

# **2021 Virginia Construction Code**

## **CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION**

### **SECTION 301 SCOPE**

#### **301.1 General.**

The provisions of this chapter shall control the classification of all buildings and structures as to occupancy and use. Different classifications of occupancy and use represent varying levels of hazard and risk to building occupants and adjacent properties.

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## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 302 OCCUPANCY CLASSIFICATION AND USE DESIGNATION

#### 302.1 Occupancy classification.

Occupancy classification is the formal designation of the primary purpose of the building, structure or portion thereof. Structures shall be classified into one or more of the occupancy groups specified in this section based on the nature of the hazards and risks to building occupants generally associated with the intended purpose of the building or structure. An area, room or space that is intended to be occupied at different times for different purposes shall comply with all applicable requirements associated with such potential multipurpose. Structures containing multiple occupancy groups shall comply with Section 508. Where a structure is proposed for a purpose that is not specified in this section, such structure shall be classified in the occupancy it most nearly resembles based on the fire safety and relative hazard. Occupied roofs shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard, and shall comply with [Section 503.1.4](#).

1. Assembly (see [Section 303](#)): Groups A-1, A-2, A-3, A-4 and A-5.
2. Business (see [Section 304](#)): Group B.
3. Educational (see [Section 305](#)): Group E.
4. Factory and Industrial (see [Section 306](#)): Groups F-1 and F-2.
5. High Hazard (see [Section 307](#)): Groups H-1, H-2, H-3, H-4 and H-5.
6. Institutional (see [Sections 308 and 313 for State Regulated Care Facilities \(SRCFs\)](#)).
7. Mercantile (see [Section 309](#)): Group M.
8. Residential (see [Sections 310 and 313 for SRCFs](#)): Groups R-1, R-2, R-3, R-4 and R-5.
9. Storage (see [Section 311](#)): Groups S-1 and S-2.
10. Utility and Miscellaneous (see [Section 312](#)): Group U.

#### 302.2 Use designation.

Occupancy groups contain subordinate uses having similar hazards and risks to building occupants. Uses include, but are not limited to, those functional designations specified within the occupancy group descriptions in [Section 302.1](#). Certain uses require specific limitations and controls in accordance with the provisions of [Chapter 4](#) and elsewhere in this code.

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## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 303 ASSEMBLY GROUP A

#### 303.1 Assembly Group A.

Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption or awaiting transportation.

##### 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.

##### 303.1.3 Associated with Group E occupancies.

A room or space used for assembly purposes that is associated with a Group E occupancy is not considered a separate occupancy.

##### 303.1.4 Accessory to places of religious worship.

Accessory religious educational rooms and religious auditoriums with *occupant loads* of less than 100 per room or space are not considered separate occupancies.

##### 303.1.5 Special amusement areas.

*Special amusement areas* shall comply with [Section 411](#).

#### 303.2 Assembly Group A-1.

Group A-1 occupancy includes assembly uses, usually with fixed seating, intended for the production and viewing of the performing arts or motion pictures including, but not limited to:

- Motion picture theaters
- Symphony and concert halls
- Television and radio studios admitting an audience
- Theaters

#### 303.3 Assembly Group A-2.

Group A-2 occupancy includes assembly uses intended for food and/or drink consumption including, but not limited to:

- Banquet halls
- Casinos (*gaming areas*)
- Nightclubs
- Restaurants, cafeterias and similar dining facilities (including associated commercial kitchens)
- Taverns and bars

#### 303.4 Assembly Group A-3.

Group A-3 occupancy includes assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A including, but not limited to:

- Amusement arcades
- Art galleries
- Bowling alleys
- Community halls
- Courtrooms
- Dance halls (not including food or drink consumption)
- Exhibition halls
- Funeral parlors

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Greenhouses for the conservation and exhibition of plants  
that provide public access  
Gymnasiums (without spectator seating)  
Indoor *swimming pools* (without spectator seating)  
Indoor tennis courts (without spectator seating)  
Lecture halls  
Libraries  
Museums  
*Places of religious worship*  
Pool and billiard parlors  
Waiting areas in transportation terminals

#### **303.5 Assembly Group A-4.**

Group A-4 occupancy includes assembly uses intended for viewing of indoor sporting events and activities with spectator seating including, but not limited to:

Arenas  
Skating rinks  
*Swimming pools*  
Tennis courts

#### **303.6 Assembly Group A-5.**

Assembly uses intended for participation in or viewing outdoor activities including:

Amusement park structures  
Bleachers  
Grandstands  
Stadiums  
*Swimming pools*

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### SECTION 304 BUSINESS GROUP B

#### 304.1 Business Group B.

Business Group B occupancy includes, among others, the use of a *building* or *structure*, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

- Airport traffic control towers
- Ambulatory care facilities*
- Animal hospitals, kennels and pounds
- Banks
- Barber and beauty shops
- Car wash
- Civic administration
- Clinic, outpatient*
- Dry cleaning and laundries: pick-up and delivery stations and self-service
- Educational occupancies for students above the 12th grade including *higher education laboratories*
- Electronic data processing
- Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities not more than 2,500 square feet (232 m<sup>2</sup>) in area
- Laboratories: testing and research
- Motor vehicle showrooms
- Post offices
- Print shops
- Professional services (architects, attorneys, dentists, physicians, engineers, etc.)
- Radio and television stations
- Telephone exchanges
- Training and skill development not in a school or academic program (this shall include, but not be limited to, tutoring centers, martial arts studios, gymnastics and similar uses regardless of the ages served, and where not classified as a Group A occupancy)

#### 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.
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.

#### 304.2 Airport traffic control towers.

Airport traffic control towers shall comply with Section 412.2.

#### 304.3 Ambulatory care facilities.

*Ambulatory care facilities* shall comply with Section 422.

#### 304.4 Higher education laboratories.

*Higher education laboratories* shall comply with Section 428.

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## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 305 EDUCATIONAL GROUP E

#### 305.1 Educational Group E.

Educational Group E occupancy includes, among others, the use of a building or structure, or a portion thereof, by six or more persons at any one time for educational purposes through the 12th grade.

##### 305.1.1 Accessory to places of religious worship.

Religious educational rooms and religious auditoriums, which are accessory to *places of religious worship* in accordance with [Section 303.1.4](#) and have *occupant loads* of less than 100 per room or space, shall be classified as Group A-3 occupancies.

##### 305.2 Group E, day care facilities.

This group includes buildings and structures or portions thereof occupied by more than five children older than  $\frac{2}{2}$  years of age who receive educational, supervision or *personal care services* for fewer than 24 hours per day.

##### 305.2.1 Within places of religious worship.

Rooms and spaces within *places of religious worship* providing such day care during religious functions shall be classified as part of the primary occupancy.

##### 305.2.2 Five or fewer children.

A facility having five or fewer children receiving such day care shall be classified as part of the primary occupancy.

##### 305.2.3 Five or fewer children in a dwelling unit.

A facility such as the above within a *dwelling unit* and having five or fewer children receiving such day care shall be classified as a Group R-3 occupancy or shall comply with the [International Residential Code](#).

#### 305.3 Storm shelters in Group E occupancies.

*Storm shelters* shall be provided for Group E occupancies where required by [Section 423.5](#).

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## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 306 FACTORY GROUP F

#### 306.1 Factory Industrial Group F.

Factory Industrial Group F occupancy includes, among others, the use of a building or structure, or a portion thereof, for assembling, disassembling, fabricating, finishing, manufacturing, packaging, repair or processing operations that are not classified as a Group H hazardous or Group S storage occupancy.

#### 306.2 Moderate-hazard factory industrial, Group F-1.

Factory industrial uses that are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

- Aircraft (manufacturing, not to include repair)
- Appliances
- Athletic equipment
- Automobiles and other motor vehicles
- Bakeries
- Beverages: over 16-percent alcohol content
- Bicycles
- Boats
- Brooms or brushes
- Business machines
- Cameras and photo equipment
- Canvas or similar fabric
- Carpets and rugs (includes cleaning)
- Clothing
- Construction and agricultural machinery
- Disinfectants
- Dry cleaning and dyeing
- Electric generation plants
- Electronics
- [Energy storage systems \(ESS\) in dedicated use buildings](#)
- Engines (including rebuilding)
- Food processing establishments and commercial kitchens not associated with restaurants, cafeterias and similar dining facilities more than 2,500 square feet (232 m<sup>2</sup>) in area
- Furniture
- Hemp products
- Jute products
- Laundries
- Leather products
- Machinery
- Metals
- Millwork (sash and door)
- Motion pictures and television filming (without spectators)
- Musical instruments
- Optical goods
- Paper mills or products
- Photographic film
- Plastic products
- Printing or publishing
- Recreational vehicles
- Refuse incineration
- Shoes
- Soaps and detergents

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Textiles  
Tobacco  
Trailers  
Upholstering  
[Water/sewer treatment facilities](#)  
Wood; distillation  
Woodworking (cabinet)

### **306.2.1 Aircraft manufacturing facilities.**

Aircraft manufacturing facilities shall comply with [Section 412.6](#).

### **306.3 Low-hazard factory industrial, Group F-2.**

Factory industrial uses that involve the fabrication or manufacturing of noncombustible materials that during finishing, packing or processing do not involve a significant fire hazard shall be classified as F-2 occupancies and shall include, but not be limited to, the following:

Beverages: up to and including 16-percent alcohol content  
*Brick* and masonry  
Ceramic products  
Foundries  
Glass products  
Gypsum  
Ice  
Metal products (fabrication and assembly)



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## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 307 HIGH-HAZARD GROUP H

#### [F] 307.1 High-hazard Group H.

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

**TABLE 307.1(1)**  
**MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD<sup>a, j, m, n, p</sup>**

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE <sup>b</sup>			USE-CLOSED SYSTEMS <sup>b</sup>			USE-OPEN SYSTEMS <sup>b</sup>	
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)
Combustible dust	NA	H-2	See Note q	NA	NA	See Note q	NA	NA	See Note q	NA
Combustible fiber <sup>q</sup>	Loose Baled <sup>o</sup>	H-3	(100) (1,000)	NA	NA	(100) (1,000)	NA	NA	(20) (200)	NA
Combustible liquid <sup>c, i</sup>	II IIIA IIIB	H-2 or H-3 H-2 or H-3 NA	NA	120 <sup>d, e</sup> 330 <sup>d, e</sup> 13,200 <sup>e, f</sup>	NA	NA	120 <sup>d</sup> 330 <sup>d</sup> 13,200 <sup>f</sup>	NA	NA	30 <sup>d</sup> 80 <sup>d</sup> 3,300 <sup>f</sup>
Cryogenic flammable	NA	H-2	NA	45 <sup>d</sup>	NA	NA	45 <sup>d</sup>	NA	NA	10 <sup>d</sup>
Cryogenic inert	NA	NA	NA	NA	NL	NA	NA	NL	NA	NA
Cryogenic oxidizing	NA	H-3	NA	45 <sup>d</sup>	NA	NA	45 <sup>d</sup>	NA	NA	10 <sup>d</sup>
Explosives	Division 1.1	H-1 H-1 H-1 or H-2 H-3 H-3 H-1 H-1 H-1	1 <sup>e, g</sup>	(1) <sup>e, g</sup>	NA	0.25 <sup>g</sup>	(0.25) <sup>g</sup>	NA	0.25 <sup>g</sup>	(0.25) <sup>g</sup>
	Division 1.2		1 <sup>e, g</sup>	(1) <sup>e, g</sup>		0.25 <sup>g</sup>	(0.25) <sup>g</sup>		0.25 <sup>g</sup>	(0.25) <sup>g</sup>
	Division 1.3		5 <sup>e, g</sup>	(5) <sup>e, g</sup>		1 <sup>g</sup>	(1) <sup>g</sup>		1 <sup>g</sup>	(1) <sup>g</sup>
	Division 1.4		50 <sup>e, g</sup>	(50) <sup>e, g</sup>		50 <sup>g</sup>	(50) <sup>g</sup>		NA	NA
	Division 1.4G		125 <sup>e, l</sup>	NA		NA	NA		NA	NA
	Division 1.5		1 <sup>e, g</sup>	(1) <sup>e, g</sup>		0.25 <sup>g</sup>	(0.25) <sup>g</sup>		0.25 <sup>g</sup>	(0.25) <sup>g</sup>
Flammable gas	Gaseous	H-2	NA	NA (150) <sup>d, e</sup>	1,000 <sup>d, e</sup> NA	NA	NA (150) <sup>d, e</sup>	1,000 <sup>d, e</sup> NA	NA	NA
	Liquefied									
Flammable liquid <sup>c</sup>	IA IB and IC	H-2 or H-3	NA	30 <sup>d, e</sup> 120 <sup>d, e</sup>	NA	NA	30 <sup>d</sup> 120 <sup>d</sup>	NA	NA	10 <sup>d</sup> 30 <sup>d</sup>
Flammable liquid, combination (IA, IB, IC)	NA	H-2 or H-3	NA	120 <sup>d, e, h</sup>	NA	NA	120 <sup>d, h</sup>	NA	NA	30 <sup>d, h, r</sup>
Flammable solid	NA	H-3	125 <sup>d, e</sup>	NA	NA	125 <sup>d</sup>	NA	NA	25 <sup>d</sup>	NA
Inert gas	Gaseous	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Liquefied		NA	NA	NL	NA	NA	NL	NA	NA

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

For SI: 1 cubic foot = 0.028 m<sup>3</sup>, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

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

- For use of control areas, see [Section 414.2](#).
- The aggregate quantity in use and storage shall not exceed the quantity specified for storage.
- The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited provided the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable, shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.
- Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an *automatic sprinkler system* in accordance with [Section 903.3.1.1](#). Where Note e also applies, the increase for both notes shall be applied accumulatively.
- Maximum allowable quantities shall be increased 100 percent when stored in approved storage cabinets, day boxes, gas cabinets, gas rooms or exhausted enclosures or in *listed* safety cans in accordance with [Section 5003.9.10](#) of the *International Fire Code*. Where Note d also applies, the increase for both notes shall be applied accumulatively.
- Quantities shall not be limited in a *building* equipped throughout with an *automatic sprinkler system* in accordance with [Section 903.3.1.1](#).
- Allowed only in buildings equipped throughout with an *automatic sprinkler system* in accordance with [Section 903.3.1.1](#).
- Containing not more than the maximum allowable quantity per *control area* of Class IA, IB or IC flammable liquids.
- The maximum allowable quantity shall not apply to fuel oil storage complying with [Section 605.4.2](#) of the *International Fire Code*.
- Quantities in parentheses indicate quantity units in parentheses at the head of each

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column.

- k. A maximum quantity of 220 pounds of solid or 22 gallons of liquid Class 3 oxidizers is allowed when such materials are necessary for maintenance purposes, operation or sanitation of *equipment* when the storage containers and the manner of storage are approved.
- l. Net weight of the pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks, including packaging, shall be used.
- m. For gallons of liquids, divide the amount in pounds by 10 in accordance with [Section 5003.1.2](#) of the International Fire Code.
- n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with [Section 414.2.5](#), see [Tables 414.2.5\(1\)](#) and [414.2.5\(2\)](#).
- o. Densely packed baled cotton that complies with the packing requirements of [ISO 8115](#) shall not be included in this material class.
- p. The following shall not be included in determining the maximum allowable quantities:
  1. Liquid or gaseous fuel in fuel tanks on vehicles.
  2. Liquid or gaseous fuel in fuel tanks on motorized *equipment* operated in accordance with the [International Fire Code](#).
  3. Gaseous fuels in piping systems and fixed appliances regulated by the [International Fuel Gas Code](#).
  4. Liquid fuels in piping systems and fixed appliances regulated by the [International Mechanical Code](#).
  5. Alcohol-based hand rubs classified as Class I or II liquids in dispensers that are installed in accordance with [Sections 5705.5](#) and [5705.5.1](#) of the *International Fire Code*. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the *construction* documents.
- q. Where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with [Section 414.1.3](#).
- r. The tabular value for distilled spirit distillation and blending rooms is 120 gallons.

[F] TABLE 307.1(2)

MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIAL POSING A HEALTH HAZARD<sup>a, c,</sup>

MATERIAL	STORAGE <sup>b</sup>			USE-CLOSED SYSTEMS <sup>b</sup>			USE-OPEN SYSTEMS <sup>b</sup>	
	Solid pounds <sup>d, e</sup>	Liquid gallons (pounds) <sup>d, e</sup>	Gas cubic feet at NTP (pounds) <sup>d</sup>	Solid pounds <sup>d</sup>	Liquid gallons (pounds) <sup>d</sup>	Gas cubic feet at NTP (pounds) <sup>d</sup>	Solid pounds <sup>d</sup>	Liquid gallons (pounds) <sup>d</sup>
Corrosives	5,000	500	Gaseous 810 <sup>e</sup> Liquefied (150)	5,000	500	Gaseous 810 <sup>e</sup> Liquefied (150)	1,000	100
Highly Toxic	10	(10)	Gaseous 20 <sup>g</sup> Liquefied (4) <sup>g</sup>	10	(10)	Gaseous 20 <sup>g</sup> Liquefied (4) <sup>g</sup>	3	(3)
Toxic	500	(500)	Gaseous 810 <sup>e</sup> Liquefied (150) <sup>e</sup>	500	(500)	Gaseous 810 <sup>e</sup> Liquefied (150) <sup>e</sup>	125	(125)

For SI: 1 cubic foot = 0.028 m<sup>3</sup>, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

- a. For use of control areas, see [Section 414.2](#).
- b. The aggregate quantity in use and storage shall not exceed the quantity specified for storage.

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- c. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids and with the remainder of the solutions not being flammable, shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.
- d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an *approved automatic sprinkler system* in accordance with [Section 903.3.1.1](#). Where Note e also applies, the increase for both notes shall be applied accumulatively.
- e. Maximum allowable quantities shall be increased 100 percent where stored in approved storage cabinets, gas cabinets or exhausted enclosures as specified in the *International Fire Code*. Where Note d also applies, the increase for both notes shall be applied accumulatively.
- f. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with [Section 414.2.5](#), see [Tables 414.2.5\(1\)](#) and [414.2.5\(2\)](#).
- g. Allowed only where stored in approved exhausted gas cabinets or exhausted enclosures as specified in the *International Fire Code*.
- h. Quantities in parentheses indicate quantity units in parentheses at the head of each column.
- i. For gallons of liquids, divide the amount in pounds by 10 in accordance with [Section 5003.1.2](#) of the *International Fire Code*.

**[F] 307.1.1 Uses other than Group H.**

An occupancy that stores, uses or handles *hazardous materials* as described in one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of [Section 416](#) and the *International Fire Code*.
2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the *International Fire Code*.
3. Closed piping system containing *flammable or combustible liquids* or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize *combustible liquid* solvents having a *flash point* of 140°F (60°C) or higher in closed systems employing equipment *listed* by an *approved* testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour *fire barriers* constructed in accordance with [Section 707](#) or 1-hour *horizontal assemblies* constructed in accordance with [Section 711](#), or both.
5. Cleaning establishments that utilize a liquid solvent having a *flash point* at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary storage battery systems installed in accordance with the *International Fire Code*.
10. *Corrosive* personal or household products in their original packaging used in retail display.
11. Commonly used *corrosive* building materials.
12. Buildings and structures occupied for *aerosol product* storage, *aerosol cooking spray products* or *plastic aerosol 3 products* shall be classified as Group S-1, provided that such buildings conform to the requirements of the *International Fire Code*.
13. Display and storage of nonflammable solid and nonflammable or noncombustible liquid *hazardous materials* in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with [Section 414.2.5](#).
14. The storage of black powder, smokeless propellant and small arms primers in Groups M, 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 *International Fire Code*, as amended in [Section 307.9](#).
15. Stationary fuel cell power systems installed in accordance with the *International Fire Code*.

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16. Capacitor energy storage systems in accordance with the [International Fire Code](#).
17. Group B *higher education laboratory* occupancies complying with [Section 428](#) and [Chapter 38](#) of the *International Fire Code*.
18. 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](#)

#### **[F] 307.2 Hazardous materials.**

*Hazardous materials* in any quantity shall conform to the requirements of this code, including [Section 414](#), and the *International Fire Code*.

#### **[F] 307.3 High-hazard Group H-1.**

Buildings and structures containing materials that pose a detonation hazard shall be classified as Group H-1. Such materials shall include, but not be limited to, the following:

Detonable *pyrophoric materials*

*Explosives*:

Division 1.1

Division 1.2

Division 1.3

Division 1.4

Division 1.5

Division 1.6

*Organic peroxides*, unclassified detonable

*Oxidizers*, Class 4

*Unstable (reactive) materials*, Class 3 detonable and Class 4

#### **[F] 307.3.1 Occupancies containing explosives not classified as H-1.**

The following occupancies containing *explosive* materials shall be classified as follows:

1. Division 1.3 *explosive* materials that are used and maintained in a form where either confinement or configuration will not elevate the hazard from a mass fire to mass *explosion* hazard shall be allowed in H-2 occupancies.
2. Articles, including articles packaged for shipment, that are not regulated as a Division 1.4 *explosive* under Bureau of Alcohol, Tobacco, Firearms and Explosives regulations, or unpackaged articles used in process operations that do not propagate a detonation or deflagration between articles shall be allowed in H-3 occupancies.

#### **[F] 307.4 High-hazard Group H-2.**

Buildings and structures containing materials that pose a deflagration hazard or a hazard from accelerated burning shall be classified as Group H-2. Such materials shall include, but not be limited to, the following:

Class I, II or IIIA *flammable or combustible liquids* that are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch gauge (103.4 kPa).

*Combustible dusts* where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with [Section 414.1.3](#).

*Cryogenic fluids*, flammable.

*Flammable gases*.

*Organic peroxides*, Class I.

*Oxidizers*, Class 3, that are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch gauge (103 kPa).

*Pyrophoric liquids*, solids and gases, nondetonable.

*Unstable (reactive) materials*, Class 3, nondetonable.

*Water-reactive materials*, Class 3.

#### **[F] 307.5 High-hazard Group H-3.**

Buildings and structures containing materials that readily support combustion or that pose a *physical hazard* shall be classified as Group H-3. Such materials shall include, but not be limited to, the following:

Class I, II or IIIA *flammable or combustible liquids* that are used or stored in normally closed containers or systems pressurized at 15 pounds per square inch gauge (103.4 kPa) or less

*Combustible fibers*, other than densely packed *baled cotton*, where manufactured, generated or used in such a manner that the concentration and conditions create a fire or *explosion* hazard based on information prepared in accordance with [Section 414.1.3](#)

Consumer *fireworks*, 1.4G (Class C, Common)

*Cryogenic fluids*, oxidizing

*Flammable solids*

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*Organic peroxides, Class II and III*

*Oxidizers, Class 2*

*Oxidizers, Class 3, that are used or stored in normally closed containers or systems pressurized at 15 pounds per square inch gauge (103 kPa) or less*

*Oxidizing gases*

*Unstable (reactive) materials, Class 2*

*Water-reactive materials, Class 2*

#### **[F] 307.6 High-hazard Group H-4.**

Buildings and structures containing materials that are *health hazards* shall be classified as Group H-4. Such materials shall include, but not be limited to, the following:

*Corrosives*

*Highly toxic materials*

*Toxic materials*

#### **[F] 307.7 High-hazard Group H-5.**

Semiconductor fabrication facilities and comparable research and development areas in which hazardous production materials (HPM) are used and the aggregate quantity of materials is in excess of those specified in [Table 307.1\(1\)](#) and [\[F\] Table 307.1\(2\)](#) shall be classified as Group H-5. Such facilities and areas shall be designed and constructed in accordance with [Section 415.11](#).

#### **[F] 307.8 Multiple hazards.**

Buildings and structures containing a material or materials representing hazards that are classified in one or more of Groups H-1, H-2, H-3 and H-4 shall conform to the code requirements for each of the occupancies so classified.

#### **307.9 Amendments.**

The following changes shall be made to the [International Fire Code \(IFC\)](#) for the use of Exception 14 in [Section 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.

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 vendor 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 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 (15 240 mm) separation between vendors and 20 feet (6096 mm) 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 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 at least 10 feet (3048 mm) from inhabited buildings and are accessory to

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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 8 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 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 at least 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 warehouse or storage room is not open to unauthorized personnel.
  - 3.2. Smokeless propellant shall be stored in nonportable storage cabinets having wood walls at least 1-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.

# 2021 Virginia Construction Code

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 308 INSTITUTIONAL GROUP I

#### 308.1 Institutional Group I.

Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which care or supervision is provided to persons who are or are *incapable of self-preservation* without physical assistance or in which persons are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3 or I-4.

#### 308.2 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, shall be classified as the occupancy condition indicated in Section 308.2.1 or 308.2.2. Assisted living facilities licensed by the Virginia Department of Social Services shall be classified as one of the occupancy conditions indicated in Section 308.2.1 or 308.2.2.

##### 308.2.1 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 level of exit discharge and the path of egress to the exit does not include steps.

##### 308.2.2 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.

##### 308.2.3 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.

##### 308.2.4 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 *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with [Section 903.3.1.3](#) or [Section P2904](#) of the *International Residential Code*.

#### 308.3 Institutional 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.

##### 308.3.1 Occupancy conditions.

Buildings of Group I-2 shall be classified as one of the occupancy conditions specified in [Section 308.3.1.1](#) or [308.3.1.2](#) and shall comply with [Section 407](#).

##### 308.3.1.1 Condition 1.

This occupancy condition shall include facilities that provide nursing and *medical care* but do not provide emergency care, surgery, obstetrics or in-patient stabilization units for psychiatric or detoxification, including but not limited to *nursing homes* and *foster care facilities*.

##### 308.3.1.2 Condition 2.

This occupancy condition shall include facilities that provide nursing and *medical care* and could provide emergency care, surgery, obstetrics or in-patient stabilization units for psychiatric or detoxification, including but not limited to *hospitals*.

##### 308.3.2 Five or fewer persons receiving medical care.

A facility with five or fewer persons receiving *medical care* shall be classified as Group R-3 or shall comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with [Section 903.3.1.3](#) or [Section P2904](#) of the *International Residential Code*.

#### 308.4 Institutional Group I-3.

Institutional Group I-3 occupancy shall include buildings and structures that are inhabited by more than five persons who

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are under restraint or security. A Group I-3 facility is occupied by persons who are generally *incapable of self-preservation* due to security measures not under the occupants' control. This group shall include, but not be limited to, the following:

- Correctional centers
- Detention centers
- Jails
- Prerelease centers
- Prisons
- Reformatories

Buildings of Group I-3 shall be classified as one of the occupancy conditions specified in [Sections 308.4.1 through 308.4.5](#) and shall comply with [Section 408](#).

**308.4.1 Condition 1.**

This occupancy condition shall include buildings in which free movement is allowed from sleeping areas, and other spaces where access or occupancy is permitted, to the exterior via *means of egress* without restraint. A Condition 1 facility is permitted to be constructed as Group R.

**308.4.2 Condition 2.**

This occupancy condition shall include buildings in which free movement is allowed from sleeping areas and any other occupied *smoke compartment* to one or more other *smoke compartments*. Egress to the exterior is impeded by locked exits.

**308.4.3 Condition 3.**

This occupancy condition shall include buildings in which free movement is allowed within individual *smoke compartments*, such as within a residential unit composed of individual *sleeping units* and group activity spaces, where egress is impeded by remote-controlled release of *means of egress* from such a *smoke compartment* to another *smoke compartment*.

**308.4.4 Condition 4.**

This occupancy condition shall include buildings in which free movement is restricted from an occupied space. Remote-controlled release is provided to permit movement from *sleeping units*, activity spaces and other occupied areas within the *smoke compartment* to other *smoke compartments*.

**308.4.5 Condition 5.**

This occupancy condition shall include buildings in which free movement is restricted from an occupied space. Staff-controlled manual release is provided to permit movement from *sleeping units*, activity spaces and other occupied areas within the *smoke compartment* to other *smoke compartments*.

**308.5 Institutional Group I-4, day care facilities.**

Institutional Group I-4 occupancy shall include buildings and structures occupied by more than five persons of any age who receive *custodial care* for fewer than 24 hours per day by persons other than parents or guardians; relatives by blood, marriage or adoption; and in a place other than the home of the person cared for. This group shall include, but not be limited to, the following:

- Adult day care
- Child day care

**Exception:** Family day homes under [Section 313.3](#).

**308.5.1 Classification as Group E.**

A child day care facility that provides care for more than five but not more than 100 children  $\frac{2}{2}$  years or less of age, where the rooms in which the children are cared for are located on a *level of exit discharge* serving such rooms and each of these child care rooms has an *exit* door directly to the exterior, shall be classified as Group E.

**308.5.2 Within a place of religious worship.**

Rooms and spaces within *places of religious worship* providing such care during religious functions shall be classified as part of the primary occupancy.

**308.5.3 Five or fewer persons receiving care.**

A facility having five or fewer persons receiving *custodial care* shall be classified as part of the primary occupancy.

**308.5.4 Five or fewer persons receiving care in a dwelling unit.**

A facility such as the above within a *dwelling unit* and having five or fewer persons receiving *custodial care* shall be classified as a Group R-3 occupancy or shall comply with the [International Residential Code](#).

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# 2021 Virginia Construction Code

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 309 MERCANTILE GROUP M

#### 309.1 Mercantile Group M.

Mercantile Group M occupancy includes, among others, the use of a building or structure or a portion thereof for the display and sale of merchandise, and involves stocks of goods, wares or merchandise incidental to such purposes and [where the public has access](#). Mercantile occupancies shall include, but not be limited to, the following:

- Department stores
- Drug stores
- Greenhouses* for display and sale of plants that provide public access.
- Markets
- Motor fuel-dispensing facilities
- Retail or wholesale stores
- Sales rooms

#### 309.2 Quantity of hazardous materials.

The aggregate quantity of nonflammable solid and nonflammable or non-combustible liquid *hazardous materials* stored or displayed in a single *control area* of a Group M occupancy shall not exceed the quantities in [Table 414.2.5\(1\)](#).

#### 309.3 Motor fuel-dispensing facilities.

Motor fuel-dispensing facilities shall comply with [Section 406.7](#).

# 2021 Virginia Construction Code

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 310 RESIDENTIAL GROUP R

#### 310.1 Residential Group R.

Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code*. Group R occupancies not constructed in accordance with the *International Residential Code* as permitted by Sections 310.4.1 and 310.4.2 shall comply with Section 420.

#### 310.2 Residential Group R-1.

Residential occupancies containing sleeping units or more than two dwelling units, and:

1. The occupants are primarily transient, and
2. There are more than 10 occupants.

#### 310.3 Residential Group R-2.

Residential occupancies containing sleeping units or more than two dwelling units where the occupants are not primarily transient.

#### 310.4 Residential Group R-3.

Residential occupancies containing no more than two dwelling units and where the occupancy is not classified as Group R-1, R-2, R-4, R-5, or I, and:

1. The occupants are not primarily transient, or
2. There are no more than 10 transient occupants per dwelling unit.

##### 310.4.1 Radon-resistant construction.

Group R-3 buildings and structures shall be subject to the radon-resistant construction requirements in Appendix F of the *International Residential Code* (IRC) in localities enforcing such requirements pursuant to Section R331 of the IRC.

##### 310.4.2 Lodging houses.

Owner-occupied or proprietoroccupied lodging houses and other transient boarding facilities not more than three stories above grade plane in height, with five or fewer guest rooms and 10 or fewer total occupants shall be 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.

#### 310.5 Residential Group R-4.

Residential occupancies with 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 310.5. Assisted living facilities licensed by the Virginia Department of Social Services shall be classified as one of the occupancy conditions indicated in Section 310.5.1 or 310.5.2.

##### 310.5.1 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 or, in which 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 level of exit discharge and the path of egress to the exit does not include steps.

##### 310.5.2 Condition 2.

This occupancy condition shall include buildings in which there are any persons receiving *custodial care* who require limited verbal or physical assistance while responding to an emergency situation to complete building evacuation.

##### 310.5.3 Radon-resistant construction.

Group R-4 buildings and structures shall be subject to the radon-resistant construction requirements in Appendix AF of the *Virginia Residential Code* (VRC) in localities enforcing such requirements pursuant to Section R331 of the VRC.

#### 310.6 Residential Group R-5.

Residential Group R-5 occupancies shall include residential occupancies within the scope of Section 310.6.1 and *manufactured homes* in accordance with the Virginia Manufactured Home Safety Regulations (13VAC5-91).

##### 310.6.1 Virginia Residential Code.

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The provisions of the IRC for detached one-family and two-family dwellings and townhouses as amended by *Virginia Construction Code (VCC) Section 310.8*, also referred to as the *Virginia Residential Code (VRC)* printed by the ICC, shall apply to *construction*, rehabilitation, and demolition of the types of buildings and structures listed in this subsection, and the *equipment* therein, provided the *building* or structure is not more than three stories above grade plane in height with a separate means of egress:

1. Detached single-family and two-family dwellings.
2. Townhouses.
3. Care facilities for five or fewer people.
4. Owner-occupied or proprietor-occupied lodging houses with no more than five guest rooms and 10 or fewer total occupants.
5. Accessory structures of Group R-5 occupancies.
6. Other occupancies specifically permitted in this code to be classified as Group R-5.

All references to the IRC in the *International Building Code (IBC)* shall be considered to be references to this section.

#### **310.6.1.1 Additional requirements.**

Methods of construction, materials, systems, *equipment* or components for Group R-5 structures not addressed by prescriptive or performance provisions of the VRC shall comply with applicable VCC requirements.

#### **310.7 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 R331](#) of the IRC.

#### **310.8 Amendments to the IRC.**

The following changes shall be made to the IRC for its use as part of this code:

**(DHCD Note:** The changes to the [IRC](#) are available in the *Virginia Residential Code* published by the ICC, or the pamphlet form of the VCC published by the DHCD. They are not included in the printing of the VCC.)

# 2021 Virginia Construction Code

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 311 STORAGE GROUP S

#### 311.1 Storage Group S.

Storage Group S occupancy includes, among others, the use of a building or structure, or a portion thereof, for storage that is not classified as a hazardous occupancy.

##### 311.1.1 Accessory storage spaces.

A room or space used for storage purposes that is accessory to another occupancy shall be classified as part of that occupancy.

##### 311.1.2 Combustible storage.

High-piled stock or rack storage, or *attic*, under-floor and concealed spaces used for storage of combustible materials, shall be in accordance with Section 413.

#### 311.2 Moderate-hazard storage, Group S-1.

Storage Group S-1 occupancies are buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:

- Aerosol products*, Levels 2 and 3
- Aircraft hangar (storage and repair)
- Bags: cloth, burlap and paper
- Bamboos and rattan
- Baskets
- Belting: canvas and leather
- [Beverages over 16-percent alcohol content](#)
- Books and paper in rolls or packs
- Boots and shoes
- Buttons, including cloth covered, pearl or bone
- Cardboard and cardboard boxes
- Clothing, woolen wearing apparel
- Cordage
- Dry boat storage (indoor)
- Furniture
- Furs
- Glues, mucilage, pastes and size
- Grains
- Horns and combs, other than celluloid
- Leather
- Linoleum
- Lumber
- Motor vehicle *repair garages* complying with the maximum allowable quantities of *hazardous materials* specified in [Table 307.1\(1\)](#) (see [Section 406.8](#))
- Photo engravings
- Resilient flooring
- Self-service storage facility* (mini-storage)
- Silks
- Soaps
- Sugar
- Tires, bulk storage of
- Tobacco, cigars, cigarettes and snuff
- Upholstery and mattresses
- Wax candles

##### 311.2.1 Aircraft hangers.

Aircraft hangars used for storage or repair shall comply with [Section 412.3](#).

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### 311.2.2 Motor vehicle repair garages

Motor vehicle repair garages shall comply with Section 406.8.

### 311.3 Low-hazard storage, Group S-2.

Storage Group S-2 occupancies include, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic *trim*, such as knobs, handles or film wrapping. Group S-2 storage uses shall include, but not be limited to, storage of the following:

- Asbestos
- Beverages up to and including 16-percent alcohol
- Cement in bags
- Chalk and crayons
- Dairy products in nonwaxed coated paper containers
- Dry cell batteries
- Electrical coils
- Electrical motors
- Empty cans
- Food products
- Foods in noncombustible containers
- Fresh fruits and vegetables in nonplastic trays or containers
- Frozen foods
- Glass
- Glass bottles, empty or filled with noncombustible liquids
- Gypsum board
- Inert pigments
- Ivory
- Meats
- Metal cabinets
- Metal desks with plastic tops and *trim*
- Metal parts
- Metals
- Mirrors
- Oil-filled and other types of distribution transformers
- Public parking garages, open or enclosed
- Porcelain and pottery
- Stoves
- Talc and soapstones
- Washers and dryers

#### 311.3.1 Public parking garages.

Public parking garages shall comply with Section 406.4 and the additional requirements of Section 406.5 for open parking garages or Section 406.6 for enclosed parking garages.

# 2021 Virginia Construction Code

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 312 UTILITY AND MISCELLANEOUS GROUP U

#### 312.1 General.

Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

*Agricultural buildings*

Aircraft hangars, accessory to a one- or two-family residence (see [Section 412.4](#))

Barns

Carports

Communication equipment structures with a *gross floor area* of less than 1,500 square feet (139 m<sup>2</sup>)

Fences more than **7 feet (2134 mm)** in height

Grain silos, accessory to a residential occupancy

Livestock shelters

[Marinas](#)

*Private garages*

Retaining walls

Sheds

Stables

Tanks

Towers

#### 312.1.1 Greenhouses.

*Greenhouses* not classified as another occupancy shall be classified as Use Group U.

#### 312.2 Private garages and carports.

*Private garages* and carports shall comply with [Section 406.3](#).

#### 312.3 Residential aircraft hangars.

Aircraft hangars accessory to a one- or two-family residence shall comply with [Section 412.4](#).

# 2021 Virginia Construction Code

## CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

### SECTION 313 STATE REGULATED CARE FACILITIES (SRCF)

#### 313.1 General.

Notwithstanding any other requirements of this code, this section applies to the use and occupancy classification of state regulated care facilities addressed in this section.

#### 313.2 Assisted living facilities.

Assisted living facilities licensed by the Virginia Department of Social Services shall be classified as one of the occupancies specified in [Sections 313.2.1 through 313.2.6](#).

##### 313.2.1 Group I-1 Condition 1.

Facilities with more than 16 persons receiving care, in which all persons receiving care, without any assistance, are capable of responding to an emergency situation to complete *building* evacuation, shall be classified as Group I-1 Condition 1. Not more than five of the persons may require physical assistance from staff to respond to an emergency, provided all persons requiring assistance reside on a level of exit discharge and the path of egress to the exit does not include steps.

##### 313.2.2 Group I-1 Condition 2.

Facilities with more than 16 persons receiving care, in which there are persons who require assistance by not more than one staff member while responding to an emergency situation to complete *building* evacuation, shall be classified as Group I-1 Condition 2. Not more than five of the persons may require physical assistance from more than one staff member to respond to an emergency situation.

##### 313.2.3 Group I-2 Condition 1.

Facilities with more than five persons receiving care who require assistance by more than one staff member when responding to an emergency situation to complete *building* evacuation, shall be classified as Group I-2 Condition 1.

##### 313.2.4 Group R-4 Condition 1.

Facilities with nine to 16 persons receiving care, where all persons receiving care, without any assistance, are capable of responding to an emergency situation to complete *building* evacuation shall be classified as R-4 Condition 1. Not more than five of the persons may require physical assistance from staff to respond to an emergency, provided all persons requiring assistance reside on a level of exit discharge and the path of egress to the exit does not include steps.

##### 313.2.5 Group R-4 Condition 2.

*Buildings* with nine to 16 persons receiving care, who may require assistance by not more than one staff member when responding to an emergency situation to complete *building* evacuation, shall be classified as Group R-4 Condition 2. Not more than five of the persons may require physical assistance from staff to respond to an emergency situation.

##### 313.2.6 Group R-2, R-3, or R-5.

Facilities with no more than eight persons receiving care, with one or more resident counselors, and all persons 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. Up to five of the persons may require physical assistance from staff to respond to an emergency situation when in compliance with the following:

1. All residents that require physical assistance from staff reside on a level of exit discharge and the path of egress to the exit does not include steps.
2. The *building* is protected by an automatic sprinkler system installed in accordance with [Section 903.3](#) of this code or [Section P2904](#) of the IRC.

#### 313.3 Family day homes.

Family day homes registered or licensed by the Virginia Department of Education shall be classified as Group R-2, R-3, or R-5.

#### 313.4 Group homes.

Group Homes licensed by the Virginia Department of Behavioral Health and Developmental Services shall be classified as one of the occupancies specified in [Sections 313.4.1 through 313.4.3](#).

##### 313.4.1 Groups R-2, R-3, R-4 Condition 1 or 2, or R-5.

Facilities with no more than eight persons receiving care, with one or more resident counselors, shall be classified as Group R-2, R-3, R-4 (Condition 1 or 2), or R-5. Not more than five of the persons may require physical assistance from staff to respond to an emergency situation.

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#### **313.4.2 Group R-4 Condition 1.**

Facilities with eight to 16 persons receiving care, where all persons, without any assistance, are capable of responding to an emergency situation to complete *building* evacuation shall be classified as Group R-4 Condition 1. Not more than five of the persons may require physical assistance from staff to respond to an emergency, provided all persons requiring assistance reside on a level of exit discharge and the path of egress to the exit does not include steps.

#### **313.4.3 Group R-4 Condition 2.**

Facilities with eight to 16 persons receiving care or facilities with more than five persons requiring physical assistance from staff to respond to an emergency situation shall be classified as Group R-4 Condition 2.

#### **313.5 Hospice facilities.**

Hospice facilities licensed by the Virginia Department of Health shall be classified as one of the occupancies specified in [Sections 313.5.1](#) through [313.5.3](#).

##### **313.5.1 Group I-2.**

Facilities with 16 or more persons receiving care shall be classified as Group I-2.

##### **313.5.2 Group R-4 Condition 1.**

Facilities with less than 16 persons receiving care shall be classified as Group R-4 Condition 1.

##### **313.5.3 Group R-5.**

Facilities with five or fewer persons receiving care are permitted to be classified as Group R-5.