. When a nonrequired fire protection system is to be reduced in function or discontinued, it shall be done in such a manner so as not to create a false sense of protection. Generally, in such cases, any features visible from interior areas shall be removed, such as sprinkler heads, smoke detectors, or alarm panels or devices, but any wiring or piping hidden within the construction of the building may remain. Approval of the proposed method of reduction or discontinuance shall be obtained from the building official.

H. Section 103.5 Equipment changes. Upon the replacement or new installation of any fuel-burning appliances or equipment in existing buildings, an inspection or inspections shall be conducted ~~to ensure that the connected vent or chimney systems comply with the following:~~ in accordance with Section 113.3.1 of the VCC.

~~1. Vent or chimney systems are sized in accordance with either the IRC, the IMC, or the IFGC, depending on which is applicable based on the fuel source and the occupancy classification of the structure.~~

~~2. Vent or chimney systems are clean, free of any obstruction or blockages, defects, or deterioration, and are in operable condition.~~

~~Where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the requirements of Items 1 and 2 of this section are met.~~

I. Section 103.6 Requirements relating to maintenance. Any requirements of the IEBC requiring the maintenance of existing buildings or structures are invalid.

Note: Requirements for the maintenance of existing buildings and structures and for unsafe conditions are contained in the VMC.

J. Section 103.7 Use of Appendix A. Appendix A of the IEBC provides guidelines for the seismic retrofit of existing buildings. The use of this appendix is not mandatory but shall be permitted to be utilized at the option of an owner, the owner's agent or the RDP involved in a rehabilitation project. However, in no case shall the use of Appendix A be construed to authorize the lowering of existing levels of health or safety in buildings or structures being rehabilitated.

K. Section 103.8 Use of Appendix B. Appendix B of the IEBC provides supplementary accessibility requirements for existing buildings and facilities. All applicable requirements of Appendix B shall be met in buildings and structures being rehabilitated.

L. Section 103.9 Use of Resource A. Resource A of the IEBC provides guidelines for the evaluation of fire resistance ratings of archaic materials and may be used in conjunction with rehabilitation projects.

M. 103.10 Construction documents. Construction documents shall be submitted with the application for a permit. The work proposed to be performed on an existing building or structure shall be classified on the construction documents as repairs, alterations, change of occupancy, addition, historic building, or moved building. All work areas shall be identified on the construction documents. Alterations shall further be identified as Level 1, Level 2, or Level 3.

Exception: construction documents or classification of the work does not need to be submitted when the building official determines the proposed work does not require such documents, classification, or identification. ]

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# Regulations

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## 13VAC5-63-430. Chapter 2 Definitions.

A. Change Section 201.3 of the IEBC to read:

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the other International Codes, such terms shall have the meanings ascribed to them in those codes, except that terms that are not defined in this code and that are defined in the VCC shall take precedence over other definitions.

B. Change the following ~~definition~~ definitions in Section 202 of the IEBC to read:

Alteration. Any construction or renovation to an existing structure other than a repair or addition.

Change of occupancy. [ ~~A change in the use or occupancy of any building or structure that would place the building or structure in a different division of the same group of occupancies or in a different group of occupancies or a change in the purpose or level of activity within a building or structure that involves a change in application of the requirements of this code.~~ Either of the following shall be considered a change of occupancy where the current VCC requires a greater degree of accessibility, structural strength, fire protection, means of egress, ventilation or sanitation than is existing in the current building or structure:

1. Any change in the occupancy classification of a building or structure.
2. Any change in the purpose of, or a change in the level of activity within, a building or structure.

Note: The use and occupancy classification of a building or structure, shall be determined in accordance with Chapter 3 of the VCC. ]

Existing building. A building for which a legal certificate of occupancy has been issued under any edition of the USBC or approved by the building official when no legal certificate of occupancy exists, and that has been occupied for its intended use; or, a building built prior to the initial edition of the USBC.

Substantial improvement. For the purpose of determining compliance with the flood provisions of this code, any improvement, including repair, reconstruction, rehabilitation, alteration, or addition, or other improvement of a building or structure or a portion thereof, the cost of which equals or exceeds 50% of the market value of the building or structure before the improvement or repair is started. If the building or structure [ ~~or portion thereof~~ ] has sustained substantial damage, any improvements are considered substantial improvement regardless of the actual improvement performed. The term does not, however, include either:

1. Any project for improvement of a building or structure [ ~~or portion thereof~~ ] required to correct existing health, sanitary, or safety code violations identified by the building official and that is the minimum necessary to assure safe living conditions; or

2. Any alteration of a historic structure, provided that the alteration will not preclude the building or structure's continued designation as a historic building or structure.

Work area. That intended room, space, or portion of a building or structure where a wall or walls are added, relocated, or removed. Work area excludes (i) the addition or elimination of any door or window; (ii) the reconfiguration or extension of any system; (iii) the installation of any additional equipment; (iv) the removal of finished flooring or ceiling materials; (v) adjacent rooms or other rooms, spaces, or portions of the building or structure where incidental work entailed by the intended work must be performed; and (vi) portions of the building or structure where work not initially intended is specifically required by this code.

C. Add the following definitions to Section 202 of the IEBC to read:

[ 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). ]

Existing structure. A structure (i) for which a legal building permit has been issued under any edition of the USBC, (ii) which has been previously approved, or (iii) which was built prior to the initial edition of the USBC. For application of provisions in flood hazard areas, an existing structure is any building or structure for which the start of construction commenced before the effective date of the community's first flood plain management code, ordinance, or standard.

[ Moved building or structure. An existing building or structure that is moved to a new location.

Structure. An assembly of materials forming a construction for occupancy or use including stadiums, gospel and circus tents, reviewing stands, platforms, stagings, observation

towers, radio towers, water tanks, storage tanks (underground and aboveground), trestles, piers, wharves, swimming pools, amusement devices, storage bins, and other structures of this general nature but excluding water wells. The word "structure" shall be construed as though followed by the words "or part or parts thereof" unless the context clearly requires a different meaning. "Structure" 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. ]

D. Delete the following definitions from Section 202 of the IEBC:

Approved

Dangerous

Deferred submittal

Facility

Flood hazard area

Registered design professional in responsible charge

Relocatable building

Unsafe

**13VAC5-63-431. Chapter 3 [ Provisions for all compliance methods General provisions and special detailed requirements ]:**

A. [ Change IEBC Section 301 to General.

B. ] Change Section 301.1 of the IEBC to read:

301.1 [ General. The repair, alteration, change of occupancy, or addition of all existing buildings shall comply with one of the methods listed in Section 301.1.05, 301.1.1, 301.1.2, or 301.1.3, as selected by the applicant. Sections 301.1.05, 301.1.1, 301.1.2, and 301.1.3 shall not be applied in combination with each other. Moved buildings and structures shall comply with Chapter 13 of this code. Where this code requires consideration of the seismic force resisting system of an existing building subject to repair, alteration, change of occupancy, addition, or relocation of existing buildings, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used. Applicability. The applicable provisions of this chapter shall be used in conjunction with the requirements in this code, and shall apply to all construction and rehabilitation. ]

[ ~~B. C.~~ ] Add Section [ 301.1.05 301.2 ] to the IEBC to read:

[ 301.1.05 Previous code compliance method. Alterations and repairs complying with the requirements of the building code under which the building or structure or the affected portions thereof was built, or as previously approved by the building official, shall be considered in

compliance with the provisions of this code, unless the building or structure or the affected portions thereof is undergoing a substantial structural alteration as described in Section 907.4.2. New structural members added as part of the alteration or repairs shall comply with the IBC. Alterations and repairs of existing buildings in flood hazard areas shall comply with Section 601.3 for repairs or Section 701.3 for alterations. 301.2 Occupancy and use. When determining the appropriate application of the referenced sections of this code, the occupancy and use of a building shall be determined in accordance with Chapter 3 of the VCC. ]

[ ~~C. D.~~ Change IEBC Section 302 to Building Materials and Systems.

E. ] Change Sections [ 301.1.1 302.1 ] through [ 301.1.3 302.3 ] of the IEBC to read:

[ 301.1.1 Prescriptive compliance method. Repairs, alterations, addition, and changes of occupancy complying with Chapter 4 of this code shall be considered in compliance with the provisions of this code.

301.1.2 Proportional compliance method. Repairs, alterations, additions, and changes of occupancy complying with the applicable requirements of Chapters 5 through 12 of this code shall be considered in compliance with the provisions of this code.

301.1.3 Performance compliance method. Repairs, alterations, additions, and changes of occupancy complying with Chapter 14 of this code shall be considered in compliance with the provisions of this code.

D. Add Section 302.6, including subsections and tables, to the IEBC to read:

302.6 Change of occupancy in existing Group B teaching and research laboratories. Where the use of new or different hazardous materials or a change in the amount of hazardous materials in existing Group B testing and research laboratories in educational occupancies above the 12th grade would constitute a change of occupancy, this section shall be permitted to be used as an acceptable alternative to compliance with change of occupancy requirements to permit the increased amounts of hazardous materials stipulated without the laboratories being classified as Group H. In addition, as set out in Section 5001.7 of the SFPC, approval under this section is contingent upon operational requirements in the SFPC being complied with and maintained.

302.6.1 Hazardous materials in existing Group B teaching and research laboratories. The percentage of maximum allowable quantities of hazardous materials per control area and the number of control areas permitted at each floor level within an existing building shall be permitted to comply with Table 302.6.1(1) in buildings equipped throughout

# Regulations

with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC or shall be permitted to comply with Table 302.6.1(2) in buildings not equipped

throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

Table 302.6.1(1)

Design and Number of Control Areas in Existing Buildings Equipped Throughout with an Automatic Sprinkler System in Accordance with Section 903.3.1.1 of the VCC with Group B Teaching and Research Laboratories in Educational Occupancies above the 12th Grade

<u>Floor Level</u>		<u>%age of the Maximum Allowable Quantity per Control Area<sup>a</sup></u>	<u>Number of Control Areas per Floor</u>	<u>Fire Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours<sup>b</sup></u>
<u>Above-Grade Plane</u>	<u>Higher than 20</u>	<u>5</u>	<u>1</u>	<u>2</u>
	<u>10-20</u>	<u>10</u>	<u>1</u>	<u>2</u>
	<u>7-9</u>	<u>25</u>	<u>2</u>	<u>2</u>
	<u>4-6</u>	<u>50</u>	<u>2</u>	<u>2</u>
	<u>3</u>	<u>75</u>	<u>2</u>	<u>1</u>
	<u>2</u>	<u>100</u>	<u>3</u>	<u>1</u>
	<u>1</u>	<u>100</u>	<u>4</u>	<u>1</u>
<u>Below-Grade Plane</u>	<u>1</u>	<u>75</u>	<u>3</u>	<u>1</u>
	<u>2</u>	<u>50</u>	<u>2</u>	<u>1</u>
	<u>Lower than 2</u>	<u>Not Allowed</u>	<u>Not Allowed</u>	<u>Not Allowed</u>

a. %age shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2) of the VCC, with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

Table 302.6.1(2)

Design and Number of Control Areas in Existing Buildings Not Equipped Throughout with an Automatic Sprinkler System in Accordance with Section 903.3.1.1 of the VCC with Group B Teaching and Research Laboratories in Educational Occupancies above the 12th Grade

<u>Floor Level</u>		<u>%age of the Maximum Allowable Quantity per Control Area<sup>a</sup></u>	<u>Number of Control Areas per Floor</u>	<u>Fire Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours<sup>b</sup></u>
<u>Above-Grade Plane</u>	<u>Higher than 9</u>	<u>5</u>	<u>1</u>	<u>2</u>
	<u>7-9</u>	<u>10</u>	<u>2</u>	<u>2</u>
	<u>4-6</u>	<u>25</u>	<u>2</u>	<u>2</u>
	<u>3</u>	<u>75</u>	<u>2</u>	<u>1</u>
	<u>2</u>	<u>100</u>	<u>3</u>	<u>1</u>

	±	100	4	±
<u>Below Grade Plane</u>	±	75	3	±
	≥	50	≥	±
	<u>Lower than 2</u>	<u>Not Allowed</u>	<u>Not Allowed</u>	<u>Not Allowed</u>

a. %age shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2) of the VCC, with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

302.6.1.1 Automatic fire alarm and detection systems. An automatic fire alarm system shall be provided throughout the building in accordance with Section 907 of the VCC. An automatic fire detection system shall be provided in the control area in accordance with Section 907 of the VCC where pyrophics or Class 4 oxidizers are used and the building is not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

302.6.1.2 System supervision and monitoring. Automatic fire detection systems shall be electronically supervised and monitored by an approved supervising station or, where approved, shall initiate an audible and visual signal at a constantly attended onsite location.

302.1 Existing materials. Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless the VCC would not permit their use in buildings or structures of similar occupancy, purpose, and location.

302.2 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs and alterations, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the VCC would not permit their use in buildings or structures of similar occupancy, purpose, and location.

302.3 Existing seismic force-resisting systems. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of R, Ω<sub>0</sub>, and C<sub>d</sub> for the existing seismic force-resisting system shall be those specified by the VCC for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, intermediate, or special system.

F. Delete Sections 302.4 and 302.5 of the IEBC. ]

[ G. ] Add IEBC Section 303 [ Reroofing and roof repair Fire escapes ].

[ F. H. ] Add Sections 303.1 through [ 303.7 303.6 ], including subsections, to the IEBC to read:

303.1 [ Reroofing. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with this section and the applicable requirements of Chapter 15 of the IBC. Where permitted. Fire escapes shall be permitted only as provided for in Sections 303.1.1 through 303.1.4.

Exceptions:

1. Roof replacement or roof recover of existing low-slope roof coverings shall not be required to meet the minimum design slope requirement of one quarter unit vertical in 12 units horizontal (2% slope) in Section 1507 of the IBC for roofs that provide positive roof drainage.

2. Recovering or replacing an existing roof covering shall not be required to meet the requirement for secondary (emergency overflow) drains or scuppers in Section 1503.4 of the IBC for roofs that provide for positive roof drainage.

For the purposes of this exception, existing secondary drainage or scupper systems required in accordance with the IBC shall not be removed unless they are replaced by secondary drains or scuppers designed and installed in accordance with Section 1503.4 of the IBC.

303.1.1 Existing fire escapes. Existing fire escapes shall continue to be accepted as a component in the means of egress in existing buildings only.

303.1.2 New fire escapes. Newly constructed fire escapes for existing buildings shall be permitted only where exterior stairs cannot be utilized due to lot lines limiting stair size or due to the sidewalks, alleys, or roads at grade level. New fire escapes shall not incorporate ladders or access by windows.

Exception: Fire escapes that are replaced or repaired shall only be required to comply with Sections 303.3 and 303.4 if feasible, and if not feasible, such that the replaced or repaired fire escape is not less safe than its existing condition.

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# Regulations

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~~303.1.3 Limitations. Fire escapes shall comply with this section and shall not constitute more than 50% of the required number of exits nor more than 50% of the required exit capacity.~~

~~303.1.4 Fire escapes required. For other than Group I-2, where more than one exit is required, newly constructed fire escapes complying with Section 303.6 shall be accepted as providing one of the required means of egress. Replacement fire escapes or existing fire escapes undergoing repairs shall comply with Sections 303.3 and 303.4 if feasible, and if not feasible, to the greatest extent possible. ]~~

~~303.2 [ Structural and construction loads. Structural roof components shall be capable of supporting the roof-covering system and the material and equipment loads that will be encountered during installation of the system Location. Where located on the front of the building and where projecting beyond the building line, the lowest landing shall not be less than 7 feet (2134 mm) or more than 12 feet (3658 mm) above grade, and shall be equipped with a counterbalanced stairway to the street. In alleyways and thoroughfares less than 30 feet (9144 mm) wide, the clearance under the lowest landing shall not be less than 12 feet (3658 mm) ].~~

~~303.3 [ Roof replacement. Roof replacement shall include the removal of all existing layers of roof coverings down to the roof deck Construction. The fire escape shall be designed to support a live load of 100 pounds per square foot (4788 Pa) and shall be constructed of steel or other approved noncombustible materials. Fire escapes constructed of wood not less than nominal 2 inches (51 mm) thick are permitted on buildings of Type V construction. Walkways and railings located over or supported by combustible roofs in buildings of Types III and IV construction are permitted to be of wood not less than nominal 2 inches (51 mm) thick ].~~

~~[ Exception: Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck, the existing ice barrier membrane shall be permitted to remain in place and covered with an additional layer of ice barrier membrane in accordance with Section 1507 of the IBC.~~

~~303.3.1 Roof recover. The installation of a new roof covering over an existing roof covering shall be permitted where any of the following conditions occur:~~

~~1. Complete and separate roofing systems, such as standing seam metal roof systems, which are designed to transmit the roof loads directly to the building's structural system and do not rely on existing roofs and roof coverings for support, shall not require the removal of existing roof coverings.~~

~~2. Metal panel, metal shingle, and concrete and clay tile roof coverings shall be permitted to be installed over~~

~~existing wood shake roofs when applied in accordance with Section 706.4.~~

~~3. The application of a new protective coating over an existing spray polyurethane foam roofing system shall be permitted without tear off of existing roof coverings.~~

~~4. Where the new roof covering is installed in accordance with the roof covering manufacturer's approved instructions.~~

~~Exceptions. A roof recover shall not be permitted where any of the following conditions occur:~~

~~1. Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.~~

~~2. Where the existing roof covering is slate, clay, cement, or asbestos cement tile.~~

~~3. Where the existing roof has two or more applications of any type of roof covering. ]~~

~~303.4 [ Roof recovering. Where the application of a new roof covering over wood shingle or shake roofs creates a combustible concealed space, the entire existing surface shall be covered with gypsum board, mineral fiber, glass fiber or other approved materials securely fastened in place Dimensions. Stairs shall be at least 22 inches (559 mm) wide with risers not more than, and treads not less than, 8 inches (203 mm) and landings at the foot of stairs not less than 40 inches (1016 mm) wide by 36 inches (914 mm) long, located not more than 9 inches (203 mm) below the door ].~~

~~303.5 [ Reinstallation of materials. Existing slate, clay, or cement tile shall be permitted for reinstallation, except that damaged, cracked, or broken slate or tile shall not be reinstalled. Existing vent flashing, metal edgings, drain outlets, collars, and metal counterflashings shall not be reinstalled where rusted, damaged, or deteriorated. Aggregate surfacing materials shall not be reinstalled Opening protectives. Openings within 10 feet (3048 mm) of newly constructed fire escape stairways shall be protected by fire assemblies having minimum 3/4-hour fire-resistance ratings ].~~

~~[ Exception: Opening protection shall not be required in buildings equipped throughout with an approved automatic sprinkler system. ]~~

~~303.6 [ Flashings. Flashings shall be reconstructed in accordance with approved manufacturer's installation instructions. Metal flashing to which bituminous materials are to be adhered shall be primed prior to installation. Fire escape access and details. Newly constructed fire escapes shall comply with all of the following requirements:~~

1. Occupants shall have unobstructed access to the fire escape without having to pass through a room subject to locking.

2. Access to a new fire escape shall be through a door, except that windows shall be permitted to provide access from single dwelling units or sleeping units in Group R-1, R-2 and I-1 occupancies or to provide access from spaces having a maximum occupant load of 10 in other occupancy classifications.

2.1. The window shall have a minimum net clear opening of 5.7 square feet (0.53 m<sup>2</sup>) or 5 square feet (0.46 m<sup>2</sup>) where located at grade.

2.2. The minimum net clear opening height shall be 24 inches (610 mm) and net clear opening width shall be 20 inches (508 mm).

2.3. The bottom of the clear opening shall not be greater than 44 inches (1118 mm) above the floor.

2.4. The operation of the window shall comply with the operational constraints of the VCC.

3. In all buildings of Group E occupancy, up to and including the 12th grade, buildings of Group I occupancy, rooming houses and child care centers, ladders of any type are prohibited on fire escapes used as a required means of egress.

~~303.7 Roof repair. Roof repairs shall comply with this section. Work on nondamaged components that is necessary for the required repair of damaged components shall be considered part of the roof repair and shall not be subject to the requirements of other parts of this code.~~

~~Exception: Routine maintenance required by this section, ordinary repairs exempt from permit in accordance with Section 108.2 of the VCC, and abatement of wear due to normal service conditions shall not be subject to the requirements for roof repairs in this section.~~

~~303.7.1 Building materials and systems. Building materials and systems shall comply with the requirements of Sections 303.7.1.1 and 303.7.1.2.~~

~~303.7.1.1 Existing materials. Materials already in use in a building in compliance with requirements or approvals in effect at the time of its erection or installation shall be permitted to remain in use unless determined by the building official to be unsafe.~~

~~303.7.1.2 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs, provided no hazard to life, health, or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.~~

I. Add IEBC Section 304 Glass replacement and replacement windows.

J. Add Sections 304.1 through 304.3, including subsections, to the IEBC to read:

304.1 Conformance. 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.

304.2 Replacement window opening devices. In Group R-2 or R-3 buildings containing dwelling units, window opening control devices complying with ASTM F 2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window:

1. The window is operable;

2. The window replacement includes replacement of the sash and the frame;

3. The top of the sill of the window opening is at a height less than 36 inches (915 mm) above the finished floor;

4. The window will permit openings that will allow passage of a 4-inch diameter (102 mm) sphere when the window is in its largest opened position; and

5. The vertical distance from the top of the sill of the window opening to the finished grade or other surface below, on the exterior of the building, is greater than 72 inches (1829 mm).

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1029.2 of the VCC.

Exceptions:

1. Operable windows where the top of the sill of the window opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below, on the exterior of the room, space or building, and that are provided with window fall prevention devices that comply with ASTM F 2006.

2. Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F 2090.

304.3 Replacement window emergency escape and rescue openings. Where windows are required to provide emergency escape and rescue openings in Groups R-2 and



# Regulations

R-3 occupancies, replacement windows shall be exempt from the requirements of Sections 1030.2, 1030.3, and 1030.5 provided the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.

2. The replacement of the window is not part of a change of occupancy.

K. Add IEBC Section 305 Seismic force-resisting systems.

L. Add Sections 305.1 and 305.2, including subsections, to the IEBC to read:

305.1 General. Where this code requires consideration of the seismic force-resisting system of an existing building subject to repair, alteration, change of occupancy, addition or relocation of existing buildings, the seismic evaluation and design shall be based on Section 305.2 regardless of which compliance method is used.

305.2 Seismic evaluation and design procedures. The seismic evaluation and design shall be based on the procedures specified in the VCC or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 305.2.2.

305.2.1 Compliance with VCC-level seismic forces. Where compliance with the seismic design provisions of the VCC is required, the criteria shall be in accordance with one of the following:

1. 100% of the values in the VCC. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary," values of  $R$ ,  $\Omega_0$ , and  $C_d$  used for analysis in accordance with Chapter 16 of the VCC shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system will provide performance equivalent to that of a "Detailed," "Intermediate" or "Special" system.

2. ASCE 41, using a Tier 3 procedure and the two level performance objective in Table 305.2.1 for the applicable risk category.

<u>Risk Category (Based on VCC Table 1604.5)</u>	<u>Structural Performance Level for Use with BSE- 1E Earthquake Hazard Level</u>	<u>Structural Performance Level for Use with BSE- 2N Earthquake Hazard Level</u>
<u>I</u>	<u>Life Safety (S-3)</u>	<u>Collapse Prevention (S-5)</u>
<u>II</u>	<u>Life Safety (S-3)</u>	<u>Collapse Prevention (S-5)</u>
<u>III</u>	<u>Damage Control (S-2)</u>	<u>Limited Safety (S-4)</u>
<u>IV</u>	<u>Immediate Occupancy (S-1)</u>	<u>Life Safety (S-3)</u>

305.2.2 Compliance with reduced VCC-level seismic forces. Where seismic evaluation and design is permitted to meet reduced VCC seismic force levels, the criteria used shall be in accordance with one of the following:

1. The VCC using 75% of the prescribed forces. Values of  $R$ ,  $\Omega_0$  and  $C_d$  used for analysis shall be as specified in Section 305.2.1 of this code.

2. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A as specified in Items 2.1 through 2.5 and subject to the limitations of the respective Appendix A chapters shall be deemed to comply with this section.

2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Risk Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1.

2.2. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in Risk Category I or II are permitted to be based on the procedures specified in Chapter A2.

2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A3.

2.4. Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential buildings of wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A4.

2.5. Seismic evaluation and design of concrete buildings assigned to Risk Category I, II, or III are permitted to be based on the procedures specified in Chapter A5.

3. ASCE 41, using the performance objective in Table 305.2.2 for the applicable risk category.

Table 305.2.2 Performance Objectives for Use in ASCE 41 for Compliance with Reduced VCC-Level Seismic Forces	
Risk Category (Based on VCC Table 1604.5)	Structural Performance Level for Use with BSE-1E Earthquake Hazard Level
I	Life Safety (S-3)
II	Life Safety (S-3)
III	Damage Control (S-2 <sup>a</sup> )
IV	Immediate Occupancy (S-1)

a. Tier 1 evaluation at the Damage Control performance level shall use the Tier 1 Life Safety checklists and Tier 1 Quick Check provision midway between those specified for Life Safety and Immediate Occupancy performance

M. Add IEBC Section 306 Group B teaching and research laboratories.

N. Add Section 306.1, including subsections, to the IEBC to read:

306.1 Change of occupancy in existing Group B teaching and research laboratories. Where the use of new or different hazardous materials or a change in the amount of hazardous materials in existing Group B testing and research laboratories in educational occupancies above the 12th grade would constitute a change of occupancy, this section shall be permitted to be used as an acceptable alternative to compliance with change of occupancy requirements to permit the increased amounts of hazardous materials stipulated without the laboratories being classified as Group H. In addition, as set out in Section 5001.7 of the SFPC, approval under this section is contingent upon operational requirements in the SFPC being complied with and maintained.

306.1.1 Hazardous materials in existing Group B teaching and research laboratories. The percentage of maximum allowable quantities of hazardous materials per control area and the number of control areas permitted at each floor level within an existing building shall be permitted to comply with Table 302.6.1(1) in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC or shall be permitted to comply with Table 302.6.1(2) in buildings not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

Table 306.1.1(1) Design and Number of Control Areas in Existing Buildings Equipped throughout with an Automatic Sprinkler System in Accordance with Section 903.3.1.1 of the VCC with Group B Teaching and Research Laboratories in Educational Occupancies above the 12th Grade				
Floor Level		Percentage of the Maximum Allowable Quantity per Control Area <sup>a</sup>	Number of Control Areas per Floor	Fire-Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours <sup>b</sup>
Above Grade Plane	Higher than 20	5	1	2
	10-20	10	1	2
	7-9	25	2	2
	4-6	50	2	2
	3	75	2	1
	2	100	3	1
	1	100	4	1
Below Grade Plane	1	75	3	1
	2	50	2	1
	Lower than 2	Not Allowed	Not Allowed	Not Allowed

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2) of the VCC, with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

Table 306.1.1(2) Design and Number of Control Areas in Existing Buildings Not Equipped throughout with an Automatic Sprinkler System in Accordance with Section 903.3.1.1 of the VCC with Group B Teaching and Research Laboratories in Educational Occupancies above the 12th Grade			
Floor Level	Percentage of the Maximum Allowable Quantity per Control Area <sup>a</sup>	Number of Control Areas per Floor	Fire-Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours <sup>b</sup>

# Regulations

<u>Above Grade Plane</u>	<u>Higher than 9</u>	<u>5</u>	<u>1</u>	<u>2</u>
	<u>7-9</u>	<u>10</u>	<u>2</u>	<u>2</u>
	<u>4-6</u>	<u>25</u>	<u>2</u>	<u>2</u>
	<u>3</u>	<u>75</u>	<u>2</u>	<u>1</u>
	<u>2</u>	<u>100</u>	<u>3</u>	<u>1</u>
	<u>1</u>	<u>100</u>	<u>4</u>	<u>1</u>
<u>Below Grade Plane</u>	<u>1</u>	<u>75</u>	<u>3</u>	<u>1</u>
	<u>2</u>	<u>50</u>	<u>2</u>	<u>1</u>
	<u>Lower than 2</u>	<u>Not Allowed</u>	<u>Not Allowed</u>	<u>Not Allowed</u>

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2) of the VCC, with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

306.1.2 Automatic fire alarm and detection systems. An automatic fire alarm system shall be provided throughout the building in accordance with Section 907 of the VCC. An automatic fire detection system shall be provided in the control area in accordance with Section 907 of the VCC where pyrophics or Class 4 oxidizers are used and the building is not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

306.1.3 System supervision and monitoring. Automatic fire detection systems shall be electronically supervised and monitored by an approved supervising station or, where approved, shall initiate an audible and visual signal at a constantly attended onsite location.

O. Add IEBC Section 307 Reroofing and roof repair.

P. Add Sections 307.1 through 307.7, including subsections, to the IEBC to read:

307.1 Reroofing. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with this section and the applicable requirements of Chapter 15 of the VCC.

Exceptions:

1. Roof replacement of roof recover of existing low-slope roof coverings shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2% slope) in Section 1507 of the VCC for roofs that provide positive roof drainage.

2. Recovering or replacing an existing roof covering shall not be required to meet the requirement of secondary (emergency overflow) drains or scuppers in Section

1503.4 of the VCC for roofs that provide for positive roof drainage. For the purposes of this exception, existing secondary drainage or scupper systems required in accordance with the VCC shall not be removed unless they are replaced by secondary drains or scuppers designed and installed in accordance with Section 1503.4 of the VCC.

307.2 Structural and construction loads. Structural roof components shall be capable of supporting the roof covering system and the material and equipment loads that will be encountered during installation of the system.

307.3 Roof replacement. Roof replacement shall include the removal of all existing layers of roof coverings down to the roof deck.

Exception: Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck, the existing ice barrier membrane shall be permitted to remain in place and covered with an additional layer of ice barrier membrane in accordance with Section 1507 of the VCC.

307.3.1 Roof recover. The installation of a new roof covering over an existing roof covering shall be permitted where any of the following conditions occur:

1. Complete and separate roofing systems, such as standing-seam metal roof systems, that are designed to transmit the roof loads directly to the building's structural system and that do not rely on existing roofs and roof coverings for support, shall not require the removal of exiting roof coverings.

2. Metal panel, metal shingle and concrete and clay tile roof coverings shall be permitted to be installed over existing wood shake roofs when applied in accordance with Section 307.4.

3. The application of a new protective coating over an existing spray polyurethane foam roofing system shall be permitted without tear-off of existing roof coverings.

4. Where the new roof covering is installed in accordance with the roof covering manufacturer's approved instructions.

Exceptions. A roof recover shall not be permitted where any of the following conditions occur:

1. Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.

2. Where the existing roof covering is slate, clay, cement, or asbestos-cement tile.

3. Where the existing roof has two or more applications of any type of roof covering.

307.4 Roof recovering. Where the application of a new roof covering over wood shingle or shake roofs creates a combustible concealed space, the entire existing surface shall be covered with gypsum board, mineral fiber, glass fiber or other approved materials securely fastened in place.

307.5 Reinstallation of materials. Existing slate, clay, or cement tile shall be permitted for reinstallation, except that damaged, cracked or broken slate or tile shall not be reinstalled. Existing vent flashing, metal edgings, drain outlets, collars, and metal counter-flashings shall not be reinstalled where rusted, damaged, or deteriorated. Aggregate surfacing materials shall not be reinstalled.

307.6 Flashings. Flashings shall be reconstructed in accordance with approved manufacturer's installation instructions. Metal flashing to which bituminous materials are to be adhered shall be primed prior to installation.

307.7 Roof repair. Roof repairs shall comply with this section. Work on nondamaged components that is necessary for the required repair of damaged components shall be considered part of the roof repair and shall not be subject to the requirements of other parts of this code.

Exception: Routine maintenance required by this section, ordinary repairs exempt from permit in accordance with Section 108.2 of the VCC, and abatement of wear due to normal service conditions shall not be subject to the requirements for roof repairs in this section.

307.7.1 Building materials and systems. Building materials and systems shall comply with the requirements of Sections 307.7.1.1 and 307.7.1.2.

307.7.1.1 Existing materials. Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the building official to be unsafe.

307.7.1.2 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location. ]

**13VAC5-63-432.5. Chapter 4 [ ~~Prescriptive compliance method~~ Accessibility ]**

[ ~~Delete Section 409 of the IEBC in its entirety.~~

A. Change IEBC Section 401 to General.

B. Change Section 401.1 of the IEBC to read:

401.1 Scope. The applicable provisions of this chapter shall apply to all construction and rehabilitation.

C. Delete Sections 401.1.1 through 401.3.

D. Change IEBC Section 402 of Change of Occupancy.

E. Change Sections 402.1 through 402.3 of the IEBC to read:

402.1 Change of occupancy. Existing buildings or structures that undergo a change of occupancy shall comply with this section.

Exception: Type B dwelling or sleeping units required by Section 1107 of the VCC are not required to be provided in existing buildings and facilities undergoing a change of occupancy in conjunction with alterations where the work area is 50% or less of the aggregate area of the building.

402.2 Partial change in occupancy. Where a portion of the building is changed to a new occupancy classification, additional accessible features are not required due to the change of occupancy.

402.3 Complete change of occupancy. Where an entire building undergoes a change of occupancy classification, it shall have all of the following accessible features:

1. At least one accessible building entrance.
2. At least one accessible route from an accessible building entrance to primary function areas.
3. Signage complying with Section 1111 of the VCC.
4. Accessible parking, where parking is being provided.
5. At least one accessible passenger loading zone, when loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.

Where it is technically infeasible to comply with the new construction standards for any of these requirements of a change of occupancy, Items 1 through 6 shall conform to the requirements to the maximum extent technically feasible.

Exception: The accessible features listed in Items 1 through 6 are not required for an accessible route to Type B units.

F. Delete Sections 402.3.1, 402.4 and 402.5 of the IEBC.

G. Change IEBC Section 403 to Additions.

H. Change Sections 403.1 through 403.3 of the IEBC to read:

403.1 Additions. Accessibility provisions for new construction shall apply to additions. An addition that affects the accessibility to, or contains an area of, a primary

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# Regulations

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function shall comply with the requirements in Section 410.7, as applicable.

403.2 Accessible dwelling units and sleeping units. Where Group I-1, I-2, I-3, R-1, R-2, or R-4 dwelling or sleeping units are being added, the requirements of Section 1107 of the VCC for accessible units apply only to the quantity of spaces being added.

403.3 Type A dwelling or sleeping units. Where more than 20 Group R-2 dwelling or sleeping units are being added, the requirements of Section 1107 of the VCC for Type A units and Chapter 9 of the VCC for visible alarms apply only to the quantity of the spaces being added.

I. Delete Section 403.3.1.

J. Change Section 403.4 of the IEBC to read:

403.4 Type B dwelling or sleeping units. Where four or more Group I-1, I-2, R-1, R-2, R-3, or R-4 dwelling or sleeping units are being added, the requirements of Section 1107 of the VCC for Type B units and Chapter 9 of the VCC for visible alarms apply only to the quantity of spaces being added.

K. Delete Sections 403.4.1 through 403.11, including subsections, of the IEBC.

L. Change IEBC Section 404 to Alterations.

M. Change Sections 404.1 through 404.4.15, including subsections, of the IEBC to read:

404.1 General. An alteration of an existing facility shall not impose a requirement for greater accessibility than that which would be required for new construction. Alterations shall not reduce or have the effect of reducing accessibility of a facility or portion of a facility.

404.2 Alterations. A facility that is altered shall comply with the applicable provisions in this section and Chapter 11 of the VCC, except as modified by Sections 404.3 and 404.4, unless technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent technically feasible.

Exceptions:

1. The altered element or space is not required to be on an accessible route, unless required by Section 404.3.
2. Accessible means of egress required by Chapter 10 of the VCC are not required to be provided in existing facilities.
3. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall be permitted to meet the provision for a Type B dwelling unit.
4. Type B dwelling or sleeping units required by Section 1107 of the VCC are not required to be provided in

existing buildings and facilities undergoing a change of occupancy in conjunction with alterations where the work area is 50% or less of the aggregate area of the building.

404.3 Alterations affecting an area containing a primary function. Where an alteration affects the accessibility to, or contains an area of primary function, the route to the primary function area shall be accessible. The accessible route to the primary function area shall include toilet facilities and drinking fountains that shall also be accessible to and useable by individuals with disabilities, serving the area of primary function.

Exceptions:

1. The costs of providing the accessible route are not required to exceed 20% of the costs of the alterations affecting the area of primary function.
2. This provision does not apply to alterations limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to alterations limited solely to mechanical systems, electrical systems, installation or alteration of fire protection systems and abatement of hazardous materials.
4. This provision does not apply to alterations undertaken for the primary purpose of increasing the accessibility of a facility.
5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.

404.4 Scoping for alterations. The provisions of Sections 404.4.1 through 404.4.14 shall apply to alterations to existing buildings and facilities.

404.4.1 Entrances. Where an alteration includes alterations to an entrance, and the facility has an accessible entrance on an accessible route, the altered entrance is not required to be accessible unless required by Section 404.3. Signs complying with Section 1111 of the VCC shall be provided.

Exception: Where an alteration includes alterations to an entrance, and the facility has an accessible entrance, the altered entrance is not required to be accessible, unless required by Section 410.7. Signs complying with Section 1111 of the VCC shall be provided.

404.4.2 Elevators. Altered elements of existing elevators shall comply with ASME A17.1/CSA B44 and ICC A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

404.4.3 Platform lifts. Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance

with ASME A18.1 shall be permitted as a component of an accessible route.

404.4.4 Stairways and escalators. In alterations, change of occupancy or additions where an escalator or stairway is added where none existed previously and major structural modifications are necessary for installation, an accessible route shall be provided between the levels served by the escalator or stairways in accordance with Section 1104.4 of the VCC.

404.4.5 Ramps. Where steeper slopes than allowed by Section 1012.2 of the VCC are necessitated by space limitations, the slope of ramps in or providing access to existing facilities shall comply with Table 404.4.5.

Table 404.4.5 Ramps	
Slope	Maximum Rise
Steeper than 1:10 but not steeper than 1:8	3 inches
Steeper than 1:12 but not steeper than 1:10	6 inches
For SI: 1 inch = 25.4 mm	

404.4.6 Accessible dwelling or sleeping units. Where Group I-1, I-2, I-3, R-1, R-2, or R-4 dwelling or sleeping units are being altered, the requirements of Section 1107 of the VCC for Accessible units apply only to the quantity of the spaces being altered.

404.4.7 Type A dwelling or sleeping units. Where more than 20 Group R-2 dwelling or sleeping units are being altered, the requirements of Section 1107 of the VCC for Type A units and Chapter 9 of the VCC for visible alarms apply only to the quantity of the spaces being altered.

404.4.8 Type B dwelling or sleeping units. Where four or more Group I-1, I-2, R-1, R-2, R-3, or R-4 dwelling or sleeping units are being altered and where the work area is greater than 50% of the aggregate area of the building, the requirements of Section 1107 of the VCC for Type B units and Chapter 9 of the VCC for visible Alarms apply only to the quantity of the spaces being altered.

Exceptions: Group I-1, I-2, R-2, R-3, and R-4 dwelling or sleeping units where the first certificate of occupancy was issued before March 15, 1991, are not required to provide Type B dwelling or sleeping units.

404.4.9 Jury boxes and witness stands. In alterations, accessible wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where ramp or lift access poses a hazard by restricting or projecting into a required means of egress.

404.4.10 Toilet rooms. Where it is technically infeasible to alter existing toilet and bathing rooms to be accessible, an accessible family or assisted-use toilet or bathing room constructed in accordance with Section 1109.2.1 of the VCC is permitted. The family or assisted-use toilet or bathing room shall be located on the same floor and in the same area as the existing toilet or bathing rooms. At the inaccessible toilet and bathing rooms, provide directional signs indicating the location of the nearest family or assisted-use toilet room or bathing room. These directional signs shall include the International Symbol of Accessibility and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

404.4.11 Dressing, fitting and locker rooms. Where it is technically infeasible to provide accessible dressing, fitting or locker rooms at the same location as similar types of rooms, one accessible room on the same level shall be provided. Where separate-sex facilities are provided, accessible rooms for each sex shall be provided. Separate sex facilities are not required where only unisex rooms are provided.

404.4.12 Fuel dispensers. Operable parts of replacement fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum, measuring from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

404.4.13 Thresholds. The maximum height of thresholds at doorways shall be 3/4 inch (19.1 mm). Such thresholds shall have beveled edges on each side.

404.4.14 Amusement rides. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in Section 1110.4.8 of the VCC.

404.4.15 Dining areas. An accessible route to raised or sunken dining areas or to outdoor seating areas is not required provided that the same services and décor are provided in an accessible space usable by any occupant and not restricted to use by people with a disability.

N. Delete Sections 404.2.1, 404.3.1 and 404.5 of the IEBC.

O. Change Section 405 to Historic Buildings.

P. Change Section 405.1, including subsections, to read:

405.1 General. These provisions shall apply to facilities designated as historic buildings or structures that undergo alterations or a change of occupancy, unless technically infeasible. Where compliance with the requirements for accessible routes, entrances or toilet rooms would threaten or destroy the historic significance of the facility, the alternative requirements of Sections 405.1.1 through 405.1.4 for that element shall be permitted.

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# Regulations

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Exception: Type B dwelling or sleeping units required by Section 1107 of the VCC are not required to be provided in historical buildings.

405.1.1 Site arrival points. At least one accessible route from a site arrival point to an accessible entrance shall be provided.

405.1.2 Multilevel buildings and facilities. An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided.

405.1.3 Entrances. At least one main entrance shall be accessible.

Exceptions:

1. If a main entrance cannot be made accessible, an accessible nonpublic entrance that is unlocked while the building is occupied shall be provided; or

2. If a main entrance cannot be made accessible, a locked accessible entrance with a notification system or remote monitoring shall be provided.

Signs complying with Section 1111 of the VCC shall be provided at the primary entrance and the accessible entrance.

405.1.4 Toilet and bathing facilities. Where toilet rooms are provided, at least one accessible family or assisted-use toilet room complying with Section 1109.2.1 of the VCC shall be provided.

Q. Delete Sections 405.2 through 405.5 of the IEBC.

R. Delete Sections 406, 407, 408, 409 and 410 of the IEBC in their entirety. ]

## **13VAC5-63-433. Chapter 5 [ ~~Classification of work Repairs~~ ],**

A. Change Section 501.1 [ and 501.2 ] of the IEBC to read:

501.1 Scope. [ ~~The provisions of this chapter shall be used in conjunction with Chapters 6 through 12 and shall apply to the alteration, repair, addition and change of occupancy of existing structures, including historic structures, as referenced in Section 301.1.2. The work performed on an existing building shall be classified in accordance with this chapter.~~ Repairs, including the patching or restoration or replacement of damaged materials, elements, equipment or fixtures for the purpose of maintaining such components in good or sound condition with respect to existing loads or performance requirements, shall comply with the requirements of this chapter. Repairs to historic buildings need only comply with Chapter 9. Portions of the existing building or structure not being repaired shall not be required to comply with the requirements of this code applicable to newly constructed buildings or structures. Work on nondamaged components that is necessary for the required repair of damaged components shall be

considered part of the repair and shall not be subject to the provisions of Chapter 6, 7 or 8. Routine maintenance required by Section 302, ordinary repairs exempt from permit in accordance with Section 108.2 of the VCC, and abatement of wear due to normal service conditions shall not be subject to the requirements for repairs in this section.

Exception: Repairs complying with the requirements of the building code under which the building or structure or the affected portions thereof was built, or as previously approved by the building official, shall be considered in compliance with the provisions of this code, unless the building or structure or the affected portions thereof is undergoing a substantial structural alteration as described in Section 604.7.1. New structural members added as part of the alteration or repairs shall comply with the VCC. Repairs of existing buildings in flood hazard areas shall comply with Section 503.

501.2 Conformance. The work shall not make the building less conforming that it was before the repair was undertaken. Repairs shall be done in a manner that maintains the following:

1. Level of fire protection that is existing.
2. Level of protection that is existing for the means of egress.
3. Level of accessibility that is existing. ]

B. [ Delete Section 501.1.1.

C. ] Change Section [ ~~504.1~~ 502 to Structural.

D. Change Sections 502.1 and 502.2, including subsections, ] of the IEBC to read:

[ 502.1 General. Structural repairs shall be in compliance with this section and Section 501.2. Regardless of the scope of repair, new structural members and connections used for repair or rehabilitation shall comply with the detailing provisions of the VCC for new buildings of similar structure, purpose and location.

502.2 Repairs to damaged buildings. Repairs to damaged buildings shall comply with this section.

502.2.1 Less than substantial structural damage. For damage less than substantial structural damage, repairs shall be allowed that restore the building to its predamage state. New structural members and connection used for this repair shall comply with the detailing provisions of the VCC for new buildings of similar structure, purpose, and location.

502.2.2 Substantial structural damage to vertical elements of the lateral force-resisting system. A building that has sustained substantial structural damage to the vertical elements of its lateral force-resisting system shall be

evaluated in accordance with Section 502.2.2.1 and either repaired in accordance with Section 502.2.2. or repaired and rehabilitated in accordance with Section 502.2.2.3, depending on the results of the evaluation.

Exceptions:

1. Buildings assigned to Seismic Design Category A, B, or C whose substantial structural damage was not caused by earthquake need not be evaluated or rehabilitated for load combinations that include earthquake effects.

2. One-family and two-family dwellings need not be evaluated or rehabilitated for load combinations that include earthquake effects.

502.2.2.1 Evaluation. The building shall be evaluated by a registered design professional, and the evaluation findings shall be submitted to the building official. The evaluation shall establish whether the damaged building if repaired to its predamage state, would comply with the provisions of the VCC for load combinations that include wind or earthquake effects, except that the seismic forces shall be the reduced VCC-level seismic forces.

Wind loads for this evaluation shall be those prescribed in Section 1609 of the VCC. Earthquake loads for this evaluation, if required, shall be permitted to be 75% of those prescribed in Section 1613 of the VCC. Alternatively, compliance with ASCE 41, using the performance objective in Table 305.2.2 for the applicable risk category, shall be deemed to meet the earthquake evaluation requirement.

502.2.2.2 Extent of repair for noncompliant buildings. If the evaluation establishes that the building in its predamage condition complies with the provisions of Section 502.2.2.1, then repairs shall be permitted that restore the building to its predamage state.

502.2.2.3 Extent of repair for noncompliant buildings. If the evaluation does not establish that the building in its predamage condition complies with the provisions of Section 502.2.2.1, then the building shall be rehabilitated to comply with the provisions of this section. The wind loads for the repair shall be as required by the building code in effect at the time of original construction, unless the damage was caused by wind, in which case the wind loads shall be in accordance with the VCC. The earthquake loads for this rehabilitation design shall be those required by the building code in effect at the time of original construction, but not less than the reduced VCC-level seismic forces. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of the VCC for new buildings of similar structure, purpose and location. Alternatively, compliance with ASCE 41, using the performance objective in Table 305.2.2 for the applicable risk category,

shall be deemed to meet the earthquake rehabilitation requirement.

502.2.3 Substantial structural damage to gravity load-carrying components. Gravity load-carrying components that have sustained substantial structural damage shall be rehabilitated to comply with the applicable provisions for dead and live loads in the VCC. Snow loads shall be considered if the substantial structural damage was caused by or related to snow load effects. Existing gravity load carrying structural elements shall be permitted to be designed for live loads approved prior to the damage. If the approved live load is less than that required by Section 1607 of the VCC, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Nondamaged gravity load-carrying components that receive dead, live, or snow loads from rehabilitated components shall also be rehabilitated if required to comply with the design loads of the rehabilitation design, or shown to have the capacity to carry the design loads of the rehabilitation design. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of the VCC for new buildings of similar structure purpose and location.

502.2.3.1 Lateral force-resisting elements. Regardless of the level of damage to gravity elements of the lateral force-resisting system, if substantial structural damage to gravity load-carrying components was caused primarily by wind or earthquake effects, then the building shall be evaluated in accordance with Section 502.2.2.1 and, if noncompliant, rehabilitated in accordance with Section 502.2.2.3.

Exceptions:

1. Buildings assigned to Seismic Design Category A, B, or C whose substantial structural damage was not caused by earthquake need not be evaluated or rehabilitated for load combinations that include earthquake effects.

2. One-family and two-family dwellings need not be evaluated or rehabilitated for load combinations that include earthquake effects.

E. Delete Section 502.3 of the IEBC.

F. Change Section 503 to Flood Hazard Areas.

G. Change Section 503.1 of the IEBC to read:

503.1 Flood hazard areas. For buildings and structures, in flood hazard areas established in Section 1612.3 of the VCC, or Section R322 of the International Residential Code, as applicable, any repair that constitutes substantial improvement or repair of substantial damage of the existing building or structure shall comply with the flood design requirements for new construction and all aspects of the existing building or structure shall be brought into



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# Regulations

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compliance with the requirements for new construction for flood design.

For buildings and structures in flood hazard areas established in Section 1612.3 of the VCC, or Section R322 of the International Residential Code, as applicable, any repairs do not constitute substantial improvement or repair of substantial damage of the existing building or structure are not required to comply with the flood design requirements for new construction.

H. Delete Section 503.2 of the IEBC.

I. Change Section 504 to Electrical.

~~B. J. ]~~ Change Section 504.1 of the IEBC to read:

~~504.1 [ Scope. Level 2 alterations include the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment and shall apply where the work area is less than 50% of the building area Material. Existing electrical wiring and equipment undergoing repair shall be allowed to be repaired or replaced with like material ].~~

[ C. Add Section 505.1.1 to the IEBC to read:

~~505.1.1 Special provisions. A building separated horizontally in compliance with VCC Section 510.2 shall be considered as separate and distinct buildings for the purpose of determining building area used for application of this section.~~

504.1.1 Receptacles. Replacement of electrical receptacles shall comply with the applicable requirements of Section 406.4(D) of NFPA 70.

504.1.2 Plug fuses. Plug fuses of the Edison-base type shall be used for replacements only where there is no evidence of over fusing or tampering per applicable requirements of Section 240.51(B) of NFPA 70.

504.1.3 Nongrounding-type receptacles. For replacement of nongrounding-type receptacles with grounding-type receptacles and for branch circuits that do not have an equipment grounding conductor in the branch circuitry, the grounding conductor of a grounding-type receptacle outlet shall be permitted to be grounded to any accessible point on the grounding electrode system or to any accessible point on the grounding electrode conductor in accordance with Section 250.130(C) of NFPA 70.

504.1.4 Group I-2 receptacles. Non-“hospital grade” receptacles in patient bed locations of Group I-2 shall be replaced with “hospital grade” receptacles, as required by NFPA 99 and Article 517 of NFPA 70.

504.1.5 Grounding of appliances. Frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers and outlet or junction boxes that are part of the existing branch circuit for these appliances shall

be permitted to be grounded to the grounded circuit conductor in accordance with Section 250.140 of NFPA 70.

K. Delete Section 504.2 of the IEBC.

L. Change Section 505 to Mechanical.

M. Change Sections 505.1 and 505.2 of the IEBC to read:

505.1 General. Existing mechanical systems undergoing repair shall not make the building less conforming than it was before the repair was undertaken.

505.2 Mechanical draft systems for manually fired appliances and fireplaces. A mechanical draft system shall be permitted to be used with manually fired appliances and fireplaces where such a system complies with all of the following requirements:

1. The mechanical draft device shall be listed and installed in accordance with the manufacturer’s installation instructions.

2. A device shall be installed that produces visible and audible warning upon failure of the mechanical draft device or loss of electrical power at any time that the mechanical draft device is turned on. This device shall be equipped with a battery backup if it receives power from the building wiring.

3. A smoke detector shall be installed in the room with the appliance or fireplace. This device shall be equipped with a battery backup if it receives power from the building wiring.

N. Change Section 506 to Plumbing.

O. Change Sections 506.1 and 506.2 of the IEBC to read:

506.1 Materials. Plumbing materials and supplies shall not be used for repairs that are prohibited in the International Plumbing Code.

506.2 Water closet replacement. The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.6 gallons (6 L) per flushing cycle.

Exception: Blowout-design water closets 3.5 gallons (13 L) per flushing cycle.

P. Delete Section 507 of the IEBC in its entirety.

Q. Delete Section 508 of the IEBC in its entirety.

~~R. ]~~ Delete Section 509 of the IEBC in its entirety.

[ 13VAC5-63-433.3. Chapter 6 Alterations.

A. Change Sections 601.1 through 601.5, including subsections, of the IEBC to read:

601.1 General. Except as provided by Section 905.1 or this chapter, alterations to any building or structure shall comply with the requirements of the VCC for new

construction. Alterations shall be such that the existing building or structure is no less conforming to the provisions of the VCC than the existing building or structure was prior to the alteration.

Exceptions:

1. Any stairway replacing an existing stairway shall not be required to comply with the requirements of Section 1011 of the VCC where the existing space and construction does not allow a reduction in pitch or slope.

2. Handrails otherwise required to comply with Section 1011.11 of the VCC shall not be required to comply with the requirements of Section 1014.6 of the VCC regarding full extension of the handrails where such extensions would be hazardous due to plan configuration.

3. Where the current level of safety or sanitation is proposed to be reduced, the portion altered shall conform to the requirements of the VCC.

4. Alterations complying with the requirements of the building code under which the building or structure or the affected portions thereof was built, or as previously approved by the building official, shall be considered in compliance with the provisions of this code, unless the building or structure or the affected portions thereof is undergoing a substantial structural alteration as described in Section 604.7.1. New structural members added as part of the alteration or repairs shall comply with the VCC. Alterations of existing buildings in flood hazard areas shall comply with Section 601.3.

601.2 Levels of alterations. Alterations to any building or structure shall be classified as the following:

601.2.1 Level 1. Level 1 alterations include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose. Level 1 alterations shall comply with the applicable provisions Section 602.

601.2.2 Level 2. Level 2 alterations include the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment and shall apply where the work area is less than 50% of the building area. Level 2 alterations shall comply with the applicable provisions Sections 602 and 603.

601.2.3 Level 3. Level 3 alterations apply where the work area exceeds 50% of the building area. Level 3 alterations shall comply with the applicable provisions of Sections 602, 603 and 604.

601.2.3.1 Special provisions. A building separated horizontally in compliance with VCC Section 510.2 shall be considered as separate and distinct buildings for the

purpose of determining building area used for application of Section 601.2.3.

601.3 Flood hazard areas. In flood hazard areas, alterations that constitute substantial improvement shall require that the building comply with Section 1612 of the VCC or Section R322 of the International Residential Code, as applicable.

601.4 Energy conservation. Level 1, 2, and 3 alterations to existing buildings or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the International Energy Conservation Code or International Residential Code. The alterations shall conform to the energy requirements of the International Energy Conservation Code or International Residential Code as they relate to new construction only.

Exception: Except for window and door openings, like materials, assemblies or thicknesses shall be permitted for alterations involving the exterior building thermal envelope, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

601.5 Accessibility. Accessibility shall be provided in accordance with applicable provisions of Section 404.

B. Change Section 602 to Level 1 Alterations.

C. Change Sections 602.1 through 602.3, including subsections, of the IEBC to read:

602.1 Scope. Level 1 alterations as described in Section 601.2.1 shall comply with the requirements of this section. Level 1 alterations to historic buildings shall comply with this chapter, except as modified in Chapter 9.

602.2 Conformance. Alterations shall be done in a manner that maintains the following:

1. Level of fire protection that is existing.
2. Level of protection that is existing for the means of egress.

602.3 Building elements and materials. Building elements and materials shall comply with the applicable provisions of Sections 302 and 602.3.1 through 602.3.5.

602.3.1 Interior finishes. All newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the VCC.

602.3.2 Interior floor finish. New interior floor finish, including new carpeting used as an interior floor finish material, shall comply with Section 804 of the VCC.

602.3.3 Interior trim. All newly installed interior trim materials shall comply with Section 806 of the VCC.

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# Regulations

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602.3.4 Materials and methods. All new work shall comply with the materials and methods requirements in the VCC, International Energy Conservation Code, International Mechanical Code, and International Plumbing Code, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

602.3.5 International Fuel Gas Code. The following sections of the International Fuel Gas Code shall constitute the fuel gas materials and methods requirements for Level 1 alterations.

1. All of Chapter 3, entitled "General Regulations," except Sections 303.7 and 306.

2. All of Chapter 4, entitled "Gas Piping Installations," except Sections 401.8 and 402.3.2.1. Sections 401.8 and 402.3 shall apply when the work being performed increases the load on the system such that the existing pipe does not meet the size required by code. Existing systems that are modified shall not require resizing as long as the load on the system is not increased and the system length is not increased even if the altered system does not meet code minimums.

3. All of Chapter 5, entitled "Chimneys and Vents."

4. All of Chapter 6, entitled "Specific Appliances."

D. Change Section 603 to Level 2 Alterations.

E. Change Sections 603.1 through 603.10, including subsections, of the IEBC to read:

603.1 Scope. Level 2 alterations as described in Section 601.2.2 shall comply with the requirements of this section.

Exception: Buildings in which the alteration is exclusively the result of compliance with the accessibility requirements of Section 404.3 shall be permitted to comply with Section 602.

603.2 Level 1 alteration compliance. In addition to the requirements of this section, all work shall comply with the applicable requirements of Section 602.

603.3 Compliance. All new construction elements, components, systems, and spaces shall comply with the requirements of the VCC.

Exceptions:

1. Windows may be added without requiring compliance with the light and ventilation requirements of the VCC.

2. Newly installed electrical equipment shall comply with the requirements of Section 603.8.

3. The length of dead-end corridors in newly constructed spaces shall only be required to comply with the provisions of Section 603.6.5.

4. The minimum ceiling height of the newly created habitable and occupiable spaces and corridors shall be 7 feet (2134 mm).

603.4 Building elements and materials. The requirements of Section 603.4 are limited to work areas in which Level 2 alterations are being performed and shall apply beyond the work area where specified.

603.4.1 Vertical openings. Existing vertical openings shall comply with the provisions of Sections 603.4.1.1, 603.4.1.2, and 603.4.1.3.

603.4.1.1 Existing vertical openings. Existing interior vertical openings connecting two or more floors shall be enclosed with approved assemblies having a fire-resistance rating of not less than one hour with approved opening protectives.

Exceptions:

1. Where vertical opening enclosure is not required by the VCC or the International Fire Code.

2. Interior vertical openings other than stairways may be blocked at the floor and ceiling of the work area by installation of not less than 2 inches (51 mm) of solid wood or equivalent construction.

3. The enclosure shall not be required where:

3.1. Connecting the main floor and mezzanines; or

3.2. All of the following conditions are met:

3.2.1. The communicating area has a low hazard occupancy or has a moderate hazard occupancy that is protected throughout by an automatic sprinkler system.

3.2.2. The lowest or next to the lowest level is a street floor.

3.2.3. The entire area is open and unobstructed in a manner such that it may be assumed that a fire in any part of the interconnected spaces will be readily obvious to all of the occupants.

3.2.4. Exit capacity is sufficient to provide egress simultaneously for all occupants of all levels by considering all areas to be a single floor area for the determination of required exit capacity.

3.2.5. Each floor level, considered separately, has at least one half of its individual required exit capacity provided by exits leading directly out of that level without having to traverse another communicating floor level or be exposed to the smoke or fire spreading from another communicating floor level.

4. In Group A occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories.

5. In Group B occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 603.4.1.1, shall not be required in the following locations:

5.1. Buildings not exceeding 3,000 square feet (279 m<sup>2</sup>) per floor.

5.2. Buildings protected throughout by an approved automatic fire sprinkler system.

6. In Group E occupancies, the enclosure shall not be required for vertical openings not exceeding three stories when the building is protected throughout by an approved automatic fire sprinkler system.

7. In Group F occupancies, the enclosure shall not be required in the following locations:

7.1. Vertical openings not exceeding three stories.

7.2. Special purpose occupancies where necessary for manufacturing operations and direct access is provided to at least one protected stairway.

7.3. Buildings protected throughout by an approved automatic sprinkler system.

8. In Group H occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where necessary for manufacturing operations and every floor level has direct access to at least two remote enclosed stairways or other approved exits.

9. In Group M occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 603.4.1.1, shall not be required in the following locations:

9.1. Openings connecting only two floor levels.

9.2. Occupancies protected throughout by an approved automatic sprinkler system.

10. In Group R-1 occupancies, the enclosure shall not be required for vertical openings not exceeding three stories in the following locations:

10.1. Buildings protected throughout by an approved automatic sprinkler system.

10.2. Buildings with less than 25 dwelling units or sleeping units where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and where:

10.2.1. Any exit access corridor exceeding 8 feet (2438 mm) in length that serves two means of egress, one of which is an unprotected vertical opening, shall have at

least one of the means of egress separated from the vertical opening by a one-hour fire barrier; and

10.2.2. The building is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the VCC.

11. In Group R-2 occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 603.4.1.1, shall not be required in the following locations:

11.1. Vertical openings not exceeding two stories with not more than four dwelling units per floor.

11.2. Buildings protected throughout by an approved automatic sprinkler system.

11.3. Buildings with not more than four dwelling units per floor where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and the building is protected throughout by an automatic fire alarm system complying with Section 603.5.4.

12. One-family and two-family dwellings.

13. Group S occupancies where connecting not more than two floor levels or where connecting not more than three floor levels and the structure is equipped throughout with an approved automatic sprinkler system.

14. Group S occupancies where vertical opening protection is not required for open parking garages and ramps.

603.4.1.2 Supplemental shaft and floor opening enclosure requirements. Where the work area on any floor exceeds 50% of that floor area, the enclosure requirements of Section 603.4.1 shall apply to vertical openings other than stairways throughout the floor.

Exception: Vertical openings located in tenant spaces that are entirely outside the work area.

603.4.1.3 Supplemental stairway enclosure requirements. Where the work area on any floor exceeds 50% of that floor area, stairways that are part of the means of egress serving the work area shall, at a minimum, be enclosed with smoke-tight construction on the highest work area floor and all floors below.

Exception: Where stairway enclosure is not required by the VCC or the International Fire Code.

603.4.2 Smoke compartments. In Group I-2 occupancies where the work area is on a story used for sleeping rooms for more than 30 patients, the story shall be divided into not less than two compartments by smoke barrier walls in

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# Regulations

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accordance with Section 407.5 of the VCC as required for new construction.

603.4.3 Interior finish. The interior finish of walls and ceilings in exits and corridors in any work area shall comply with the requirements of the VCC.

Exception: Existing interior finish materials that do not comply with the interior finish requirements of the VCC shall be permitted to be treated with an approved fire-retardant coating in accordance with the manufacturer's instructions to achieve the required rating.

603.4.3.1 Supplemental interior finish requirements. Where the work area on any floor exceeds 50% of the floor area, Section 603.4.3 shall also apply to the interior finish in exits and corridors serving the work area throughout the floor.

Exception: Interior finish within tenant spaces that are entirely outside the work area.

603.4.4 Guards. The requirements of Sections 603.4.4.1 and 603.4.4.2 shall apply in all work areas.

603.4.4.1 Minimum requirement. Every portion of a floor, such as a balcony or a loading dock, that is more than 30 inches (762 mm) above the floor or grade below and is not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.

603.4.4.2 Design. Where there are no guards or where existing guards must be replaced, the guards shall be designed and installed in accordance with the VCC.

603.4.5 Fire-resistance ratings. Where approved by the code official, buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the VCC has been added, and the building is now sprinklered throughout, the required fire-resistance ratings of building elements and materials shall be permitted to meet the requirements of the current building code.

603.5 Fire protection. The requirements of Section 603.5 shall be limited to work areas in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located or otherwise beyond the work area.

603.5.1 Corridor ratings. Where an approved automatic sprinkler system is installed throughout the story, the required fire-resistance rating for any corridor located on the story shall be permitted to be reduced in accordance with the VCC. In order to be considered for a corridor rating reduction, such system shall provide coverage for the stairway landings serving the floor and the intermediate landings immediately below.

603.5.2 Automatic sprinkler system. Automatic sprinkler systems shall be provided in accordance with the requirements of Sections 603.5.2.1 through 603.5.2.5. Installation requirements shall be in accordance with the VCC.

603.5.2.1 High-rise buildings. In high-rise buildings, work areas that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection in the entire work area where the work area is located on a floor that has a sufficient sprinkler water supply system from an existing standpipe or a sprinkler riser serving that floor.

603.5.2.1.1 Supplemental automatic sprinkler system requirements. Where the work area on any floor exceeds 50% of that floor area, Section 603.5.2.1 shall apply to the entire floor on which the work area is located.

Exception: Occupied tenant spaces that are entirely outside the work area.

603.5.2.2 Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2. In buildings with occupancies in Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2, work areas that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection where all of the following conditions occur:

1. The work area is required to be provided with automatic sprinkler protection in accordance with the VCC as applicable to new construction; and
2. The work area exceeds 50% of the floor area.

Exception: If the building does not have sufficient municipal water supply for design of a fire sprinkler system available to the floor without installation of a new fire pump, work areas shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the VCC.

603.5.2.2.1 Mixed uses. In work areas containing mixed uses, one or more of which requires automatic sprinkler protection in accordance with Section 603.5.2.2, such protection shall not be required throughout the work area provided that the uses requiring such protection are separated from those not requiring protection by fire-resistance-rated construction having a minimum two-hour rating for Group H and a minimum one-hour rating for all other occupancy groups.

603.5.2.3 Windowless stories. Work located in a windowless story, as determined in accordance with the VCC, shall be sprinklered where the work area is required to be sprinklered under the provisions of the VCC for

newly constructed buildings and the building has a sufficient municipal water supply without installation of a new fire pump.

603.5.2.4 Other required automatic sprinkler systems. In buildings and areas listed in Table 903.2.11.6 of the VCC, work areas that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:

1. The work area is required to be provided with an automatic sprinkler system in accordance with the VCC applicable to new construction; and
2. The building has sufficient municipal water supply for design of an automatic sprinkler system available to the floor without installation of a new fire pump.

603.5.2.5 Supervision. Fire sprinkler systems required by this section shall be supervised by one of the following methods:

1. Approved central station system in accordance with NFPA 72;
2. Approved proprietary system in accordance with NFPA 72;
3. Approved remote station system of the jurisdiction in accordance with NFPA 72; or
4. When approved by the code official, approved local alarm service that will cause the sounding of an alarm in accordance with NFPA 72.

Exception: Supervision is not required for the following:

1. Underground gate valve with roadway boxes.
2. Halogenated extinguishing systems.
3. Carbon dioxide extinguishing systems.
4. Dry-chemical and wet-chemical extinguishing systems.
5. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic and automatic sprinkler systems and a separate shutoff valve for the automatic sprinkler system is not provided.

603.5.3 Standpipes. Where the work area includes exits or corridors shared by more than one tenant and is located more than 50 feet (15,240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an approved fire department connection with hose connections at each floor level above or below the lowest level of fire department access. Standpipe systems shall be installed in accordance with the VCC.

Exceptions:

1. No pump shall be required provided that the standpipes are capable of accepting delivery by fire department apparatus of a minimum of 250 gallons per minute (gpm) at 65 pounds per square inch (psi) (946 L/m at 448KPa) to the topmost floor in buildings equipped throughout with an automatic sprinkler system or a minimum of 500 gpm at 65 psi (1892 L/m at 448KPa) to the topmost floor in all other buildings. Where the standpipe terminates below the topmost floor, the standpipe shall be designed to meet (gpm/psi) (L/m/KPa) requirements of this exception for possible future extension of the standpipe.
2. The interconnection of multiple standpipe risers shall not be required.

603.5.4 Fire alarm and detection. An approved fire alarm system shall be installed in accordance with Sections 603.5.4.1 through 603.5.4.3. Where automatic sprinkler protection is provided in accordance with Section 603.5.2 and is connected to the building fire alarm system, automatic heat detection shall not be required.

An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances, and equipment shall be approved. The automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms, where products of combustion are present during normal operation in sufficient quantity to actuate a smoke detector.

603.5.4.1 Fire alarm requirements. A fire alarm system shall be installed in accordance with Sections 603.5.4.1.1 through 603.5.4.1.7 and Sections 1103.7 and 1103.8 of the IFC. 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 within the work area shall be provided and automatically activated.

Exceptions:

1. Occupancies with an existing, previously approved fire alarm system.
2. Where selective notification is permitted, alarm-notification appliances shall be automatically activated in the areas selected.

603.5.4.1.1 Group E. Work areas classified as Group E occupancies.

603.5.4.1.2 Group I-1. Work areas classified as Group I-1 residential care/assisted living facilities.

603.5.4.1.3 Group I-2. Throughout occupancies classified as Group I-2 occupancies.

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# Regulations

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603.5.4.1.4 Group I-3. Work areas classified as Group I-3 occupancies.

603.5.4.1.5 Group R-1. Occupancies classified as Group R-1 occupancies.

603.5.4.1.6 Group R-2. Work areas classified as Group R-2 apartment buildings.

603.5.4.1.7 Group R-4. Work areas classified as Group R-4 residential care/assisted living facilities.

603.5.4.2 Supplemental fire alarm system requirements. Where the work area on any floor exceeds 50% of that floor area, Section 603.5.4.1 shall apply throughout the floor.

Exception: Alarm initiating and notification appliances shall not be required to be installed in tenant spaces outside of the work area.

603.5.4.3 Smoke alarms. Individual sleeping units and individual dwelling units in any work area in Group R and I-1 occupancies shall be provided with smoke alarms in accordance with the International Fire Code.

Exception: Interconnection of smoke alarms outside of the work area shall not be required.

603.6 Means of egress. The means of egress shall comply with the requirements of Section 603.6.

Exceptions:

1. Where the work area and the means of egress serving it complies with NFPA 101.

2. Means of egress conforming to the requirements of the building code under which the building was constructed shall be considered compliant means of egress.

603.6.1 General. The requirements of this section shall be limited to work areas that include exits or corridors shared by more than one tenant within the work area in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located or otherwise beyond the work area.

603.6.2 Number of exits. The number of exits shall be in accordance with Sections 603.6.2.1 through 603.6.2.3.

603.6.2.1 Minimum number. Every story utilized for human occupancy on which there is a work area that includes exits or corridors shared by more than one tenant within the work area shall be provided with the minimum number of exits based on the occupancy and the occupant load in accordance with the VCC. In addition, the exits shall comply with Sections 603.6.2.1.1 and 303.

603.6.2.1.1 Single-exit buildings. Only one exit is required from buildings and spaces of the following occupancies:

1. In Groups A, B, E, F, M, U, and S occupancies, a single exit is permitted in the story at the level of exit discharge when the occupant load of the story does not exceed 50 and the exit access travel distance does not exceed 75 feet (22,860 mm).

2. Groups B, F-2, and S-2 occupancies not more than two stories in height that are not greater than 3,500 square feet per floor (326 m<sup>2</sup>), when the exit access travel distance does not exceed 75 feet (22,860 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be one hour.

3. Open parking structures where vehicles are mechanically parked.

4. In Group R-4 occupancies, the maximum occupant load excluding staff is 16.

5. Groups R-1 and R-2 not more than two stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15,240 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be one hour.

6. In multilevel dwelling units in buildings of occupancy Group R-1 or R-2, an exit shall not be required from every level of the dwelling unit provided that one of the following conditions is met:

6.1. The travel distance within the dwelling unit does not exceed 75 feet (22,860 mm); or

6.2. The building is not more than three stories in height and all third floor space is part of one or more dwelling units located in part on the second floor; and no habitable room within any such dwelling unit shall have a travel distance that exceeds 50 feet (15,240 mm) from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.

7. In Groups R-2, H-4, H-5 and I occupancies and in rooming houses and child care centers, a single exit is permitted in a one-story building with a maximum occupant load of 10 and the exit access travel distance does not exceed 75 feet (22,860 mm). In dwelling units within Group R-2 buildings, an occupant load of 12 shall be permitted and, in addition, staff of such family day homes shall not be counted for the purposes of establishing occupant loads.

8. In buildings of Group R-2 occupancy that are equipped throughout with an automatic fire sprinkler system, a single exit shall be permitted from a basement or story below grade if every dwelling unit on that floor is equipped with an approved window providing a clear opening of at least 5 square feet (0.47 m<sup>2</sup>) in area, a minimum net clear opening of 24 inches (610 mm) in height and 20 inches (508 mm) in width, and a sill height

of not more than 44 inches (1118 mm) above the finished floor.

9. In buildings of Group R-2 occupancy of any height with not more than four dwelling units per floor; with a smoke-proof enclosure or outside stairway as an exit; and with such exit located within 20 feet (6096 mm) of travel to the entrance doors to all dwelling units served thereby.

10. In buildings of Group R-3 occupancy equipped throughout with an automatic fire sprinkler system, only one exit shall be required from basements or stories below grade.

603.6.2.2 Mezzanines. Mezzanines in the work area and with an occupant load of more than 50 or in which the common path of egress travel distance to an exit or exit access doorway exceeds 75 feet (22,860 mm) shall have access to at least two independent means of egress.

Exception: Two independent means of egress are not required where the travel distance to an exit does not exceed 100 feet (30,480 mm) and the building is protected throughout with an automatic sprinkler system.

603.6.3 Egress doorways. Egress doorways in any work area shall comply with Sections 603.6.3.1 through 603.6.3.5.

603.6.3.1 Two egress doorways required. Work areas shall be provided with two egress doorways in accordance with the requirements of Sections 603.6.3.1.1 and 603.6.3.1.2.

603.6.3.1.1 Occupant load and travel distance. In any work area, all rooms and spaces having an occupant load greater than 50 or in which the common path of egress travel distance to an exit or exit access doorway exceeds 75 feet (22,860 mm) shall have a minimum of two egress doorways.

Exceptions:

1. Storage rooms having a maximum occupant load of 10.
2. Where the work area is served by a single exit in accordance with Section 603.6.2.1.1.

603.6.3.1.2 Group I-2. In buildings of Group I-2 occupancy, any patient sleeping room or suite of patient rooms greater than 1,000 square feet (93 m<sup>2</sup>) within the work area shall have a minimum of two egress doorways.

603.6.3.2 Door swing. In the work area and in the egress path from any work area to the exit discharge, all egress doors serving an occupant load greater than 50 shall swing in the direction of exit travel.

603.6.3.2.1 Supplemental requirements for door swing. Where the work area exceeds 50% of the floor area, door swing shall comply with Section 603.6.3.2 throughout the floor.

Exception: Means of egress within or serving only a tenant space that is entirely outside the work area.

603.6.3.3 Door closing. In any work area, all doors opening onto an exit passageway at grade or an exit stairway shall be self-closing or automatic-closing by listed closing devices.

Exceptions:

1. Where exit enclosure is not required by the VCC.
2. Means of egress within or serving only a tenant space that is entirely outside the work area.

603.6.3.3.1 Supplemental requirements for door closing. Where the work area exceeds 50% of the floor area, doors shall comply with Section 603.6.3.3 throughout the exit stairway from the work area to, and including, the level of exit discharge.

603.6.3.4 Panic hardware. In any work area, and in the egress path from any work area to the exit discharge, in buildings of Group A assembly occupancies with an occupant load greater than 100, all required exit doors equipped with latching devices shall be equipped with approved panic hardware.

603.6.3.4.1 Supplemental requirements for panic hardware. Where the work area exceeds 50% of the floor area, panic hardware shall comply with Section 603.6.3.4 throughout the floor.

Exception: Means of egress within a tenant space that is entirely outside the work area.

603.6.3.5 Emergency power source in Group I-3. Power operated sliding doors or power operated locks for swinging doors shall be operable by a manual release mechanism at the door. Emergency power shall be provided for the doors and locks in accordance with Section 2702 of the VCC.

Exceptions:

1. Emergency power is not required in facilities with 10 or fewer locks complying with the exception to Section 408.4.1 of the VCC.
2. Emergency power is not required where remote mechanical operating releases are provided.

603.6.4 Openings in corridor walls. Openings in corridor walls in any work area shall comply with Sections 603.6.4.1 through 603.6.4.4.

Exception: Openings in corridors where such corridors are not required to be rated in accordance with the VCC.

603.6.4.1 Corridor doors. Corridor doors in the work area shall not be constructed of hollow core wood and shall not contain louvers. All dwelling unit or sleeping unit corridor doors in work areas in buildings of Groups R-1, R-2, and



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# Regulations

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I-1 shall be at least 1-3/8-inch (35 mm) solid core wood or approved equivalent and shall not have any glass panels, other than approved wired glass or other approved glazing material in metal frames. All dwelling unit or sleeping unit corridor doors in work areas in buildings of Groups R-1, R-2, and I-1 shall be equipped with approved door closers. All replacement doors shall be 1-3/4-inch (44 mm) solid bonded wood core or approved equivalent, unless the existing frame will accommodate only a 1-3/8-inch (35 mm) door.

Exceptions:

1. Corridor doors within a dwelling unit or sleeping unit.
2. Existing doors meeting the requirements of Guidelines on Fire Ratings of Archaic Materials and Assemblies (VEBC Resource A) for a rating of 15 minutes or more shall be accepted as meeting the provisions of this requirement.
3. Existing doors in buildings protected throughout with an approved automatic sprinkler system shall be required only to resist smoke, be reasonably tight fitting, and shall not contain louvers.
4. In group homes with a maximum of 15 occupants and that are protected with an approved automatic detection system, closing devices may be omitted.
5. Door assemblies having a fire protection rating of at least 20 minutes.

603.6.4.2 Transoms. In all buildings of Group I-1, I-2, R-1 and R-2 occupancies, all transoms in corridor walls in work areas shall be either glazed with 1/4-inch (6.4 mm) wired glass set in metal frames or other glazing assemblies having a fire protection rating as required for the door and permanently secured in the closed position or sealed with materials consistent with the corridor construction.

603.6.4.3 Other corridor openings. In any work area, unless otherwise protected or fire-resistant rated in accordance with Section 716 of the VCC, any other sash, grille, or opening in a corridor and any window in a corridor not opening to the outside air shall be sealed with materials consistent with the corridor construction.

603.6.4.3.1 Supplemental requirements for other corridor opening. Where the work area exceeds 50% of the floor area, Section 603.6.4.3 shall be applicable to all corridor windows, grills, sashes, and other openings on the floor.

Exception: Means of egress within or serving only a tenant space that is entirely outside the work area.

603.6.4.4 Supplemental requirements for corridor openings. Where the work area on any floor exceeds 50% of the floor area, the requirements of Sections 603.6.4.1 through 603.6.4.3 shall apply throughout the floor.

603.6.5 Dead-end corridors. Dead-end corridors in any work area shall not exceed 35 feet (10 670 mm).

Exceptions:

1. Where dead-end corridors of greater length are permitted by the VCC.
2. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 50 feet (15,240 mm) in buildings equipped throughout with an automatic fire alarm system installed in accordance with the VCC.
3. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 70 feet (21,356 mm) in buildings equipped throughout with an automatic sprinkler system installed in accordance with the VCC.
4. In other than Group A and H occupancies, the maximum length of an existing, newly constructed, or extended dead-end corridor shall not exceed 50 feet (15,240 mm) on floors equipped with an automatic sprinkler system installed in accordance with the VCC.

603.6.6 Means-of-egress lighting. Means-of-egress lighting shall be in accordance with this section, as applicable.

603.6.6.1 Artificial lighting required. Means of egress in all work areas shall be provided with artificial lighting in accordance with the requirements of the VCC.

603.6.6.2 Supplemental requirements for means-of-egress lighting. Where the work area on any floor exceeds 50% of that floor area, means of egress throughout the floor shall comply with Section 603.6.6.1.

Exception: Means of egress within or serving only a tenant space that is entirely outside the work area.

603.6.7 Exit signs. Exit signs shall be in accordance with this section, as applicable.

603.6.7.1 Work areas. Means of egress in all work areas shall be provided with exit signs in accordance with the requirements of the VCC.

603.6.7.2 Supplemental requirements for exit signs. Where the work area on any floor exceeds 50% of that floor area, means of egress throughout the floor shall comply with Section 603.6.7.1.

Exception: Means of egress within a tenant space that is entirely outside the work area.

603.6.8 Handrails. The requirements of Sections 603.6.8.1 and 603.6.8.2 shall apply to handrails from the work area floor to, and including, the level of exit discharge.

603.6.8.1 Minimum requirement. Every required exit stairway that is part of the means of egress for any work area and that has three or more risers and is not provided

with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails for the full length of the stairway on at least one side. All exit stairways with a required egress width of more than 66 inches (1676 mm) shall have handrails on both sides.

603.6.8.2 Design. Handrails required in accordance with Section 603.6.8.1 shall be designed and installed in accordance with the provisions of the VCC.

603.6.9 Guards. The requirements of Sections 603.6.9.1 and 603.6.9.2 shall apply to guards from the work area floor to, and including, the level of exit discharge but shall be confined to the egress path of any work area.

603.6.9.1 Minimum requirement. Every open portion of a stairway, landing, or balcony that is more than 30 inches (762 mm) above the floor or grade below and is not provided with guards, or those portions in which existing guards are judged to be in danger of collapsing, shall be provided with guards.

603.6.9.2 Design. Guards required in accordance with Section 603.6.9.1 shall be designed and installed in accordance with the VCC.

603.7 Structural. Structural elements and systems within buildings undergoing Level 2 alterations shall comply with Sections 603.7.1 through 603.7.5.

603.7.1 New structural elements. New structural elements in alterations, including connections and anchorage, shall comply with the VCC.

603.7.2 Minimum design loads. The minimum design loads on existing elements of a structure that do not support additional loads as a result of an alteration shall be the loads applicable at the time the building was constructed.

603.7.3 Existing structural elements carrying gravity loads. Any existing gravity load-carrying structural element for which an alteration causes an increase in design gravity load of more than 5% shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the VCC for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the alteration shall be shown to have the capacity to resist the applicable design gravity loads required by the VCC for new structures.

Exception: Buildings of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the existing building and its alteration comply with the conventional light-frame construction methods of the VCC or the provisions of the International Residential Code.

603.7.3.1 Design live load. Where the alteration does not result in increased design live load, existing gravity load-carrying structural elements shall be permitted to be evaluated and designed for live loads approved prior to the alteration. If the approved live load is less than that required by Section 1607 of the VCC, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the alteration does result in increased design live load, the live load required by Section 1607 of the VCC shall be used.

603.7.4 Existing structural elements resisting lateral loads. Except as permitted by Section 603.7.5, where the alteration increases design lateral loads in accordance with Section 1609 or 1613 of the VCC, or where the alteration results in a prohibited structural irregularity as defined in ASCE 7, or where the alteration decreases the capacity of any existing lateral load-carrying structural element, the structure of the altered building or structure shall be shown to meet the requirements of Sections 1609 and 1613 of the VCC. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 305.2.2 for the applicable risk category, shall be deemed to meet the requirements of Section 1613 of the VCC.

Exception: Any existing lateral load-carrying structural element whose demand-capacity ratio with the alteration considered is not more than 10% greater than its demand-capacity ratio with the alteration ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with VCC Sections 1609 and 1613. Reduced VCC level seismic forces in accordance with Section 305.2.2 shall be permitted. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction.

603.7.5 Voluntary lateral force-resisting system alterations. Alterations of existing structural elements and additions of new structural elements that are initiated for the purpose of increasing the lateral force-resisting strength or stiffness of an existing structure and that are not required by other sections of this code shall not be required to be designed for forces conforming to the VCC, provided that an engineering analysis is submitted to show that:

1. The capacity of existing structural elements required to resist forces is not reduced;
2. The lateral loading to existing structural elements is not increased either beyond its capacity or more than 10%;

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# Regulations

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3. New structural elements are detailed and connected to the existing structural elements as required by the VCC;

4. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required by the VCC; and

5. Voluntary alterations to lateral force-resisting systems conducted in accordance with Appendix A and the referenced standards of this code shall be permitted.

603.7.6 Voluntary seismic improvements. Alterations to existing structural elements or additions of new structural elements that are not otherwise required by this chapter and are initiated for the purpose of improving the performance of the seismic force resisting system of an existing structure or the performance of seismic bracing or anchorage of existing nonstructural elements shall be permitted, provided that an engineering analysis is submitted demonstrating the following:

1. The altered structure and the altered nonstructural elements are no less conforming to the provisions of the VCC with respect to earthquake design than they were prior to the alteration.

2. New structural elements are detailed as required for new construction.

3. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required for new construction.

4. The alterations do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

603.8 Electrical. Electrical elements and systems within buildings undergoing Level 2 alterations shall comply with Sections 603.8.1 through 603.8.3.

603.8.1 New installations. All newly installed electrical equipment and wiring relating to work done in any work area shall comply with all applicable requirements of NFPA 70 except as provided for in Section 603.8.3.

603.8.2 Existing installations. Existing wiring in all work areas in Groups A-1, A-2, A-5, H, and I occupancies shall be upgraded to meet the materials and methods requirements of Section 602.3.

603.8.3 Residential occupancies. In Groups R-2, R-3, R-4 and R-5 occupancies and buildings regulated by the International Residential Code, the requirements of Sections 603.8.3.1 through 603.8.3.7 shall be applicable only to work areas located within a dwelling unit.

603.8.3.1 Enclosed areas. All enclosed areas, other than closets, kitchens, basements, garages, hallways, laundry areas, utility areas, storage areas, and bathrooms shall have a minimum of two duplex receptacle outlets or one duplex

receptacle outlet and one ceiling or wall-type lighting outlet.

603.8.3.2 Kitchens. Kitchen areas shall have a minimum of two duplex receptacle outlets.

603.8.3.3 Laundry areas. Laundry areas shall have a minimum of one duplex receptacle outlet located near the laundry equipment and installed on an independent circuit.

603.8.3.4 Ground fault circuit interruption. Newly installed receptacle outlets shall be provided with ground fault circuit interruption as required by NFPA 70.

603.8.3.5 Minimum lighting outlets. At least one lighting outlet shall be provided in every bathroom, hallway, stairway, attached garage, and detached garage with electric power, and to illuminate outdoor entrances and exits.

603.8.3.6 Utility rooms and basements. At least one lighting outlet shall be provided in utility rooms and basements where such spaces are used for storage or contain equipment requiring service.

603.8.3.7 Clearance for equipment. Clearance for electrical service equipment shall be provided in accordance with the NFPA 70.

603.9 Mechanical. All work areas intended for occupancy and all spaces converted to habitable or occupiable space in any work area shall be provided with natural or mechanical ventilation in accordance with the International Mechanical Code.

Exception: Existing mechanical ventilation systems shall comply with the requirements of Section 603.9.1.

603.9.1 Altered existing systems. In mechanically ventilated spaces, existing mechanical ventilation systems that are altered, reconfigured, or extended shall provide not less than 5 cubic feet per minute (cfm) (0.0024 m<sup>3</sup>/s) per person of outdoor air and not less than 15 cfm (0.0071 m<sup>3</sup>/s) of ventilation air per person; or not less than the amount of ventilation air determined by the Indoor Air Quality Procedure of ASHRAE 62.

603.9.2 Local exhaust. All newly introduced devices, equipment, or operations that produce airborne particulate matter, odors, fumes, vapor, combustion products, gaseous contaminants, pathogenic and allergenic organisms, and microbial contaminants in such quantities as to affect adversely or impair health or cause discomfort to occupants shall be provided with local exhaust.

603.10 Plumbing. Where the occupant load of the story is increased by more than 20%, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.

F. Change Section 604 to Level 3 Alterations.

604.1 Scope. Level 3 alterations as described in Section 601.2.3 shall comply with the requirements of this section.

Exception: Buildings in which the alteration is exclusively the result of compliance with the accessibility requirements of Section 404.3 shall be permitted to comply with Section 602.

604.2 Level 1 and Level 2 alterations compliance. In addition to the requirements of this section, work shall comply with the applicable requirements of Sections 602 and 603. The requirements of Sections 603.4, 603.5 and 603.6 shall apply within all work areas whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load.

Exception: Buildings in which the alteration affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section 404.3 shall not be required to comply with this section.

604.3 Special use and occupancy. The following special uses and occupancies shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.3.1 and 604.3.2.

604.3.1 High-rise buildings. Any building having occupied floors more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access shall comply with the requirements of Sections 604.3.1.1 and 604.3.1.2.

604.3.1.1 Recirculating air or exhaust systems. When a floor is served by a recirculating air or exhaust system with a capacity greater than 15,000 cubic feet per minute (701 m<sup>3</sup>/s), that system shall be equipped with approved smoke and heat detection devices installed in accordance with the International Mechanical Code.

604.3.1.2 Elevators. Where there are elevators for public use, at least one elevator serving the work area shall comply with this section. Existing elevators with a travel distance of 25 feet (7620 mm) or more above or below the main floor or other level of a building and intended to serve the needs of emergency personnel for firefighting or rescue purposes shall be provided with emergency operation in accordance with ASME A17.3. New elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1.

604.3.2 Boiler and furnace equipment rooms. Boiler and furnace equipment rooms adjacent to or within Groups I-1, I-2, I-4, R-1, R-2, and R-4 occupancies shall be enclosed by one-hour-fire-resistance-rated construction.

Exceptions:

1. Steam boiler equipment operating at pressures of 15 pounds per square inch gauge (psig) (103.4 KPa) or less is not required to be enclosed.

2. Hot water boilers operating at pressures of 170 psig (1171 KPa) or less are not required to be enclosed.

3. Furnace and boiler equipment with 400,000 British thermal units (Btu) (4.22 by 108 J) per hour input rating or less is not required to be enclosed.

4. Furnace rooms protected with an automatic sprinkler system are not required to be enclosed.

604.4 Building elements and materials. Building elements and materials shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.4.1 through 604.4.3.

604.4.1 Existing stairways. Existing stairways that are part of the means of egress shall be enclosed in accordance with Section 603.4.1.1, and its exceptions if applicable, from the highest work area floor to, and including, the level of exit discharge and all floors below.

604.4.2 Fire separation in Group R-3. Where the work area is in any attached dwelling unit in Group R-3 or any multiple single-family dwelling (townhouse), walls separating the dwelling units that are not continuous from the foundation to the underside of the roof sheathing shall be constructed to provide a continuous fire separation using construction materials consistent with the existing wall or complying with the requirements for new structures. All work shall be performed on the side of the dwelling unit wall that is part of the work area.

Exception: Where alterations or repairs do not result in the removal of wall or ceiling finishes exposing the structure, walls are not required to be continuous through concealed floor spaces.

604.4.3 Interior finish. Interior finish in exits serving the work area shall comply with Section 603.4.3 between the highest floor on which there is a work area to the floor of exit discharge.

604.5 Fire protection. Fire protection shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.5.1 and 604.5.2.

604.5.1 Automatic sprinkler systems. An automatic sprinkler system shall be provided in a work area where required by Section 603.5.1.1 through 604.5.1.3 or Section 603.5.2.

604.5.1.1 High-rise buildings. An automatic sprinkler system shall be provided in work areas where the high-rise building has a sufficient municipal water supply for the

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# Regulations

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design and installation of an automatic sprinkler system at the site.

604.5.1.2 Rubbish and linen chutes. Rubbish and linen chutes located in the work area shall be provided with automatic sprinkler system protection or an approved automatic fire extinguishing system where protection of the rubbish and linen chute would be required under the provisions of the VCC for new construction.

604.5.1.3 Upholstered furniture or mattresses. Work areas shall be provided with an automatic sprinkler system in accordance with the VCC where any of the following conditions exist:

1. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m<sup>2</sup>).
2. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m<sup>2</sup>).

604.5.2 Fire alarm and detection systems. Fire alarm and detection shall be provided throughout the work area in accordance with Section 907 of the VCC as required for new construction.

604.5.2.1 Manual fire alarm systems. Where required by the VCC, a manual fire alarm system shall be provided throughout the work area. Alarm notification appliances shall be provided on such floors and shall be automatically activated as required by the VCC.

Exceptions:

1. Alarm-initiating and notification appliances shall not be required to be installed in tenant spaces outside of the work area.
2. Visual alarm notification appliances are not required, except where an existing alarm system is upgraded or replaced or where a new fire alarm system is installed.

604.5.2.2 Automatic fire detection. Where required by the VCC for new buildings, automatic fire detection systems shall be provided throughout the work area.

604.6 Means of egress. The means of egress shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.6.1 and 604.6.2.

604.6.1 Means-of-egress lighting. Means of egress from the highest work area floor to the floor of exit discharge shall be provided with artificial lighting within the exit enclosure in accordance with the requirements of the VCC.

604.6.2 Exit signs. Means of egress from the highest work area floor to the floor of exit discharge shall be provided with exit signs in accordance with the requirements of the VCC.

604.7 Structural. Structural alterations shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.7.1 and 604.7.2.

604.7.1 Substantial structural alteration. Where more than 30% of the total floor and roof areas of the building or structure have been or are proposed to be involved in structural alteration within a five-year period, the evaluation and analysis shall demonstrate that the lateral load-resisting system of the altered building or structure complies with the International Building Code for wind loading and with reduced International Building Code-level seismic force in accordance with Section 305.2.2. The areas to be counted toward the 30% shall be those areas tributary to the vertical load-carrying components, such as joists, beams, columns, walls and other structural components that have been or will be removed, added or altered, as well as areas such as mezzanines, penthouses, roof structures and in-filled courts and shafts.

604.7.2 Limited structural alteration. Where the work does not involve a substantial structural alteration and the building is not assigned to Seismic Design Category F, the existing elements of the lateral load-resisting system shall comply with Section 603.7.4.

G. Delete Sections 605, 606, 607, 608 and 609 of the IEBC in their entirety. ]

**13VAC5-63-433.5. Chapter 7 [ ~~Alterations~~ — Level 1 Change of occupancy ].**

A. [ ~~Delete IEBC Section 706 Reroofing in its entirety.~~ Change Sections 701.1 through 701.2 of the IEBC to read:

701.1 Scope. The provisions of this chapter shall apply where a change of occupancy occurs, except as modified by Section 906 for historic buildings. Compliance with the current VCC for the change of occupancy shall only be required as prescribed in this chapter. Compliance shall be only as necessary to meet the specific provisions of the applicable International Codes and is not intended to require the entire building be brought into compliance.

Exception: Compliance with the provisions of Chapter 14 shall be permitted in lieu of complying with this chapter for a change of occupancy.

701.2 Work undertaken in connection with a change of occupancy. Any repairs, alterations, or additions undertaken in connection with a change of occupancy shall conform to the applicable requirements for the work as classified in this code and as modified by this chapter. ]

B. Delete [ Section 701.3 of the ] IEBC [ ~~Sections 707.3, 707.3.1, and 707.3.2~~ ].

[ C. Change Section 702 to Special Use and Occupancy.

D. Change Sections 702.1 and 702.2 of the IEBC to read:

702.1 Compliance with the building code. Where a building undergoes a change of occupancy to one of the special use or occupancy categories described in Chapter 4 of the VCC, the building shall comply with all of the requirements of Chapter 4 of the VCC applicable to the special use or occupancy.

702.2 Incidental uses. Where a portion of a building undergoes a change of occupancy to one of the incidental uses listed in Table 509 of the VCC, the incidental use shall comply with the applicable requirements of Section 509 of the VCC.

E. Delete Sections 702.3 through 702.6 of the IEBC.

F. Change Section 703 to Building Elements and Materials.

G. Change Section 703.1 of the IEBC and add Section 703.2, including subsections, to the IEBC to read:

703.1 Interior finish. In areas of the building undergoing a change of occupancy classification, the interior finish of walls and ceilings shall comply with the requirements of the VCC for the new occupancy classification.

703.2 Enclosure of vertical openings. When a change of occupancy classification is made to a higher hazard category as shown in Table 705.2, protection of existing vertical openings shall be in accordance with Sections 703.2.1 through 703.2.3.

703.2.1 Stairways. Interior stairways shall be protected as required by Section 705.1.

703.2.2 Other vertical openings. Interior vertical openings, other than stairways, within the area of the change of occupancy shall be protected as required by the VCC.

Exceptions:

1. Existing one-hour interior shaft enclosures shall be accepted where a higher rating is required.

2. Vertical openings, other than stairways, in buildings of other than Group I occupancy and connecting less than six stories shall not be required to be enclosed are permitted if the entire building is provided with an approved automatic sprinkler system.

703.2.3 Shaft openings. All openings into existing vertical shaft enclosures shall be protected by fire assemblies having a fire protection rating of not less than one hour and shall be maintained self-closing or shall be automatic-closing by actuation of a smoke detector. All other openings shall be fire protected in an approved manner. Existing fusible link-type automatic door-closing devices shall be permitted in all shafts except stairways if the fusible link rating does not exceed 135°F (57°C).

H. Change Section 704 to Fire Protection.

I. Change Section 704.1 of the IEBC and add Sections 704.2 and 704.3 to the IEBC to read:

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

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 of the VCC, such 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 of the VCC, such 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.

J. Change Section 705 to Means of Egress.

K. Change Sections 705.1 through 705.2, deleting subsections, and add Sections 705.3 and 705.4 to the IEBC to read:

705.1 General. Means of egress in buildings undergoing a change of occupancy shall comply with Sections 705.2 through 705.4.

705.2 Means of egress, hazards. Hazard categories in regard to life safety and means of egress shall be in accordance with Table 705.2.

<u>TABLE 705.2</u> <u>MEANS OF EGRESS HAZARD CATEGORIES</u>	
<u>RELATIVE HAZARD</u>	<u>OCCUPANCY CLASSIFICATIONS</u>
<u>1 (Highest Hazard)</u>	<u>H</u>
<u>2</u>	<u>I-2, I-3, I-4</u>
<u>3</u>	<u>A, E, I-1, M, R-1, R-2, R-4</u>
<u>4</u>	<u>B, F-1, R-3, S-1, R-5</u>
<u>5 (Lowest Hazard)</u>	<u>F-2, S-2, U</u>

705.3 Means of egress for change to higher hazard category. When a change of occupancy classification is made to a higher hazard category (lower number) as shown in Table 705.2, the means of egress serving the area of the

# Regulations

change of occupancy shall comply with the requirements of Chapter 10 of the VCC.

Exceptions:

1. Existing interior stairways are permitted to be enclosed in accordance with Section 603.4.1.1 from the highest floor where the change of occupancy classification occurs to, and including, the level of exit discharge and all floors below.
2. An enclosure shall not be required for openings serving only one adjacent floor and that are not connected with corridors or stairways serving other floors.
3. Unenclosed existing stairways need not be enclosed in a continuous vertical shaft if each story is separated from other stories by one-hour-fire-resistance-rated construction or approved wired glass set in steel frames and all exit corridors are sprinklered. The openings between the corridor and the occupant space shall have at least one sprinkler head above the openings on the tenant side. The sprinkler system shall be permitted to be supplied from the domestic water supply systems, provided the system is of adequate pressure, capacity, and sizing for the combined domestic and sprinkler requirements.
4. Existing corridor walls constructed on both sides of wood lath and plaster in good condition or 1/2-inch-thick (12.7 mm) gypsum wallboard shall be permitted. Such walls shall either terminate at the underside of a ceiling of equivalent construction or extend to the underside of the floor or roof next above.
5. Existing corridor doorways, transoms, and other corridor openings are permitted to comply with the requirements in Sections 603.6.4.1, 603.6.4.2, and 603.6.4.3 regardless of work areas.
6. Existing dead-end corridors are permitted to comply with the requirements in Section 603.6.5 regardless of work areas.
7. An existing operable window with clear opening area no less than 4 square feet (0.38 m<sup>2</sup>) and minimum opening height and width of 22 inches (559 mm) and 20 inches (508 mm), respectively, shall be accepted as an emergency escape and rescue opening.
8. Regardless of work areas, existing handrails are permitted to comply with the requirements of Section 603.6.8, and existing guards are permitted to comply with the requirements of Section 603.6.10.
9. Fire escapes in compliance with Section 303.
10. Existing stairways are not required to be altered to meet current tread depth and riser height requirements.

705.4 Means of egress for change of occupancy to equal or lower hazard category or without a change in classification. When a change of occupancy classification is made to an equal or lesser hazard category (higher number) as shown in Table 705.2 or a change of occupancy without a change of classification is made, the means of egress shall be deemed acceptable provided the means of egress serving the area of the change of occupancy meets the egress capacity and occupant load based means of egress provisions in Chapter 10 of the VCC for the new occupancy.

L. Change Section 706 to Heights and Areas.

M. Change Sections 706.1 through 706.5, including subsections, of the IEBC to read:

706.1 General. Heights and areas of buildings and structures undergoing a change of occupancy classification shall comply with this Section.

706.2 Heights and areas, hazards. Hazard categories in regard to height and area shall be in accordance with Table 706.2.

<u>TABLE 706.2</u> <u>HEIGHTS AND AREAS HAZARD CATEGORIES</u>	
<u>RELATIVE HAZARD</u>	<u>OCCUPANCY CLASSIFICATIONS</u>
<u>1 (Highest Hazard)</u>	<u>H</u>
<u>2</u>	<u>I-2, I-3, I-4</u>
<u>3</u>	<u>A-1, A-2, A-3, A-4, I, R-1, R-2, R-4</u>
<u>4</u>	<u>E, F-1, S-1, M</u>
<u>5 (Lowest Hazard)</u>	<u>B, F-2, S-2, A-5, R-3, R-5, U</u>

706.3 Height and area for change to higher hazard category. When a change of occupancy classification is made to a higher hazard category as shown in Table 706.2, heights and areas of buildings and structures shall comply with the requirements of Chapter 5 of the VCC for the new occupancy classification.

Exception: For high-rise buildings constructed in compliance with a previously issued permit, the type of construction reduction specified in Section 403.2.1 of the VCC is permitted. This shall include the reduction for columns. The high-rise building is required to be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

706.3.1 Fire wall alternative. In other than Groups H, F-1 and S-1, fire barriers and horizontal assemblies constructed in accordance with Sections 707 and 711, respectively, of the VCC shall be permitted to be used in lieu of fire walls to subdivide the building into separate buildings for the

purpose of complying with the area limitations required for the new occupancy where all of the following conditions are met:

1. The buildings are protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the International Building Code.
2. The maximum allowable area between fire barriers, horizontal assemblies, or any combination thereof shall not exceed the maximum allowable area determined in accordance with Chapter 5 of the VCC without an increase allowed for an automatic sprinkler system in accordance with Section 506 of the VCC.
3. The fire-resistance rating of the fire barriers and horizontal assemblies shall be not less than that specified for fire walls in Table 706.4 of the VCC.

Exception: Where horizontal assemblies are used to limit the maximum allowable area, the required fire-resistance rating of the horizontal assemblies shall be permitted to be reduced by one hour provided the height and number of stories increases allowed for an automatic sprinkler system by Section 504 of the VCC are not used for the buildings.

706.4 Height and area for change to equal or lesser hazard category. When a change of occupancy classification is made to an equal or lesser hazard category as shown in Table 706.2, the height and area of the existing building shall be deemed acceptable.

706.5 Fire barriers. When a change of occupancy classification is made to a higher hazard category as shown in Table 706.2, fire barriers in separated mixed use buildings shall comply with the fire-resistance requirements of the VCC.

Exception: Where the fire barriers are required to have a one-hour-fire-resistance rating, existing wood lath and plaster in good condition or existing 1/2-inch-thick (12.7 mm) gypsum wallboard shall be permitted.

N. Delete Section 706.6 of the IEBC.

O. Change Section 707 to Exterior Wall Fire-Resistance Ratings

P. Change Sections 707.1 through 707.3, including subsections, of the IEBC and add Section 707.4 to the IEBC to read:

707.1 Exterior wall fire-resistance ratings, hazards. Hazard categories in regard to fire-resistance ratings of exterior walls shall be in accordance with Table 707.1.

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

707.2 Exterior wall rating for change of occupancy classification to a higher hazard category. When a change of occupancy classification is made to a higher hazard category as shown in Table 707.1, exterior walls shall have fire resistance and exterior opening protectives as required by the VCC.

Exception: A two-hour-fire-resistance rating shall be allowed where the building does not exceed three stories in height and is classified as one of the following groups: A-2 and A-3 with an occupant load of less than 300, B, F, M, or S.

707.3 Exterior wall rating for change of occupancy classification to an equal or lesser hazard category. When a change of occupancy classification is made to an equal or lesser hazard category as shown in Table 707.1, existing exterior walls, including openings, shall be accepted.

707.4 Opening protectives. Openings in exterior walls shall be protected as required by the VCC. Where openings in the exterior walls are required to be protected because of their distance from the lot line, the sum of the area of such openings shall not exceed 50% of the total area of the wall in each story.

Exceptions:

1. Where the VCC permits openings in excess of 50%.
2. Protected openings shall not be required in buildings of Group R occupancy that do not exceed three stories in height and that are located not less than 3 feet (914 mm) from the lot line.
3. Where exterior opening protectives are required, an automatic sprinkler system throughout may be substituted for opening protection.
4. Exterior opening protectives are not required when the change of occupancy group is to an equal or lower hazard classification in accordance with Table 707.1.

Q. Change Section 708 to Electrical and Lighting.



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# Regulations

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R. Change Section 708.1 of the IEBC and add Sections 708.2 through 708.4 to the IEBC to read:

708.1 Special occupancies. Where a building undergoes a change of occupancy to one of the following special occupancies as described in NFPA 70, the electrical wiring and equipment of the building that contains the proposed occupancy shall comply with the applicable requirements of NFPA 70:

1. Hazardous locations.
2. Commercial garages, repair, and storage.
3. Aircraft hangars.
4. Gasoline dispensing and service stations.
5. Bulk storage plants.
6. Spray application, dipping, and coating processes.
7. Health care facilities.
8. Places of assembly.
9. Theaters, audience areas of motion picture and television studios, and similar locations.
10. Motion picture and television studios and similar locations.
11. Motion picture projectors.
12. Agricultural buildings.

708.2 Service upgrade. When a new occupancy is required to have a higher electrical load demand per NFPA 70 and the service cannot accommodate the increased demand, the service shall be upgraded to meet the requirements of NFPA 70 for the new occupancy.

708.3 Number of electrical outlets. Where a building undergoes a change of occupancy, the number of electrical outlets shall comply with NFPA 70 for the new occupancy.

708.4 Lighting. Lighting shall comply with the requirements of the VCC for the new occupancy.

S. Add Section 709 Mechanical and Ventilation.

T. Add Section 709.1 to the IEBC to read:

709.1 Mechanical and ventilation requirements. Where a building undergoes a change of occupancy such that the new occupancy is subject to different kitchen exhaust requirements or to increased ventilation requirements in accordance with the International Mechanical Code, the new occupancy shall comply with the respective International Mechanical Code provisions.

U. Add Section 710 Plumbing.

V. Add Sections 710.1 through 710.3 to the IEBC to read:

710.1 Increased demand. Where the occupancy a building undergoes a change of an existing building or part of an existing building is changed occupancy such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the International Plumbing Code, the new occupancy shall comply with the intent of the respective International Plumbing Code provisions.

Exception: In other than Group R or I occupancies or child care facilities classified as Group E, where the occupant load is increased by 20% or less in the area where the change of occupancy occurs, additional plumbing fixtures required based on the increased occupant load in quantities specified in the International Plumbing Code.

710.2 Interceptor required. If the new occupancy will produce grease or oil-laden wastes, interceptors shall be provided as required in the International Plumbing Code.

710.3 Chemical wastes. If the new occupancy will produce chemical wastes, the following shall apply:

1. If the existing piping is not compatible with the chemical waste, the waste shall be neutralized prior to entering the drainage system, or the piping shall be changed to a compatible material.
2. No chemical waste shall discharge to a public sewer system without the approval of the sewage authority.

W. Add Section 711 Structural.

X. Add Sections 711.1 through 711.3 to the IEBC to read:

711.1 Gravity loads. Buildings subject to a change of occupancy where such change in the nature of occupancy results in higher uniform or concentrated loads based on Table 1607.1 of the VCC shall comply with the gravity load provisions of the VCC.

Exception: Structural elements whose stress is not increased by more than 5%.

711.2 Snow and wind loads. Buildings and structures subject to a change of occupancy where such change in the nature of occupancy results in higher wind or snow risk categories based on Table 1604.5 of the VCC shall be analyzed and shall comply with the applicable wind or snow load provisions of the VCC.

Exception: Where the new occupancy with a higher risk category is less than or equal to 10% of the total building floor area. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.

711.3 Seismic loads. Existing buildings with a change of occupancy shall comply with the seismic provisions of Sections 711.3.1 and 711.3.2.

711.3.1 Compliance with VCC-level seismic forces. Where a building is subject to a change of occupancy that results in the building being assigned to a higher risk category based on Table 1604.5 of the VCC, the building shall comply with the requirements for VCC-level seismic forces as specified in Section 305.2.1 for the new risk category.

Exceptions:

1. Specific detailing provisions required for a new structure are not required to be met where it can be shown that an equivalent level of performance and seismic safety is obtained for the applicable risk category based on the provision for reduced VCC-level seismic forces as specified in Section 305.2.2.

2. Where the area of the new occupancy with a higher hazard category is less than or equal to 10% of the total building floor area and the new occupancy is not classified as Risk Category IV. For the purposes of this exception, buildings occupied by two or more occupancies not included in the same risk category, shall be subject to the provisions of Section 1604.5.1 of the VCC. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.

3. Unreinforced masonry bearing wall buildings in Risk Category III when assigned to Seismic Design Category A or B shall be allowed to be strengthened to meet the requirements of Appendix Chapter A1 of this code Guidelines for the Seismic Retrofit of Existing Buildings (GSREB).

711.3.2 Access to Risk Category IV. Where a change of occupancy is such that compliance with Section 711.3.1 is required and the building is assigned to Risk Category IV, the operational access to the building shall not be through an adjacent structure, unless that structure conforms to the requirements for Risk Category IV structures. Where operational access is less than 10 feet (3048 mm) from either an interior lot line or from another structure, access protection from potential falling debris shall be provided by the owner of the Risk Category IV structure.

Y. Add Section 712 Accessibility.

Z. Add Section 712.1 to the IEBC to read:

712.1 General. Existing buildings that undergo a change of occupancy classification shall comply with Section 402. ]

**13VAC5-63-434. Chapter 8 [ Alterations ~~Level 2 Additions~~ ].**

A. Change [ ~~the exception in Section Sections~~ ] 801.1 [ through 801.3 ] of the IEBC to read:

[ ~~Exception: Buildings in which the alteration is exclusively the result of compliance with the accessibility requirements of Section 705.2 shall be permitted to comply with Chapter 7.~~

801.1 Scope. Additions to any building or structure shall comply with the requirements of the VCC for new construction without requiring the existing building or structure to comply with any requirements of those codes or of these provisions, except as required by this chapter. Where an addition impacts the existing building or structure, that portion shall comply with this code. Where a fire wall that complies with Section 706 of the VCC is provided between the addition and the existing building, the addition shall be considered a separate building.

801.2 Creation or extension of nonconformity. An addition shall not create or extend any nonconformity in the existing building to which the addition is being made with regard to accessibility, structural strength, fire safety, means of egress, or the capacity of mechanical, plumbing, or electrical systems. Alterations to the existing building or structure shall be made so that the existing building or structure, together with the addition, are no less conforming to the provisions of the VCC than the existing building or structure was prior to the addition.

801.3 Other work. Any repair or alteration work within an existing building to which an addition is being made shall comply with the applicable requirements for the work as classified in this code. ]

B. Change [ ~~Exception 2 of~~ ] Section [ ~~805.2 of the IEBC to read: 802 to Heights and Areas.~~

2. Means of egress conforming to the requirements of the building code under which the building was constructed shall be considered compliant means of egress. ]

B. C. Change [ ~~Item 7 of~~ ] Section [ ~~805.3.1.1 802.1~~ ] of the IEBC to read:

[ ~~7. In Groups R 2, H 4, H 5 and I occupancies and in rooming houses and childcare centers, a single exit is permitted in a one story building with a maximum occupant load of 10 and the exit access travel distance does not exceed 75 feet (22 860 mm). In dwelling units within Group R 2 buildings, an occupant load of 12 shall be permitted to be substituted for the occupant load established above and, in addition, staff of such family day homes shall not be counted for the purposes of establishing occupant loads.~~

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# Regulations

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802.1 Height limitations. No addition shall increase the height of an existing building beyond that permitted under the applicable provisions of Chapter 5 of the VCC for new buildings. ]

D. [ ~~Change Section 805.3.2~~ of Add Sections 802.2 and 802.3 to ] the IEBC to read:

[ ~~805.3.2 Mezzanines. Mezzanines in the work area and with an occupant load of more than 50 or in which the common path of egress travel distance to an exit or exit access doorway exceeds 75 feet (22 860 mm) shall have access to at least two independent means of egress.~~

Exception: Two independent means of egress are not required where the travel distance to an exit does not exceed 100 feet (30 480 mm) and the building is protected throughout with an automatic sprinkler system.

802.2 Area limitations. No addition shall increase the area of an existing building beyond that permitted under the applicable provisions of Chapter 5 of the VCC for new buildings unless fire separation as required by the VCC is provided.

Exception: In-filling of floor openings and nonoccupiable appendages such as elevator and exit stairway shafts shall be permitted beyond that permitted by the VCC.

802.3 Fire protection systems. Existing fire areas increased by the addition shall comply with Chapter 9 of the VCC. ]

E. [ ~~Delete Section 805.3.3~~ Change Section 803 to Structural.

F. Change Sections 803.1 through 803.5, including subsections, and delete Sections 803.2.2, 803.2.3, 803.4.1, 803.5.1 and 803.5.2 ] of the IEBC.

[ 803.1 Compliance with the VCC. Additions to existing buildings or structures are new construction and shall comply with the VCC.

803.2 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which an addition and its related alterations cause an increase in design gravity load of more than 5% shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the VCC for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased shall be considered an altered element subject to the requirements of Section 603.7.3. Any existing element that will form part of the lateral load path for any part of the addition shall be considered an existing lateral load-carrying structural element subject to the requirements of Section 803.3.

Exception: Buildings of Group R occupancy with no more than five dwelling units or sleeping units used solely for residential purposes where the existing building and the addition comply with the conventional light-frame

construction methods of the VCC or the provisions of the International Residential Code.

803.2.1 Design live load. Where the addition does not result in increased design live load, existing gravity load-carrying structural elements shall be permitted to be evaluated and designed for live loads approved prior to the addition. If the approved live load is less than that required by Section 1607 of the VCC, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the addition does result in increased design live load, the live load required by Section 1607 of the VCC shall be used.

803.3 Existing structural elements carrying lateral load. Where the addition is structurally independent of the existing structure, existing lateral load-carrying structural elements shall be permitted to remain unaltered. Where the addition is not structurally independent of the existing structure, the existing structure and its addition acting together as a single structure shall be shown to meet the requirements of Sections 1609 and 1613 of the VCC. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 305.2.1 for the applicable risk category, shall be deemed to meet the requirements of Section 1613.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the addition considered is not more than 10% greater than its demand-capacity ratio with the addition ignored shall be permitted to remain unaltered. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and alterations since original construction. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations involving VCC-level seismic forces in accordance with Section 305.2.1.

2. Buildings of Group R occupancy with no more than five dwelling or sleeping units used solely for residential purposes where the existing building and the addition comply with the conventional light-frame construction methods of the VCC or the provisions of the International Residential Code.

803.4 Voluntary addition of structural elements to improve the lateral force-resisting system. Voluntary addition of structural elements to improve the lateral force-resisting system of an existing building shall comply with Section 603.7.5.

803.5 Snow drift loads. Any structural element of an existing building subjected to additional loads from the

effects of snow drift as a result of an addition shall comply with the VCC.

Exceptions:

1. Structural elements whose stress is not increased by more than 5%.
2. Buildings of Group R occupancy with no more than five dwelling units or sleeping units used solely for residential purposes where the existing building and the addition comply with the conventional light-frame construction methods of the VCC or the provisions of the International Residential Code. ]

[ ~~F. Change G. Delete~~ ] Section [ ~~805.4.1.1 of 803.6 from~~ ] the IEBC [ ~~to read:~~ ]

~~[ 805.4.1.1 Occupant load and travel distance. In any work area, all rooms and spaces having an occupant load greater than 50 or in which the common path of egress travel distance to an exit or exit access doorway exceeds 75 feet (22 860 mm) shall have a minimum of two egress doorways.~~

Exceptions:

1. ~~Storage rooms having a maximum occupant load of 10.~~
2. ~~Where the work area is served by a single exit in accordance with Section 805.3.1.1.~~

G. H. ] Change Section [ 808.3 of the IEBC 804 ] to [ read: Flood Hazard Areas. ]

~~[ 808.3 Residential occupancies. In Groups R-2, R-3, R-4, and R-5 occupancies and buildings regulated by the IRC, the requirements of Sections 808.3.1 through 808.3.7 shall be applicable only to work areas located within a dwelling unit.~~

H. I. ] Change Section [ ~~809.1~~ 804.1 ] of the IEBC to read:

~~[ 809.1 Work areas or converted spaces. All work areas intended for occupancy and all spaces converted to habitable or occupiable space in any work area shall be provided with natural or mechanical ventilation in accordance with the International Mechanical Code.~~

Exception: Existing mechanical ventilation systems shall comply with the requirements of Section 809.2.

I. 804.1 Flood hazard areas. Additions and foundations in flood hazard areas shall comply with the following requirements:

1. For horizontal additions that are structurally interconnected to the existing building:
  - 1.1. If the addition and all other proposed work, when combined, constitute substantial improvement, the existing building and the addition shall comply with

Section 1612 of the International Building Code or Section R322 of the International Residential Code, as applicable.

1.2. If the addition constitutes substantial improvement, the existing building and the addition shall comply with Section 1612 of the International Building Code or Section R322 of the International Residential Code, as applicable.

2. For horizontal additions that are not structurally interconnected to the existing building:

2.1. The addition shall comply with Section 1612 of the International Building Code or Section R322 of the International Residential Code, as applicable.

2.2. If the addition and all other proposed work when combined constitute substantial improvement, the existing building and the addition shall comply with Section 1612 of the International Building Code or Section R322 of the International Residential Code, as applicable.

3. For vertical additions and all other proposed work that when combined constitute substantial improvement, the existing building shall comply with Section 1612 of the International Building Code or Section R322 of the International Residential Code, as applicable.

4. For a raised or extended foundation, if the foundation work and all other proposed work when combined constitute substantial improvement, the existing building shall comply with Section 1612 of the International Building Code or Section R322 of the International Residential Code, as applicable.

5. For a new foundation or replacement foundation, the foundation shall comply with Section 1612 of the International Building Code or Section R322 of the International Residential Code, as applicable.

J. Delete Sections 805, 806, 807, 808, 809, 810, and 811, in their entirety, from the IEBC. ]

**13VAC5-63-434.5. Chapter 9 [ Alterations — Level 3 Historic buildings ].**

A. Change [ ~~Section~~ Sections 901.1 and ] 901.2 of the IEBC to read:

[ 901.1 Scope. It is the intent of this chapter to provide means for the preservation of historic buildings. The provisions of this code relating to construction involving historic buildings shall not be mandatory unless such a construction constitutes a life safety hazard. Accessibility shall be provided in accordance with Section 405. ]

901.2 [ ~~Compliance. In addition to the provisions of this chapter, work shall comply with all of the requirements of Chapters 7 and 8. The requirements of Sections 803, 804,~~

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# Regulations

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~~and 805 shall apply within all work areas whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load. Exception: Buildings in which the alteration affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section 705.2 shall not be required to comply with this chapter. Report. The code official shall be permitted to require that a historic building undergoing repair, alteration or change of occupancy be investigated and evaluated by an RDP or other qualified person or agency as a condition of determining compliance with this code.~~

B. [ ~~Change Add~~ ] Section [ ~~903.1 of 901.3 to~~ ] the IEBC to read:

[ ~~903.1 Existing stairways. Existing stairways that are part of the means of egress shall be enclosed in accordance with Section 803.2.1, and its exceptions if applicable, from the highest work area floor to and including the level of exit discharge and all floors below. 901.3 Special occupancy exceptions. When a building in Group R-3 is also used for Group A, B, or M purposes such as museum tours, exhibits, and other public assembly activities, or for museums less than 3,000 square feet (279 m<sup>2</sup>), the code official may determine that the occupancy is Group B when life safety conditions can be demonstrated in accordance with Section 901.2. Adequate means of egress in such buildings, which may include a means of maintaining doors in an open position to permit egress, a limit on building occupancy to an occupant load permitted by the means of egress capacity, a limit on occupancy of certain areas or floors, or supervision by a person knowledgeable in the emergency exiting procedures, shall be provided. ]~~

C. Change Section [ ~~904.2 of the IEBC 902~~ ] to [ ~~read:~~ Flood hazard areas.

~~904.2 Fire alarm and detection systems. Fire alarm and detection shall be provided throughout the work area in accordance with Section 907 of the IBC as required for new construction.~~

D. Change Section 902.1 of the IEBC to read:

902.1 Flood hazard areas. In flood hazard areas, if all proposed work, including repairs, work required because of a change of occupancy, and alterations, constitutes substantial improvement, then the existing building shall comply with Section 1612 of the International Building Code or Section R322 of the International Residential Code, as applicable.

Exception: If an historic building will continue to be an historic building after the proposed work is completed, then the proposed work is not considered a substantial improvement. For the purposes of this exception, an historic building is:

1. Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places;

2. Determined by the Secretary of the U.S. Department of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district; or

3. Designated as historic under a state or local historic preservation program that is approved by the Department of Interior.

E. Delete Section 902.2 of the IEBC.

F. Change Section 903 to Repairs.

G. Change Sections 903.1 through 903.3, including subsections, to read:

903.1 General. Repairs to any portion of an historic building or structure shall be permitted with original or like materials and original methods of construction, subject to the provisions of this chapter. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

903.2 Moved buildings. Foundations of moved historic buildings and structures shall comply with the VCC. Moved historic buildings shall otherwise be considered an historic building for the purposes of this code. Moved historic buildings and structures shall be sited so that exterior wall and opening requirements comply with the VCC or with the compliance alternatives of this code.

903.3 Replacement. Replacement of existing or missing features using original materials shall be permitted. Partial replacement for repairs that match the original in configuration, height, and size shall be permitted. Replacement glazing in hazardous locations shall comply with the safety glazing requirements of Chapter 24 of the VCC.

Exception: Glass block walls, louvered windows, and jalousies repaired with like materials.

H. Change Section 904 to Fire Safety.

I. Change Sections 904.1 and 904.2, deleting subsections, of the IEBC to read:

904.1 Scope. Except as provided in Section 901, historic buildings undergoing alterations, changes of occupancy, or that are moved shall comply with this section.

904.2 General. Every historic building that does not conform to the construction requirements specified in this code for the occupancy or use and that constitutes a distinct fire hazard as defined in this code shall be provided with an approved automatic fire-extinguishing system as determined appropriate by the code official. However, an automatic fire-extinguishing system shall not be used to

substitute for, or act as an alternative to, the required number of exits from any facility.

J. Add Sections 904.3 through 904.12, including subsections, to the IEBC to read:

904.3 Means of egress. Existing door openings and corridor and stairway widths less than those specified elsewhere in this code shall be permitted, provided there is sufficient width and height for a person to pass through the opening or traverse the means of egress. The front or main exit doors need not swing in the direction of the path of exit travel, provided that other approved means of egress having sufficient capacity to serve the total occupant load are provided.

904.4 Transoms. In fully sprinklered buildings of Group R-1, R-2 or R-3 occupancy, existing transoms in corridors and other fire-resistance-rated walls may be maintained if fixed in the closed position. A sprinkler shall be installed on each side of the transom.

904.5 Interior finishes. The existing finishes of walls and ceilings shall be accepted when it is demonstrated that they are the historic finishes.

904.6 Stairway enclosure. In buildings of three stories or less, exit enclosure construction shall limit the spread of smoke by the use of tight-fitting doors and solid elements. Such elements are not required to have a fire-resistance rating.

904.7 One-hour-fire-resistant assemblies. Where one-hour-fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood or metal lath and plaster.

904.8 Glazing in fire-resistance-rated systems. Historic glazing materials are permitted in interior walls required to have a one-hour-fire-resistance rating where the opening is provided with approved smoke seals and the area affected is provided with an automatic sprinkler system.

904.9 Stairway railings. Grand stairways shall be accepted without complying with the handrail and guard requirements. Existing handrails and guards at all stairways shall be permitted to remain, provided they are not structurally dangerous.

904.10 Guards. Guards shall comply with Sections 904.10.1 and 904.10.2.

904.10.1 Height. Existing guards shall comply with the requirements of Section 604.

904.10.2 Guard openings. The spacing between existing intermediate railings or openings in existing ornamental patterns shall be accepted. Missing elements or members of a guard may be replaced in a manner that will preserve the historic appearance of the building or structure.

904.11 Exit signs. Where exit sign or egress path marking location would damage the historic character of the building, alternative exit signs are permitted with approval of the code official. Alternative signs shall identify the exits and egress path.

904.12 Automatic fire-extinguishing systems. Every historical building that cannot be made to conform to the construction requirements specified in the VCC for the occupancy or use and that constitutes a distinct fire hazard shall be deemed to be in compliance if provided with an approved automatic fire-extinguishing system.

Exception: When the code official approves an alternative life safety system.

K. Change Section 905 to Alterations.

L. Change Section 905.1 to the IEBC to read:

905.1 General. The provisions of Chapter 6, as applicable, shall apply to facilities designated as historic structures that undergo alterations, unless technically infeasible.

M. Delete Sections 905.2 and 905.3 of the IEBC.

N. Change Section 906 to Change of Occupancy.

O. Change Sections 906.1 and 906.2 of the IEBC to read:

906.1 General. Historic buildings undergoing a change of occupancy shall comply with the applicable provisions of Chapter 7, except as specifically permitted in this chapter. When Chapter 7 requires compliance with specific requirements of Chapter 6 and when those requirements are subject to the exceptions in Section 903, the same exceptions shall apply to this section.

906.2 Building area. The allowable floor area for historic buildings undergoing a change of occupancy shall be permitted to exceed by 20% the allowable areas specified in Chapter 5 of the VCC.

P. Add Sections 906.3 through 906.14 to the IEBC to read:

906.3 Location on property. Historic structures undergoing a change of use to a higher hazard category in accordance with Section 707.1 may use alternative methods to comply with the fire-resistance and exterior opening protective requirements. Such alternatives shall comply with Section 901.2.

906.4 Occupancy separation. Required occupancy separations of one hour may be omitted when the building is provided with an approved automatic sprinkler system throughout.

906.5 Roof covering. Regardless of occupancy or use group, Roof covering materials not less than Class C, when tested in accordance with ASTM E 108 or UL 790, shall be permitted where a fire-retardant roof covering is required.

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# Regulations

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906.6 Means of egress. Existing door openings and corridor and stairway widths less than those that would be acceptable for nonhistoric buildings under these provisions shall be permitted, provided there is sufficient width and height for a person to pass through the opening or traverse the exit and that the capacity of the exit system is adequate for the occupant load or where other operational controls to limit occupancy are approved by the code official.

906.7 Door swing. Existing front doors need not swing in the direction of exit travel, provided that other approved exits having sufficient capacity to serve the total occupant load are provided.

906.8 Transoms. In corridor walls required by these provisions to be fire-resistance rated, existing transoms may be maintained if fixed in the closed position and fixed wired glass set in a steel frame or other approved glazing shall be installed on one side of the transom.

Exception: Transoms conforming to Section 904.4 shall be accepted.

906.9 Finishes. Where interior finish materials are required to have a flame spread index of Class C or better, when tested in accordance with ASTM E 84 or UL 723, existing nonconforming materials shall be surfaced with approved fire-retardant paint or finish.

Exception: Existing nonconforming materials need not be surfaced with an approved fire-retardant paint or finish where the building is equipped throughout with an automatic sprinkler system installed in accordance with the VCC and the nonconforming materials can be substantiated as being historic in character.

906.10 One-hour-fire-resistant assemblies. Where one-hour-fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood lath and plaster.

906.11 Stairways and guards. Existing stairways shall comply with the requirements of these provisions. The code official shall grant alternatives for stairways and guards if alternative stairways are found to be acceptable or are judged to meet the intent of these provisions. Existing stairways shall comply with Section 904.

Exception: For buildings less than 3,000 square feet (279 m<sup>2</sup>), existing conditions are permitted to remain at all stairways and guards.

906.12 Exit signs. Where exit signs would damage the historic character of the building or structure, alternative locations shall be permitted. Such signs shall identify the exits and exit paths.

906.13 Exit stair live load. Existing stairways in buildings changed to a Group R-1 or R-2 occupancy shall be

permitted where it can be shown that the stairway can support a 75-pounds-per-square-foot (366 kg/m<sup>2</sup>) live load.

906.14 Natural light. When the natural light requirements of Section 709.1 will lead to loss of historic character or historic materials in the building, the existing level of natural lighting shall be considered acceptable.

Q. Change Section 907 to Structural.

R. Change Section 907.1 of the IEBC to read:

907.1 General. Historic buildings shall comply with the applicable structural provisions for the work as classified in Section 103.10.

Exception: The code official shall be authorized to accept existing floors and approve operational controls that limit the live load on any such floor.

S. Delete Sections 907.2 through 907.4, including subsections, of the IEBC.

T. Delete Section 908 of the IEBC in its entirety. ]

**13VAC5-63-435. Chapter 10 [ ~~Change of occupancy Moved buildings and structures~~ ]:**

[ ~~Add Group R-5 to the occupancy classifications listed under the fourth relative hazard level in Tables 1012.4 and 1012.5.~~

A. Change Section 1001 to General.

B. Change Sections 1001.1 through 1001.3, deleting subsections, of the IEBC to read:

1001.1 Scope. This chapter provides requirements for moved buildings and structures.

1001.2 Conformance. Any repair, alteration, or change of occupancy undertaken within the moved building or structure shall comply with the requirements of this code applicable to the work being performed. Any field fabricated elements shall comply with the requirements of the VCC or the International Residential Code as applicable.

1001.3 Required inspection and repairs. The code official shall be authorized to inspect, or to require approved professionals to inspect at the expense of the owner, the various structural parts of a moved building or structure to verify that structural components and connections have not sustained structural damage. Any repairs required by the code official as a result of such inspection shall be made prior to the final approval.

C. Change Section 1002 to Requirements.

D. Change Sections 1002.1 and 1002.2 and add Section 1002.2.1 to the IEBC to read:

1002.1 Location on the lot. The building or structure shall be located on the lot in accordance with the requirements

of the VCC or the International Residential Code as applicable.

1002.2 Foundation. The foundation system of moved buildings and structures shall comply with the VCC or the International Residential Code as applicable.

1002.2.1 Connection to the foundation. The connection of the moved building or structure to the foundation shall comply with the VCC or the International Residential Code as applicable.

E. Add Sections 1002.3 through 1002.6, including subsections, to the IEBC to read:

1002.3 Wind loads. Buildings and structures shall comply with VCC or International Residential Code wind provisions at the new location as applicable.

Exceptions:

1. Detached one-family and two-family dwellings and Group U occupancies where wind loads at the new location are not higher than those at the previous location.

2. Structural elements whose stress is not increased by more than 10%.

1002.4 Seismic loads. Buildings and structures shall comply with VCC or International Residential Code seismic provisions at the new location as applicable.

Exceptions:

1. Structures in Seismic Design Categories A and B and detached one-family and two-family dwellings in Seismic Design Categories A, B, and C where the seismic loads at the new location are not higher than those at the previous location.

2. Structural elements whose stress is not increased by more than 10%.

1002.5 Snow loads. Buildings and structures shall comply with VCC or International Residential Code snow loads as applicable where snow loads at the new location are higher than those at the previous location.

Exception: Structural elements whose stress is not increased by more than 5%.

1002.6 Flood hazard areas. If moved into a flood hazard area, buildings and structures shall comply with Section 1612 of the VCC, or Section R322 of the International Residential Code, as applicable.

F. Delete Sections 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, and 1012 of the IEBC in their entirety.

## **13VAC5-63-435.5. Chapter 11 Retrofit requirements.**

A. Replace Chapter 11 of the IEBC with the following:

B. Change the title of Chapter 11 of the IEBC to "Retrofit Requirements."

C. Add IEBC Section 1101 General.

D. Add Section 1101.1 to the IEBC to read:

1101.1 Scope. In accordance with Section 103.7 of the VCC and as set out in this code, the following buildings are required to be provided with certain fire protection equipment or systems or other retrofitted components.

E. Add Section 1101.2 to the IEBC to read:

1101.2 Smoke detectors in colleges and universities. In accordance with § 36-99.3 of the Code of Virginia, college and university buildings containing dormitories for sleeping purposes shall be provided with battery-powered or AC-powered smoke detector devices installed therein in accordance with this code in effect on July 1, 1982. All public and private college and university dormitories shall have installed such detectors regardless of when the building was constructed. The chief administrative office of the college or university shall obtain a certificate of compliance with the provisions of this subsection from the building official of the locality in which the college or university is located or, in the case of state-owned buildings, from the Director of the Virginia Department of General Services. The provisions of this section shall not apply to any dormitory at a state-supported military college or university that is patrolled 24 hours a day by military guards.

F. Add Section 1101.3 to the IEBC to read:

1101.3 Smoke detectors in certain juvenile care facilities. In accordance with § 36-99.4 of the Code of Virginia, battery-powered or AC-powered smoke detectors shall be installed in all local and regional detention homes, group homes, and other residential care facilities for children and juveniles that are operated by or under the auspices of the Virginia Department of Juvenile Justice, regardless of when the building was constructed, by July 1, 1986, in accordance with the provisions of this code that were in effect on July 1, 1984. Administrators of such homes and facilities shall be responsible for the installation of the smoke detector devices.

G. Add Section 1101.4 to the IEBC to read:

1101.4 Smoke detectors for the deaf and hearing-impaired. In accordance with § 36-99.5 of the Code of Virginia, smoke detectors providing an effective intensity of not less than 100 candela to warn a deaf or hearing-impaired individual shall be provided, upon request by the occupant to the landlord or proprietor, to any deaf or hearing-



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# Regulations

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impaired occupant of any of the following occupancies, regardless of when constructed:

1. All dormitory buildings arranged for the shelter and sleeping accommodations of more than 20 individuals;
2. All multiple-family dwellings having more than two dwelling units, including all dormitories and boarding and lodging houses arranged for shelter and sleeping accommodations of more than five individuals; or
3. All buildings arranged for use as one-family or two-family dwelling units.

A tenant shall be responsible for the maintenance and operation of the smoke detector in the tenant's unit.

A hotel or motel shall have available no fewer than one such smoke detector for each 70 units or portion thereof, except that this requirement shall not apply to any hotel or motel with fewer than 35 units. The proprietor of the hotel or motel shall post in a conspicuous place at the registration desk or counter a permanent sign stating the availability of smoke detectors for the hearing impaired. Visual detectors shall be provided for all meeting rooms for which an advance request has been made.

H. Add Sections 1101.5, 1101.5.1, and 1101.5.2 to the IEBC to read:

1101.5 Assisted living facilities (formerly known as adult care residences or homes for adults). Existing assisted living facilities licensed by the Virginia Department of Social Services shall comply with sections 1101.5.1 and 1101.5.2.

1101.5.1 Fire protective signaling system and fire detection system. A fire protective signaling system and an automatic fire detection system meeting the requirements of the USBC, Volume I, 1987 Edition, Third Amendment, shall be installed in assisted living facilities by August 1, 1994.

Exception: Assisted living facilities that are equipped throughout with a fire protective signaling system and an automatic fire detection system.

1101.5.2 Single-station and multiple-station smoke detectors. Battery-powered or AC-powered single-station and multiple-station smoke detectors meeting the requirements of the USBC, Volume I, 1987 Edition, Third Amendment, shall be installed in assisted living facilities by August 1, 1994.

Exception: Assisted living facilities that are equipped throughout with single-station and multiple-station smoke detectors.

I. Add Section 1101.6 to the IEBC to read:

1101.6 Smoke detectors in buildings containing dwelling units. AC-powered smoke detectors with battery backup or

an equivalent device shall be required to be installed to replace a defective or inoperative battery-powered smoke detector located in buildings containing one or more dwelling units or rooming houses offering to rent overnight sleeping accommodations when it is determined by the building official that the responsible party of such building or dwelling unit fails to maintain battery-powered smoke detectors in working condition.

J. Add Section 1101.7 to the IEBC to read:

1101.7 Fire suppression, fire alarm, and fire detection systems in nursing homes and facilities. Fire suppression systems as required by the edition of this code in effect on October 1, 1990, shall be installed in all nursing facilities licensed by the Virginia Department of Health by January 1, 1993, regardless of when such facilities or institutions were constructed. Units consisting of certified long-term care beds located on the ground floor of general hospitals shall be exempt from the requirements of this section.

Fire alarm or fire detector systems, or both, as required by the edition of this code in effect on October 1, 1990, shall be installed in all nursing homes and nursing facilities licensed by the Virginia Department of Health by August 1, 1994.

K. Add Section 1101.8 to the IEBC to read:

1101.8 Fire suppression systems in hospitals. Fire suppression systems shall be installed in all hospitals licensed by the Virginia Department of Health as required by the edition of this code in effect on October 1, 1995, regardless of when such facilities were constructed.

L. Add Section 1101.9 to the IEBC to read:

1101.9 Identification of disabled parking spaces by above grade signage. All parking spaces reserved for the use of persons with disabilities shall be identified by above grade signs, regardless of whether identification of such spaces by above grade signs was required when any particular space was reserved for the use of persons with disabilities. A sign or symbol painted or otherwise displayed on the pavement of a parking space shall not constitute an above grade sign. Any parking space not identified by an above grade sign shall not be a parking space reserved for the disabled within the meaning of this section. All above grade disabled parking space signs shall have the bottom edge of the sign no lower than 4 feet (1219 mm) nor higher than 7 feet (2133 mm) above the parking surface. Such signs shall be designed and constructed in accordance with the provisions of Chapter 11 of this code. All disabled parking signs shall include the following language: "PENALTY, \$100-500 Fine, TOW-AWAY ZONE." Such language may be placed on a separate sign and attached below existing above grade disabled parking signs, provided that the bottom edge of the attached sign is no lower than 4 feet above the parking surface.

M. Add Section 1101.10 to the IEBC to read:

1101.10 Smoke detectors in hotels and motels. Smoke detectors shall be installed in hotels and motels as required by the edition of VR 394-01-22, USBC, Volume II, in effect on March 1, 1990, by the dates indicated, regardless of when constructed.

N. Add Section 1101.11 to the IEBC to read:

1101.11 Sprinkler systems in hotels and motels. By September 1, 1997, an automatic sprinkler system shall be installed in hotels and motels as required by the edition of VR 394-01-22, USBC, Volume II, in effect on March 1, 1990, regardless of when constructed.

O. Add Section 1101.12 to the IEBC to read:

1101.12 Fire suppression systems in dormitories. An automatic fire suppression system shall be provided throughout all buildings having a Group R-2 fire area that are more than 75 feet (22,860 mm) or six stories above the lowest level of exit discharge and are used, in whole or in part, as a dormitory to house students by any public or private institution of higher education, regardless of when such buildings were constructed, in accordance with the edition of this code in effect on August 20, 1997, and the requirements for sprinkler systems under the edition of the NFPA 13 standard referenced by that code. The automatic fire suppression system shall be installed by September 1, 1999. The chief administrative office of the college or university shall obtain a certificate of compliance from the building official of the locality in which the college or university is located or, in the case of state-owned buildings, from the Director of the Virginia Department of General Services.

Exceptions:

1. Buildings equipped with an automatic fire suppression system in accordance with Section 903.3.1.1 of the 1983 or later editions of NFPA 13.

2. Any dormitory at a state-supported military college or university that is patrolled 24 hours a day by military guards.

3. Application of the requirements of this section shall be modified in accordance with the following:

3.1. Building systems, equipment, or components other than the fire suppression system shall not be required to be added or upgraded except as necessary for the installation of the fire suppression system and shall only be required to be added or upgraded where the installation of the fire suppression system creates an unsafe condition.

3.2. Residential sprinklers shall be used in all sleeping rooms. Other sprinklers shall be quick response or residential unless deemed unsuitable for a space.

Standard response sprinklers shall be used in elevator hoistways and machine rooms.

3.3. Sprinklers shall not be required in wardrobes in sleeping rooms that are considered part of the building construction or in closets in sleeping rooms when such wardrobes or closets (i) do not exceed 24 square feet (2.23 m<sup>2</sup>) in area, (ii) have the smallest dimension less than 36 inches (914 mm), and (iii) comply with all of the following:

3.3.1. A single-station smoke detector monitored by the building fire alarm system is installed in the room containing the wardrobe or closet that will activate the general alarm for the building if the single station smoke detector is not cleared within five minutes after activation.

3.3.2. The minimum number of sprinklers required for calculating the hydraulic demand of the system for the room shall be increased by two, and the two additional sprinklers shall be corridor sprinklers where the wardrobe or closet is used to divide the room. Rooms divided by a wardrobe or closet shall be considered one room for the purpose of this requirement.

3.3.3. The ceiling of the wardrobe, closet, or room shall have a fire resistance rating of not less than 1/2 hour.

3.4. Not more than one sprinkler shall be required in bathrooms within sleeping rooms or suites having a floor area between 55 square feet (5.12 m<sup>2</sup>) and 120 square feet (11.16 m<sup>2</sup>), provided the sprinkler is located to protect the lavatory area and the plumbing fixtures are of a noncombustible material.

3.5. Existing standpipe residual pressure shall be permitted to be reduced when the standpipe serves as the water supply for the fire suppression system, provided the water supply requirements of NFPA 13-94 are met.

3.6. Limited service controllers shall be permitted for fire pumps when used in accordance with their listing.

3.7. Where a standby power system is required, a source of power in accordance with Section 701-11(d) or 701-11(e) of NFPA 70-96 shall be permitted.

P. Add Section 1101.13 to the IEBC to read:

1101.13 Fire extinguishers and smoke detectors in SRCFs. SRCFs shall be provided with at least one approved type ABC portable fire extinguisher with a minimum rating of 2A10BC installed in each kitchen. In addition, SRCFs shall provide at least one approved and properly installed battery operated smoke detector outside of each sleeping area in the vicinity of bedrooms and bedroom hallways and on each additional floor.

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# Regulations

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Q. Add Section 1101.14 to the IEBC to read:

1101.14 Smoke detectors in adult day care centers. Battery-powered or AC-powered smoke detector devices shall be installed in all adult day care centers licensed by the Virginia Department of Social Services, regardless of when the building was constructed. The location and installation of the smoke detectors shall be determined by the provisions of this code in effect on October 1, 1990. The licensee shall obtain a certificate of compliance from the building official of the locality in which the center is located or, in the case of state-owned buildings, from the Director of the Virginia Department of General Services.

R. Add Section 1101.15 to the IEBC to read:

1101.15 Posting of occupant load. Every room or space that is an assembly occupancy, and where the occupant load of that room or space is 50 or more, shall have the occupant load of the room or space 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.

S. Add Section 1101.16 to the IEBC to read:

1101.16 ALFSTs. Existing ALFSTs, regardless of when constructed, shall by October 1, 2011, meet the applicable requirements of API 653 and TFI RMIP for suitability for service and inspections and shall provide a secondary containment system complying with Section 426.3 of the VCC.

T. Add Section 1101.17 to the IEBC to read:

1101.17 Standards for replacement glass. 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.

## **[ 13VAC5-63-438. Chapter 12 ~~Historic~~ buildings Construction safeguards.**

Change Section 1201.2 of the IEBC to read:

~~1201.2 Report. The code official shall be permitted to require that an historic building undergoing repair, alteration or change of occupancy be investigated and evaluated by an RDP or other qualified person or agency as a condition of determining compliance with this code.~~

A. Replace Chapter 12 of the IEBC with the following:

B. Change the title of Chapter 12 of the IEBC to "Construction Safeguards."

C. Add Section 1201 General.

D. Add Sections 1201.1 through 1201.4 to the IEBC to read:

1201.1 Scope. The provisions of this chapter shall govern safety during construction that is under the jurisdiction of this code and the protection of adjacent public and private properties.

1201.2 Storage and placement. Construction equipment and materials shall be stored and placed so as not to endanger the public, the workers, or adjoining property for the duration of the construction project.

1201.3 Alterations, repairs, and additions. Required exits, existing structural elements, fire protection devices, and sanitary safeguards shall be maintained at all times during alterations, repairs, or additions to any building or structure.

Exceptions:

1. When such required elements or devices are being altered or repaired, adequate substitute provisions shall be made.

2. When the existing building is not occupied.

1201.4 Manner of removal. Waste materials shall be removed in a manner which prevents injury or damage to persons, adjoining properties, and public rights-of-way.

E. Add Sections 1201.5 through 1201.7, including subsections, to the IEBC to read:

1201.5 Fire safety during construction. Fire safety during construction shall comply with the applicable requirements of the International Building Code and the applicable provisions of Chapter 33 of the International Fire Code.

1201.6 Protection of pedestrians. Pedestrians shall be protected during construction and demolition activities as required by Section 1201.6.1 through 1201.6.7 and Table 1201.6. Signs shall be provided to direct pedestrian traffic.

1201.6.1 Walkways. A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless the applicable governing authority authorizes the sidewalk to be fenced or closed. Walkways shall be of sufficient width to accommodate the pedestrian traffic, but in no case shall they be less than 4 feet (1219 mm) in width. Walkways shall be provided with a durable walking surface. Walkways shall be accessible in accordance with Chapter 11 of the International Building Code and shall be designed to support all imposed loads and in no case shall the design live load be less than 150 pounds per square foot (psf) (7.2 kN/m<sup>2</sup>).

1201.6.2 Directional barricades. Pedestrian traffic shall be protected by a directional barricade where the walkway extends into the street. The directional barricade shall be of sufficient size and construction to direct vehicular traffic away from the pedestrian path.

1201.6.3 Construction railings. Construction railings shall be at least 42 inches (1067 mm) in height and shall be sufficient to direct pedestrians around construction areas.

1201.6.4 Barriers. Barriers shall be a minimum of 8 feet (2438 mm) in height and shall be placed on the side of the walkway nearest the construction. Barriers shall extend the entire length of the construction site. Openings in such barriers shall be protected by doors which are normally kept closed.

1201.6.4.1 Barrier design. Barriers shall be designed to resist loads required in Chapter 16 of the International Building Code unless constructed as follows:

1. Barriers shall be provided with 2-inch by 4-inch top and bottom plates.
2. The barrier material shall be a minimum of 3/4-inch (19.1 mm) boards or 1/4-inch (6.4 mm) wood structural use panels.
3. Wood structural use panels shall be bonded with an adhesive identical to that for exterior wood structural use panels.
4. Wood structural use panels 1/4-inch (6.4 mm) or 1/16-inch (1.6 mm) in thickness shall have studs spaced not more than 2 feet (610 mm) on center.
5. Wood structural use panels 3/8-inch (9.5 mm) or 1/2-inch (12.7 mm) in thickness shall have studs spaced not more than 4 feet (1219 mm) on center, provided a 2-inch by 4-inch (51 mm by 102 mm) stiffener is placed horizontally at the mid-height where the stud spacing exceeds 2 feet (610 mm) on center.
6. Wood structural use panels 5/8-inch (15.9 mm) or thicker shall not span over 8 feet (2438 mm).

1201.6.5 Covered walkways. Covered walkways shall have a minimum clear height of 8 feet (2438 mm) as measured from the floor surface to the canopy overhead. Adequate lighting shall be provided at all times. Covered walkways shall be designed to support all imposed loads. In no case shall the design live load be less than 150 psf (7.2 kN/m<sup>2</sup>) for the entire structure.

Exception: Roofs and supporting structures of covered walkways for new, light-frame construction not exceeding two stories above grade plane are permitted to be designed for a live load of 75 psf (3.6 kN/m<sup>2</sup>) or the loads imposed on them, whichever is greater. In lieu of such designs, the roof and supporting structure of a covered walkway are permitted to be constructed as follows:

1. Footings shall be continuous 2-inch by 6-inch members.
2. Posts not less than 4-inches by 6-inches shall be provided on both sides of the roof and spaced not more than 12 feet (3658 mm) on center.
3. Stringers not less than 4-inches by 12-inches shall be placed on edge upon the posts.
4. Joists resting on the stringers shall be at least 2-inches by 8-inches and shall be spaced not more than 2 feet (610 mm) on center.
5. The deck shall be planks at least 2 inches (51 mm) thick or wood structural panels with an exterior exposure durability classification at least 2-3/32-inch (18.3 mm) thick nailed to the joists.
6. Each post shall be knee-braced to joists and stringers by 2-inch by 4-inch minimum members 4 feet (1219 mm) long.
7. A 2-inch by 4-inch minimum curb shall be set on edge along the outside edge of the deck.

1201.6.6 Repair, maintenance and removal. Pedestrian protection required by Section 1201.6 shall be maintained in place and kept in good order for the entire length of time pedestrians may be endangered. The owner or the owner's agent, upon the completion of the construction activity, shall immediately remove walkways, debris, and other obstructions and leave such public property in as good a condition as it was before such work was commenced.

<u>TABLE 1201.6 PROTECTION OF PEDESTRIANS</u>		
<u>HEIGHT OF CONSTRUCTION</u>	<u>DISTANCE OF CONSTRUCTION TO LOT LINE</u>	<u>TYPE OF PROTECTION REQUIRED</u>
<u>8 feet or less</u>	<u>Less than 5 feet</u>	<u>Construction railings</u>
	<u>5 feet or more</u>	<u>None</u>
<u>More than 8 feet</u>	<u>Less than 5 feet</u>	<u>Barrier and covered walkway</u>
	<u>5 feet or more, but not more than 1/4 the height of construction</u>	<u>Barrier and covered walkway</u>
	<u>5 feet or more, but between 1/4 and 1/2 the height of construction</u>	<u>Barrier</u>
	<u>5 feet or more, but exceeding 1/2 the height of construction</u>	<u>None</u>

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# Regulations

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1201.6.7 Adjacent to excavations. Every excavation on a site located 5 feet (1524 mm) or less from the street lot line shall be enclosed with a barrier not less than 6 feet (1829 mm) high. Where located more than 5 feet (1524 mm) from the street lot line, a barrier shall be erected when required by the code official. Barriers shall be of adequate strength to resist wind pressure as specified in Chapter 16 of the International Building Code.

1201.7 Facilities required. Sanitary facilities shall be provided during construction or demolition activities in accordance with the International Plumbing Code.

F. Change Section 1202 to Protection of Adjoining Properties.

G. Change Section 1202.1 to the IEBC to read:

1202.1 Protection required. Adjoining public and private property shall be protected from damage during construction and demolition work. Protection must be provided for footings, foundations, party walls, chimneys, skylights, and roofs. Provisions shall be made to control water runoff and erosion during construction or demolition activities. The person making or causing an excavation to be made shall provide written notice to the owners of adjoining buildings advising them that the excavation is to be made and that the adjoining buildings should be protected. This notification shall be delivered not less than 10 days prior to the scheduled starting date of the excavation.

H. Delete Sections 1202.2 through 1202.4 of the IEBC.

I. Change Section 1203 Temporary Use of Streets, Alleys and Public Property.

J. Change Sections 1203.1 through 1203.3 to the IEBC to read:

1203.1 Storage and handling of materials. The temporary use of streets or public property for the storage or handling of materials or equipment required for construction or demolition and the protection provided to the public shall comply with the provisions of the applicable governing authority and this chapter.

1203.2 Obstructions. Construction materials and equipment shall not be placed or stored so as to obstruct access to fire hydrants, standpipes, fire or police alarm boxes, catch basins, or manholes nor shall such material or equipment be located within 20 feet (6.1 m) of a street intersection or placed so as to obstruct normal observations of traffic signals or to hinder the use of public transit loading platforms.

1203.3 Utility fixtures. Building materials, fences, sheds or any obstruction of any kind shall not be placed to obstruct free approach to any fire hydrant, fire department connection, utility pole, manhole, fire alarm box, or catch

basin or to interfere with the passage of water in the gutter. Protection against damage shall be provided to such utility fixtures during the progress of the work, but sight of them shall not be obstructed.

K. Delete Sections 1203.4 through 1203.12, including subsections, of the IEBC.

L. Add Section 1204 Fire Extinguishers.

M. Change Section 1204.1, deleting subsections, and add Section 1204.2 to the IEBC to read:

1204.1 Where required. All structures under construction, alteration, or demolition shall be provided with not less than one approved portable fire extinguisher in accordance with Section 906 of the International Building Code and sized for not less than ordinary hazard as follows:

1. At each stairway on all floor levels where combustible materials have accumulated.
2. In every storage and construction shed.
3. Additional portable fire extinguishers shall be provided where special hazards exist including the storage and use of flammable and combustible liquids.

1204.2 Fire hazards. The provisions of this code and of the International Fire Code shall be strictly observed to safeguard against all fire hazards attendant upon construction operations.

N. Change Section 1205 to Means of Egress.

O. Change Sections 1205.1 and 1205.2 to the IEBC to read:

1205.1 Stairways required. Where a building has been constructed to a building height of 50 feet (15,240 mm) or four stories, or where an existing building exceeding 50 feet (15,240 mm) in building height is altered, at least one temporary lighted stairway shall be provided unless one or more of the permanent stairways are erected as the construction progresses.

1205.2 Maintenance of means of egress. Required means of egress shall be maintained at all times during construction, demolition, remodeling or alterations, and additions to any building.

Exception: Approved temporary means of egress systems and facilities.

P. Delete Sections 1205.3 through 1205.15 of the IEBC.

Q. Change Section 1206 to Standpipe Systems.

R. Change Sections 1206.1 through 1206.2 and add Section 1206.3 to the IEBC to read:

1206.1 Where required. In buildings required to have standpipes by Section 905.3.1 of the International Building Code, not less than one standpipe shall be provided for use during construction. Such standpipes shall be installed

prior to construction exceeding 40 feet (12 192 mm) in height above the lowest level of fire department vehicle access. Such standpipe shall be provided with fire department hose connections at accessible locations adjacent to usable stairways. Such standpipes shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

1206.2 Buildings being demolished. Where a building or portion of a building is being demolished and a standpipe is existing within such a building, such standpipe shall be maintained in an operable condition to be available for use by the fire department. Such standpipe shall be demolished with the building but shall not be demolished more than one floor below the floor being demolished.

1206.3 Detailed requirements. Standpipes shall be installed in accordance with the provisions of Chapter 9 of the International Building Code.

Exception: Standpipes shall be either temporary or permanent in nature and with or without a water supply, provided that such standpipes conform to the requirements of Section 905 of the International Building Code as to capacity, outlets and materials.

S. Add Section 1207 Automatic Sprinkler System.

T. Add Sections 1207.1 and 1207.2 to the IEBC to read:

1207.1 Completion before occupancy. In portions of a building where an automatic sprinkler system is required by this code, it shall be unlawful to occupy those portions of the building until the automatic sprinkler system installation has been tested and approved, except as provided in Section 110.3.

1207.2 Operation of valves. Operation of sprinkler control valves shall be permitted only by properly authorized personnel and shall be accompanied by notification of duly designated parties. When the sprinkler protection is being regularly turned off and on to facilitate connection of newly completed segments, the sprinkler control valves shall be checked at the end of each work period to ascertain that protection is in service.

U. Add Section 1208 Accessibility.

V. Add Section 1208.1 to the IEBC to read:

1208.1 Construction sites. Structures, sites, and equipment directly associated with the actual process of construction, including scaffolding, bridging, material hoists, material storage, or construction trailers are not required to be accessible.

W. Add Section 1209 Water Supply for Fire Protection.

X. Add Section 1209.1 to the IEBC to read:

1209.1 When required. An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site. ]

**13VAC5-63-439. Chapter 13 [ Relocated or moved buildings Referenced standards ]:**

[ A. Change the title of Chapter 13 of the IEBC to "Moved Buildings and Structures."

B. Change Section 1301.1 of the IEBC to read:

1301.1 Scope. This chapter provides requirements for moved buildings and structures.

Referenced standards are listed in the following table:

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>API 653-09</u>	<u>Tank Inspection, Repair, Alteration and Reconstruction</u>	<u>1101.16</u>
<u>ASCE/SEI 7-10</u>	<u>American Society of Civil Engineers Structural Engineering Institute</u>	<u>305.2.1, 603.7.4, 603.7.6</u>
<u>ASCE/SEI 41-13</u>	<u>American Society of Civil Engineers Structural Engineering Institute</u>	<u>305.2, 305.2.1, 305.2.2, 502.2.2.1, 502.2.2.3, 803.3</u>
<u>ASHRAE 62.1-2013</u>	<u>American Society of Heating, Refrigerating and Air Conditioning Engineers</u>	<u>603.9.1</u>
<u>ASME A17.1/CSA B44-2013</u>	<u>American Society of Mechanical Engineers</u>	<u>404.4.2, 604.3.1.2</u>
<u>ASME A17.3-2008</u>	<u>American Society of Mechanical Engineers</u>	<u>604.3.1.2</u>
<u>ASME A18.1-2008</u>	<u>American Society of Mechanical Engineers</u>	<u>404.4.3</u>
<u>ASTM E 84-13A</u>	<u>ASTM International</u>	<u>906.9</u>

# Regulations

<u>ASTM E 108-11</u>	<u>ASTM International</u>	<u>906.5</u>
<u>ASTM F 2006-10</u>	<u>ASTM International</u>	<u>304.2</u>
<u>ASTM F 2090-10</u>	<u>ASTM International</u>	<u>304.2</u>
<u>ICC A117.1-09</u>	<u>Accessible and Usable Buildings and Facilities</u>	<u>404.4.2, 404.4.3, 404.4.10</u>
<u>IFC-15</u>	<u>International Fire Code</u>	<u>603.5.4.1</u>
<u>NFPA 13-13</u>	<u>Standard for the Installation of Sprinkler Systems</u>	<u>1101.12</u>
<u>NFPA 13R-13</u>	<u>Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height</u>	<u>603.5.2.5</u>
<u>NFPA 70-14</u>	<u>National Electrical Code</u>	<u>504.1.1, 504.1.2, 504.1.3, 504.1.4, 504.1.5, 603.8.1, 603.8.3.4, 603.8.3.7, 708.1, 708.2, 708.3,</u>
<u>NFPA 72-13</u>	<u>National Fire Alarm and Signaling Code</u>	<u>603.5.2.5, 603.5.4</u>
<u>NFPA 99-15</u>	<u>Health Care Facilities Code</u>	<u>504.1.4</u>
<u>NFPA 101-15</u>	<u>Life Safety Code</u>	<u>603.6</u>
<u>UL 723-08</u>	<u>Standard for Test for Surface Burning Characteristics of Building Materials with Revisions Through September 2010</u>	<u>906.9</u>
<u>UL 790-04</u>	<u>Standard Test Methods for Tests of Roof Coverings with Revisions through October 2008</u>	<u>906.7</u>

<u>TFI RMIP-09</u>	<u>Aboveground Storage Tanks Containing Liquid Fertilizer, Recommended Mechanical Integrity Practices</u>	<u>1101.16 ]</u>
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**13VAC5-63-440. Chapter 14 [ Performance-compliance methods Compliance alternative – Change of occupancy ].**

A. Change Section 1401.1 of the IEBC to read:

1401.1 Scope. [ The provisions of this chapter shall apply to the alteration, repair, addition, and change of occupancy of existing structures, including historic and moved structures, as referenced in Section 301.1.3. ] The provisions of this chapter are intended to maintain or increase the current degree of public safety, health, and general welfare in existing buildings [ or structures, ] while permitting [ repair, alteration, addition, and change changes ] of occupancy without requiring full compliance with [ Chapters 5 through 12 Chapter 7 ], except where compliance with other provisions of this code is specifically required in this chapter.

[ Exception: The provisions of this chapter shall not apply to buildings with occupancies in Group H or I. ]

B. [ Change Section 1401.2 of the IEBC to read:

1401.2 Applicability. Work involving rehabilitation, additions, alterations, or changes of occupancy shall be made to conform to the requirements of this chapter or the provisions of Chapters 5 through 13. The provisions in Sections 1401.2.1 through 1401.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, I 2, M, R, S, and U. These provisions shall not apply to buildings with occupancies in Group H or I 1, I 3, or I 4.

Exception: The provisions of this chapter shall not apply to changes of occupancy involving Group I 2. ]

B. [ C. Add an exception to Section 1401.2.1 of the IEBC to read:

Exception: Plumbing, mechanical and electrical systems in buildings undergoing a change of occupancy shall be subject to any applicable requirements of Chapter 10. ]

C. Change Section 1401.2.5 of the IEBC to read:

1401.2.5 Accessibility requirements. All portions of the buildings proposed for change of occupancy and all alterations to existing buildings shall conform to the applicable accessibility provisions of Section 410.

[ Change Section 1401.1.1 of the IEBC to read:

1401.1.1 Complete change of occupancy. Where an entire existing building undergoes a change of occupancy, the applicable provisions of this chapter for the new occupancy shall be used to determine compliance with this code.

Exception: Plumbing, mechanical, and electrical systems in buildings undergoing a change of occupancy shall be subject to any applicable requirements of Chapter 7.

C. Change Section 1401.1.2 of the IEBC to read:

1401.1.2 Partial change of occupancy. Where a portion of the building undergoes a change of occupancy and that portion is separated from the remainder of the building with fire barrier or horizontal assemblies having a fire-resistance rating as required by Table 508.4 of the VCC or Section R317 of the International Residential Code for the separate occupancies, or with approved compliance alternatives, the portion changed shall be made to conform to the provisions of this chapter.

Where a portion of the building undergoes a change of occupancy and that portion is not separated from the remainder of the building with fire barriers or horizontal assemblies having a fire-resistance rating as required by Table 508.4 of the VCC or Section R317 of the International Residential Code for the separate occupancies, or with approved compliance alternatives, the provisions of this chapter which apply to each occupancy shall apply to the entire building. Where there are conflicting provisions, those requirements that are the most restrictive shall apply to the entire building or structure.

D. Change Section 1401.2 of the IEBC to read:

1401.2 Accessibility requirements. All portions of the buildings proposed for change of occupancy to existing buildings or structures shall conform to the applicable accessibility provisions of Chapter 4.

E. Change Section 1401.3 of the IEBC to read:

1401.3 Acceptance. For changes of occupancy to existing buildings that are evaluated in accordance with this chapter, compliance with this chapter shall be accepted by the code official.

F. Change Section 1401.3.1 of the IEBC to read:

1401.3.1 Compliance with flood hazard provisions. In flood hazard areas, buildings or structures that are evaluated in accordance with this chapter shall comply with Section 1612 of the VCC or Section R322 of the International Residential Code, as applicable if the work covered by this chapter constitutes substantial improvement.

G. Change Section 1401.4 of the IEBC to read:

1401.4 Investigation and evaluation. For proposed work covered by this chapter, the building owner shall cause the existing building to be investigated and evaluated in accordance with the provisions of Sections 1401.4 through 1401.9.

H. Change Section 1401.4.1 of the IEBC to read:

1401.4.1 Structural analysis. The owner shall have a structural analysis of the existing building made to determine adequacy of structural systems for the proposed alteration, addition, or change of occupancy. The analysis shall demonstrate that the building with the work completed is capable of resisting the loads specified in Chapter 16 of the VCC.

I. Change Section 1401.4.2 of the IEBC to read:

1401.4.2 Submittal. The results of the investigation and evaluation as required in Section 1401.4 along with proposed compliance alternatives shall be submitted to the code official.

J. Change Section 1401.4.3 of the IEBC to read:

1401.4.3 Determination of compliance. The code official shall determine whether the existing building with the proposed change of occupancy complies with the provisions of this section in accordance with the evaluation process in Sections 1401.5 through 1401.9.

K. Change Section 1401.5 of the IEBC to read:

1401.5 Evaluation. The evaluation shall be comprised of three categories: fire safety, means of egress, and general safety, as defined in Sections 1401.5.1 through 1401.5.3.

L. Change Section 1401.5.1 of the IEBC to read:

1401.5.1 Fire safety. Included within the fire safety category are the structural fire resistance, automatic fire detection, fire alarm, automatic sprinkler system, and fire suppression system features of the facility.

M. Change Section 1401.5.2 of the IEBC to read:

1401.5.2 Means of egress. Included within the means of egress category are the configuration, characteristics, and support features for means of egress in the facility.

N. Change Section 1401.5.3 of the IEBC to read:

1401.5.3 General safety. Included within the general safety category are the fire safety parameters and the means-of-egress parameters.

O. Change Section 1401.6 of the IEBC to read:

1401.6 Evaluation process. The evaluation process specified in this code shall be followed in its entirety to evaluate existing buildings. Table 1401.7 shall be utilized for tabulating the results of the evaluation. References to



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# Regulations

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other sections of this code indicate that compliance with those sections is required in order to gain credit in the evaluation outlined in this code. In applying this section to a building with mixed occupancies, where the separation between the mixed occupancies does not qualify for any category indicated in Section 1401.6.16, the score for each occupancy shall be determined, and the lower score determined for each section of the evaluation process shall apply to the entire building.

Where the separation between the mixed occupancies qualifies for any category indicated in Section 1401.6.16, the score for each occupancy shall apply to each portion, or smoke compartment of the building based on the occupancy of the space.

P. Change Section 1401.6.1 of the IEBC to read:

1401.6.1 Building height and number of stories. The value for building height and number of stories shall be the lesser value determined by the formula in Section 1401.6.1.1. Section 504 of the International Building Code shall be used to determine the allowable height and number of stories of the building. Subtract the actual building height from the allowable height and divide by 12-1/2 feet (3810 mm). Enter the height value and its sign (positive or negative) in Table 1401.7 under Safety Parameter 1401.6.1, Building Height, for fire safety, means of egress, and general safety. The maximum score for a building shall be 10.

Q. Change Section 1401.6.2 of the IEBC to read:

1401.6.2 Building area. The value for building area shall be determined by the formula in Section 1401.6.2.2. Section 506 of the VCC and the formula in Section 1401.6.2.1 shall be used to determine the allowable area of the building. Subtract the actual building area from the allowable area and divide by 1,200 square feet (112 m<sup>2</sup>). Enter the area value and its sign (positive or negative) in Table 1401.7 under Safety Parameter 1401.6.2, Building Area, for fire safety, means of egress and general safety. In determining the area value, the maximum permitted positive value for area is 50% of the fire safety score as listed in Table 1401.8, Mandatory Safety Scores.

R. Change Section 1401.6.4 of the IEBC to read:

1401.6.4 Tenant and dwelling unit separations. Evaluate the fire-resistance rating of floors and walls separating tenants, including dwelling units, and not evaluated under Sections 1401.6.3 and 1401.6.5.

S. Change Section 1401.6.7 of the IEBC to read:

1401.6.7 HVAC systems. Evaluate the ability of the HVAC system to resist the movement of smoke and fire beyond the point of origin. Under the categories in Section 1401.6.7.1, determine the appropriate value and enter that value into Table 1401.7 under Safety Parameter 1401.6.7,

HVAC Systems, for fire safety, means of egress, and general safety.

T. Change Section 1401.6.8 of the IEBC to read:

1401.6.8 Automatic fire detection. Evaluate the smoke detection capability based on the location and operation of automatic fire detectors in accordance with Section 907 of the VCC and the International Mechanical Code. Under the categories and occupancies in Table 1401.6.8, determine the appropriate value and enter that value into Table 1401.7 under Safety Parameter 1401.6.8, Automatic Fire Detection, for fire safety, means of egress, and general safety.

U. Change Section 1401.6.8.1 of the IEBC to read:

1401.6.8.1 Categories. The categories for automatic fire detection are:

1. Category a - None.
2. Category b - Existing smoke detectors in HVAC systems.
3. Category c - Smoke detectors in HVAC systems. The detectors are installed in accordance with the requirements for new buildings in the International Mechanical Code.
4. Category d - Smoke detectors throughout all floor areas other than individual sleeping units, tenant spaces, and dwelling units.
5. Category e - Smoke detectors installed throughout the floor area.
6. Category f - Smoke detectors in corridors only.

V. Change Section 1401.6.14 of the IEBC to read:

1401.6.14 Elevator control. Evaluate the passenger elevator equipment and controls that are available to the fire department to reach all occupied floors. Emergency recall and in-car operation of elevators shall be provided in accordance with the building code under which the building or the affected portion thereof was constructed or previously approved. Under the categories and occupancies in Table 1401.5.14, determine the appropriate value and enter that value into Table 1401.7 under Safety Parameter 1401.5.14, Elevator Control, for fire safety, means of egress and general safety. The values shall be zero for a single-story building.

W. Change Section 1401.6.14.1 of the IEBC to read:

1401.6.14.1 Categories. The categories for elevator controls are:

1. Category a - No elevator.
2. Category b - Any elevator without Phase I emergency recall operation and Phase II emergency in-car operation.

3. Category c - All elevators with Phase I emergency recall operation and Phase II emergency in-car operation as required by the building code under which the building or the affected portion thereof was constructed or previously approved.

4. Category d - All meet Category c or Category b where permitted to be without Phase I emergency recall operation and Phase II emergency in-car operation, and there is at least one elevator that complies with new construction requirements serves all occupied floors.

**X. Change Section 1401.6.16 of the IEBC to read:**

1401.6.16 Mixed occupancies. Where a building has two or more occupancies that are not in the same occupancy classification, the separation between the mixed occupancies shall be evaluated in accordance with this section. Where there is no separation between the mixed occupancies or the separation between mixed occupancies does not qualify for any of the categories indicated in Section 1401.6.16.1, the building shall be evaluated as indicated in Section 1401.6, and the value for mixed occupancies shall be zero. Under the categories and occupancies in Table 1401.6.16, determine the appropriate value and enter that value into Table 1401.7 under Safety Parameter 1401.6.16, Mixed Occupancies, for fire safety and general safety. For buildings without mixed occupancies, the value shall be zero.

**Y. Change Section 1401.6.17 of the IEBC to read:**

1401.6.17 Automatic sprinklers. Evaluate the ability to suppress a fire based on the installation of an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC. "Required sprinklers" shall be based on the requirements of this code. Under the categories and occupancies in Table 1401.6.17, determine the appropriate value and enter that value into Table 1401.7 under Safety Parameter 1401.6.17, Automatic Sprinklers, for fire safety, means of egress divided by two, and general safety. High-rise buildings defined in Chapter 2 of the VCC that undergo a change of occupancy to Group R shall be equipped throughout with an automatic sprinkler system in accordance with Section 403 of the VCC and Chapter 9 of the VCC.

**Z. Change Section 1401.6.20 of the IEBC to read:**

1401.6.20 Smoke compartmentation. Evaluate the smoke compartments for compliance with Section 407.5 of the VCC. Under the categories and occupancies in Table 1401.6.20, determine the appropriate smoke compartmentation value (SCV) and enter that value into Table 1401.7 under Safety Parameter 1401.6.20, Smoke Compartmentation, for fire safety, means of egress and general safety. ]

**13VAC5-63-441. Chapter 15 Construction safeguards.**

Delete Chapter 15 of the IEBC in its entirety.

~~Change the referenced standards in Delete Chapter 16 of the IEBC [ as follows (standards not shown remain the same): in its entirety.~~

Standard reference number	Title	Referenced in code section number
API 653-09	Tank Inspection, Repair, Alteration and Reconstruction	1701.16
<del>TFI RMIP-09</del>	<del>Aboveground Storage Tanks Containing Liquid Fertilizer, Recommended Mechanical Integrity Practices</del>	<del>1701.16 ]</del>

Part III  
Maintenance

**13VAC5-63-450. Chapter 1 Administration; Section 101 General.**

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

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

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

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# Regulations

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

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

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

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

5. The provisions of Chapters 2 - 8 of the IPMC supersede any provisions of the codes and standards referenced in the IPMC that address the same subject matter and impose differing requirements.

~~G. Section 101.7 Administrative provisions. The provisions of Chapter 1 establish administrative requirements, which include but are not limited to provisions relating to the scope of the code, enforcement, fees, permits, inspections and disputes. Any provisions of Chapters 2 - 8 of the IPMC or any provisions of the codes and standards referenced in the IPMC which address the same subject matter to a lesser or greater extent are deleted and replaced by the provisions of Chapter 1. Further, any administrative requirements contained in the state amendments to the IPMC shall be given the same precedence as the provisions of Chapter 1. Notwithstanding the above, where administrative requirements of Chapters 2 - 8 of the IPMC or of the codes and standards referenced in the IPMC are specifically identified as valid administrative requirements in Chapter 1 of this code or in the state amendments to the IPMC, then such requirements are not deleted and replaced.~~

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

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

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

## **13VAC5-63-470. Section 103 Application of code.**

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

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

C. 103.2.1 Maintenance of nonrequired components and systems. Nonrequired components and systems may be

discontinued in use provided that no hazard results from such discontinuance of use.

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

D. 103.2.2 Responsibility. The owner of a structure shall provide and maintain all buildings, structures, systems, facilities and associated equipment in compliance with this code unless it is specifically expressed or implied that it is the responsibility of the tenant or occupant. ]

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

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

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

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

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

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

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

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

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

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

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

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

The rental inspection ordinance may include a provision that requires the owners of dwelling units in a rental inspection district to notify the building department in writing if the dwelling unit of the owner is used for residential rental purposes. The building department may develop a form for such purposes. The rental inspection ordinance shall not

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# Regulations

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include a registration requirement or a fee of any kind associated with the written notification pursuant to this subdivision. A rental inspection ordinance may not require that the written notification from the owner of a dwelling unit subject to a rental inspection ordinance be provided to the building department in less than 60 days after the adoption of a rental inspection ordinance. However, there shall be no penalty for the failure of an owner of a residential rental dwelling unit to comply with the provisions of this subsection, unless and until the building department provides personal or written notice to the property owner, as provided in this section. In any event, the sole penalty for the willful failure of an owner of a dwelling unit who is using the dwelling unit for residential rental purposes to comply with the written notification requirement shall be a civil penalty of up to \$50. For purposes of this subsection, notice sent by regular first-class mail to the last known address of the owner as shown on the current real estate tax assessment books or current real estate tax assessment records shall be deemed compliance with this requirement.

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

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

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

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

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

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

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

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

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

## **13VAC5-63-480. Section 104 Enforcement, generally.**

A. Section 104.1 Scope of enforcement. This section establishes the requirements for enforcement of this code in accordance with subdivision C 1 of § 36-105 of the Code of Virginia. The local governing body may also inspect and enforce the provisions of the USBC for existing buildings and structures, whether occupied or not. Such inspection and enforcement shall be carried out by an agency or department designated by the local governing body.

If In accordance with subdivision C 3 of § 36-105 of the Code of Virginia, if the local building department receives a complaint that a violation of this code exists that is an immediate and imminent threat to the health or safety of the owner, tenant, or occupants of any building or structure, or the owner, occupant, or tenant of any nearby building or structure, and the owner, occupant, or tenant of the building or structure that is the subject of the complaint has refused to allow the code official or his agent to have access to the subject building or structure, the code official or his agent may present sworn testimony to make an affidavit under oath before a magistrate or a court of competent jurisdiction and request that the magistrate or court grant the code official or his agent an inspection warrant to enable the code official or his agent to enter the subject building or structure for the purpose of determining whether violations of this code exist. After issuing a warrant under this section, the magistrate or judge shall file the affidavit in a manner prescribed by § 19.2-54 of the Code of Virginia. After executing the warrant, the code official or his agents shall return the warrant to the clerk of the circuit court of the city or county wherein the inspection was made. The code official or his agent shall make a reasonable effort to obtain consent from the owner, occupant, or tenant of the subject building or structure prior to seeking the issuance of an inspection warrant under this section.

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

B. Section 104.1.1 Transfer of ownership. In accordance with subdivision C 4 of § 36-105 of the Code of Virginia, if the local building department has initiated an enforcement action against the owner of a building or structure and such owner subsequently transfers the ownership of the building or structure to an entity in which the owner holds an ownership interest greater than 50%, the pending enforcement action shall continue to be enforced against the owner.

C. Section 104.2 Fees. In accordance with subdivision C 7 of § 36-105 of the Code of Virginia, fees may be levied by the local governing body in order to defray the cost of enforcement and appeals. For the purposes of this section, "defray the cost" may include the fair and reasonable costs incurred for such enforcement during normal business hours, but shall not include overtime costs unless conducted outside of the normal working hours established by the locality. A schedule of such costs shall be adopted by the local governing body in a local ordinance. A locality shall not charge overtime rate for inspections conducted during the normal business hours established by the locality. Nothing in this provision shall be construed to prohibit a private entity from conducting such inspections, provided the private entity has been approved to perform such inspections in accordance with the written policy of the code official for the locality.

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

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

Note: Continuing education and periodic training requirements for DHCD certifications are set out in the VCS.

F. Section 104.4 Local enforcing agency. In jurisdictions enforcing this code, the local governing body shall designate the agency within the local government responsible for such enforcement and appoint a code official. The local governing body may also utilize technical assistants to assist the code official in the enforcement of this code. A permanently appointed code official shall not be removed from office except for cause after having been afforded a full opportunity to be heard on specific and relevant charges by and before the appointing authority. DHCD shall be notified by the appointing authority within 30 days of the appointment or release of a permanent or acting code official and within 60 days after retaining or terminating a technical assistant.

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

G. Section 104.4.1 Qualifications of code official and technical assistants. The code official shall have at least five years of building experience as a licensed professional engineer or architect, building, fire or trade inspector, contractor, housing inspector or superintendent of building, fire or trade construction or at least five years of building experience after obtaining a degree in architecture or engineering, with at least three years in responsible charge of work. Any combination of education and experience that would confer equivalent knowledge and ability shall be deemed to satisfy this requirement. The code official shall have general knowledge of sound engineering practice in respect to the design and construction of structures, the basic principles of fire prevention, the accepted requirements for means of egress and the installation of elevators and other service equipment necessary for the health, safety and general welfare of the occupants and the public. The local governing body may establish additional qualification requirements.

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

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# Regulations

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

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

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

~~I.~~ I. Section 104.4.3 Noncertified code official. Except for a code official exempt from certification under the exception to Section 104.4.2, any acting or permanent code official who is not certified as a code official in accordance with the VCS shall attend the core module of the Virginia Building Code Academy or an equivalent course in an individual or regional code academy accredited by DHCD within 180 days of appointment. This requirement is in addition to meeting the certification requirement in Section 104.4.2.

Note: Continuing education and periodic training requirements for DHCD certifications are set out in the VCS.

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

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

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

~~M.~~ M. L. Section 104.5 Powers and duties, generally. The code official shall enforce this code as set out herein and as

interpreted by the State Review Board and shall issue all necessary notices or orders to ensure compliance with the code.

~~N.~~ N. M. Section 104.5.1 Delegation of authority. The code official may delegate powers and duties except where such authority is limited by the local government. When such delegations are made, the code official shall be responsible for assuring that they are carried out in accordance with the provisions of this code.

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

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

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

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

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

Failure to approve a report shall be in writing within five working days of receiving it, stating the reasons for rejection.

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

~~U. T. Section 104.5.3.4 Qualifications. In determining third-party qualifications, the code official may consider such items as DHCD inspector certification, other state or national certifications, state professional registrations, related experience, education, and any other factors that would demonstrate competency and reliability to conduct inspections.~~

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

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

~~X. [ W. Section 104.5.4.2 Notice of violation. If the code official determines there are violations of this code other than those for unsafe structures, unsafe equipment or structures unfit for human occupancy under Section 105, the code official may issue a notice of violation to be communicated promptly in writing to the owner or the person responsible for the maintenance or use of the building or structure in lieu of a correction notice as provided for in Section 104.5.4.1. In addition, the code official shall issue a notice of violation for any uncorrected violation remaining from a correction notice established in Section 104.5.4.1. A notice of violation shall be issued by the code official before initiating legal proceedings unless the conditions violate the unsafe building conditions of Section 105 and the provisions established therein are followed. The code official shall provide the section numbers to the owner for any code provision cited in the notice of~~

~~violation. The notice shall require correction of the violation or violations within a reasonable time unless an emergency condition exists as provided under the building provisions of Section 105. The owner or person to whom the notice of violation has been issued shall be responsible for contacting the code official within the time frame established for any reinspections to assure the violations have been corrected. The code official will be responsible for making such inspection and verifying the violations have been corrected. In addition, the notice of violation shall indicate the right of appeal by referencing the appeals section of this code. ]~~

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

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

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

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

~~U. 104.5.4 Manufactured home park tenant notification. If a notice of violation is issued to a manufactured home park owner for violations of this code that jeopardize the health or safety of tenants of the park, a copy of the notice shall be provided to each affected tenant of the manufactured home park. The terms, "manufactured home park" and "owner," as used in this section, shall be as defined in the Manufactured Home Lot Rental Act (Chapter 13.3 (§ 55-248.41 et seq.) of Title 55 of the Code of Virginia).~~

**13VAC5-63-485. Section 105 Violations.**

~~A. Section 105.1 Violation a misdemeanor; civil penalty. In accordance with § 36-106 of the Code of Virginia, it shall be unlawful for any owner or any other person, firm or corporation, on or after the effective date of any code provisions, to violate any such provisions. Any locality may~~



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# Regulations

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adopt an ordinance that establishes a uniform schedule of civil penalties for violations of specified provisions of the code that are not abated or remedied promptly after receipt of a notice of violation from the local enforcement officer.

Note: See the full text of Section 36-106 of the Code of Virginia for additional requirements and criteria pertaining to legal action relative to violations of the code.

B. Section 105.2 Notices, reports and orders. Upon findings by the code official that violations of this code exist, the code official shall issue a correction notice or notice of violation to the owner or the person responsible for the maintenance of the structure. Work done to correct violations of this code subject to the permit, inspection and approval provisions of the VCC shall not be construed as authorization to extend the time limits established for compliance with this code.

C. Section 105.3 Correction notice. The correction notice shall be a written notice of the defective conditions. The correction notice shall require correction of the violation within a reasonable time unless an emergency condition exists as provided under the unsafe building provisions of Section 106. Upon request, the correction notice shall reference the code section that serves as the basis for the defects and shall state that such defects shall be corrected and reinspected in a reasonable time designated by the code official.

D. Section 105.4 Notice of violation. If the code official determines there are violations of this code a written notice of violation may be issued to the owner or the person responsible for the maintenance or use of the building or structure in lieu of a correction notice as provided for in Section 105.3. In addition, the code official shall issue a notice of violation for any uncorrected violation remaining from a correction notice established in Section 105.3. The code official shall provide the section numbers to the owner for any code provisions cited in the notice of violation. The notice shall require correction of the violation within a reasonable time. The owner or person to whom the notice of violation has been issued shall be responsible for contacting the code official within the timeframe established for any reinspections to assure the violations have been corrected. The code official will be responsible for making such inspection and verifying the violations have been corrected. In addition, the notice of violation shall indicate the right of appeal by referencing the appeals section of this code.

Exceptions:

1. Notices issued and legal proceedings or emergency actions taken under Section 106 for unsafe structures, unsafe equipment, or structures unfit for human occupancy.
2. Notices issued for failing to maintain buildings and structures as required by Section 103.2, as evidenced by multiple or repeated violations on the same property are

not required to include a compliance deadline for correcting defects.

E. Section 105.5 Coordination of inspections. The code official shall coordinate inspections and administrative orders with any other state or local agencies having related inspection authority and shall coordinate those inspections required by the Virginia Statewide Fire Prevention Code (13VAC5-51) for maintenance of fire protection devices, equipment, and assemblies so that the owners and occupants will not be subjected to numerous inspections or conflicting orders.

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

F. Section 105.6 Further action when violation not corrected. If the responsible party has not complied with the notice of violation, the code official may request the legal counsel of the locality to institute the appropriate legal proceedings to restrain, correct or abate the violation or to require the removal or termination of the use of the building or structure involved. In cases where the locality or legal counsel so authorizes, the code official may issue or obtain a summons or warrant. Compliance with a notice of violation notwithstanding, the code official may request legal proceedings be instituted for prosecution when a person, firm or corporation is served with three or more notices of violation for the same property.

G. Section 105.7 Penalties and abatement. Penalties for violations of this code shall be as set out in § 36-106 of the Code of Virginia. The successful prosecution of a violation of the code shall not preclude the institution of appropriate legal action to require correction or abatement of a violation. ]

**13VAC5-63-490. Section [ ~~405 106~~ ] Unsafe structures or structures unfit for human occupancy.**

A. Section [ ~~405-1 106.1~~ ] General. This section shall apply to existing structures which are classified as unsafe or unfit for human occupancy. All conditions causing such structures to be classified as unsafe or unfit for human occupancy shall be remedied or as an alternative to correcting such conditions, the structure may be vacated and secured against public entry or razed and removed. Vacant and secured structures shall still be subject to other applicable requirements of this code. Notwithstanding the above, when the code official determines that an unsafe structure or a structure unfit for human occupancy constitutes such a hazard that it should be razed or removed, then the code official shall be permitted to order the demolition of such structures in accordance with applicable requirements of this code.

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

B. Section [ ~~405-2 106.2~~ ] Inspection of unsafe or unfit structures. The code official shall inspect any structure reported or discovered as unsafe or unfit for human habitation

and shall prepare a report to be filed in the records of the local enforcing agency and a copy issued to the owner. The report shall include the use of the structure and a description of the nature and extent of any conditions found.

C. Section [ ~~405.3~~ 106.3 ] Unsafe conditions not related to maintenance. When the code official finds a condition that constitutes a serious and dangerous hazard to life or health in a structure constructed prior to the initial edition of the USBC and when that condition is of a cause other than improper maintenance or failure to comply with state or local building codes that were in effect when the structure was constructed, then the code official shall be permitted to order those minimum changes to the design or construction of the structure to remedy the condition.

D. Section [ ~~405.3.1~~ 106.3.1 ] Limitation to requirements for retrofitting. In accordance with Section 103.2, this code does not generally provide for requiring the retrofitting of any structure. However, conditions may exist in structures constructed prior to the initial edition of the USBC because of faulty design or equipment that constitute a danger to life or health or a serious hazard. Any changes to the design or construction required by the code official under this section shall be only to remedy the serious hazard or danger to life or health and such changes shall not be required to fully comply with the requirements of the VCC applicable to newly constructed buildings or structures.

E. Section [ ~~405.4~~ 106.4 ] Notice of unsafe structure or structure unfit for human occupancy. When a structure is determined to be unsafe or unfit for human occupancy by the code official, a written notice of unsafe structure or structure unfit for human occupancy shall be issued by personal service to the owner, the owner's agent or the person in control of such structure. The notice shall specify the corrections necessary to comply with this code, or if the structure is required to be demolished, the notice shall specify the time period within which the demolition must occur. Requirements in Section [ ~~404.5.4~~ 105.2 ] for notices of violation are also applicable to notices issued under this section to the extent that any such requirements are not in conflict with the requirements of this section.

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

F. Section [ ~~405.4.1~~ 106.4.1 ] Vacating unsafe structure. If the code official determines there is actual and immediate danger to the occupants or public, or when life is endangered by the occupancy of an unsafe structure, the code official shall be authorized to order the occupants to immediately vacate the unsafe structure. When an unsafe structure is ordered to be vacated, the code official shall post a notice with the following wording at each entrance: "THIS STRUCTURE IS UNSAFE AND ITS OCCUPANCY (OR USE) IS PROHIBITED BY THE CODE OFFICIAL." After posting, occupancy or use of the unsafe structure shall be

prohibited except when authorized to enter to conduct inspections, make required repairs or as necessary to demolish the structure.

G. Section [ ~~405.5~~ 106.5 ] Posting of notice. If the notice is unable to be issued by personal service as required by Section [ ~~405.4~~ 106.4 ], then the notice shall be sent by registered or certified mail to the last known address of the responsible party and a copy of the notice shall be posted in a conspicuous place on the premises.

H. Section [ ~~405.6~~ 106.6 ] Posting of placard. In the case of a structure unfit for human habitation, at the time the notice is issued, a placard with the following wording shall be posted at the entrance to the structure: "THIS STRUCTURE IS UNFIT FOR HABITATION AND ITS USE OR OCCUPANCY HAS BEEN PROHIBITED BY THE CODE OFFICIAL." In the case of an unsafe structure, if the notice is not complied with, a placard with the above wording shall be posted at the entrance to the structure. After a structure is placarded, entering the structure shall be prohibited except as authorized by the code official to make inspections, to perform required repairs or to demolish the structure. In addition, the placard shall not be removed until the structure is determined by the code official to be safe to occupy, nor shall the placard be defaced.

I. Section [ ~~405.7~~ 106.7 ] Revocation of certificate of occupancy. If a notice of unsafe structure or structure unfit for human habitation is not complied with within the time period stipulated on the notice, the code official shall be permitted to request the local building department to revoke the certificate of occupancy issued under the VCC.

J. Section [ ~~405.8~~ 106.8 ] Vacant and open structures. When an unsafe structure or a structure unfit for human habitation is open for public entry at the time a placard is issued under Section [ ~~405.6~~ 106.6 ], the code official shall be permitted to authorize the necessary work to make such structure secure against public entry whether or not legal action to compel compliance has been instituted.

K. Section [ ~~405.9~~ 106.9 ] Emergency repairs and demolition. To the extent permitted by the locality, the code official may authorize emergency repairs to unsafe structures or structures unfit for human habitation when it is determined that there is an [ ~~immediate~~ imminent ] danger of any portion of the unsafe structure or structure unfit for human habitation collapsing or falling and when life is endangered. Emergency repairs may also be authorized where there is a code violation resulting in the immediate serious and imminent threat to the life and safety of the occupants. The code official shall be permitted to authorize the necessary work to make the structure temporarily safe whether or not legal action to compel compliance has been instituted. In addition, whenever an owner of an unsafe structure or structure unfit for human habitation fails to comply with a notice to demolish issued under Section [ ~~405.4~~ 106.4 ] in the time period stipulated, the

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# Regulations

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code official shall be permitted to cause the structure to be demolished. In accordance with §§ 15.2-906 and 15.2-1115 of the Code of Virginia, the legal counsel of the locality may be requested to institute appropriate action against the property owner to recover the costs associated with any such emergency repairs or demolition and every such charge that remains unpaid shall constitute a lien against the property on which the emergency repairs or demolition were made and shall be enforceable in the same manner as provided in Articles 3 (~~§ 58.1-3490 et seq.~~) (§ 58.1-3940 et seq.) and 4 (§ 58.1-3965 et seq.) of Chapter 39 of Title 58.1 of the Code of Virginia.

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

L. Section [~~405.40~~ 106.10] Closing of streets. When necessary for public safety, the code official shall be permitted to order the temporary closing of sidewalks, streets, public ways or premises adjacent to unsafe or unfit structures and prohibit the use of such spaces.

**[ 13VAC5-63-500. Section ~~406~~ 107 Appeals.**

A. Section ~~406.1~~ 107.1 Establishment of appeals board. In accordance with § 36-105 of the Code of Virginia, there shall be established within each local enforcing agency a LBBCA. Whenever a county or a municipality does not have such a LBBCA, the local governing body shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by DHCD for such appeals resulting therefrom. Fees may be levied by the local governing body in order to defray the cost of such appeals. The LBBCA for hearing appeals under the VCC shall be permitted to serve as the appeals board required by this section. The locality is responsible for maintaining a duly constituted LBBCA prepared to hear appeals within the time limits established in this section. The LBBCA shall meet as necessary to assure a duly constituted board, appoint officers as necessary, and receive such training on the code as may be appropriate or necessary from staff of the locality.

B. Section ~~406.2~~ 107.2 Membership of board. The LBBCA shall consist of at least five members appointed by the locality for a specific term of office established by written policy. Alternate members may be appointed to serve in the absence of any regular members and as such, shall have the full power and authority of the regular members. Regular and alternate members may be reappointed. Written records of

current membership, including a record of the current chairman and secretary shall be maintained in the office of the locality. In order to provide continuity, the terms of the members may be of different length so that less than half will expire in any one-year period.

C. Section ~~406.3~~ 107.3 Officers and qualifications of members. The LBBCA shall annually select one of its regular members to serve as chairman. When the chairman is not present at an appeal hearing, the members present shall select an acting chairman. The locality or the chief executive officer of the locality shall appoint a secretary to the LBBCA to maintain a detailed record of all proceedings. Members of the LBBCA shall be selected by the locality on the basis of their ability to render fair and competent decisions regarding application of the USBC and shall to the extent possible, represent different occupational or professional fields relating to the construction industry. At least one member should be an experienced builder; at least one member should be an RDP, and at least one member should be an experienced property manager. Employees or officials of the locality shall not serve as members of the LBBCA.

D. Section ~~406.4~~ 107.4 Conduct of members. No member shall hear an appeal in which that member has a conflict of interest in accordance with the State and Local Government Conflict of Interests Act (§ 2.2-3100 et seq. of the Code of Virginia). Members shall not discuss the substance of an appeal with any other party or their representatives prior to any hearings.

E. Section ~~406.5~~ 107.5 Right of appeal; filing of appeal application. Any person aggrieved by the local enforcing agency's application of this code or the refusal to grant a modification to the provisions of this code may appeal to the LBBCA. The applicant shall submit a written request for appeal to the LBBCA within 14 calendar days of the receipt of the decision being appealed. The application shall contain the name and address of the owner of the building or structure and, in addition, the name and address of the person appealing, when the applicant is not the owner. A copy of the code official's decision shall be submitted along with the application for appeal and maintained as part of the record. The application shall be marked by the LBBCA to indicate the date received. Failure to submit an application for appeal within the time limit established by this section shall constitute acceptance of a code official's decision.

F. Section ~~406.6~~ 107.6 Meetings and postponements. The LBBCA shall meet within 30 calendar days after the date of receipt of the application for appeal, except that a period of up to 45 calendar days shall be permitted where the LBBCA has regularly scheduled monthly meetings. A longer time period shall be permitted if agreed to by all the parties involved in the appeal. A notice indicating the time and place of the hearing shall be sent to the parties in writing to the addresses listed on the application at least 14 calendar days

prior to the date of the hearing, except that a lesser time period shall be permitted if agreed to by all the parties involved in the appeal. When a quorum of the LBBCA is not present at a hearing to hear an appeal, any party involved in the appeal shall have the right to request a postponement of the hearing. The LBBCA shall reschedule the appeal within 30 calendar days of the postponement, except that a longer time period shall be permitted if agreed to by all the parties involved in the appeal.

G. Section ~~406.7~~ 107.7 Hearings and decision. All hearings before the LBBCA shall be open meetings and the appellant, the appellant's representative, the locality's representative and any person whose interests are affected by the code official's decision in question shall be given an opportunity to be heard. The chairman shall have the power and duty to direct the hearing, rule upon the acceptance of evidence and oversee the record of all proceedings. The LBBCA shall have the power to uphold, reverse, or modify the decision of the official by a concurring vote of a majority of those present. Decisions of the LBBCA shall be final if no further appeal is made. The decision of the LBBCA shall be ~~by resolution explained in writing~~, signed by the chairman and retained as part of the record of the appeal. Copies of the ~~resolution written decision~~ shall be sent to all parties by certified mail. In addition, the ~~resolution~~ written decision shall contain the following wording:

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

H. Section ~~406.8~~ 107.8 Appeals to the State Review Board. After final determination by the LBBCA in an appeal, any person who was a party to the appeal may further appeal to the State Review Board. In accordance with § 36-98.2 of the Code of Virginia for state-owned buildings and structures, appeals by an involved state agency from the decision of the code official for state-owned buildings or structures shall be made directly to the State Review Board. The application for appeal shall be made to the State Review Board within 21 calendar days of the receipt of the decision to be appealed. Failure to submit an application within that time limit shall constitute an acceptance of the code official's decision. For appeals from a LBBCA, a copy of the code official's decision and the resolution of the LBBCA shall be submitted with the application for appeal to the State Review Board. Upon request by the Office of the State Review Board, the LBBCA shall submit a copy of all pertinent information from the record of the appeal. In the case of appeals involving state-owned buildings or structures, the involved state agency shall submit a copy of the code official's decision and other relevant information with the application for appeal to the

State Review Board. Procedures of the State Review Board are in accordance with Article 2 (§ 36-108 et seq.) of Chapter 6 of Title 36 of the Code of Virginia. Decisions of the State Review Board shall be final if no further appeal is made. ]

**13VAC5-63-510. Chapter 2 Definitions.**

A. Change Section 201.3 of the IPMC to read:

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the IBC, IFC, IFGC, IPC, IMC, International Existing Building Code, IRC, International Zoning Code or NFPA 70, such terms shall have the meanings ascribed to them as stated in those codes, except that terms defined in the VCC shall be used for this code and shall take precedence over other definitions.

B. Change Section 201.5 of the IPMC to read:

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

~~B. C.~~ Add the following definitions to Section 202 of the IPMC to read:

[ Applicable building code. The local or statewide building code and referenced standards in effect at the time the building or portion thereof was constructed, altered, renovated or underwent a change of occupancy. See Section 103 for the application of the code.

Maintained. To keep unimpaired in an appropriate condition, operation, and continuance as installed in accordance with the applicable building code, or as previously approved, and in accordance with the applicable operational and maintenance provisions of this code. ]

Structure unfit for human occupancy. An existing structure determined by the code official to be dangerous to the health, safety and welfare of the occupants of the structure or the public because (i) of the degree to which the structure is in disrepair or lacks maintenance, ventilation, illumination, sanitary or heating facilities or other essential equipment, or (ii) the required plumbing and sanitary facilities are inoperable.

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

Unsafe structure. An existing structure (i) determined by the code official to be dangerous to the health, safety and welfare of the occupants of the structure or the public, (ii)

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# Regulations

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that contains unsafe equipment, or (iii) that is so damaged, decayed, dilapidated, structurally unsafe or of such faulty construction or unstable foundation that partial or complete collapse is likely. A vacant existing structure unsecured or open shall be deemed to be an unsafe structure.

D. Delete the following definitions from Section 202 of the IEBC:

Condemn

Cost of such demolition of emergency repairs

Equipment support

[ Imminent danger ]

Inoperable motor vehicle

Labeled

Neglect

Openable area

Pest elimination

Strict liability offense

Ultimate deformation

Workmanlike

## 13VAC5-63-520. Chapter 3 General requirements.

A. Delete Section 302.1 of the IPMC.

B. Change Section 302.2 of the IPMC to read:

~~302.2 Grading and drainage. All premises shall be graded and maintained to protect the foundation walls or slab of the structure from the accumulation and drainage of surface or stagnant water in accordance with the VCC.~~

C. Change Section 302.3 of the IPMC to read:

~~302.3 Sidewalks and driveways. All sidewalks, walkways, stairs, driveways, parking spaces and similar spaces regulated under the VCC shall be kept in a proper state of repair, and maintained free from hazardous conditions. Stairs shall comply with the requirements of Sections 305 and 702.~~

D. Delete Section 302.4 of the IPMC.

E. Change Section 302.5 of the IPMC to read:

~~302.5 Rodent harborage. All structures and adjacent premises shall be kept free from rodent harborage and infestation where such harborage or infestation adversely affects the structures.~~

F. Delete Sections 302.8 and 302.9 of the IPMC.

G. Delete Section 304.1.1 of the IPMC.

H. Change Section 304.7 of the IPMC to read:

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

I. Change Section 304.14 of the IPMC to read:

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

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

J. Delete Sections 304.18, 304.18.1, 304.18.2 and 304.18.3 of the IPMC.

K. Delete Section 305.1.1 of the IPMC.

L. Add Section 305.7 to the IPMC to read:

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

M. Delete Section 306 of the IPMC in its entirety.

N. Change Section 308.1 of the IPMC to read as follows and delete the remaining provisions of Section 308:

~~308.1 Accumulation of rubbish and garbage. The interior of every structure shall be free from excessive accumulation of rubbish or garbage.~~

O. Change Section 309.1 of the IPMC to read:

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

P. Add IPMC Section 310 Lead-Based Paint.

Q. Add Section 310.1 to the IPMC to read:

~~310.1 General. Interior and exterior painted surfaces of dwellings and child care facilities, including fences and~~

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

~~R. Add IPMC Section 311 Aboveground Liquid Fertilizer Storage Tanks (ALFSTs).~~

~~S. Add Section 311.1 to the IPMC to read:~~

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

A. Delete the following sections from Chapter 3 of the IPMC:

1. Section 301.2 Responsibility.
2. Section 302.1 Sanitation.
3. Section 302.4 Weeds.
4. Section 302.6 Exhaust vents.
5. Section 302.8 Motor vehicles.
6. Section 302.9 Defacement of property.
7. Section 303.2 Enclosures.
8. Section 304.1.1 Unsafe conditions.
9. Section 304.18.1 Doors.
10. Section 304.18.2 Windows.
11. Section 304.18.3 Basement hatchways.
12. Section 305.1.1 Unsafe conditions.
13. Section 306 Component serviceability (all provisions).
14. Section 308.2 Disposal of rubbish.
15. Section 308.2.1 Rubbish storage facilities.
16. Section 308.2.2 Refrigerators.
17. Section 308.3 Disposal of garbage.
18. Section 308.3.1 Garbage facilities.
19. Section 308.3.2 Containers.
20. Section 309.2 Owner.
21. Section 309.3 Single occupant.
22. Section 309.4 Multiple occupancy.

23. Section 309.5 Occupant.

B. Change the following sections in Chapter 3 of the IPMC to read:

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

2. Section 301.3 Vacant structures. Vacant structures shall be maintained in a clean, safe, secure, and sanitary condition as provided for in this code.

3. Section 302.2 Grading and drainage. All premises shall be graded and maintained to protect the foundation walls or slab of the structure from the accumulation and drainage of surface or stagnant water in accordance with the [ ~~VCC~~ applicable building code ].

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

5. Section 302.5 Rodent harborage. All structures and adjacent premises shall be kept free from rodent harborage and infestation where such harborage or infestation adversely affects the structures.

6. Section 303.2 Enclosures. Swimming pool, hot tub, and spa barriers shall be maintained [ ~~as required by the in~~ accordance with the applicable building ] code or ordinance under which such barriers were constructed.

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

8. Section 304.3 Premises identification. Address numbers of buildings shall be maintained [ ~~when required by in~~ accordance with ] the [ applicable building ] code [ ~~under which such buildings were constructed~~ ] or when required by ordinance.

9. Section 304.7 Roofs and drainage. The roof and flashing shall be sound, tight, and not have defects that admit rain. Roof drainage shall be adequate to prevent dampness or deterioration in the walls or interior portion of the structure. Roof water shall be discharged in a manner to protect the foundation or slab of buildings and structures from the accumulation of roof drainage.

10. Section 304.14 Insect screens. During the period from April 1 to December 1, every door, window, and other outside opening required for ventilation of habitable rooms, food preparation areas, food service areas, or any areas where products to be included or utilized in food for human consumption are processed, manufactured,

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# Regulations

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packaged, or stored shall be supplied with an approved tightly fitting screens of not less than 16 mesh per inch (16 mesh per 25 mm) and every screen door used for insect control shall have a self-closing device in good working condition.

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

11. Section 304.18 Building security. Devices designed to provide security for the occupants and property within, when required by the [ applicable building ] code [ ~~under which a building was constructed,~~ ] or when provided, shall be maintained unless their removal is approved by the building official under the VCC.

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

13. Section 305.1 General. The interior of a structure and equipment therein shall be maintained in good repair, structurally sound, and in a sanitary condition.

14. Section 307.1 General. Handrails and guards required [ ~~by the code under which a building was constructed~~ ] or [ ~~which were~~ ] provided when a building was constructed shall be maintained [ in accordance with the applicable building code ].

15. Section 308.1 Accumulation of rubbish or garbage. The interior of every structure shall be free from excessive accumulation of rubbish or garbage.

16. Section 309 Pest Infestation and extermination.

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

C. Add the following sections to Chapter 3 of the IPMC:

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

2. Section 310 Lead-based paint.

3. Section 310.1 General. Interior and exterior painted surfaces of dwellings and child care facilities, including fences and outbuildings, that contain lead levels equal to or greater than 1.0 milligram per square centimeter or in excess of 0.50% lead by weight shall be maintained in a

condition free from peeling, chipping, and flaking paint or removed or covered in an approved manner. Any surface to be covered shall first be identified by an approved warning as to the lead content of such surface.

4. Section 311 Aboveground liquid fertilizer storage tanks (ALFST).

5. Section 311.1 General. ALFSTs shall be maintained in accordance with the requirements of Section [ ~~1701.16~~ 1101.16 ] of the VEBC and the requirements of the VCC applicable to such ALFSTs when newly constructed and the requirements of the VEBC when undergoing a change of occupancy to an ALFST and when repaired, altered, or reconstructed, including the requirements for inspections and for a secondary containment system.

## **13VAC5-63-524. Chapter 4 Light, ventilation, and occupancy limitations.**

A. Delete the following sections from Chapter 4 of the IPMC:

1. Section 401.2 Responsibility.

2. Section 401.3 Alternative devices.

3. Section 402.2 Common halls and stairways.

4. Section 402.3 Other spaces.

5. Section 403.2 Bathrooms and toilet rooms.

6. Section 403.5 Clothes dryer exhaust.

B. Change the following sections in Chapter 4 of the IPMC to read:

1. Section 401.1 Scope. The provisions of this chapter shall govern the maintenance of structures for light, ventilation, and space for occupancy.

2. Section 402.1 Natural or artificial light. Every habitable space, hallway, stairway, bathroom, and other spaces shall be maintained to provide natural or artificial light to the extent required [ ~~by the code under which a building was constructed~~ ] or [ ~~to the extent~~ ] provided [ ~~when such building was constructed~~ in accordance with the applicable building code ].

3. Section 403.1 Natural or mechanical ventilation. Every habitable space, hallway, stairway, bathroom, and other spaces shall be maintained to provide natural or mechanical ventilation to the extent required by the [ applicable building ] code [ ~~under which a building was constructed or to the extent provided when such building was constructed~~ ].

4. Section 403.4 Process ventilation. Local exhaust systems required by the [ applicable building ] code [ ~~under which a building was constructed,~~ ] or [ ~~which that~~ ] are provided [ ~~;~~ ] that exhaust injurious, toxic, irritating, or noxious fumes, gases, dusts, or mists to the exterior of a building

shall be maintained to prevent compromising the required ventilation system.

C. Add the following section to Chapter 4 of the IPMC:

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

**13VAC5-63-530. Chapter 5 Plumbing facilities and fixture requirements.**

A. Add Section 505.5 to the IPMC to read:

~~505.5 Inspection and testing of backflow prevention assemblies. Inspection and testing shall comply with Sections 505.5.1 and 505.5.2.~~

B. Add Section 505.5.1 to the IPMC to read:

~~505.5.1 Inspections. Inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable.~~

C. Add Section 505.5.2 to the IPMC to read:

~~505.5.2 Testing. Reduced pressure principle backflow preventer assemblies, double check valve assemblies, double detector check valve assemblies and pressure vacuum breaker assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5010 1013 1, Sections 1 and 2; ASSE 5010 1015 1, Sections 1 and 2; ASSE 5010 1015 2; ASSE 5010 1015 3, Sections 1 and 2; ASSE 5010 1015 4, Sections 1 and 2; ASSE 5010 1020 1, Sections 1 and 2; ASSE 5010 1047 1, Sections 1, 2, 3 and 4; ASSE 5010 1048 1, Sections 1, 2, 3 and 4; ASSE 5010 1048 2; ASSE 5010 1048 3, Sections 1, 2, 3 and 4; ASSE 5010 1048 4, Sections 1, 2, 3 and 4; or CAN/CSA B64.10.~~

D. Change Section 507.1 of the IPMC to read:

~~507.1 General. Drainage of roofs and paved areas, yards and courts, and other open areas on the premises shall be discharged in a manner to protect the buildings and structures from the accumulation of overland water runoff.~~

A. Change the title of Chapter 5 of the IPMC to "Plumbing Requirements."

B. Delete the following sections from Chapter 5 of the IPMC:

1. Section 501.2 Responsibility.

2. Section 502 Required facilities (all provisions).

3. Section 503 Toilet rooms (all provisions).

4. Section 505.3 Supply.

C. Change the following sections in Chapter 5 of the IPMC to read:

1. Section 501.1 General. The provisions of this chapter shall govern the maintenance of structures for plumbing systems, facilities, and fixtures.

2. Section 504.1 General. Required or provided plumbing systems and facilities shall be maintained in [ ~~compliance~~ accordance ] with the [ applicable building ] code [ ~~under which constructed~~ ].

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

4. Section 504.3 Plumbing system hazards. Where it is found that a plumbing system in a structure constitutes a hazard to the public, the occupants, or the structure, the code official shall require the defects to be corrected to eliminate the hazard.

5. Section 505.1 Supply. Required or provided water supply systems shall be maintained in [ ~~compliance~~ accordance ] with the [ applicable building ] code [ ~~under which the systems were constructed~~ ]. All water supply systems shall be free from obstructions, defects, and leaks.

6. Section 505.2 Protection of water supply systems. Protection of water supply systems shall be provided [ ~~to the extent required by the code under which a building was constructed~~ ] and [ ~~shall be~~ ] maintained [ in accordance with the applicable building code ].

7. Section 505.3 Inspection and testing of backflow prevention systems. Inspection and testing shall comply with Sections 505.3.1 and 505.3.2.

8. Section 505.4 Water heating facilities. Water heating facilities shall be maintained. Combination temperature and pressure-relief valves and relief valve discharge pipes shall be maintained on water heaters.

9. Section 506.1 Drainage and venting. Required or provided sanitary drainage and venting systems shall be maintained in [ ~~compliance~~ accordance ] with the [ applicable building ] code [ ~~under which the system was constructed~~ ].

10. Section 506.2 Maintenance. Every building drainage and sewer system shall function properly and be kept free from obstructions, leaks, and defects.

11. Section 507.1 General. Drainage of roofs and paved areas, yards and courts, and other open areas on the



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# Regulations

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premises shall be discharged in a manner to protect the buildings and structures from the accumulation of overland water runoff.

D. Add the following sections to Chapter 5 of the IPMC:

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

2. Section 504.2.1 Fixture clearances. Adequate clearances for usage and cleaning of plumbing fixtures shall be maintained as approved when installed.

3. Section 505.1.1 Tempered water. Tempered water shall be supplied to fixtures and facilities when required by the [ applicable building ] code [ under which constructed ].

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

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

6. Section 505.3.2 Testing. Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, double-detector check valve assemblies, and pressure vacuum breaker assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5010-1013-1, Sections 1 and 2; ASSE 5010-1015-1, Sections 1 and 2; ASSE 5010-1015-2; ASSE 5010-1015-3, Sections 1 and 2; ASSE 5010-1015-4, Sections 1 and 2; ASSE 5010-1020-1, Sections 1 and 2; ASSE 5010-1047-1, Sections 1, 2, 3 and 4; ASSE 5010-1048-1, Sections 1, 2, 3 and 4; ASSE 5010-1048-2; ASSE 5010-1048-3, Sections 1, 2, 3 and 4; ASSE 5010-1048-4, Sections 1, 2, 3 and 4; or CAN/CSA B64.10.

[ 7. 505.5 Nonpotable water reuse systems. Where installed, nonpotable water reuse and rainwater collection and conveyance systems shall be maintained in a safe and sanitary condition. Where such systems are not properly maintained, the systems shall be repaired to provide for safe and sanitary conditions, or the system shall be abandoned in accordance with the following:

1. All system piping connecting to a utility provided or private water system shall be removed or disabled. Proper cross-connection control and backflow prevention measures shall comply with the applicable building code.

2. Where required, the distribution piping system shall be replaced with an approved potable water supply piping system.

3. The storage tank shall be secured from accidental access by sealing or locking tank inlets and access points or filling with sand or equivalent. ]

## **13VAC5-63-540. Chapter 6 Mechanical and electrical requirements.**

~~A. Change Section 602 of the IPMC to read:~~

~~Section 602 Heating and Cooling Facilities.~~

~~B. Change Section 602.1 of the IPMC to read:~~

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

~~C. Change Section 602.2 of the IPMC to read:~~

~~602.2 Heat supply. Every owner and operator of a Group R-2 apartment building or other residential dwelling who rents, leases or lets one or more dwelling unit, rooming unit, dormitory or guestroom on terms, either expressed or implied, to furnish heat to the occupants thereof shall supply heat during the period from October 15 to May 1 to maintain a temperature of not less than 65°F (18°C) in all habitable rooms, bathrooms, and toilet rooms. The code official may also consider modifications as provided in Section 104.5.2 when requested for unusual circumstances or may issue notice approving building owners to convert shared heating and cooling piping HVAC systems 14 calendar days before or after the established dates when extended periods of unusual temperatures merit modifying these dates.~~

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

~~D. Add Section 602.2.1 to the IPMC to read:~~

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

~~E. Change Section 602.3 of the IPMC to read:~~

~~602.3 Occupiable work spaces. Indoor occupiable work spaces shall be supplied with heat during the period from October 1 to May 15 to maintain a temperature of not less than 65°F (18°C) during the period the spaces are occupied.~~

Exceptions:

1. Processing, storage and operation areas that require cooling or special temperature conditions.
2. Areas in which persons are primarily engaged in vigorous physical activities.

F. Change Section 602.4 of the IPMC to read:

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

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

G. Change the exception to Section 604.3.1.1 of the IPMC to read:

~~Exception: The following equipment shall be allowed to be repaired or reused where an inspection report from the equipment manufacturer, an approved representative of the equipment manufacturer, a third party licensed or certified electrician, or an electrical engineer indicates that the exposed equipment has not sustained damage that requires replacement:~~

1. Enclosed switches, rated 600 volts or less;
2. Busway, rated 600 volts or less;
3. Panelboards, rated 600 volts or less;
4. Switchboards, rated 600 volts or less;
5. Fire pump controllers, rated 600 volts or less;
6. Manual and magnetic motor controllers;
7. Motor control centers;
8. Alternating current high voltage circuit breakers;
9. Low voltage power circuit breakers;
10. Protective relays, meters and current transformers;
11. Low voltage and medium voltage switchgear;

~~12. Liquid filled transformers;~~

~~13. Cast resin transformers;~~

~~14. Wire or cable that is suitable for wet locations and whose ends have not been exposed to water;~~

~~15. Wire or cable, not containing fillers, that is suitable for wet locations and whose ends have not been exposed to water;~~

~~16. Luminaires that are listed as submersible;~~

~~17. Motors;~~

~~18. Electronic control, signaling and communication equipment.~~

H. Change Section 606.1 to the IPMC to read:

~~606.1 General. Elevators, dumbwaiters and escalators shall be maintained in compliance with ASME A17.1. The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter, be available for public inspection in the office of the building operator or be posted in a publicly conspicuous location approved by the code official. An annual periodic inspection and test is required of elevators and escalators. A locality shall be permitted to require a six-month periodic inspection and test. All periodic inspections shall be performed in accordance with Section 8.11 of ASME A17.1. The code official may also provide for such inspection by an approved agency or through agreement with other local certified elevator inspectors. An approved agency includes any individual, partnership or corporation who has met the certification requirements established by the VCS.~~

A. Delete the following sections from Chapter 6 of the IPMC:

1. Section 601.2 Responsibility.

2. Section 603.6 Energy conservation devices.

3. Section 604.2 Service.

4. Section 604.3.2 Abatement of electrical hazards associated with fire exposure.

[ 5. Section 604.3.2.1 Electrical equipment. ]

B. Change the following sections in Chapter 6 of the IPMC to read:

1. Section 601.1 General. The provisions of this chapter shall govern the maintenance of mechanical and electrical facilities and equipment.

2. Section 602 Heating and cooling facilities.

3. Section 602.2 Heat supply. Every owner and operator of a Group R-2 apartment building or other residential building who rents, leases, or lets one or more dwelling

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# Regulations

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unit, rooming unit, dormitory, or guestroom on terms, either expressed or implied, to furnish heat to the occupants thereof shall supply heat during the period from October 15 to May 1 to maintain a temperature of not less than 68°F (20°C) in all habitable rooms, bathrooms, and toilet rooms. The code official may also consider modifications as provided in Section 104.5.2 when requested for unusual circumstances or may issue notice approving building owners to convert shared heating and cooling piping HVAC systems 14 calendar days before or after the established dates when extended periods of unusual temperatures merit modifying these dates.

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

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

Exceptions:

1. Processing, storage, and operation areas that require cooling or special temperature conditions.
2. Areas in which persons are primarily engaged in vigorous physical activities.

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

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

6. Section 603.1 Mechanical [ equipment and ] appliances. Required or provided mechanical [ equipment, ]

appliances, fireplaces, solid fuel-burning appliances, cooking appliances, chimneys, vents, and water heating appliances shall be maintained in compliance with the code under which the appliances, system, or equipment was installed, kept in safe working condition, and capable of performing the intended function.

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

8. Section 603.5 Combustion air. Where required by the code under which installed, a supply of air for complete combustion of the fuel shall be provided for the fuel-burning equipment.

9. Section 604.1 Electrical system. Required or provided electrical systems and facilities shall be maintained in [ ~~compliance~~ accordance ] with the [ applicable building ] code [ ~~under which the system or facility was constructed~~ ].

10. Section 604.3 Electrical system hazards. Where it is found that the electrical system in a structure constitutes a hazard to the occupants or the structure by reason of deterioration or damage or for similar reasons, the code official shall require the defects to be corrected to eliminate the hazard.

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

Exception: The following equipment shall be allowed to be repaired or reused where an inspection report from the equipment manufacturer, an approved representative of the equipment manufacturer, a third party licensed or certified electrician, or an electrical engineer indicates that the exposed equipment has not sustained damage that requires replacement:

1. Enclosed switches, rated 600 volts or less;
2. Busway, rated 600 volts or less;
3. Panelboards, rated 600 volts or less;
4. Switchboards, rated 600 volts or less;
5. Fire pump controllers, rated 600 volts or less;
6. Manual and magnetic motor controllers;
7. Motor control centers;

8. Alternating current high-voltage circuit breakers;
9. Low-voltage power circuit breakers;
10. Protective relays, meters, and current transformers;
11. Low-voltage and medium-voltage switchgear;
12. Liquid-filled transformers;
13. Cast-resin transformers;
14. Wire or cable that is suitable for wet locations and whose ends have not been exposed to water;
15. Wire or cable, not containing fillers, that is suitable for wet locations and whose ends have not been exposed to water;
16. Luminaires that are listed as submersible;
17. Motors; or
18. Electronic control, signaling, and communication equipment.

12. [ 604.3.2.1 Electrical equipment. Electrical switches, receptacles and fixtures, including furnace, water heating, security system and power distribution circuits, that have been exposed to fire shall be replaced in accordance with the provisions of the Virginia Construction Code.

Exception: Electrical switches, receptacles and fixtures that shall be allowed to be repaired or reused where an inspection report from the equipment manufacturer or an approved representative of the equipment manufacturer, a third party licensed or certified electrician, or an electrical engineer indicates that the equipment has not sustained damage that requires replacement.

13.] Section 605.1 Electrical components. Electrical equipment, wiring, and appliances shall be maintained in [ ~~compliance~~ accordance ] with the [ applicable building ] code [ ~~under which constructed and in a safe manner~~ ].

[ ~~13.~~ 14.] Section 605.2 Power distribution and receptacles. Required or provided power circuits and receptacles shall be maintained in accordance with the [ applicable building ] code [ ~~under which constructed,~~ ] and ground fault and arc-fault circuit interrupter protection shall be provided where required by the [ applicable building ] code [ ~~in effect at the time of construction~~ ]. All receptacle outlets shall have the appropriate faceplate cover for the location when required by the [ applicable building ] code [ ~~under which constructed~~ ].

[ ~~14.~~ 15.] Section 605.3 Lighting distribution and luminaires. Required or provided lighting circuits and luminaires shall be maintained in [ ~~compliance~~ accordance ] with the [ applicable building ] code [ ~~under which constructed~~ ].

[ ~~15.~~ 16.] Section 605.4 Flexible cords. Flexible cords shall not be run through doors, windows, or cabinets or concealed within walls, floors, or ceilings.

[ ~~16.~~ 17.] Section 606.1 General. Elevators, dumbwaiters, and escalators shall be maintained in compliance with ASME A17.1. The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter, be available for public inspection in the office of the building operator, or be posted in a publicly conspicuous location approved by the code official. [ ~~Where not displayed in the elevator or attached on the escalator or dumbwaiter, there shall be a notice of where the certificate of inspection is available for inspection.~~ ] An annual periodic inspection and test is required of elevators and escalators. A locality shall be permitted to require a six-month periodic inspection and test. All periodic inspections shall be performed in accordance with Section 8.11 of ASME A17.1. The code official may also provide for such inspection by an approved agency or through agreement with other local certified elevator inspectors. An approved agency includes any individual, partnership, or corporation who has met the certification requirements established by the VCS.

C. Add the following sections to Chapter 6 of the IPMC:

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

2. Section 607.2 Clothes dryer exhaust duct. Required or provided clothes dryer exhaust systems shall be maintained in [ ~~compliance~~ accordance ] with the [ applicable building ] code [ ~~under which constructed~~ ].

## **13VAC5-63-545. Chapter 7 Fire safety requirements.**

A. Delete the following sections from Chapter 7 of the IPMC:

1. Section 701.2 Responsibility.
2. Section 704.1.2 Fire department connection.
3. Section 704.2.1 Where required.
4. Section 704.2.1.1 Group R-1.
5. Section 704.2.1.2 Groups R-2, R-3, R-4, and I-1.
6. Section 704.2.1.3 Installation near cooking appliances.
7. Section 704.2.1.4 Installation near bathrooms.
8. Section 704.2.2 Interconnection.
9. Section 704.2.3 Power source.
10. Section 704.2.4 Smoke detection system.

# Regulations

**B. Change the following sections in Chapter 7 of the IPMC:**

1. Section 701.1 General. The provisions of this chapter shall govern the maintenance of fire safety facilities and equipment.

2. Section 702.2 Aisles. The required width of aisles shall be maintained in accordance with the [ applicable building ] code [ ~~under which constructed~~ ].

3. Section 702.3 Doors. Means of egress doors shall be maintained and, to the extent required by the code in effect at the time of construction, shall be readily openable from the side from which egress is to be made without the need for keys, special knowledge, or effort.

4. Section 702.4 Emergency escape openings. Required emergency escape openings shall be maintained in accordance with the code in effect at the time of construction and to the extent required by the code in effect at the time of construction shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates, or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with the code that was in effect at the time of construction and such devices shall be releasable or removable from the inside without the use of a key, tool, or force greater than that which is required for normal operation of the escape and rescue opening.

5. Section 704.1 General. Systems, devices, and equipment to detect a fire, actuate an alarm, or suppress or control a fire or any combination thereof shall be maintained in an operable condition at all times.

6. Section 704.1.1 Automatic sprinkler systems. Inspection, testing, and maintenance of automatic sprinkler systems shall be in accordance with NFPA 25 for the purpose of operation and maintenance.

7. Section 704.2 Single-station and multiple-station smoke alarms. Required or provided single-station and multiple-station smoke alarms shall be maintained in [ compliance accordance ] with the [ applicable building ] code [ ~~under which they were constructed~~ ].

**13VAC5-63-549. Chapter 8 Referenced standards.**

Change the referenced standards in Chapter 8 of the IPMC as follows (standards not shown remain the same):

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>ASSE 5010-1013-1</u>	<u>Field Test Procedure for a Reduced Pressure</u>	<u>505.3.2</u>

	<u>Principle Assembly Using a Differential Pressure Gauge, 1991</u>	
<u>ASSE 5010-1015-1</u>	<u>Field Test Procedure for a Double Check Valve Assembly Using a Duplex Gauge, 1991</u>	<u>505.3.2</u>
<u>ASSE 5010-1015-2</u>	<u>Field Test Procedure for a Double Check Valve Assembly Using a Differential Pressure Gauge - High- and Low-Pressure Hose Method, 1991</u>	<u>505.3.2</u>
<u>ASSE 5010-1015-3</u>	<u>Field Test Procedure for a Double Check Valve Assembly Using a Differential Pressure Gauge - High Pressure Hose Method, 1991</u>	<u>505.3.2</u>
<u>ASSE 5010-1015-4</u>	<u>Field Test Procedure for a Double Check Valve Assembly Using a Site Tube, 1991</u>	<u>505.3.2</u>
<u>ASSE 5010-1020-1</u>	<u>Field Test Procedures for a Pressure Vacuum Breaker Assembly, 1991</u>	<u>505.3.2</u>
<u>ASSE 5010-1047-1</u>	<u>Field Test Procedure for a Reduced Pressure Detector Assembly Using a Differential Pressure Gauge, 1991</u>	<u>505.3.2</u>

<u>ASSE 5010-1048-1</u>	<u>Field Test Procedure for a Double Check Detector Assembly Using a Duplex Gauge, 1991</u>	<u>505.3.2</u>	<p>International Building Code - <del>2012</del> <u>2015</u> Edition</p> <p>International Energy Conservation Code - <del>2012</del> <u>2015</u> Edition</p> <p>International Existing Building Code - <del>2012</del> <u>2015</u> Edition</p> <p>International Fire Code - <del>2012</del> <u>2015</u> Edition</p> <p>International Fuel Gas Code - <del>2012</del> <u>2015</u> Edition</p> <p>International Mechanical Code - <del>2012</del> <u>2015</u> Edition</p> <p>International Property Maintenance Code - <del>2012</del> <u>2015</u> Edition</p> <p>International Plumbing Code - <del>2012</del> <u>2015</u> Edition</p> <p>International Residential Code for <del>One and Two Family Dwellings</del> - <del>2012</del> <u>2015</u> Edition</p> <p>International Swimming Pool and Spa Code - <del>2012</del> <u>2015</u> Edition</p> <p><u>International Zoning Code - 2015 Edition</u></p> <p>ICC/ANSI A117.1-09, Accessible and Usable Buildings and Facilities, Approved November 26, 2003</p> <p>Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206 (<a href="https://www.acca.org/">https://www.acca.org/</a>):</p> <p>Manual J-11, Residential Load Calculation, Eighth Edition</p> <p>Manual <del>S-04</del> <u>S-13</u>, Residential Equipment Selection</p> <p>ACI <del>318-11</del> <u>318-14</u>, Building Code Requirements for Structural Concrete, American Concrete Institute, 38800 Country Club Drive, Farmington Hills, MI 48331 (<a href="http://www.concrete.org/">http://www.concrete.org/</a>)</p> <p>American Petroleum Institute, 1220 L Street, NW, Washington, DC 20005-4070 (<a href="http://www.api.org/">http://www.api.org/</a>):</p> <p>API 650-09, Welded Tanks for Oil Storage, Eleventh Edition, June 2007 (Addendum 1, November 2008, Addendum 2, November 2009, effective May 1, 2010)</p> <p>API 653-09, Tank Inspection, Repair, Alteration, and Reconstruction</p> <p><u>ANSI LC1/CSA 6.26-14, Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST), American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036</u></p> <p><del>ASHRAE 193-2010, Method of Test for Determining the Airtightness of HVAC Equipment,</del> [ American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., 1791 Tullie Circle, NE, Atlanta, GA 30329-2305 (<a href="https://www.ashrae.org/">https://www.ashrae.org/</a>)</p> <p><u>ASHRAE 62.1-13, Ventilation for Acceptable Indoor Air Quality ]</u></p>
<u>ASSE 5010-1048-2</u>	<u>Field Test Procedure for a Double Check Detector Assembly Using a Differential Pressure Gauge - High- and Low-Pressure Hose Method, 1991</u>	<u>505.3.2</u>	
<u>ASSE 5010-1048-3</u>	<u>Field Test Procedure for a Double Check Detector Assembly Using a Differential Pressure Gauge - High-Pressure Hose Method, 1991</u>	<u>505.3.2</u>	
<u>ASSE 5010-1048-4</u>	<u>Field Test Procedure for a Double Check Detector Assembly Using a Site Tube, 1991</u>	<u>505.3.2</u>	
<u>CAN/CSA-B64.10-01</u>	<u>Manual for the Selection and Installation of Backflow Prevention Devices/Manual for the Maintenance and Field Testing of Backflow Prevention Devices</u>	<u>505.3.2</u>	

**DOCUMENTS INCORPORATED BY REFERENCE (13VAC5-63)**

International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001-2070 (<http://www.iccsafe.org/>):

ASHRAE 62.1-13, Ventilation for Acceptable Indoor Air Quality ]

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# Regulations

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American Society of Testing Materials International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959 (<http://www.astm.org/>):

ASTM ~~C199-84(2005)~~ C199-84(2011), Standard Test Method for Pier Test for Refractory Mortar

ASTM ~~C315-07~~ C315-07(2011), Standard Specification for Clay Flue Liners and Chimney Pots

ASTM ~~C1261-07~~ C1261-10, Standard Specification for Firebox Brick for Residential Fireplaces

ASTM ~~D1557-07~~ D1557-12, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup>(2700 kN-m/m<sup>3</sup>))

ASTM E84-2013A, [ Standard ] Test Methods for Surface Burning Characteristics of Building Materials

ASTM E90-90, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions

~~ASTM E283-04, Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen~~

[ ASTM E108-11, Standard Test Methods for Fire Tests of Roof Coverings ]

ASTM E119-2012A, Standard Test Methods for Fire Tests of Building Construction and Materials

ASTM E329-02, Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

ASTM F2006-10, Standard Safety Specification for Window Fall Prevention Devices for Nonemergency Escape (Egress) and Rescue (Ingress) Windows

ASTM ~~F2090-08~~ F2090-10, Standard Specification for Window Fall Prevention Devices with Emergency Escape (Egress) Release Mechanisms

CAN/CSA-B64.10-01, Manual for the Selection and Installation of Backflow Prevention Devices/Manual for the Maintenance and Field Testing of Backflow Prevention Devices, June 2003, National Standards of Canada, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, Canada L4W5N6 (<http://www.csa.ca/>)

American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016-5990 (<https://www.asme.org/>):

~~ASME A17.1/CSA B44-2007 Safety Code for Elevators and Escalators~~

ASME ~~A17.1/CSA B44-2010~~ A17.1/CSA B44-13, Safety Code for Elevators and Escalators

[ ASME A17.3 2008, Safety Code for Existing Elevators and Escalators

ASME A18.1 ] ~~2011~~ [ 2008, Safety Standard for Platform Lifts and Stairway Chairlifts ]

American Society of Sanitary Engineering, 901 Canterbury Road, Suite A, Westlake, OH 44145 (<http://www.asse-plumbing.org/>):

ASSE 1010-2004, Performance Requirements for Water Hammer Arrestors

ASSE 1022-03, Performance Requirements for Backflow Preventer for Beverage Dispensing Equipment

ASSE 1024-04, Performance Requirements for Dual Check Valve Type Backflow Preventers (for Residential Supply Service or Individual Outlets)

ASSE 5010-1013-1, Field Test Procedure for a Reduced Pressure Principle Assembly Using a Differential Pressure Gauge, 1991

ASSE 5010-1015-1, Field Test Procedure for a Double Check Valve Assembly Using a Duplex Gauge, 1991

ASSE 5010-1015-2, Field Test Procedure for a Double Check Valve Assembly Using a Differential Pressure Gauge - High- and Low-Pressure Hose Method, 1991

ASSE 5010-1015-3, Field Test Procedure for a Double Check Valve Assembly Using a Differential Pressure Gauge - High Pressure Hose Method, 1991

ASSE 5010-1015-4, Field Test Procedure for a Double Check Valve Assembly Using a Site Tube, 1991

ASSE 5010-1020-1, Field Test Procedures for a Pressure Vacuum Breaker Assembly, 1991

ASSE 5010-1047-1, Field Test Procedure for a Reduced Pressure Detector Assembly Using a Differential Pressure Gauge, 1991

ASSE 5010-1048-1, Field Test Procedure for a Double Check Detector Assembly Using a Duplex Gauge, 1991

ASSE 5010-1048-2, Field Test Procedure for a Double Check Detector Assembly Using a Differential Pressure Gauge - High- and Low-Pressure Hose Method, 1991

ASSE 5010-1048-3, Field Test Procedure for a Double Check Detector Assembly Using a Differential Pressure Gauge - High-Pressure Hose Method, 1991

ASSE 5010-1048-4, Field Test Procedure for a Double Check Detector Assembly Using a Site Tube, 1991

[ ~~ASCE/SEI 7-10, Minimum Design Loads for Buildings and Other Structures,~~ ] American Society of Civil Engineers/Structural Engineering Institute, 1801 Alexander Bell Drive, Reston, VA 20191-4400 (<http://www.asce.org/sei/>)



[ ASCE/SEI 7-10, Minimum Design Loads for Buildings and Other Structures

ASCE/SEI 41-13, Seismic Evaluation and Retrofit of Existing Buildings

American Wood Council, 222 Catocin Circle, Suite 201, Leesburg, VA 20175 (<http://www.awc.org/>):

AWC NDS-15, National Design Specification for Wood Construction-with 2005 Supplement

AWC STJR-15, Span Table for Joists and Rafters ]

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471 (<http://www.nfpa.org/>):

NFPA ~~43-40~~ 13-13, Installation of Sprinkler Systems

NFPA ~~13R-10~~ 13R-13, Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height

~~NFPA 13D-10, Standard for the Installation of Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes~~

NFPA 25-14, Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems

NFPA ~~70-44~~ 70-14, National Electrical Code

[ NFPA 72- ] ~~40~~ [ 13, National Fire Alarm Code ]

NFPA 91-15, Standard for Exhaust Systems for Air Conveying of Vapors, Mists and Particulate Solids

[ NFPA 99-15, Health Care Facilities Code

NFPA 101-15, Life Safety Code ]

NFPA ~~105-40~~ 105-13, Standard for the Installation of Smoke Door Assemblies

NFPA ~~285-06~~ 285-12, Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior Nonload-bearing Wall Assemblies Containing Combustible Components

NFPA ~~495-04~~ 495-13, Explosive Materials Code

NFPA 701-10, Standard Methods of Fire Tests for Flame-propagation of Textiles and Films

~~NFPA 704-12, Standard System for the Identification of the Hazards of Materials for Emergency Response~~

NFPA ~~720-09~~ 720-15, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment

NSF 50-2009a, Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities, NSF International, 789 Dixboro Road, P.O. Box 130140, Ann Arbor, MI 48113 (<http://nsf.org/>)

TFI RMIP-09, Aboveground Storage Tanks Containing Liquid Fertilizer, Recommended Mechanical Integrity Practices, December 2009, The Fertilizer Institute, 820 First Street, NE, Suite 430, Washington, DC 20002

Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062 (<http://www.ul.com/>):

~~UL 87A-12, Outline of Investigation for Power Operated Dispensing Devices for Gasoline and Gasoline/ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent~~

~~UL 294-2010, Access Control System Units (Fifth Edition-with revisions through September 17, 2010)~~

UL 217-06, Single- and Multiple-station Smoke Alarms-with revisions through April 2012

UL 723-2008, Standard for Test of Surface Burning Characteristics of Building Materials-with Revisions through September 2010

UL 762-2010, Outline of Investigation for Power Ventilators for Restaurant Exhaust Appliances

[ UL 790-04, Standard Test Methods for Fire Tests of Roof Coverings-with Revisions through October 2008 ]

UL 1784-01, Air Leakage Tests of Door Assemblies, revised July 2009

UL 1978-2010, Grease Ducts

UL 2034-2008, Standard for Single and Multiple Station Carbon Monoxide Alarms, revised February 2009

UL 2075-2013, Gas and Vapor Detectors and Sensors (Second Edition, March 5, 2013)

[Interim Remediation Guidance for Homes with Corrosion from Problem Drywall, April 2, 2010, Joint Report, Consumer Products Safety Commission and Department of Housing and Urban Development](#)

V.A.R. Doc. No. R16-4664; Filed April 9, 2018, 1:18 p.m.

## Final Regulation

**REGISTRAR'S NOTICE:** The Board of Housing and Community Development is claiming an exemption from Article 2 of the Administrative Process Act pursuant to § 2.2-4006 A 12 of the Code of Virginia, which excludes regulations adopted by the Board of Housing and Community Development pursuant to the Statewide Fire Prevention Code (§ 27-94 et seq.), the Industrialized Building Safety Law (§ 36-70 et seq.), the Uniform Statewide Building Code (§ 36-97 et seq.), and § 36-98.3 of the Code of Virginia, provided the board (i) provides a Notice of Intended Regulatory Action in conformance with the provisions of § 2.2-4007.01, (ii) publishes the proposed regulation and provides an opportunity for oral and written comments as provided in § 2.2-4007.03, and (iii) conducts at



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# Regulations

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least one public hearing as provided in § 2.2-4009 and 36-100 prior to the publishing of the proposed regulations.

**Title of Regulation:** **13VAC5-91. Virginia Industrialized Building Safety Regulations (amending 13VAC5-91-120, 13VAC5-91-160, 13VAC5-91-180, 13VAC5-91-200, 13VAC5-91-240, 13VAC5-91-260, 13VAC5-91-270; adding 13VAC5-91-125).**

**Statutory Authority:** § 36-73 of the Code of Virginia.

**Effective Date:** September 4, 2018.

**Agency Contact:** Elizabeth O. Rafferty, Policy and Legislative Director, Department of Housing and Community Development, Main Street Centre, 600 East Main Street, Suite 300, Richmond, VA 23219, telephone (804) 371-7011, FAX (804) 371-7090, TTY (804) 371-7089, or email elizabeth.rafferty@dhdcd.virginia.gov.

**Summary:**

*The amendments to the Industrialized Building Safety Regulations are as follows:*

*13VAC5-91-120 and 13VAC5-91-125: Moves provisions for registration of unregistered industrialized buildings into a separate section.*

*13VAC5-91-160: Updates the referenced model codes and standards to the most recent editions available.*

*13VAC5-91-180: Removes a reapproval provision for compliance assurance agencies that do the inspection and approval of construction of industrialized buildings in the plants. Added in the last update of the regulation, this requirement has proven to be burdensome and unnecessary. The department, which administers the regulation, already has the authority in other provisions of these subsections to review compliance assurance agencies for continued compliance with all requirements applicable to compliance assurance agencies and may revoke or suspend approvals if warranted.*

*13VAC5-91-200: Deletes language authorizing the department's administrator to consider whether the services provided by compliance assurance agencies have been accepted by other jurisdictions. The phrase "and by other jurisdictions" is unclear since this is a state-administered program. Removes reapproval and updates the standard specification.*

*13VAC5-91-240: Adds language to permit a manufacturer to apply an approval label on an industrialized building when authorized to do so by a compliance assurance agency. The manufacturers and compliance assurance agencies may work together to assure whatever process works best for them may be used. The administrator has the authority to monitor the activities of both the manufacturers and compliance assurance agencies and*

*audit records to assure that labels are not inappropriately handled.*

*13VAC5-91-260: Adds language addressing the refunding of fees for unused registration seals to clarify the process and changes the fee for each registration seal for buildings constructed as R-5 from \$50 to \$75.*

**[ 13VAC5-91-120. Unregistered industrialized buildings.**

~~A.~~ The building official shall determine whether any unregistered industrialized building complies with this chapter and shall require any noncomplying unregistered building to be brought into compliance with this chapter. The building official shall enforce all applicable requirements of this chapter including those relating to the sale, rental and disposition of noncomplying buildings. The building official may require submission of full plans and specifications for each building. Concealed parts of the building may be exposed to the extent necessary to permit inspection to determine compliance with the applicable requirements. The building official may also accept reports of inspections and tests from individuals or agencies deemed acceptable to the building official.

~~B. An existing unregistered industrialized building may be registered in accordance with one of the following:~~

~~1. Where an unregistered building was constructed under an industrialized building program of another state and approved under such program, a compliance assurance agency shall prepare a report based on review of the plans and specifications and inspection of the building to determine whether there is compliance with the construction requirements of this chapter that were in effect on the date of manufacture of the building. If compliance is determined, the compliance assurance agency shall (i) mark the building with a compliance assurance agency label in accordance with 13VAC5 91-210, (ii) place a new manufacturer's data plate on the building in accordance with 13VAC5 91 245, (iii) mark the building with a registration seal in accordance with 13VAC5 91 260, and (iv) forward a copy of the report and new data plate to the SBCO.~~

~~2. Where an unregistered building was not approved under an industrialized building program of another state and the date of manufacture can be verified, the compliance assurance agency shall inspect the building, including any disassembly necessary, to determine whether there is compliance with the construction requirements of this chapter that were in effect on the date of manufacture of the building. When factory plans are available, then disassembly is not required to the extent that the factory plans can be verified to reflect the actual construction of the building. When compliance with the construction requirements of this chapter that were in effect on the date of manufacture of the building is achieved, the compliance~~

assurance agency shall prepare a report documenting compliance, outlining any changes made to the building, and certifying the building in accordance with clauses (i) through (iv) of subdivision 1 of this subsection.

~~3. When the date of manufacture of the existing unregistered building cannot be verified, the building shall be evaluated for compliance with the codes and standards specified in 13VAC5-91-160. The compliance assurance agency shall inspect the building, including any disassembly necessary, to determine whether there is compliance with these construction requirements. If compliance is achieved, the compliance assurance agency shall prepare a report documenting compliance, outlining any changes made to the building, and certifying the building in accordance with clauses (i) through (iv) of subdivision 1 of this subsection.~~

**13VAC5-91-125. Registration of unregistered industrialized buildings.**

An existing unregistered industrialized building may be registered in accordance with one of the following:

1. Where an unregistered building was constructed under an industrialized building program of another state and approved under such program, a compliance assurance agency shall prepare a report based on review of the plans and specifications and inspection of the building to determine whether there is compliance with the construction requirements of this chapter that were in effect on the date of manufacture of the building. If compliance is determined, the compliance assurance agency shall (i) mark the building with a compliance assurance agency label in accordance with 13VAC5-91-210, (ii) place a new manufacturer's data plate on the building in accordance with 13VAC5-91-245, (iii) mark the building with a registration seal in accordance with 13VAC5-91-260, and (iv) forward a copy of the report and new data plate to the SBCO.

2. Where an unregistered building was not approved under an industrialized building program of another state and the date of manufacture can be verified, the compliance assurance agency shall inspect the building, including any disassembly necessary, to determine whether there is compliance with the construction requirements of this chapter that were in effect on the date of manufacture of the building. When factory plans are available, disassembly is not required to the extent that the factory plans can be verified to reflect the actual construction of the building. When compliance with the construction requirements of this chapter that were in effect on the date of manufacture of the building is achieved, the compliance assurance agency shall prepare a report documenting compliance, outlining any changes made to the building, and certifying the building in accordance with clauses (i) through (iv) of subdivision 1 of this section.

3. When the date of manufacture of the existing unregistered building cannot be verified, the building shall be evaluated for compliance with the codes and standards specified in 13VAC5-91-160. The compliance assurance agency shall inspect the building, including any disassembly necessary, to determine whether there is compliance with these construction requirements. If compliance is achieved, the compliance assurance agency shall prepare a report documenting compliance, outlining any changes made to the building, and certifying the building in accordance with clauses (i) through (iv) of subdivision 1 of this section. ]

**13VAC5-91-160. Use of model codes and standards.**

A. Industrialized buildings ~~produced~~ entering the production assembly line after the effective date of the ~~2012~~ 2015 edition of this chapter shall comply with all applicable requirements of the codes and standards listed in subsection B of this section except that the following codes and standards may be used for ~~one-year industrialized buildings entering the assembly line during a one-year period~~ after the effective date of the 2012 2015 edition of this chapter:

1. ICC International Building Code - ~~2009~~ 2012 Edition
2. ICC International Plumbing Code - ~~2009~~ 2012 Edition
3. ICC International Mechanical Code - ~~2009~~ 2012 Edition
4. National Fire Protection Association Standard Number 70 (National Electrical Code) - ~~2008~~ 2011 Edition
5. ICC International Fuel Gas Code - ~~2009~~ 2012 Edition
6. ICC International Energy Conservation Code - ~~2009~~ 2012 Edition
7. ICC International Residential Code - ~~2009~~ 2012 Edition

B. The following documents are adopted and incorporated by reference to be an enforceable part of this chapter:

1. ICC International Building Code - ~~2012~~ 2015 Edition
2. ICC International Plumbing Code - ~~2012~~ 2015 Edition
3. ICC International Mechanical Code - ~~2012~~ 2015 Edition
4. National Electrical Code - ~~2011~~ 2014 Edition
5. ICC International Fuel Gas Code - ~~2012~~ 2015 Edition
6. ICC International Energy Conservation Code - ~~2012~~ 2015 Edition
7. ICC International Residential Code - ~~2012~~ 2015 Edition

Note: As the ~~2012~~ 2015 editions of the International Codes are incorporated by reference as the construction standards for use with these regulations, this chapter is also referred to as the ~~2012~~ 2015 edition of the Virginia Industrialized Building Safety Regulations or the ~~2012~~ 2015 edition of this chapter.

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# Regulations

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The codes and standards referenced above may be procured from:

International Code Council, Inc.  
500 New Jersey Avenue, NW, 6th Floor  
Washington, DC 20001-2070

## 13VAC5-91-180. Compliance assurance agencies.

A. Application shall be made to the SBCO for acceptance as a compliance assurance agency. Application shall be made under oath and shall be accompanied by information and evidence that is adequate for the SBCO to determine whether the applicant is specially qualified by reason of facilities, personnel, experience, and demonstrated reliability to investigate, test, and evaluate industrialized buildings for compliance with this chapter, and to provide adequate follow-up and compliance assurance services at the point of manufacture.

B. Following a determination by the SBCO that an application is complete, the information contained in the application and any other information deemed necessary by the SBCO will be reviewed for approval or disapproval. If the application is approved, the applicant will be notified with an approval letter ~~for a two-year period from the date of the approval letter~~. If the application is disapproved, the applicant will be notified in writing of the reasons for the disapproval. The applicant may then resubmit the application within 30 days of the receipt of the notification of disapproval for reconsideration of approval.

~~C. Compliance assurance agencies that are already approved by the SBCO at the time of the effective date of this provision shall have 90 days from the effective date of this provision to apply for reapproval in accordance with subsections A and B of this section. Such agencies shall continue to be approved while the SBCO evaluates the reapplication. Compliance assurance agencies receiving an approval letter from the SBCO after the effective date of this provision shall apply for reapproval within 90 days prior to the expiration of the two-year approval period if continued approval as a compliance assurance agency is desired.~~

~~D.~~ The SBCO may suspend or revoke the approval of a compliance assurance agency upon a determination that (i) approval ~~[ or reapproval ]~~ was based upon fraudulent or inaccurate information, (ii) a change in facts or circumstances renders the agency incapable of meeting its duties and responsibilities as a compliance assurance agency in a satisfactory manner, or (iii) the agency failed to discharge its duties and responsibilities as a compliance assurance agency in a satisfactory manner. In such cases, the SBCO will issue a suspension or revocation notice to the agency outlining the reasons for the actions and the terms, if any, for reinstatement.

## 13VAC5-91-200. Information required by the administrator.

All of the following information and criteria will be considered by the administrator in designating ~~[ initial ] approval [ and re-approval ]~~ of compliance assurance agencies:

1. Names of officers and location of offices.
2. Specification and description of services proposed to be furnished under this chapter.
3. Description of qualifications of personnel and their responsibilities, including an assurance that personnel involved in system analysis, design and plans review, and compliance assurance inspections, and their supervisors comply with the requirements of the American Society for Testing and Material (ASTM) Standard Number ~~[ E541-08 E541-10 ]~~ - Standard Specification for Agencies Engaged in System Analysis and Compliance Assurance for Manufactured Building or shall obtain ICC or DHCD certifications in the appropriate subject area within 18 months of employment and maintain such certifications in an active status.
4. Summary of experience within the organization.
5. General description of procedures and facilities to be used in proposed services, including evaluation of the model, factory follow-up, quality assurance, labeling of production buildings, and specific information to be furnished on or with labels.
6. Procedures to deal with any defective buildings resulting from oversight.
7. Acceptance of these services by independent accrediting organizations ~~and by other jurisdictions~~.
8. Proof of independence and absence of conflict of interest.

The ASTM Standard Number ~~[ E541-08 E541-10 ]~~ may be procured from:

American Society for Testing and Materials  
100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959

## 13VAC5-91-240. Control of compliance assurance agency certification label.

The labels shall be under direct control of the compliance assurance agency ~~until and shall be applied by the manufacturer~~ to buildings that comply fully with this chapter. The labels shall be applied by the compliance assurance agency or by the manufacturer when authorized to do so by the compliance assurance agency. The manufacturer shall place its order for labels with the compliance assurance agency. The manufacturer is not permitted to acquire labels from any other source. Each compliance assurance agency

shall keep a list of the serial numbers of labels issued to each manufacturer's plant in such manner that a copy of the record can be submitted to the administrator upon request.

**13VAC5-91-260. Registration seal for industrialized buildings.**

A. Registered industrialized buildings shall be marked with approved registration seals issued by the SBCO. The seals shall be applied to a registered industrialized building intended for sale or use in Virginia prior to the shipment of the building from the place of manufacture. The seals shall be applied by the compliance assurance agency or by the manufacturer when authorized to do so by the compliance assurance agency.

B. Registered industrialized buildings shall bear one registration seal on each manufactured section or module, or, as an alternative, the registration seal for each manufactured section or module may be placed in one location in the completed building.

C. Approved registration seals shall be purchased by the compliance assurance agency from the SBCO in advance of use. The fee for each registration seal shall be \$75 [ ~~except that the fee for each registration seal for buildings constructed as Group R-5 under Part I of the USBC shall be \$50~~ ]. Fees shall be submitted by checks made payable to "Treasurer of Virginia" or shall be submitted by electronic means. Payment for the seals must be received by the SBCO before the seals can be sent to the user. The compliance assurance agency shall maintain permanent records of seals purchased, including a record of any manufacturers receiving such seals.

D. To the extent practicable, the registration seal shall be installed so that it cannot be removed without destroying it. The seal shall be applied in the vicinity of the electrical distribution panel or in another location that is readily accessible for inspection and shall be installed near the certification label.

E. ~~Refunds of seals shall be in~~ In accordance with § 36-85.1 of the Code of Virginia, any person or corporation having paid the fee for an approved registration seal that it will not use may, unless and except as otherwise specifically provided, within one year from the date of the payment of any such fee, apply to the administrator for a refund, in whole or in part, of the fee paid; provided that no payment shall be recovered unless the approved registration seal is returned unused and in good condition to the administrator. An Additionally, as a requirement of this chapter, an administrative and processing fee of 25% of the amount of the refund due shall be deducted from the refund; however, such deduction shall not exceed \$250.

**13VAC5-91-270. Manufacturer's installation instructions and responsibilities of installers.**

A. The manufacturer of each industrialized building shall provide specifications or instructions, or both, with each building for handling, installing, or erecting the building. Such instructions may be included as part of the label from the compliance assurance agency or may be furnished separately by the manufacturer of the building. The manufacturer shall not be required to provide the foundation and anchoring equipment for the industrialized building.

B. Persons or firms installing or erecting registered industrialized buildings shall install or erect the building in accordance with the manufacturer's instructions.

C. Where the installation or erection of an industrialized building utilizes components that are to be concealed, the installer shall notify and obtain approval from the building official prior to concealment of such components unless the building official has agreed to an alternative method of verification.

Note: The Virginia Department of Professional and Occupational Regulation's Board for Contractors requires licenses for certain activities related to the industrialized building industry. For more information, contact the Board for Contractors at 9960 Mayland Drive, Suite 400, Richmond, VA 23233; (804) 367-8511.

**DOCUMENTS INCORPORATED BY REFERENCE (13VAC5-91)**

International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001-2070 (<http://shop.iccsafe.org/codes.html>):

ICC International Plumbing Code -- ~~2009 and~~ 2012 and 2015 Editions

ICC International Mechanical Code -- ~~2009 and~~ 2012 and 2015 Editions

ICC International Building Code -- ~~2009 and~~ 2012 and 2015 Editions

ICC International Residential Code -- ~~2009 and~~ 2012 and 2015 Editions

ICC International Fuel Gas Code -- ~~2009 and~~ 2012 and 2015 Editions

ICC International Energy Conservation Code -- ~~2009 and~~ 2012 and 2015 Editions

NFPA 70, National Electrical Code -- ~~2008 and~~ 2011 and 2014 Editions, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471 (<http://www.nfpa.org/>)

ASTM Standard Number [ ~~E541-08~~ E541-10 ] -- Standard Specification for Agencies Engaged in System Analysis and

# Regulations

Compliance Assurance for Manufactured Building, American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 (<http://www.astm.org/>)

V.A.R. Doc. No. R16-4666; Filed April 9, 2018, 1:21 p.m.

## TITLE 18. PROFESSIONAL AND OCCUPATIONAL LICENSING

### DEPARTMENT OF PROFESSIONAL AND OCCUPATIONAL REGULATION

#### Final Regulation

**REGISTRAR'S NOTICE:** The Department of Professional and Occupational Regulation is claiming an exemption from Article 2 of the Administrative Process Act in accordance with § 2.2-4006 A 6 of the Code of Virginia, which excludes regulations that are limited to reducing fees charged to regulants and applicants. The Department of Professional and Occupational Regulation will receive, consider, and respond to petitions by any interested person at any time with respect to reconsideration or revision.

**Title of Regulation:** 18VAC120-30. Regulations Governing Polygraph Examiners (amending 18VAC120-30-100).

**Statutory Authority:** § 54.1-1802.1 of the Code of Virginia.

**Effective Date:** July 1, 2018.

**Agency Contact:** Eric L. Olson, Executive Director, Polygraph Examiners Advisory Board, 9960 Mayland Drive Suite 400, Richmond, VA 23233, telephone (804) 367-7226, FAX (866) 430-1033, or email [polygraph@dpor.virginia.gov](mailto:polygraph@dpor.virginia.gov).

#### Summary:

*The amendment reduces the renewal fee for licenses in compliance with § 54.1-113 of the Code of Virginia.*

#### 18VAC120-30-100. Fees.

A. All application fees for licenses and registrations are nonrefundable and shall not be prorated. The date of receipt by the department is the date that will be used to determine whether or not the fee is on time.

B. Application and examination fees must be submitted with the application for licensure. All other fees are discussed in greater detail in later sections of this chapter.

C. In the event that a check, money draft, or similar instrument for payment of a fee required by statute or regulation is not honored by the bank or financial institution named, the applicant or regulant shall be required to remit fees sufficient to cover the original fee, plus an additional processing charge set by the department.

D. 1. The following fees listed in the table apply:

FEE TYPE	AMOUNT DUE	WHEN DUE
Application for Examiner's License	\$45	With application
Application for Examiner's License by Reciprocity	\$95	With application
Application for Intern Registration	\$75	With application
Application for Examiner's License by Examination	\$200	With application
Reexamination	\$200	With approval letter
Renewal	\$55	Up to one calendar month after the expiration date on license
Reinstatement	\$75	One to six calendar months after the expiration date on license

2. For renewal fees received on or before June 30, 2020, the fee shall be \$20.

V.A.R. Doc. No. R18-5441; Filed April 5, 2018, 1:16 p.m.

## BOARD OF VETERINARY MEDICINE

### Final Regulation

**Title of Regulation:** 18VAC150-20. Regulations Governing the Practice of Veterinary Medicine (amending 18VAC150-20-100; adding 18VAC150-20-122, 18VAC150-20-123).

**Statutory Authority:** § 54.1-2400 of the Code of Virginia.

**Effective Date:** May 30, 2018.

**Agency Contact:** Leslie L. Knachel, Executive Director, Board of Veterinary Medicine, 9960 Mayland Drive, Suite 300, Richmond, VA 23233, telephone (804) 367-4468, FAX (804) 527-4471, or email [leslie.knachel@dhp.virginia.gov](mailto:leslie.knachel@dhp.virginia.gov).

#### Summary:

*In accordance with provisions of Chapter 306 of the 2016 Acts of Assembly, the amendments establish a faculty license and an intern/resident license for persons*

*providing clinical care to animals at an accredited veterinary education program in Virginia.*

Summary of Public Comments and Agency's Response: No public comments were received by the promulgating agency.

**18VAC150-20-100. Fees.**

The following fees shall be in effect:

Veterinary application for licensure	\$200
<u>Veterinary application for faculty licensure</u>	<u>\$100</u>
Veterinary license renewal (active)	\$175
Veterinary license renewal (inactive)	\$85
<u>Veterinary faculty license renewal</u>	<u>\$75</u>
Veterinary reinstatement of expired license	\$255
Veterinary license late renewal	\$60
<u>Veterinary faculty license late renewal</u>	<u>\$25</u>
Veterinarian reinstatement after disciplinary action	\$450
<u>Veterinary intern/resident license -- initial or renewal</u>	<u>\$25</u>
Veterinary technician application for licensure	\$65
Veterinary technician license renewal	\$50
Veterinary technician license renewal (inactive)	\$25
Veterinary technician license late renewal	\$20
Veterinary technician reinstatement of expired license	\$95
Veterinary technician reinstatement after disciplinary action	\$125
Equine dental technician initial registration	\$100
Equine dental technician registration renewal	\$70
Equine dental technician late renewal	\$25
Equine dental technician reinstatement	\$120
Initial veterinary establishment registration	\$300
Veterinary establishment renewal	\$200
Veterinary establishment late renewal	\$75

Veterinary establishment reinstatement	\$75
Veterinary establishment reinspection	\$300
Veterinary establishment -- change of location	\$300
Veterinary establishment -- change of veterinarian-in-charge	\$40
Duplicate license	\$15
Duplicate wall certificate	\$25
Returned check	\$35
Licensure verification to another jurisdiction	\$25

**18VAC150-20-122. Requirements for faculty licensure.**

A. Upon payment of the fee prescribed in 18VAC150-20-100 and provided that no grounds exist to deny licensure pursuant to § 54.1-3807 of the Code of Virginia, the board may grant a faculty license to engage in the practice of veterinary medicine as part of a veterinary medical education program accredited by the American Veterinary Medical Association Council on Education to an applicant who:

1. Is qualified for full licensure pursuant to 18VAC150-20-110 or 18VAC150-20-120;
2. Is a graduate of an accredited veterinary program and has an unrestricted current license or if lapsed, is eligible for reinstatement in another United States jurisdiction; or
3. Is a graduate of a veterinary program and has advanced training recognized by the American Board of Veterinary Specialties or a specialty training program acceptable to the veterinary medical education program in which he serves on the faculty.

B. The dean of a veterinary medical education program shall provide verification that the applicant is being or has been hired by the program and shall include an assessment of the applicant's clinical competency and clinical experience that qualifies the applicant for a faculty license.

C. The holder of a faculty license shall be entitled to perform all functions that a person licensed to practice veterinary medicine would be entitled to perform as part of his faculty duties, including patient care functions associated with teaching, research, and the delivery of patient care that takes place only within [ the a ] veterinary establishment or diagnostic and clinical services operated by or affiliated with the veterinary program. A faculty license shall not authorize the holder to practice veterinary medicine in nonaffiliated veterinary establishments or in private practice settings.

D. A faculty license shall expire on December 31 of the second year after its issuance and may be renewed annually without a requirement for continuing education, as specified

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# Regulations

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in 18VAC150-20-70, as long as the accredited program certifies to the licensee's continued employment. When such a license holder ceases serving on the faculty, the license shall be null and void upon termination of employment. The dean of the veterinary medical education program shall notify the board within 30 days of such termination of employment.

**18VAC150-20-123. Requirements for an intern/resident license.**

A. Upon payment of the fee prescribed in 18VAC150-20-100 and provided that no grounds exist to deny licensure pursuant to § 54.1-3807 of the Code of Virginia, the board may issue a temporary license to practice veterinary medicine to an intern or resident. Upon recommendation of the dean or director of graduate education of the veterinary medical education program, such a license may be issued to an applicant who is a graduate of an AVMA-accredited program or who meets requirements of the Educational Commission of Foreign Veterinary Graduates or the Program for the Assessment of Veterinary Education Equivalence of the American Association of Veterinary State Boards, as verified by the veterinary medical education program. The application shall include the beginning and ending dates of the internship or residency.

B. The intern or resident shall be supervised by a fully licensed veterinarian or a veterinarian who holds a faculty license issued by the board. The intern or resident shall only practice within [ ~~the a~~ ] veterinary establishment or diagnostic and clinical services operated by or affiliated with the veterinary program. A temporary license shall not authorize the holder to practice veterinary medicine in nonaffiliated veterinary establishments or in private practice settings.

C. An intern or resident license shall expire on August 1 of the second year after its issuance and may be renewed upon recommendation by the dean or director of graduate education of the veterinary medical education program.

V.A.R. Doc. No. R17-4926; Filed March 29, 2018, 3:35 p.m.

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# GOVERNOR

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## EXECUTIVE ORDER NUMBER SIX (2018)

### **Executive Order Supporting the Critical Role of the Virginia Department of Environmental Quality in Protection of Virginia's Air, Water, and Public Health**

#### Importance of the Initiative

The Commonwealth of Virginia has made significant progress in controlling and reducing air and water pollution, though challenges remain. As Governor, it is my constitutional responsibility to ensure "clean air, pure water, and the use and enjoyment for recreation of adequate public lands, waters and other natural resources." Virginia's Constitution further sets forth the policy to "protect [our] atmosphere, lands and waters from pollution, impairment or destruction for the benefit, enjoyment and general welfare of the people of the Commonwealth."

Public health, recreational opportunities, safe drinking water, economic vitality, and our quality of life are linked directly to a healthy environment. It is critical that the Commonwealth's natural resource agencies have the tools necessary to protect and improve our environmental quality.

Despite progress to reduce pollution, many Virginians, particularly those in urban and rural low income or minority communities, do not enjoy clean air and water for outdoor recreation and daily activities. Assessments of our waterways document improvements in the quality of some rivers and estuaries, but these assessments also show thousands of miles of streams that remain polluted. Additionally, many Virginians suffer from asthma attacks and other respiratory ailments that are directly attributable to poor air quality. Science also shows that carbon pollution and climate change are exacerbating these problems.

The Department of Environmental Quality (DEQ) is the Commonwealth's lead agency charged with ensuring clean air and clean water. Over the past 25 years, DEQ has done extraordinary work to protect and enhance Virginia's environment, and promote the health and wellbeing of the citizens of the Commonwealth.

Yet there is more work to do, and DEQ needs both the tools and the resources to safeguard our air and water for the improvement of our quality of life and that of future generations. Robust monitoring and verification coupled with strong, consistent and uniform enforcement of our air, water, and waste statutes empower Virginia's good corporate stewards, providing regulatory certainty for businesses and healthy places for employees to live, work, and play. This also eliminates any perverse incentive to ignore environmental requirements for short-term economic gain.

#### Executive Action

Accordingly, by virtue of the authority vested in me as the Chief Executive by Article V of the Constitution of Virginia

and under the laws of the Commonwealth, I hereby order the Director of DEQ, in consultation with the Secretary of Natural Resources, to take the following actions:

A. Review DEQ's permitting, monitoring, and enforcement activities across the air, water, and solid waste programs. This shall include:

a. Ensuring that DEQ's permitting programs are as protective of public health and the environment as authorized under state and/or federal law, and identifying within 90 days critical updates to regulations or guidance necessary to meet the objectives of this order;

b. Assessing the enforceability of permitting activity and determining if changes are needed in the methods DEQ uses in crafting such permits;

c. Reviewing the DEQ matrix that guides establishment of penalties to ensure that it effectively, consistently, and uniformly addresses violations that result in threats to public safety, public health, and the environment, as well as recurrent offenses;

d. Developing a protocol for engagement with the Attorney General's Office on enforcement efforts;

e. Identifying any gaps in monitoring, especially in areas where there is credible evidence to support an indication of impairment to public health or the environment;

f. Identifying the extent and causes of delays or backlogs in permitting programs;

g. Assessing any gaps in DEQ resources or authorities necessary to address challenges identified under this review; and

h. Reporting to the Secretary of Natural Resources within 180 days on the reviews required under this section.

B. Evaluate every proposed federal regulatory or guidance modification released after January 20, 2017, regarding air, water, and solid waste to determine the impact on public health, drinking water supplies, and land and water protection. This ongoing review shall include:

a. Determining whether implementation of any proposed federal changes would lead to reduced effectiveness or efficiency in state programs to protect public health and the environment, which should be avoided;

b. Ensuring that any potential rollback in federal protections does not alter DEQ's existing authority to protect public health, drinking water supplies, and the environment;

c. Assessing any gaps in DEQ resources or authorities necessary to address challenges identified under this review; and



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# Governor

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d. Reporting initially to the Secretary of Natural Resources within 180 days on the reviews required under this section and every 90 days thereafter.

C. Work with stakeholders to improve communication with the public and the regulated community and provide more opportunities for proactive education, especially among underserved and lower income populations. This shall include:

a. Reviewing processes to identify ways to enhance public participation and community engagement, including ways to promote transparency and simplify regulatory hearings;

b. Engaging the regulated community, local governments, and other interested stakeholders in the development of new protocols;

c. Establishing an ombudsman dedicated to addressing public questions and concerns;

d. Assessing any gaps in DEQ resources or authorities necessary to address challenges identified under this review; and

e. Reporting to the Secretary of Natural Resources within 180 days on the reviews required under this section.

The Director of DEQ shall report monthly to the Secretary of Natural Resources on the progress of these reviews and shall complete his reviews as specified in this order. The Secretary of Natural Resources shall provide a report on recommended actions to the Governor by April 30, 2019. In addition, the Director of DEQ's review of proposed federal regulatory or guidance modifications shall be ongoing throughout my term as Governor.

## Effective Date of the Executive Order

This Executive Order shall be effective upon its signing and shall remain in full force and effect unless amended or rescinded by further executive order.

Given under my hand and under the Seal of the Commonwealth of Virginia this Tuesday, April 3, 2018.

/s/ Ralph S. Northam  
Governor

# GENERAL NOTICES/ERRATA

## AIR POLLUTION CONTROL BOARD

### Notice of Periodic Review and Small Business Impact Review

Pursuant to Executive Order 17 (2014) and §§ 2.2-4007.1 and 2.2-4017 of the Code of Virginia, the Department of Environmental Quality (DEQ) on behalf of the Air Pollution Control Board is conducting a periodic review and small business impact review of **9VAC5-45, Consumer and Commercial Products**. The review of this regulation will be guided by the principles in Executive Order 17 (2014).

The purpose of this review is to determine whether this regulation should be repealed, amended, or retained in its current form. Public comment is sought on the review of any issue relating to this regulation, including whether the regulation (i) is necessary for the protection of public health, safety, and welfare or for the economical performance of important governmental functions; (ii) minimizes the economic impact on small businesses in a manner consistent with the stated objectives of applicable law; and (iii) is clearly written and easily understandable.

The regulations may be viewed on the DEQ air regulation webpage at <http://www.deq.virginia.gov/Programs/Air/Laws,Regulations,Guidance.aspx>.

The comment period begins April 30, 2018, and ends May 21, 2018.

Comments may be submitted online to the Virginia Regulatory Town Hall at <http://www.townhall.virginia.gov/L/Forums.cfm>. Comments may also be sent to Gary Graham, Regulatory Analyst, Office of Regulatory Affairs, Department of Environmental Quality, P.O. Box 1105, Richmond, VA 23218, telephone (804) 698-4103, FAX (804) 698-4319, or email [gary.graham@deq.virginia.gov](mailto:gary.graham@deq.virginia.gov).

Comments must include the commenter's name and address (physical or email) information in order to receive a response to the comment from the agency. Following the close of the public comment period, a report of both reviews will be posted on the Town Hall and a report of the small business impact review will be published in the Virginia Register of Regulations.

## DEPARTMENT OF ENVIRONMENTAL QUALITY

### Notice of Periodic Review and Small Business Impact Review

Pursuant to Executive Order 17 (2014) and §§ 2.2-4007.1 and 2.2-4017 of the Code of Virginia, the Department of Environmental Quality is conducting a periodic review and small business impact review of **9VAC25-71, Regulations Governing the Discharge of Sewage and Other Wastes**

**from Boats**. The review of this regulation will be guided by the principles in Executive Order 17 (2014).

The purpose of this review is to determine whether this regulation should be repealed, amended, or retained in its current form. Public comment is sought on the review of any issue relating to this regulation, including whether the regulation (i) is necessary for the protection of public health, safety, and welfare or for the economical performance of important governmental functions; (ii) minimizes the economic impact on small businesses in a manner consistent with the stated objectives of applicable law; and (iii) is clearly written and easily understandable.

The comment period begins April 30, 2018, and ends May 21, 2018.

Comments may be submitted online to the Virginia Regulatory Town Hall at <http://www.townhall.virginia.gov/L/Forums.cfm>. Comments may also be sent to Kelly Meadows, Office of Watershed Programs, Department of Environmental Quality, P.O. Box 1105, Richmond, VA 23218, telephone (804) 698-4291, FAX (804) 698-4032, or email [kelly.meadows@deq.virginia.gov](mailto:kelly.meadows@deq.virginia.gov).

Comments must include the commenter's name and address (physical or email) information in order to receive a response to the comment from the agency. Following the close of the public comment period, a report of both reviews will be posted on the Town Hall and a report of the small business impact review will be published in the Virginia Register of Regulations.

## DEPARTMENT OF GENERAL SERVICES

### Revision to Fees for Drinking Water Laboratory Certification

The Division of Consolidated Laboratory Services (DCLS), Department of General Services, published a notice in [34:15 VA.R. 1565-1566](#) seeking comment on the revision to fees charged for certifying drinking water laboratories under 1VAC30-41-270 as required by subdivision I 2 of 1VAC30-41-270.

No comments were received. The revision to the fees will stand as published. The following fees are effective for May 1, 2018, through April 30, 2019, for drinking water laboratory certification under 1VAC30-41-270.

TESTING CATEGORY	FEE (\$)
Microbiological testing	
1 - 2 methods	632
3 - 5 methods	736

# General Notices/Errata

6+ methods	842
Inorganic chemistry, nonmetals testing	
1 - 2 methods	684
3 - 5 methods	894
6 - 8 methods	1105
9+ methods	1315
Inorganic chemistry, metals testing	
1 - 2 methods	1052
3 - 5 methods	1262
6+ methods	1471
Organic chemistry	
1 - 2 methods	1105
3 - 5 methods	1315
6 - 8 methods	1524
9+ methods	1736
Radiochemistry	
1 - 2 methods	1158
3 - 5 methods	1367
6+ methods	1578
Asbestos	
1 - 2 methods	946
3 - 5 methods	1158
6+ methods	1367

How fees are calculated: DCLS calculates a laboratory's total fee by adding the fees for the number of test methods in each category in the fee table for which the laboratory is certified

or applies to be certified. Contact [lab\\_cert@dgs.virginia.gov](mailto:lab_cert@dgs.virginia.gov) for more information about the fee category for a specific method.

Additional fees apply when a laboratory (i) applies for modification of certification under 1VAC30-41-110, (ii) is moving its location when the move requires DCLS to perform an onsite assessment, or (iii) requests reinstatement of certification when DCLS requires an onsite assessment.

Hourly review fee and calculation of total fee: The fee to be charged is the sum of the total hourly charges for all reviewers plus any onsite assessment costs incurred. The hourly charge per reviewer is \$64. The charge per reviewer is determined by multiplying the number of hours expended in the review by \$64.

Onsite review and travel expenses: If an onsite review is required, travel time and onsite review time will be charged at the same hourly rate of \$64 and any travel expenses will be added.

When to pay: Payment is due at the time the application is made or annually thereafter upon receipt of the invoice from DCLS. Annual billing precedes the expiration of the current certificate.

How to pay: Fees may be paid by check, draft, or postal money order payable to the Treasurer, Commonwealth of Virginia, or submitted electronically, if available. Payment must be in United States currency, except that agencies and institutions of the Commonwealth of Virginia may submit interagency transfers for the amount of the fee. Laboratories may also pay fees using credit cards. All fees must be sent to the following address, or submitted electronically, if available: DCLS, Attention: Lab Certification, 600 North 5th Street, Richmond, VA 23219. A fee payment form is available on the drinking water page of the DCLS website at [www.dgs.virginia.gov/dcls](http://www.dgs.virginia.gov/dcls).

**Contact Information:** Rhonda Bishton, Director's Executive Administrative Assistant, Department of General Services, 1100 Bank Street, Suite 420, Richmond, VA 23219, telephone (804) 786-3311, FAX (804) 371-8305, or email [rhonda.bishton@dgs.virginia.gov](mailto:rhonda.bishton@dgs.virginia.gov).

## BOARD OF HOUSING AND COMMUNITY DEVELOPMENT

### Small Business Impact Review - Report of Findings

Pursuant to § 2.2-4007.1 of the Code of Virginia, the Board of Housing and Community Development conducted a small business impact review of **13VAC5-112, Enterprise Zone Grant Program Regulation**, and determined that this regulation should be retained in its current form. The Board of Housing and Community Development is publishing its report of findings dated April 4, 2018, to support this decision in accordance with § 2.2-4007.1 F of the Code of Virginia.

The regulation is required by § 59.1-541 of the Code of Virginia. Comments received addressed the following concerns: increasing the opportunities for smaller towns and rural localities, increasing the opportunities for smaller businesses, making the zone amendment process more flexible, and increasing programmatic funding to allow for fuller funding of the Real Property Investment Grants. The regulation is clearly written and understandable. The regulation was promulgated in 2007 based on legislative changes made in 2005 (Chapter 863 of the 2007 Acts of Assembly). There have been multiple changes since 2007 as required by changes in state code.

At its April 2, 2018, meeting the board discussed the regulation and for the reasons previously stated, determined that the regulation should not be amended or repealed but should be retained in its current form.

Contact Information: Kyle Flanders, Senior Policy Analyst, Board of Housing and Community Development, 600 East Main Street, Suite 300, Richmond, VA 23219, telephone (804) 786-6761, FAX (804) 371-7090, or email [kyle.flanders@dhcd.virginia.gov](mailto:kyle.flanders@dhcd.virginia.gov).

## VIRGINIA LOTTERY

### Director's Orders

The following Director's Orders of the Virginia Lottery were filed with the Virginia Registrar of Regulations on April 11, 2018. The orders may be viewed at the Virginia Lottery, 600 East Main Street, Richmond, Virginia, or at the office of the Registrar of Regulations, 900 East Main Street, 11th Floor, Richmond, Virginia.

#### Director's Order Number Thirty-Six (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play Smokin' Hot Crossword" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Thirty-Seven (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play Safari Bingo" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Thirty-Eight (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play Hot 'n Spicy Bingo" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Thirty-Nine (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play High Roller Bingo" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Forty (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play Gold Rush Crossword" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Forty-One (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play Daily Crossword" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Forty-Two (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play Bonus Bingo" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Forty-Three (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play Blackjack" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Forty-Four (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play \$50,000 Blackjack" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Forty-Five (18)

Virginia Lottery's Computer-Generated Game "Print 'n Play Diamond Club Crossword" Final Rules for Game Operation (effective April 8, 2018)

#### Director's Order Number Forty-Six (18)

Certain Virginia Print 'n Play Games: End of Games.

The following Virginia Lottery games will end on April 7, 2018:

Virginia Lottery's Print 'n Play Extreme Crossword (144 2017)

Virginia Lottery's Print 'n Play Gold Bar Bingo (145 2017)

Virginia Lottery's Print 'n Play High Stakes Blackjack (146 2017)

Virginia Lottery's Print 'n Play Lucky Bingo (148 2017)

Virginia Lottery's Print 'n Play Platinum Crossword (149 2017)

Virginia Lottery's Print 'n Play Blackjack Classic (203 2017)

Virginia Lottery's Print 'n Play Bulls Eye Bingo (204 2017)

Virginia Lottery's Print 'n Play Horoscope Crossword (205 2017)

Virginia Lottery's Print 'n Play Money Bag Crossword (206 2017)

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## General Notices/Errata

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Virginia Lottery's Print 'n Play Rockin' Bingo (207 2017) (effective April 7, 2018)

### Director's Order Number Forty-Eight (18)

Certain Virginia Scratcher Game - Virginia Lottery's Combo Play (1881) (21 2018) (This amended Director's Order is effective nunc pro tunc to April 5, 2018, and shall remain in full force and effect unless amended or rescinded by further Director's Order)

### Director's Order Number Forty-Nine (18)

Certain Virginia Instant Game Lotteries: End of Games.

The following Virginia Lottery instant games will officially end at midnight on April 20, 2018:

Game 1847	2018
Game 1845	Winter Winnings
Game 1819	Double Your Cash
Game 1813	X The Money Bingo (TOP)
Game 1809	\$3,000,000 Cash Payout
Game 1803	Cash Splash
Game 1787	Fast Cash Crossword (TOP)
Game 1782	7X The Money (TOP)
Game 1775	Pirate's Loot
Game 1732	20 Years of Cash
Game 1709	Extreme Green
Game 1703	Big Bills
Game 1670	Jumbo Bucks
Game 1573	Hot Dice

The last day for lottery retailers to return for credit unsold tickets from any of these games will be June 4, 2018. The last day to redeem winning tickets for any of these games will be October 17, 2018, 180 days from the declared official end of the game. Claims for winning tickets from any of these games will not be accepted after that date. Claims that are mailed and received in an envelope bearing a postmark of the United States Postal Service or another sovereign nation October 17, 2018, or earlier, will be deemed to have been received on time. This notice amplifies and conforms to the duly adopted State Lottery Board regulations for the conduct of lottery games. (effective on April 10, 2018)

### **STATE WATER CONTROL BOARD**

#### **Proposed Consent Order for Green Plains Hopewell LLC**

An enforcement action has been proposed for Green Plains Hopewell LLC for violations at their facility located at 701

South 6th Avenue, Hopewell, Virginia. The State Water Control Board proposes to issue a consent order to address noncompliance with State Water Control Law and regulations at the facility. The consent order requires corrective action and payment of a civil charge. A description of the proposed action is available at the Department of Environmental Quality office named below or online at [www.deq.virginia.gov](http://www.deq.virginia.gov). Frank Lupini will accept comments by email at [frank.lupini@deq.virginia.gov](mailto:frank.lupini@deq.virginia.gov), FAX at (804) 698-4019, or postal mail at Department of Environmental Quality, P.O. Box 1105, Richmond, VA 23218, from May 1, 2018, to June 1, 2018.

#### **Proposed Consent Order for Recycle Management of Waynesboro LLC**

The State Water Control Board proposes to issue a consent order to Recycle Management of Waynesboro LLC to address noncompliance with State Water Control Law at the Recycle Management of Waynesboro LLC facility located in Waynesboro, Virginia. A description of the proposed action is available at the Department of Environmental Quality office named below or online at [www.deq.virginia.gov](http://www.deq.virginia.gov). Tamara Ambler will accept comments by email at [tamara.ambler@deq.virginia.gov](mailto:tamara.ambler@deq.virginia.gov), FAX at (540) 574-7878, or postal mail at Department of Environmental Quality, Valley Regional Office, P.O. Box 3000, Harrisonburg, VA 22801, from April 30, 2018, to May 30, 2018.

#### **Proposed Consent Order for Southers Greenhouses Inc.**

An enforcement action has been proposed for Southers Greenhouses Inc. for violations at the former Southers Greenhouses site in Augusta County, Virginia. The State Water Control Board proposes to issue a consent order to Southers Greenhouses Inc. to address noncompliance with State Water Control Law. A description of the proposed action is available at the Department of Environmental Quality office named below or online at [www.deq.virginia.gov](http://www.deq.virginia.gov). Tamara Ambler will accept comments by email at [tamara.ambler@deq.virginia.gov](mailto:tamara.ambler@deq.virginia.gov), FAX at (540) 574-7878, or postal mail at Department of Environmental Quality, Valley Regional Office, P.O. Box 3000, Harrisonburg, VA 22801, from April 30, 2018, to May 30, 2018.

### **VIRGINIA CODE COMMISSION**

#### **Notice to State Agencies**

**Contact Information:** *Mailing Address:* Virginia Code Commission, Pocahontas Building, 900 East Main Street, 8th Floor, Richmond, VA 23219; *Telephone:* (804) 698-1810; *Email:* [varegs@dls.virginia.gov](mailto:varegs@dls.virginia.gov).

**Meeting Notices:** Section 2.2-3707 C of the Code of Virginia requires state agencies to post meeting notices on their

websites and on the Commonwealth Calendar at <https://commonwealthcalendar.virginia.gov>.

**Cumulative Table of Virginia Administrative Code Sections Adopted, Amended, or Repealed:** A table listing regulation sections that have been amended, added, or repealed in the *Virginia Register of Regulations* since the regulations were originally published or last supplemented in the print version of the Virginia Administrative Code is available at <http://register.dls.virginia.gov/documents/cumultab.pdf>.

**Filing Material for Publication in the *Virginia Register of Regulations*:** Agencies use the Regulation Information System (RIS) to file regulations and related items for publication in the *Virginia Register of Regulations*. The Registrar's office works closely with the Department of Planning and Budget (DPB) to coordinate the system with the Virginia Regulatory Town Hall. RIS and Town Hall complement and enhance one another by sharing pertinent regulatory information.

