

IBC - General



cdpACCESS

2024 GROUP A PROPOSED CHANGES TO THE I-CODES

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IBC General Code Change Proposals

The following code change proposals are labeled as general code change proposals because they are proposals for changes to sections in chapters of the International Building Code that are designated as the responsibility of the IBC-General Code Development Committee (see page iv of the Introductory pages of this monograph), which meets in the Group B cycle in 2025. However most of the changes included in this Group A code development cycle are to sections of the code that have been prefaced with a [BF], [BE], [F], [P] or [M] meaning that they are the responsibility of a different Code Development Committee—either the IBC-Fire Safety Committee [BF], the IBC-Egress [BE], the IFC Committee [F], the IPC Committee [P] or the IMC Committee [M]. The remaining are changes that are grouped together as Parts of a single Group B General change, some of which are related to Group A codes and are therefore heard in Group A. An example is G1-24, Parts I through VIII, which includes, IBC-E, IBC-FS, IFC, IMC, IPC, IPSDC, IRC MP, IPSDC, ISPSC.

The committee assigned for each code change proposal is indicated in a banner statement near the beginning of the proposal. A list of the affected hearing orders is included below. Refer to these individual hearing orders.

IBC – Egress

IBC – Fire Safety

IFC

IMC

IPC

G1-24 Part I

IBC: 701.1, SECTION 801, 801.1, 901.1, 1401.1, 2601.1

Proponents: Steven Orlowski, Sundowne Building Code Consultants, LLC, Self (sorlowski@sbcc.codes); Robert Marshall, FCAC, FCAC (fcac@iccsafe.org); Jeff Grove, Chair, Building Code Action Committee (BCAC) (bcac@iccsafe.org); Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

THIS IS AN 8 PART CODE CHANGE.

PART I WILL BE HEARD BY THE IBC-FIRE SAFETY CODE COMMITTEE.

PART II WILL BE HEARD BY THE IBC-EGRESS CODE COMMITTEE.

PART III WILL BE HEARD BY THE IRC PLUMBING & MECHANICAL CODE COMMITTEE.

PART V WILL BE HEARD BY THE SWIMMING POOL AND SPA CODE COMMITTEE.

PART IV AND VI WILL BE HEARD BY THE PLUMBING CODE COMMITTEE.

PART VII WILL BE HEARD BY THE MECHANICAL CODE COMMITTEE.

PART VIII WILL BE HEARD BY THE FIRE CODE COMMITTEE.

SEE THE TENTATIVE HEARING SCHEDULE FOR THESE COMMITTEES.

2024 International Building Code

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

SECTION 701 GENERAL

Revise as follows:

701.1 Scope.

~~The provisions of this chapter shall govern the materials- 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*. Design, installation, and construction of fire and smoke protection features shall comply with this chapter.~~

CHAPTER 8 INTERIOR FINISHES

Revise as follows:

SECTION 801 SCOPEGENERAL

~~**801.1 Scope.** The provisions of this chapter shall govern the use of materials- Materials used as *interior finishes*, *trim* and *decorative materials* shall comply with this chapter.~~

CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS

SECTION 901 GENERAL

Revise as follows:

901.1 Scope.

~~The provisions of this chapter shall specify where~~ Where fire protection and *life safety systems* are required by this chapter, and shall apply to the design, installation and operation of *fire protection* and *life safety systems* shall comply with this chapter.

CHAPTER 14 EXTERIOR WALLS

**SECTION 1401
GENERAL**

Revise as follows:

1401.1 Scope.

~~The provisions of this chapter shall establish the minimum requirements for exterior~~ Exterior walls, exterior wall assemblies, *exterior wall coverings*, *exterior wall openings*, exterior windows and doors, exterior soffits and fascias, and architectural *trim* shall comply with this chapter.

CHAPTER 26 PLASTIC

**SECTION 2601
GENERAL**

Revise as follows:

2601.1 Scope.

~~These provisions shall govern the materials~~ Materials, design, application, construction and installation of foam plastic, *foam plastic insulation*, plastic *vener*, interior plastic finish and *trim*, light-transmitting plastics and plastic composites, including *plastic lumber* shall comply with this chapter.

G1-24 Part II

IBC: SECTION 1001, 1001.1, 1001.2, 1101.1

Proponents: Steven Orłowski, Sundowne Building Code Consultants, LLC, Self (sorłowski@sbcc.codes); Robert Marshall, FCAC, FCAC (fcac@iccsafe.org); Jeff Grove, Chair, Building Code Action Committee (BCAC) (bcac@iccsafe.org); Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Building Code

CHAPTER 10 MEANS OF EGRESS

Revise as follows:

SECTION 1001 ADMINISTRATION GENERAL

1001.1 ~~General~~ Scope.

Buildings or portions thereof shall be provided with a *means of egress* system ~~as required by and shall comply with~~ this chapter. The provisions of this chapter shall control the design, construction and arrangement of *means of egress* components required to provide an *approved means of egress* from *structures* and portions thereof.

1001.2 ~~Minimum requirements~~ General.

It shall be unlawful to alter a *building* or *structure* in a manner that will reduce the number of *exits* or the minimum width or required capacity of the *means of egress* to less than required by this code.

CHAPTER 11 ACCESSIBILITY

SECTION 1101 GENERAL

Revise as follows:

1101.1 Scope.

~~The provisions of this chapter shall control the design~~ Design and construction of *facilities* for accessibility for individuals with disabilities shall comply with this chapter.

G1-24 Part II

G1-24 Part III

IRC: M1201.1, M1301.1, M1401.1 (New), M1501.1 (New), SECTION M1601, M1601.1 (New), M1701.1, M1801.1 (New), SECTION M1901, M1901.1 (New), SECTION M2001, M2001.1 (New), SECTION M2101, M2101.1 (New), CHAPTER 22, SECTION M2201, M2201.1 (New), SECTION M2301, M2301.1, P2501.1, P2601.1, SECTION P2701, P2701.1 (New), P2801.1 (New), P2901.1 (New), P3001.1, SECTION P3101, P3101.1, SECTION P3201, P3201.1 (New), P3301.1

Proponents: Steven Orlowski, Sundowne Building Code Consultants, LLC, Self (sorlowski@sbcc.codes); Robert Marshall, FCAC, FCAC (fcac@iccsafe.org); Jeff Grove, Chair, Building Code Action Committee (BCAC) (bcac@iccsafe.org); Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgac@iccsafe.org)

2024 International Residential Code

CHAPTER 12 MECHANICAL ADMINISTRATION

SECTION M1201 GENERAL

Revise as follows:

M1201.1 Scope.

The provisions of of this chapter shall establish the general administrative requirements applicable to mechanical systems and inspection requirements of this code. ~~Chapters 12 through 24 shall regulate the design~~ Design, installation, maintenance, *alteration* and inspection of *mechanical systems* that are permanently installed and used to control environmental conditions within *buildings* shall comply with Chapters 12 through 24 of this code. These chapters shall also regulate those *mechanical systems*, system components, *equipment* and *appliances* specifically addressed in this code.

CHAPTER 13 GENERAL MECHANICAL SYSTEM REQUIREMENTS

SECTION M1301 GENERAL

Revise as follows:

M1301.1 Scope.

~~The provisions of this chapter shall govern the installation~~ Installation of *mechanical systems* not specifically covered in other chapters applicable to *mechanical systems* shall comply with this chapter. Installations of *mechanical appliances, equipment* and systems not addressed by this code shall comply with the applicable provisions of the *International Fuel Gas Code* and the *International Mechanical Code* .

CHAPTER 14 HEATING AND COOLING EQUIPMENT AND APPLIANCES

SECTION M1401 GENERAL

Add new text as follows:

M1401.1 Scope. Heating and cooling equipment and appliances shall comply with this chapter.

CHAPTER 15 EXHAUST SYSTEMS

SECTION M1501 GENERAL

Add new text as follows:

M1501.1 Scope. Exhaust systems shall comply with this chapter.

CHAPTER 16 DUCT SYSTEMS

Add new text as follows:

M1601 GENERAL

M1601.1 Scope. Duct systems serving HVAC and exhaust shall comply with this chapter.

Revise as follows:

SECTION ~~M1601~~ M1602 DUCT CONSTRUCTION

CHAPTER 17 COMBUSTION AIR

SECTION M1701 GENERAL

Add new text as follows:

M1701.1 Scope. For other than gas fired appliances regulated by Chapter 24, combustion air systems shall comply with this chapter.

Revise as follows:

~~M1701.1~~ M1701.2 Scope General requirements.

Solid fuel-burning *appliances* shall be provided with *combustion air* in accordance with the *appliance* manufacturer's installation instructions. Oil-fired *appliances* shall be provided with *combustion air* in accordance with NFPA 31. The methods of providing *combustion air* in this chapter do not apply to fireplaces, fireplace stoves and direct-vent *appliances*. The requirements for combustion and dilution air for gas-fired *appliances* shall be in accordance with Chapter 24.

CHAPTER 18 CHIMNEYS AND VENTS

SECTION M1801 GENERAL

Add new text as follows:

M1801.1 Scope. For other than gas fired appliances regulated by Chapter 24, chimneys and vents shall comply with this chapter.

CHAPTER 19 SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS

Add new text as follows:

SECTION M1901
GENERAL

M1901.1 Scope. For other things fired appliances regulated by Chapter 24, appliances, systems, and equipment identified herein shall comply with this chapter.

Revise as follows:

SECTION M1901 M1902
RANGES AND OVENS

CHAPTER 20 BOILERS AND WATER HEATERS

Add new text as follows:

SECTION M2001
GENERAL

M2001.1 Scope. Systems that heat water shall comply with this chapter.

Revise as follows:

SECTION M2001 M2002
BOILERS

CHAPTER 21 HYDRONIC PIPING

Add new text as follows:

SECTION M2101
GENERAL

M2101.1 Scope. Hydronic piping shall comply with this chapter.

Revise as follows:

SECTION M2101 M2102
HYDRONIC PIPING SYSTEMS INSTALLATION

CHAPTER 22 FUEL OIL STORAGE AND SPECIAL PIPING AND STORAGE SYSTEMS

Add new text as follows:

SECTION M2201
GENERAL

M2201.1 SCOPE. Fuel oil storage and piping systems shall comply with this chapter.

Revise as follows:

SECTION ~~M2201~~ M2202 OIL TANKS

CHAPTER 23 SOLAR THERMAL ENERGY SYSTEMS

Revise as follows:

SECTION M2301 ~~SOLAR THERMAL ENERGY SYSTEMS~~GENERAL

M2301.1 General~~Scope.~~

~~This section provides for the design~~Design, construction, installation, *alteration* and *repair of equipment* and systems using solar thermal energy to provide space heating or cooling, *hot water* heating and swimming pool heating shall comply with this code.

CHAPTER 25 PLUMBING ADMINISTRATION

SECTION P2501 GENERAL

Revise as follows:

P2501.1 Scope.

The provisions of this chapter shall establish the general administrative requirements applicable to plumbing systems and inspection requirements of this code. Design, installation, maintenance, alteration and inspection of plumbing systems that are permanently installed and used to control environmental conditions within buildings shall comply with Chapters 25 through 33 of this code. These chapters shall also regulate those plumbing systems, system components, equipment and appliances specifically addressed in this code.

CHAPTER 26 GENERAL PLUMBING REQUIREMENTS

SECTION P2601 GENERAL

Revise as follows:

P2601.1 Scope.

~~The provisions of this chapter shall govern the installation of plumbing not specifically covered in other chapters applicable to plumbing systems. The installation of plumbing, *appliances, equipment* and systems not addressed by this code shall comply with the applicable provisions of the *International Plumbing Code*.~~ Installation of plumbing, not specifically covered in other chapters applicable to plumbing systems, shall comply with this chapter.

CHAPTER 27 PLUMBING FIXTURES

Add new text as follows:

SECTION P2701 **GENERAL**

P2701.1 Scope. Design, Installation, and materials of plumbing fixtures, faucets and fixture fittings shall comply with this chapter.

Revise as follows:

SECTION ~~P2701~~ P2702 **FIXTURES, FAUCETS AND FIXTURE FITTINGS**

CHAPTER 28 WATER HEATERS

SECTION P2801 **GENERAL**

Add new text as follows:

P2801.1 Scope. Design, Installation, and materials of water heaters and hot water storage tanks shall comply with this chapter.

CHAPTER 29 WATER SUPPLY AND DISTRIBUTION

SECTION P2901 **GENERAL**

Add new text as follows:

P2901.1 Scope. Design, Installation, and materials of hot and cold water supply and distribution system, for utilization in connection with human occupancy and habitation, and individual water supply systems shall comply with this chapter.

CHAPTER 30 SANITARY DRAINAGE

SECTION P3001 **GENERAL**

Add new text as follows:

P3001.1 Scope. Design, Installation, construction, and materials of sanitary drainage systems shall comply with this chapter.

Revise as follows:

~~P3001.1~~ P3001.2 General requirements**Scope.**

~~The provisions of this chapter shall govern the materials, design, construction and installation of sanitary drainage systems. Plumbing materials shall conform to the requirements of this chapter.~~ The drainage, waste and vent (DWV) system shall consist of piping for conveying wastes from plumbing fixtures, *appliances* and appurtenances, including fixture traps; above-grade drainage piping; below-grade drains within the *building*, such as a *building drain*; below- and above-grade venting systems; and piping to the public sewer or private septic system.

CHAPTER 31 VENTS

Revise as follows:

SECTION P3101 VENT SYSTEMS GENERAL

P3101.1 General Scope. ~~This chapter shall govern the selection and installation of piping, tubing and fittings for vent systems. This chapter shall control the minimum diameter of vent pipes, circuit vents, branch vents and *individual vents*, and the size and length of vents and various aspects of vent stacks and stack vents. Additionally, this chapter regulates vent grades and connections, height above fixtures and relief vents for stacks and fixture traps, and the venting of sumps and sewers.~~ Design, installation, construction, and materials of vent systems shall comply with this chapter.

CHAPTER 32 TRAPS

Revise as follows:

SECTION P3201 FIXTURE TRAPS GENERAL

Add new text as follows:

P3201.1 Scope. Design, installation, construction, and materials of fixture traps shall comply with this chapter.

CHAPTER 33 STORM DRAINAGE

SECTION P3301 GENERAL

Revise as follows:

P3301.1 Scope.

~~The provisions of this chapter shall govern the materials, design, construction and installation of storm drainage.~~ Design, installation, construction, and materials of storm drainage systems shall comply with this chapter.

G1-24 Part III

G1-24 Part IV

IPSDC: CHAPTER 3, SECTION 301, 301.1, CHAPTER 4, SECTION 401, 401.1, SECTION 501, CHAPTER 5, 501.1, CHAPTER 6, SECTION 601, 601.1, CHAPTER 7, SECTION 701, 701.1, CHAPTER 8, SECTION 801, 801.1, CHAPTER 9, SECTION 901, 901.1, CHAPTER 10, SECTION 1001, 1001.1, CHAPTER 11, SECTION 1101, 1101.1, CHAPTER 12, SECTION 1201, 1201.1, CHAPTER 13, SECTION 1301, 1301.1

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2024 International Private Sewage Disposal Code

CHAPTER 3 GENERAL REGULATIONS

SECTION 301 GENERAL

Revise as follows:

301.1 Scope.

~~The provisions of this chapter shall govern the general regulations of private~~ Private sewage disposal systems, including specific limitations and ~~flood hazard areas shall comply with this chapter.~~

CHAPTER 4 SITE EVALUATION AND REQUIREMENTS

SECTION 401 GENERAL

Revise as follows:

401.1 Scope.

~~The provisions of this chapter shall govern the evaluation~~ Evaluation of private sewage disposal systems and requirements for ~~private sewage disposal system~~ sites shall comply with this chapter.

SECTION 501 GENERAL

CHAPTER 5 MATERIALS

Revise as follows:

501.1 Scope.

~~The provisions of this chapter shall govern the requirements for materials~~ Materials for private sewage disposal systems shall comply with this chapter.

CHAPTER 6 SOIL ABSORPTION SYSTEMS

SECTION 601 GENERAL

Revise as follows:

601.1 Scope.

~~The provisions of this chapter shall govern the sizing~~ Sizing and installation of soil absorption systems shall comply with this chapter.

CHAPTER 7 PRESSURE DISTRIBUTION SYSTEMS

**SECTION 701
GENERAL**

Revise as follows:

701.1 Scope.

~~The provisions of this chapter shall govern the design~~ Design, and installation of *pressure distribution systems* shall comply with this chapter.

CHAPTER 8 TANKS

**SECTION 801
GENERAL**

Revise as follows:

801.1 Scope.

~~The provisions of this chapter shall govern the design~~ Design, installation, repair and maintenance of septic tanks, treatment tanks and holding tanks shall comply with this chapter.

CHAPTER 9 MOUND SYSTEMS

**SECTION 901
GENERAL**

Revise as follows:

901.1 Scope.

~~The provisions of this chapter shall govern the design~~ Design and installation of mound systems shall comply with this chapter.

CHAPTER 10 CESSPOOLS

**SECTION 1001
GENERAL**

Revise as follows:

1001.1 Scope.

~~The provisions of this chapter shall govern the design~~ Design and installation of *cesspools* shall comply with this chapter.

CHAPTER 11 RESIDENTIAL WASTEWATER SYSTEMS

SECTION 1101 GENERAL

Revise as follows:

1101.1 Scope.

The provisions of this chapter shall govern residential Residential wastewater systems shall comply with this chapter.

CHAPTER 12 INSPECTIONS

SECTION 1201 GENERAL

Revise as follows:

1201.1 Scope.

The provisions of this chapter shall govern the inspection Inspection of private sewage disposal systems shall comply with this chapter.

CHAPTER 13 NONLIQUID SATURATED TREATMENT SYSTEMS

SECTION 1301 GENERAL

Revise as follows:

1301.1 Scope.

The provisions of this chapter shall govern nonliquid Nonliquid saturated treatment systems shall comply with this chapter.

G1-24 Part V

ISPSC: 301.1, 301.1.1, 401.1, 401.2, 401.3, 501.1, 501.2, 601.1, 601.2, 601.3, 701.1, 701.1.1, 701.2, 801.1, 801.2, 901.1, 901.2, 1001.1, 1001.2

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2024 International Swimming Pool and Spa Code

CHAPTER 3 GENERAL COMPLIANCE

SECTION 301 GENERAL

Revise as follows:

301.1 Scope. ~~The provisions of this chapter shall govern the general~~ General design and construction of public and *residential* pools and spas and related piping, equipment, and materials shall comply with this chapter. ~~Provisions that are unique to a specific type of pool or spa are located in Chapters 4 through 10.~~

301.1.1 Application of Chapters 4 through 10. ~~Where differences occur between the provisions of this chapter and the provisions of Chapters 4 through 10, the provisions of Chapters 4 through 10 shall apply.~~

CHAPTER 4 PUBLIC SWIMMING POOLS

SECTION 401 GENERAL

Revise as follows:

401.1 Scope. ~~The provisions of this chapter shall apply only to~~ Design, construction, installation, repair, and operation of Class A, Class B, Class C, Class E and Class F public swimming pools shall comply with this chapter.

401.2 Intent. ~~The provisions in this chapter shall govern the design, equipment, operation, warning signs, installation, sanitation, new construction, and alteration specific to the types of public swimming pools indicated in Section 401.1.~~

401.3 Chapter 3 compliance required. ~~In addition to the requirements of this chapter, public swimming pools shall comply with the requirements of Chapter 3.~~

CHAPTER 5 PUBLIC SPAS AND PUBLIC EXERCISE SPAS

SECTION 501 GENERAL

Revise as follows:

501.1 Scope. ~~This chapter shall govern the design~~ Design, installation, construction and repair of public spas and exercise spas shall comply with this chapter regardless of whether a fee is charged for use.

501.2 General. ~~In addition to the requirements of this chapter, public spas and public exercise spas shall comply with the requirements of~~

CHAPTER 6 AQUATIC RECREATION FACILITIES

SECTION 601 GENERAL

Revise as follows:

601.1 Scope. ~~This chapter covers public pools and water containment systems used for aquatic recreation. This chapter provides specifications for the design, construction, installation, alteration, repair, and operation of Class D-1 through Class D-6 equipment, operation, signs, installation, sanitation, new construction, and rehabilitation of public swimming pools and water containment systems intended to be used for aquatic recreation facilities shall comply with this chapter.~~ This chapter covers Class D-1 through Class D-6 public pools whether they are provided as stand-alone attractions or in various combinations in a composite attraction.

601.2 Combinations. Where combinations of Class D-1 through Class D-6 pools exist within an aquatic recreation ~~a~~ facility, each element ~~in the facility~~ shall comply with the applicable code sections as if the element functioned as a part of a freestanding public swimming pool of Class D-1 through Class D-6.

601.3 General. ~~In addition to the requirements of this chapter, aquatic recreation facilities shall comply with the requirements of Chapter 3.~~

CHAPTER 7 ONGROUND STORABLE RESIDENTIAL SWIMMING POOLS

SECTION 701 GENERAL

Revise as follows:

701.1 Scope. ~~This chapter describes certain criteria for the design, construction, manufacturing, and testing of onground storable pools intended for residential use shall comply with this chapter. This includes portable pools with flexible or nonrigid side walls that achieve their structural integrity by means of uniform shape, support frame or a combination thereof, and that can be disassembled for storage or relocation. This chapter includes what has been commonly referred to in past standards or codes as onground or above-ground pools.~~

701.1.1 Permanent inground residential swimming pool. ~~This chapter does not apply to permanent inground residential pools, as defined in Chapter 8.~~

701.2 General. ~~In addition to the requirements of this chapter, onground storable residential swimming pools shall comply with the requirements of Chapter 3.~~

CHAPTER 8 PERMANENT INGROUND RESIDENTIAL SWIMMING POOLS

SECTION 801 GENERAL

Revise as follows:

801.1 Scope. ~~The provisions of this chapter shall govern permanent inground residential swimming pools. Permanent inground~~ Design, construction, installation, alteration, repair and operation of permanent residential swimming pools shall ~~which~~ include pools that are

~~inground, partially aboveground or entirely aboveground shall comply with this chapter grade. This chapter does not cover pools that are specifically manufactured for above-ground use and that are capable of being disassembled and stored. This chapter covers new construction, modification and repair of inground residential swimming pools.~~

~~**801.2 General.** Permanent inground residential pools shall comply with the requirements of Chapter 3.~~

CHAPTER 9 PERMANENT RESIDENTIAL SPAS AND PERMANENT RESIDENTIAL EXERCISE SPAS

SECTION 901 GENERAL

Revise as follows:

~~**901.1 Scope.** This chapter shall govern the design, installation, Design, construction, installation, alteration, repair, and operation and repair of permanently installed residential spas and exercise spas intended for residential use, shall comply with this chapter and Sections 501 through 503 and 505 through 507.~~

~~**901.2 General.** Permanent residential spas and permanent residential exercise spas shall comply with Chapter 5 except that Sections 504.1, 504.1.1 and 508.1 shall not apply. Such spas shall comply with the requirements of Chapter 3.~~

CHAPTER 10 PORTABLE RESIDENTIAL SPAS AND PORTABLE RESIDENTIAL EXERCISE SPAS

SECTION 1001 GENERAL

Revise as follows:

~~**1001.1 Scope.** This chapter shall govern the installation, Installation, alteration and repair of portable residential spas and portable exercise spas intended for residential use shall comply with this chapter.~~

~~**1001.2 General.** In addition to the requirements of this chapter, portable residential spas and portable residential exercise spas shall comply with the requirements of Chapter 3.~~

G1-24 Part VI

IPC: 301.1, 401.1, 501.1, 601.1, 701.1, 801.1, 901.1, 1001.1, 1101.1, 1201.1, , 1201.2(New), 1301.1, 1301.1.1(New), 1401.1; IBC: [P] 2901.1

Proponents: Steven Orłowski, Sundowne Building Code Consultants, LLC, Self (sorłowski@sbcc.codes); Robert Marshall, FCAC, FCAC (fcac@iccsafe.org); Jeff Grove, Chair, Building Code Action Committee (BCAC) (bcac@iccsafe.org); Andrew Bevis, Chair, Plumbing, Mechanical and Fuel Gas Code Action Committee (pmgcac@iccsafe.org)

2024 International Plumbing Code

CHAPTER 3 GENERAL REGULATIONS

SECTION 301 GENERAL

Revise as follows:

301.1 Scope.

~~The provisions of this chapter shall govern the general regulations regarding the installation of plumbing not specific to other chapters.~~
General installation of plumbing systems shall comply with this chapter.

CHAPTER 4 FIXTURES, FAUCETS AND FIXTURE FITTINGS

SECTION 401 GENERAL

Revise as follows:

401.1 Scope. ~~This chapter shall govern the materials, design and installation of plumbing fixtures, faucets and fixture fittings in accordance with the type of *occupancy*, and shall provide for the minimum number of fixtures for various types of *occupancies*.~~ Design, installation, and materials of plumbing fixtures, faucets and fixture fittings shall comply with this chapter.

CHAPTER 5 WATER HEATERS

SECTION 501 GENERAL

Revise as follows:

501.1 Scope.

~~The provisions of this chapter shall govern the materials, design and installation of water heaters and the related safety devices and appurtenances.~~ Design, installation, and materials of hot water heaters and hot water storage tanks shall comply with this chapter.

CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

SECTION 601 GENERAL

Revise as follows:

601.1 Scope.

~~..... scope.~~

~~This chapter shall govern the materials, design and installation~~ Design, installation, and materials of hot and cold of water supply systems, ~~both hot and cold,~~ for utilization in connection with human occupancy and habitation and ~~shall govern the installation~~ of individual water supply systems shall comply with this chapter.

CHAPTER 7 SANITARY DRAINAGE

SECTION 701 GENERAL

Revise as follows:

701.1 Scope.

~~The provisions of this chapter shall govern the materials, design, construction and installation of sanitary drainage systems.~~ Design, Installation, construction, and materials of sanitary drainage systems shall comply with this chapter.

CHAPTER 8 INDIRECT/SPECIAL WASTE

SECTION 801 GENERAL

Revise as follows:

801.1 Scope.

~~This chapter shall govern matters concerning indirect waste piping.~~ Indirect and special wastes systems shall comply with this chapter.
~~This chapter shall further control matters concerning food handling establishments, sterilizers, humidifiers, clear water waste, swimming pools, methods of providing *air breaks* or *air gaps*, and neutralizing devices for corrosive wastes.~~

CHAPTER 9 VENTS

SECTION 901 GENERAL

Revise as follows:

901.1 Scope.

~~The provisions of this chapter shall govern the materials, design, construction and installation of vent systems.~~ Design, installation, construction, and materials of vent systems shall comply with this chapter.

CHAPTER 10 TRAPS, INTERCEPTORS AND SEPARATORS

SECTION 1001 GENERAL

Revise as follows:

1001.1 Scope.

~~This chapter shall govern the material and installation of traps, interceptors and separators.~~ Installation and materials of traps, interceptors, and separators shall comply with this chapter.

CHAPTER 11 STORM DRAINAGE

SECTION 1101 GENERAL

Revise as follows:

1101.1 Scope.

~~The provisions of this chapter shall govern the materials, design, construction and installation of storm drainage. Design, installation, construction, and materials of storm drainage systems shall comply with this chapter.~~

CHAPTER 12 SPECIAL PIPING AND STORAGE SYSTEMS

SECTION 1201 GENERAL

Revise as follows:

1201.1 Scope.

~~The provisions of this chapter shall govern the design Design and installation of piping and storage systems for nonflammable medical gas systems and nonmedical oxygen systems shall comply with this chapter.~~

~~All maintenance and operations of such systems shall be in accordance with the *International Fire Code*.~~

Add new text as follows:

1201.2 Maintenance and operation. Maintenance and operations of nonflammable medical gas systems and nonmedical oxygen systems shall be in accordance with the *International Fire Code*.

CHAPTER 13 NONPOTABLE WATER SYSTEMS

SECTION 1301 GENERAL

Revise as follows:

1301.1 General.

~~The provisions of Chapter 13 shall govern the materials, design, construction and installation. Design, installation, construction, and materials of systems for the collection, storage, treatment and distribution of nonpotable water shall comply with this chapter. ~~For nonpotable rainwater systems, the provisions of CSA B805/ICC 805 shall be an alternative for regulating the materials, design, construction and installation of systems for rainwater collection, storage, treatment and distribution of nonpotable water.~~ The use and application of nonpotable water shall comply with laws, rules and ordinances applicable in the jurisdiction.~~

Add new text as follows:

1301.1.1 Nonpotable Rainwater Systems. The provisions of CSA B805/ICC 805 shall be an alternative for regulating the design, installation, construction, and materials of systems for rainwater collection, storage, treatment, and distribution of nonpotable water.

CHAPTER 14 SUBSURFACE GRAYWATER SOIL ABSORPTION SYSTEMS

SECTION 1401 GENERAL

Revise as follows:

1401.1 Scope. ~~The provisions of this chapter shall govern the materials, design, construction and installation~~ Design, installation, construction, and materials of subsurface graywater soil absorption systems connected to nonpotable water from on-site water reuse systems shall comply with this chapter.

2024 International Building Code

CHAPTER 29 PLUMBING SYSTEMS

SECTION 2901 GENERAL

Revise as follows:

[P] 2901.1 Scope.

~~The provisions of this chapter and the *International Plumbing Code* shall govern the design, Design, construction, erection and installation of plumbing components, appliances, equipment and systems used in *buildings* and *structures* covered by this code shall comply with this chapter and the *International Plumbing Code*. Toilet and bathing rooms shall be constructed in accordance with Section 1210. Private sewage disposal systems shall conform to the *International Private Sewage Disposal Code*. The *International Fire Code*, the *International Property Maintenance Code* and the *International Plumbing Code* shall govern the use and maintenance of plumbing components, appliances, equipment and systems. The *International Existing Building Code* and the *International Plumbing Code* shall govern the *alteration, repair, relocation, replacement and addition* of plumbing components, *appliances, equipment* and systems.~~

G1-24 Part VII

IMC: 301.1, 401.1, CHAPTER 5, 501.1, CHAPTER 6, 601.1, 701.1, 701.2, 702.1(New), 702.2(New), 702.3(New), 901.1, 901.2, 1001.1, 1001.2(New), 1101.1, 1201.1, 1201.2(New), 1301.1, 1301.2, 1401.1; IBC: [M] 2801.1

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2024 International Mechanical Code

CHAPTER 3 GENERAL REGULATIONS

SECTION 301 GENERAL

Revise as follows:

301.1 Scope.

~~This chapter shall govern the approval and installation of all equipment and appliances that comprise parts of the building mechanical systems shall comply with this chapter. regulated by this code in accordance with Section 101.2.~~

CHAPTER 4 VENTILATION

SECTION 401 GENERAL

Revise as follows:

~~401.1 Scope. This chapter shall govern the ventilation of spaces within a building intended to be occupied, other than by systems regulated by Chapter 5, shall comply with this chapter. Mechanical exhaust systems, including exhaust systems serving clothes dryers and cooking appliances; hazardous exhaust systems; dust, stock and refuse conveyor systems; subslab soil exhaust systems; smoke control systems; energy recovery ventilation systems and other systems specified in Section 502 shall comply with Chapter 5.~~

CHAPTER 5 EXHAUST SYSTEMS, SMOKE CONTROL SYSTEMS, AND ENERGY RECOVERY VENTILATION SYSTEMS

SECTION 501 GENERAL

Revise as follows:

~~501.1 Scope. This chapter shall govern the design, construction and installation of mechanical exhaust systems, smoke control systems, and including exhaust systems serving clothes dryers and cooking appliances; hazardous exhaust systems; dust, stock and refuse conveyor systems; subslab soil exhaust systems; smoke control systems; energy recovery ventilation systems shall comply with this chapter, and other systems specified in Section 502.~~

CHAPTER 6 DUCT SYSTEMS/AIR MOVEMENT

SECTION 601

GENERAL

Revise as follows:

601.1 Scope. ~~Duct systems used for the Air movement for the purpose of air in air-conditioning, heating, ventilating and ventilation or exhaust systems shall conform to the provisions of this chapter except as otherwise other than specified in Chapters 5 and 7, shall comply with this chapter.~~

Exception: Ducts discharging combustible material directly into any *combustion* chamber shall conform to the requirements of NFPA 82.

CHAPTER 7 COMBUSTION AIR

SECTION 701 GENERAL

Revise as follows:

701.1 Scope.

~~For other than fireplaces, fireplace stoves and direct-vent *appliances*, combustion air shall comply with this chapter.~~

~~Solid fuel-burning *appliances* shall be provided with *combustion air* in accordance with the *appliance* manufacturer's installation instructions.~~

~~Oil-fired *appliances* shall be provided with *combustion air* in accordance with NFPA 31. The methods of providing *combustion air* in this chapter do not apply to fireplaces, fireplace stoves and direct vent *appliances*.~~

~~The requirements for combustion and dilution air for gas-fired *appliances* shall be in accordance with the *International Fuel Gas Code*.~~

Add new text as follows:

702.1 Solid fuel-burning appliances. Solid fuel-burning *appliances* shall be provided with *combustion air* in accordance with the *appliance* manufacturer's installation instructions.

702.2 Oil-fired appliances. Oil-fired *appliances* shall be provided with *combustion air* in accordance with NFPA 31.

702.3 Gas-fired appliances. Combustion and dilution air for gas-fired *appliances* shall be in accordance with the *International Fuel Gas Code*.

Revise as follows:

~~701.2~~**703.1 Dampered openings**Interlock.

Where *combustion air* openings are provided with volume, smoke or fire dampers, the dampers shall be interlocked with the firing cycle of the *appliances* served, so as to prevent operation of any *appliance* that draws *combustion air* from the room or space when any of the dampers are closed. Manual dampers shall not be installed in *combustion air* ducts. Ducts not provided with dampers and that pass through rated construction shall be enclosed in a shaft in accordance with the *International Building Code*.

CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

SECTION 901 GENERAL

Revise as follows:

~~901.1 Scope. This chapter shall govern the approval, For other than gas-fired *appliances* regulated by the *International Fuel Gas Code*, the design, installation, construction, maintenance, *alteration* and repair of the *appliances, systems*, and *equipment* specifically identified herein shall comply with this chapter and factory built fireplaces. The approval, design, installation, construction, maintenance, *alteration* and repair of gas-fired *appliances* shall be regulated by the *International Fuel Gas Code*.~~

Delete without substitution:

~~901.2 General. The requirements of this chapter shall apply to the mechanical *equipment* and *appliances* regulated by this chapter, in addition to the other requirements of this code.~~

CHAPTER 10 BOILERS, WATER HEATERS AND PRESSURE VESSELS

SECTION 1001 GENERAL

Revise as follows:

~~1001.1 Scope. This chapter shall govern the installation~~ Installation, alteration and repair of boilers, water heaters and pressure vessels, other than those specified in section 1001.2, shall comply with this chapter.

Exceptions:

- ~~1. Pressure vessels used for unheated water supply.~~
- ~~2. Portable unfired pressure vessels and Interstate Commerce Commission containers.~~
- ~~3. Containers for bulk oxygen and medical gas.~~
- ~~4. Unfired pressure vessels having a volume of 5 cubic feet (0.14 m³) or less operating at pressures not exceeding 250 pounds per square inch (psi) (1724 kPa) and located within *occupancies* of Groups B, F, H, M, R, S and U.~~
- ~~5. Pressure vessels used in *refrigeration systems* that are regulated by Chapter 11 of this code.~~
- ~~6. Pressure tanks used in conjunction with coaxial cables, telephone cables, power cables and other similar humidity control systems.~~
- ~~7. Any boiler or pressure vessel subject to inspection by federal or state inspectors.~~
- ~~8. Pressure vessels used in specific *appliances* and *equipment* that are regulated by Chapter 9 of this code.~~

Add new text as follows:

1001.2 Nonapplicability. This chapter shall not apply to the following:

1. Pressure vessels used for unheated water supply.
2. Portable unfired pressure vessels and Interstate Commerce Commission containers.
3. Containers for bulk oxygen and medical gas.
4. Unfired pressure vessels having a volume of 5 cubic feet (0.14 m³) or less operating at pressures not exceeding 250 pounds per square inch (psi) (1724 kPa) and located within *occupancies* of Groups B, F, H, M, R, S and U.
5. Pressure vessels used in *refrigeration systems* that are regulated by Chapter 11 of this code.
6. Pressure tanks used in conjunction with coaxial cables, telephone cables, power cables and other similar humidity control systems.
7. Any boiler or pressure vessel subject to inspection by federal or state inspectors.
8. Pressure vessels used in specific *appliances* and *equipment* that are regulated by Chapter 9 of this code.

CHAPTER 11 REFRIGERATION

SECTION 1101 GENERAL

Revise as follows:

1101.1 Scope. ~~This chapter shall govern the design~~Design, installation, construction and repair of *refrigeration systems shall comply with this chapter*. Permanently installed refrigerant storage systems and other components shall be considered as part of the *refrigeration system* to which they are attached.

CHAPTER 12 HYDRONIC PIPING

SECTION 1201 GENERAL

Revise as follows:

1201.1 Scope. ~~The provisions of this chapter shall govern the construction~~Construction, installation, *alteration* and repair of hydronic piping systems ~~that are part of the heating, ventilation, and air-conditioning systems shall comply with this chapter~~. ~~This chapter shall apply to hydronic piping systems that are part of heating, ventilation and air conditioning systems.~~ Such piping systems shall include steam, hot water, radiant heating, radiant cooling, chilled water, steam condensate, ground source heat pump loop systems, and snow and ice melting. ~~Potable cold and hot water distribution systems shall be installed in accordance with the~~ *International Plumbing Code*.

Add new text as follows:

1201.2 System configuration. Hydronic piping systems shall include steam, hot water, radiant heating, radiant cooling, chilled water, steam condensate, ground source heat pump loop systems, and snow- and ice-melting. Potable cold and hot water distribution systems shall be installed in accordance with the *International Plumbing Code*.

CHAPTER 13 FUEL OIL PIPING AND STORAGE

SECTION 1301 GENERAL

Revise as follows:

1301.1 Scope.

~~This chapter shall govern the design~~Design, installation, construction and repair of fuel oil storage and piping systems shall comply with this chapter. ~~The storage of fuel oil and flammable and combustible liquids shall be in accordance with Chapters 6 and 57 of the International Fire Code.~~

1301.2 Storage and piping systems.

Fuel oil storage systems shall comply with Section 605.4 of the International Fire Code. ~~Fuel oil piping systems shall comply with the requirements of this code.~~ The storage of fuel oil and flammable and combustible liquids shall be in accordance with Chapter 57 of the *International Fire Code*.

CHAPTER 14 SOLAR THERMAL SYSTEMS

SECTION 1401 GENERAL

Revise as follows:

1401.1 Scope. ~~This chapter shall govern the design, construction,~~ Design, installation, construction alteration and repair of solar thermal systems, *equipment* and *appliances* intended to utilize solar energy for space heating or cooling, domestic hot water heating, swimming pool heating or process heating shall comply with this chapter.

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CHAPTER 28 MECHANICAL SYSTEMS

SECTION 2801 GENERAL

Revise as follows:

[M] 2801.1 Scope.

~~The provisions of this chapter, the *International Mechanical Code* and the *International Fuel Gas Code* shall govern the design,~~ Design, construction, erection and installation of mechanical appliances, equipment and systems used in *buildings* and *structures* covered by this code shall comply with this chapter, the *International Mechanical Code* and the *International Fuel Gas Code*. Masonry chimneys, fireplaces and barbecues shall comply with the *International Mechanical Code* and Chapter 21 of this code. The *International Fire Code*, the *International Property Maintenance Code*, the *International Mechanical Code* and the *International Fuel Gas Code* shall govern the use and maintenance of mechanical components, appliances, equipment and systems. The *International Existing Building Code*, the *International Mechanical Code* and the *International Fuel Gas Code* shall govern the *alteration, repair*, relocation, replacement and addition of mechanical components, appliances, equipment and systems.

Reason:

Currently, there is inconsistency among all the I-Codes in how the scoping sections are written at the beginning of each chapter. The Code Correlation Committee requested a task group be formed to review the scoping section in all the I-Codes and determine if there would be a way to harmonize both the language and style across the model codes. The Scoping Task Group was formed and consisted of several members from the various Code Action Committees and interested parties (some with no client interest). The task group reviewed each chapter of the I-codes and after careful consideration, developed a format that could be incorporated and repeated for all the I-Codes.

As you will see in the proposed changes above, most of the chapters began with a style and format that was already consistent and was only slightly changed to give the scoping a more authoritative inflection. Where the chapter contained no scoping provisions, the task group added scoping language based on the content of the chapter. Where the existing scoping sections provided a laundry list of what is contained in the chapter, these list were reformatted into a list form to make it easier for users to see what information was contained. The Scoping Task group proposes that the recommended changes will improve the code by:

1. Create consistency in language used in the scope for all the I-Codes.
2. Creates a scoping section for chapters that did not have one before to clarify what is covered by the chapter.
3. Clarify the items covered and not covered in the chapter, using consistent format to send the user to different chapter(s) or code(s).
4. Remove redundant administrative language from existing scoping sections.
5. Where there were extensive number of items outlined in the scoping section, the items are now broken out into a list format to make it easier for the reader to indicate what is contained in the chapter.

To the best of the task groups knowledge the proposed changes are editorial in nature and no requirements not already addressed in the existing scoping or in the chapter being referenced were added. As these proposed changes are editorial, there is no cost impact on the cost of construction.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

As stated in our reason statement, these proposed changes are editorial, there is no cost impact on the cost of construction.

G1-24 Part VIII

IFC: 301.1, 401.1, 601.1, 701.1, 801.1, 901.1, SECTION 1001, 1001.1, [BE] 1001.2, 1101.1, 1201.1, 2001.1, 2101.1, 2201.1, 2201.1.1 (New), 2301.1, 2401.1, 2501.1, 2501.1.1 (New), 2701.1, 2801.1, 2901.1, 2901.1.1 (New), 3001.1, 3101.1, 3101.1.1 (New), 3201.1, 3301.1, 3401.1, 3401.1.1 (New), SECTION 3601, 3601.1, 3701.1, 3801.1, 3801.2, 3801.2.1 (New), 3801.2.2 (New), 3901.1, 3901.1.1 (New), 4001.1, 4101.1, 4101.1.1 (New), 5001.1, 5001.1.1, 5101.1, 5301.1, 5301.1.1, 5301.1.2, 5303.1, 5401.1, 5401.1.1 (New), 5501.1, 5501.1.1 (New), 5501.1.2 (New), 5601.1, 5601.1.1, 5601.1.2, 5701.1, 5701.2, 5801.1, 5801.1.1 (New), 5801.1.2 (New), 5901.1, 6001.1, 6001.1.1 (New), 6201.1, 6301.1, 6301.1.1 (New), 6301.1.2 (New), 6401.1, 6401.1.1 (New), 6501.1, 6601.1, 6601.1.1 (New), 6601.1.2 (New), 6701.1, 6701.1.1 (New); IWUIC: 301.1, 401.1, 401.3, 501.1, 501.1.1 (New), 601.1

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2024 International Fire Code

CHAPTER 3 GENERAL REQUIREMENTS

SECTION 301 GENERAL

Revise as follows:

301.1 Scope. ~~The provisions of this chapter shall govern the occupancy~~ Occupancy and maintenance of all structures and premises for precautions against fire and the spread of fire and general requirements of fire safety shall comply with this chapter.

CHAPTER 4 EMERGENCY PLANNING AND PREPAREDNESS

SECTION 401 GENERAL

Revise as follows:

401.1 Scope.

Reporting of emergencies, coordination with emergency response forces, emergency plans and procedures for managing or responding to emergencies shall comply with ~~the provisions of this section~~ this chapter.

Exception: Firms that have *approved* on-premises firefighting organizations and that are in compliance with *approved* procedures for fire reporting.

CHAPTER 6 BUILDING SERVICES AND SYSTEMS

SECTION 601 GENERAL

Revise as follows:

601.1 Scope.

~~The provisions of this chapter shall apply to the installation, operation, testing and maintenance of the~~ The following building services and systems shall comply with this chapter:

1. Electrical systems, equipment and wiring.
2. Information technology server rooms.

3. Elevator systems, emergency operation and recall.
4. Fuel-fired appliances, heating systems, chimneys and fuel oil storage.
5. Commercial cooking equipment and systems.
6. Commercial cooking oil storage.
7. Mechanical refrigeration systems.
8. Hyperbaric facilities.
9. Clothes dryer exhaust systems.

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

SECTION 701 GENERAL

Revise as follows:

701.1 Scope.

~~The provisions of this chapter shall govern the inspection and maintenance of the materials, systems and assemblies used for structural fire resistance, fire resistance-rated construction separation of adjacent spaces and construction installed to resist the passage of smoke to safeguard against the spread of fire and smoke protection features in within a building and the spread of fire to or from buildings shall comply with this chapter. New buildings shall comply with the International Building Code.~~

CHAPTER 8 INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

SECTION 801 GENERAL

Revise as follows:

801.1 Scope.

~~The provisions of this chapter shall govern interior interior finish, interior trim, furniture, furnishings, decorative materials and decorative vegetation in buildings shall comply with this chapter. Existing buildings shall comply with Sections 803 through 808. New buildings shall comply with Sections 804 through 808, and Section 803 of the International Building Code.~~

CHAPTER 9 FIRE PROTECTION AND LIFE SAFETY SYSTEMS

SECTION 901 GENERAL

Revise as follows:

901.1 Scope.

~~The provisions of this chapter shall specify where~~ Where fire protection and life safety systems are required by this chapter, and shall apply to the design, installation, inspection, operation, testing and maintenance of all fire protection and life safety systems shall comply with this chapter.

CHAPTER 10 MEANS OF EGRESS

Revise as follows:

SECTION 1001 ADMINISTRATION GENERAL

1001.1 ~~General~~ Scope.

Buildings or portions thereof shall be provided with a *means of egress* system ~~as required by~~ and shall comply with this chapter. The provisions of this chapter shall control the design, construction, ~~and arrangement and maintenance of~~ *means of egress* components required to provide an *approved means of egress* from structures and portions thereof. ~~Sections 1003 through 1031 shall apply to new construction. Section 1032 shall apply to existing buildings.~~

Exception: Detached one- and two-family *dwelling*s and *townhouses* not more than three stories above *grade plane* in height with a separate means of egress and their accessory structures shall comply with the *International Residential Code*.

[BE] ~~1001.2 Minimum requirements~~ **General.** It shall be unlawful to alter a building or structure in a manner that will reduce the number of *exits* or the capacity of the *means of egress* to less than required by this code.

CHAPTER 11 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

SECTION 1101 GENERAL

Revise as follows:

1101.1 **Scope.** ~~The provisions of this chapter shall apply to existing~~ Existing buildings constructed prior to the adoption of this code shall comply with this chapter.

CHAPTER 12 ENERGY SYSTEMS

SECTION 1201 GENERAL

Revise as follows:

1201.1 Scope.

~~The provisions of this chapter shall apply to the installation~~ Installation, operation, maintenance, repair, retrofitting, testing, commissioning and decommissioning of energy systems used for generating or storing energy, including but not limited to energy storage systems under the exclusive control of an electric utility or lawfully designated agency shall comply with this chapter. It shall not apply to equipment associated with the generation, control, transformation, transmission, or distribution of energy installations that is under the exclusive control of an electric utility or lawfully designated agency. Energy storage systems regulated by Section 1207 shall comply with this chapter, as appropriate, and NFPA 855.

CHAPTER 20 AVIATION FACILITIES

SECTION 2001 GENERAL

Revise as follows:

2001.1 **Scope.** Airports, heliports, helistops and aircraft hangars shall comply ~~be in accordance with~~ this chapter.

CHAPTER 21 DRY CLEANING

SECTION 2101 GENERAL

Revise as follows:

2101.1 Scope. Dry cleaning plants and their operations shall comply with ~~the requirements of~~ this chapter.

CHAPTER 22 COMBUSTIBLE DUST-PRODUCING OPERATIONS

SECTION 2201 GENERAL

Revise as follows:

2201.1 Scope. The equipment, processes and operations involving dust explosion hazards and use or handling of *combustible dust* shall comply with ~~the provisions of~~ this chapter.

Exceptions:

- ~~1. Storage and use of consumer materials in Group B or R occupancies.~~
- ~~2. Storage and use of commercially packaged materials in Group M occupancies.~~
- ~~3. Materials displayed in original packaging in Group M occupancies and intended as building materials or for personal or household use.~~
- ~~4. Storage of sealed containers of *combustible dust* at facilities not associated with an operation that uses, handles or generates *combustible dust*.~~
- ~~5. Materials stored or used in farm buildings or similar occupancies intended for on-premises agricultural purposes.~~

Add new text as follows:

2201.1.1 Non-applicability. This chapter shall not apply to any of the following:

1. Storage and use of consumer materials in Group B or R occupancies.
2. Storage and use of commercially packaged materials in Group M occupancies.
3. Materials displayed in original packaging in Group M occupancies and intended as building materials or for personal or household use.
4. Storage of sealed containers of *combustible dust* at facilities not associated with an operation that uses, handles or generates *combustible dust*.
5. Materials stored or used in farm buildings or similar occupancies intended for on-premises agricultural purposes.

CHAPTER 23 MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES

SECTION 2301 GENERAL

Revise as follows:

2301.1 Scope.

~~Public and private automotive~~ Automotive motor fuel-dispensing facilities, marine motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities, aircraft motor-vehicle fuel-dispensing facilities and repair garages shall comply be in accordance with this chapter and the ~~International Building Code, International Fuel Gas Code and International Mechanical Code~~. Such operations shall include both ~~those that are open to the public and private operations.~~

CHAPTER 24 FLAMMABLE FINISHES

SECTION 2401 GENERAL

Revise as follows:

~~2401.1 Scope. This chapter shall apply to locations or areas where any of the~~ The following activities shall comply with this chapter: are conducted:

1. The application of flammable finishes to articles or materials by means of spray apparatus.
2. The application of flammable finishes by dipping or immersing articles or materials into the contents of tanks, vats or containers of *flammable or combustible liquids* for coating, finishing, treatment or similar processes.
3. The application of flammable finishes by applying combustible powders to articles or materials utilizing powder spray guns, electrostatic powder spray guns, fluidized beds or electrostatic fluidized beds.
4. Floor surfacing or finishing operations using Class I or II liquids in areas exceeding 350 square feet (32.5 m²).
5. The application of flammable finishes consisting of dual-component coatings or Class I or II liquids where applied by brush or roller in quantities exceeding 1 gallon (4 L).

CHAPTER 25 FRUIT AND CROP RIPENING

SECTION 2501 GENERAL

Revise as follows:

2501.1 Scope. Ripening processes where ethylene gas is introduced into a room to promote the ripening of fruits, vegetables and other crops shall comply with this chapter.

~~**Exception:** Mixtures of ethylene and one or more inert gases in concentrations that prevent the gas from reaching greater than 25 percent of the lower explosive limit (LEL) when released to the atmosphere.~~

Add new text as follows:

2501.1.1 Non-applicability. This chapter shall not apply to mixtures of ethylene and one or more inert gases in concentrations that prevent the gas from reaching greater than 25 percent of the lower explosive limit (LEL) when released to the atmosphere.

CHAPTER 27 SEMICONDUCTOR FABRICATION FACILITIES

SECTION 2701 GENERAL

Revise as follows:

2701.1 Scope.

Semiconductor fabrication facilities and comparable ~~research and development~~ areas classified as Group H-5 shall comply with this chapter, ~~and the *International Building Code*.~~ The use, storage and handling of hazardous materials in Group H-5 shall comply with this chapter, ~~and other applicable provisions of this code. and the *International Building Code*.~~

CHAPTER 28 LUMBER YARDS AND AGRO-INDUSTRIAL, SOLID BIOMASS AND WOODWORKING FACILITIES

SECTION 2801 GENERAL

Revise as follows:

2801.1 Scope. The storage, manufacturing and processing of solid biomass feedstock, timber, lumber, plywood, veneers and agro-industrial byproducts shall ~~be in accordance~~ comply with this chapter.

CHAPTER 29 MANUFACTURE OF ORGANIC COATINGS

SECTION 2901 GENERAL

Revise as follows:

2901.1 Scope. Organic coating manufacturing processes shall comply with this chapter, ~~except that this chapter shall not apply to processes manufacturing nonflammable or water-thinned coatings or to operations applying coating materials.~~

Add new text as follows:

2901.1.1 Non-applicability. This chapter shall not apply to processes manufacturing nonflammable or water-thinned coatings or to operations applying coating materials.

CHAPTER 30 INDUSTRIAL OVENS

SECTION 3001 GENERAL

Revise as follows:

3001.1 Scope.

~~This chapter shall apply to the installation~~ Installation and operation of industrial ovens and furnaces shall comply with this chapter, and applicable provisions of the ~~*International Fuel Gas Code*, the *International Mechanical Code*, NFPA 86, and this chapter.~~ The terms "ovens" and "furnaces" are used interchangeably in this chapter.

CHAPTER 31 TENTS, TEMPORARY SPECIAL EVENT STRUCTURES AND OTHER MEMBRANE STRUCTURES

SECTION 3101 GENERAL

Revise as follows:

3101.1 Scope.

~~..... scope.~~

~~Tents, temporary special event structures 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 Sections 3104 and 3108 are applicable to temporary and permanent tents and membrane structures. The provisions of Section 3105 are applicable to temporary special event structures. The provisions of Section 3106 are applicable to inflatable amusement devices. The provisions of Section 3107 are applicable to outdoor assembly events. Other temporary structures shall comply with the International Building Code.~~

Add new text as follows:

3101.1.1 Applicability. The following applies as follows:

1. The provisions of Section 3103 are applicable only to temporary tents and membrane structures.
2. The provisions of Sections 3104 and 3108 are applicable to temporary and permanent tents and membrane structures.
3. The provisions of Section 3105 are applicable to temporary special event structures.
4. The provisions of Section 3106 are applicable to inflatable amusement devices.
5. The provisions of Section 3107 are applicable to outdoor assembly events.
6. Other temporary structures not covered by this chapter shall comply with the International Building Code.

CHAPTER 32 HIGH-PILED COMBUSTIBLE STORAGE

SECTION 3201 GENERAL

Revise as follows:

3201.1 Scope.

~~High-piled combustible storage shall be in accordance with~~ High-piled combustible storage shall comply 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 NFPA 13.
5. Storage of *combustible fibers* shall be in accordance with Chapter 37.
6. General storage of combustible material shall be in accordance with Chapter 3.

CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

SECTION 3301 GENERAL

Revise as follows:

3301.1 Scope.

~~This chapter shall apply to structures~~ Structures in the course of construction, *alteration* or demolition, including those in underground locations shall comply with this chapter. Compliance with NFPA 241 is required for items not specifically addressed herein.

CHAPTER 34 TIRE REBUILDING AND TIRE STORAGE

SECTION 3401 GENERAL

Revise as follows:

3401.1 Scope.

Tire rebuilding plants, tire storage and tire byproduct facilities shall comply with this chapter, and other applicable requirements of this code, and NFPA 13. ~~Tire storage in buildings shall also comply with Chapter 32.~~

Add new text as follows:

3401.1.1 Additional Requirements. The following shall also apply.

1. The rubber tire protection requirements of NFPA 13.
2. Storage of tires shall comply with Chapter 32.

CHAPTER 36 MARINAS

Revise as follows:

SECTION 3601 SCOPEGENERAL

3601.1 Scope. Marina facilities shall ~~be in accordance~~ comply with this chapter.

CHAPTER 37 COMBUSTIBLE FIBERS

SECTION 3701 GENERAL

Revise as follows:

3701.1 Scope. ~~The equipment~~ Equipment, processes and operations involving *combustible fibers* shall comply with this chapter.

CHAPTER 38 HIGHER EDUCATION LABORATORIES

SECTION 3801 GENERAL

Revise as follows:

3801.1 Scope.

Higher education laboratories ~~complying with the requirements of this chapter shall be permitted to exceed the maximum allowable quantities of hazardous materials in *control areas* set forth in Chapter 50 without requiring classification as a Group H occupancy shall~~ comply with this chapter. Except as specified in this chapter, such laboratories shall comply with all applicable provisions of this code ~~and the *International Building Code*.~~

3801.2 Application.

The provisions of this chapter shall be applied as exceptions or additions to applicable requirements of this code. ~~Unless specifically modified by this chapter, the storage, use and handling of hazardous materials shall comply with the provisions in Chapters 50 through 67 and the *International Building Code* for quantities not exceeding the maximum allowable quantity.~~

Add new text as follows:

3801.2.1 Materials exceeding the Maximum Allowable Quantity. Occupancies complying with this chapter shall be permitted to exceed the maximum allowable quantities of hazardous materials in control areas set forth in Chapter 50 without requiring classification as a Group H occupancy

3801.2.2 Materials not exceeding the Maximum Allowable Quantity . Unless specifically modified by this chapter, the storage, use and handling of hazardous materials shall comply with the provisions of chapters 50 through 67 for quantities not exceeding the maximum allowable quantities.

CHAPTER 39 PROCESSING AND EXTRACTION FACILITIES

SECTION 3901 GENERAL

Revise as follows:

3901.1 Scope.

Facilities where plant processing and solvent-based extraction are conducted, including but not limited to cultivation and related activities, pre-extraction or post-extraction, shall comply with this chapter and the *International Building Code*. The use, storage, transfilling and handling of hazardous materials in these facilities shall comply with this chapter, other applicable provisions of this code and the *International Building Code*.

Exception: Greenhouses in compliance with Section 3112 of the *International Building Code* not utilizing carbon dioxide enrichment.

Add new text as follows:

3901.1.1 Non-applicability. This chapter shall not apply to greenhouses in compliance with Section 3112 of the *International Building Code* not utilizing carbon dioxide enrichment.

CHAPTER 40 STORAGE OF DISTILLED SPIRITS AND WINES

SECTION 4001 GENERAL

Revise as follows:

4001.1 GeneralScope.

~~The storageStorage of distilled spirits and wines in barrels and casks shall comply with this chapter. in addition to other applicable requirements of this code.~~

CHAPTER 41 TEMPORARY HEATING AND COOKING OPERATIONS

SECTION 4101 GENERAL. Section 4101.5 relocated from before 3107.13

Revise as follows:

4101.1 GeneralScope. ~~The provisions of this chapter shall apply to the use~~ Use, operation, testing and maintenance of mobile and

portable equipment and devices used for temporary heating and cooking shall comply with this chapter. Temporary heating and cooking operations with open flames shall also comply with any additional applicable requirements in Section 308

~~**Exception:** Temporary heating devices used in the course of construction, alteration and demolition of structures shall comply with Section 3304.~~

Add new text as follows:

4101.1.1 Non-applicability. This chapter shall not apply to temporary heating devices used in the course of construction, alteration and demolition of structures complying with Section 3304.

CHAPTER 50 HAZARDOUS MATERIALS—GENERAL PROVISIONS

SECTION 5001 GENERAL

Revise as follows:

5001.1 Scope.

Prevention, control and mitigation of dangerous conditions related to storage, dispensing, use and handling of hazardous materials shall ~~be in accordance~~ comply with this chapter.

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, medicines, foodstuff, cosmetics and commercial or institutional products containing not more than 50 percent by volume of water miscible liquids and with the remainder of the solutions not being flammable, provided that such materials are packaged in individual containers not exceeding 1.3 gallons (5 L).~~
- ~~2. Alcoholic beverages in retail or wholesale sales occupancies, provided that 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 off site transportation of hazardous materials where in accordance with Department of Transportation (DOT) regulations.~~
- ~~5. Building materials not otherwise regulated by this code.~~
- ~~6. Refrigeration systems (see Section 608).~~
- ~~7. Stationary storage battery systems regulated by Section 1207.~~
- ~~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 beer, distilled spirits and wines in barrels and casks.~~
- ~~11. The use, storage or both of dispensers containing alcohol based hand rubs classified as Class I or II liquids where in accordance with Section 5705.5.~~
- ~~12. Specific provisions for flammable liquids in motor fuel dispensing facilities, repair garages, airports and marinas in Chapter 23.~~

- ~~13. Storage and use of fuel oil in tanks and containers connected to oil-burning equipment. Such storage and use shall be in accordance with Section 605. For abandonment of fuel oil tanks, Chapter 57 applies.~~
- ~~14. Storage and display of aerosol products complying with Chapter 51.~~
- ~~15. Storage and use of *flammable* or *combustible liquids* that do not have a fire point when tested in accordance with ASTM D92, not otherwise regulated by this code.~~
- ~~16. *Flammable* or *combustible liquids* with a *flash point* greater than 95°F (35°C) in a water-miscible solution or dispersion with a water and inert (noncombustible) solids content of more than 80 percent by weight, which do not sustain combustion, not otherwise regulated by this code.~~
- ~~17. Commercial cooking oil storage tank systems located within a building and designed and installed in accordance with Section 607 and NFPA 30.~~

Add new text as follows:

5001.1.1 Non-applicability. This chapter shall not apply to any of the following:

- 1. Retail or wholesale sales occupancies containing medicines, foodstuff, cosmetics and commercial or institutional products containing not more than 50 percent by volume of water-miscible liquids and with the remainder of the solutions not being flammable, provided that such materials are packaged in individual containers not exceeding 1.3 gallons (5 L).
- 2. Alcoholic beverages in retail or wholesale sales occupancies, provided that 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 off-site transportation of hazardous materials complying with Department of Transportation (DOTn) regulations.
- 5. Building materials not otherwise regulated by this code.
- 6. Refrigeration systems complying with Section 608.
- 7. Stationary storage battery systems complying with Section 1207.
- 8. The display, storage, sale or use of fireworks and *explosives* complying with Chapter 56.
- 9. *Corrosives* utilized in personal and household products in the manufacturer's original consumer packaging in retail or wholesale occupancies.
- 10. The storage of beer, distilled spirits and wines in barrels and casks.
- 11. The use, storage or both of dispensers containing alcohol-based hand rubs classified as Class I or II liquids where in complying with Section 5705.5.
- 12. Specific provisions for flammable liquids in motor fuel-dispensing facilities, repair garages, airports and marinas complying with Chapter 23.
- 13. Storage and use of fuel oil in tanks and containers connected to oil-burning equipment complying with Section 605. Abandonment of fuel oil tanks shall comply with Chapter 57.
- 14. Storage and display of aerosol products complying with Chapter 51.
- 15. Storage and use of *flammable* or *combustible liquids* that do not have a fire point when tested in accordance with ASTM D92, not otherwise regulated by this code.
- 16. *Flammable* or *combustible liquids* with a *flash point* greater than 95°F (35°C) in a water-miscible solution or dispersion with a water and inert (noncombustible) solids content of more than 80 percent by weight, which do not sustain combustion, not otherwise regulated by this code.
- 17. Commercial cooking oil storage tank systems located within a building complying with Section 607 and NFPA 30.

Revise as follows:

5001.1.2 500.1.1.1 Waiver. The provisions of this chapter are waived where the *fire code official* determines that such enforcement is preempted by other codes, statutes or ordinances. The details of any action granting such a waiver shall be recorded and entered in the files of the code enforcement agency.

CHAPTER 51 AEROSOLS

**SECTION 5101
GENERAL**

Revise as follows:

5101.1 Scope.

The provisions of this chapter, the *International Building Code* and NFPA 30B shall apply to the Manufacturing, storage and display of aerosol products, aerosol cooking spray products and plastic aerosol 3 products shall comply with this chapter, and NFPA 30B. Manufacturing of aerosol products, aerosol cooking spray products and plastic aerosol 3 products using hazardous materials shall also comply with Chapter 50.

CHAPTER 53 COMPRESSED GASES

**SECTION 5301
GENERAL**

Revise as follows:

5301.1 Scope.

Storage, use and handling of *compressed gases* in *compressed gas* containers, cylinders, tanks and compressed gas systems shall comply with this chapter and 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 and Flammable *Cryogenic Fluids*), 60 (Highly Toxic and Toxic Materials), 63 (*Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids*) and 64 (*Pyrophoric Materials*). Compressed hydrogen (CH₂) shall also comply with the applicable portions of Chapters 23 and 58 of this code, the *International Fuel Gas Code* and NFPA 2. Cutting and welding gases shall also comply with Chapter 35.~~

Exceptions:

- ~~1. Gases used as refrigerants in refrigeration systems (see Section 608).~~
- ~~2. Compressed natural gas (CNG) for use as a vehicular fuel shall comply with Chapter 23, the *International Fuel Gas Code* and NFPA 52.~~
- ~~3. *Cryogenic fluids* shall comply with Chapter 55.~~
- ~~4. LP-gas shall comply with Chapter 61 and the *International Fuel Gas Code*.~~

Add new text as follows:

5301.1.1 Non-applicability. This chapter shall not apply to any of the following:

1. Gases used as refrigerants in refrigeration systems complying with Section 608.
2. Compressed natural gas (CNG) for use as a vehicular fuel complying with Chapter 23 and NFPA 52.
3. Cryogenic fluids complying with Chapter 55.
4. LP-gas complying with Chapter 61.

5301.1.2 Additional Requirements. Compressed gasses shall also comply with the following:

1. Liquefied natural gas for use as a vehicular fuel shall comply with NFPA 52 and NFPA 59A.
2. Compressed gases classified as hazardous materials shall comply with Chapter 50 for general requirements and chapters addressing specific hazards, including Chapters 58 (Flammable Gases and Flammable Cryogenic Fluids), 60 (Highly Toxic and Toxic Materials), 63 (Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids) and 64 (Pyrophoric Materials).
3. Compressed hydrogen shall comply with the applicable portions of Chapters 23 and 58 of this code, and NFPA 2.
4. Cutting and welding gases shall comply with Chapter 35.

Revise as follows:

5303.1 Containers, cylinders and tanks ~~Compressed gas containers.~~ *Compressed gas containers, cylinders and tanks shall comply with this section. ~~Compressed gas containers, cylinders or tanks that are not designed for refillable use shall not be refilled after use of the original contents.~~*

Add new text as follows:

5303.1.1 Partially filled compressed gas containers. Partially full compressed gas containers containing residual gasses shall be considered as full for the purposes of the controls required.

5303.1.2 Refillable Compressed Gas Containers. Compressed gas containers that are not designed for refillable use shall not be refilled after the use of the original contents.

CHAPTER 54 CORROSIVE MATERIALS

SECTION 5401 GENERAL

Revise as follows:

5401.1 Scope.

~~The storage~~ Storage and use of *corrosive* materials shall comply ~~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 1207.~~
3. ~~This chapter shall not apply to R-717 (ammonia) where used as a refrigerant in a refrigeration system (see Section 608).~~

Add new text as follows:

5401.1.1 Non-applicability. This chapter shall not apply to any of the following:

1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.
2. Refrigeration systems complying with section 608.
3. Stationary Battery Storage systems complying with section 1207

CHAPTER 55 CRYOGENIC FLUIDS

SECTION 5501 GENERAL

Revise as follows:

5501.1 Scope.

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 608).~~
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/GGA P-18.~~

Add new text as follows:

5501.1.1 Non-applicability. This chapter shall not apply to any of the following:

1. Fluids used as refrigerants in refrigeration systems complying with Section 608.
2. Liquefied natural gas (LNG) complying with NFPA 59A.

5501.1.2 Additional Requirements. *In addition to the requirements of this chapter, the following shall also apply:*

1. *Cryogenic fluids* classified as hazardous materials shall comply with the general requirements of Chapter 50.
2. Partially full containers containing residual *cryogenic fluids* shall be considered as full for the purposes of the controls required.
3. Oxidizing *cryogenic fluids*, including oxygen, shall comply with Chapter 63.
4. Flammable *cryogenic fluids*, including hydrogen, methane and carbon monoxide, shall comply with Chapters 23 and 58.
5. Inert *cryogenic fluids*, including argon, helium and nitrogen, shall comply with ANSI/CGA P-18.

CHAPTER 56 EXPLOSIVES AND FIREWORKS

SECTION 5601 GENERAL

Revise as follows:

5601.1 Scope.

The provisions of this chapter shall govern the possession ~~Possession~~, manufacture, storage, handling, sale and use of *explosives*, *explosive materials*, fireworks and small arms ammunition shall comply with this chapter.

Exceptions:

1. ~~The Armed Forces of the United States, Coast Guard or National Guard.~~
2. ~~Explosives in forms prescribed by the official United States Pharmacopoeia.~~
3. ~~The possession, storage and use of small arms ammunition where packaged in accordance with DOTn packaging requirements.~~
4. ~~The possession, storage and use of not more than 1 pound (0.454 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and 10,000 small arms primers for hand loading of small arms ammunition for personal consumption.~~
5. ~~The use of *explosive materials* by federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities.~~
6. ~~Special industrial *explosive* devices that in the aggregate contain less than 50 pounds (23 kg) of *explosive materials*.~~
7. ~~The possession, storage and use of blank industrial power load cartridges where packaged in accordance with DOTn packaging regulations.~~
8. ~~Transportation in accordance with DOTn 49 CFR Parts 100-185.~~
9. ~~Items preempted by federal regulations.~~

Delete and substitute as follows:

5601.1.1 Explosive material standard.

In addition to the requirements of this chapter, NFPA 495 shall govern the manufacture, transportation, storage, sale, handling and use of *explosive materials*.

5601.1.1 Non-applicability. This chapter shall not apply to any of the following:

1. Where preempted by federal regulation, including use by the armed forces
2. Explosives in forms prescribed by the United States Pharmacopia.
3. Possession, storage and use of small arms ammunition and blank industrial-powerload cartridges where packaged in accordance with DOTn packaging requirements.
4. The possession, storage and use of not more than 1 pound (0.454 kg) of commercially manufactured sporting black powder, 20 pounds (9 KG) of smokeless powder and 10,000 small arms primers for hand loading of small arms ammunition for personal consumption.
5. The use of explosive materials by federal, state, and local regulatory law enforcement agencies acting in their official capacities
6. Special industrial explosive devices that in aggregate contain less than 50 pounds (23 KG) of explosive materials.
7. The off-site transportation of *explosive materials* where in accordance with Department of Transportation (DOTn) regulations.

5601.1.2 Explosive material terminals.

In addition to the requirements of this chapter, the operation of *explosive material* terminals shall conform to the provisions of NFPA 498.

5601.1.2 Additional Requirements. In addition to the requirements of this chapter, the following shall also apply:

1. Operation of *explosive material* terminals shall comply with NFPA 498.

CHAPTER 57 FLAMMABLE AND COMBUSTIBLE LIQUIDS

SECTION 5701 GENERAL

Revise as follows:

5701.1 Scope and application.

Prevention, control and mitigation of dangerous conditions related to storage, use, dispensing, mixing and handling of *flammable* and *combustible liquids* shall comply with this chapter and be in accordance with Chapter 50 and this chapter.

5701.2 Nonapplicability.

This chapter shall not apply to liquids as otherwise provided in other laws or regulations or chapters of this code, including:

1. Specific provisions for *flammable liquids* in motor fuel-dispensing facilities, repair garages, airports and marinas in complying with Chapter 23.
2. Medicines, foodstuffs, cosmetics and commercial or institutional products containing not more than 50 percent by volume of water-miscible liquids and with the remainder of the solution not being flammable, provided that such materials are packaged in individual containers not exceeding 1.3 gallons (5 L).
3. Quantities of alcoholic beverages in retail or wholesale sales or storage occupancies, provided that the liquids are packaged in individual containers not exceeding 1.3 gallons (5 L).
4. Storage and use of fuel oil in tanks and containers connected to oil-burning equipment. ~~Such storage and use shall be in accordance complying with Section 605. For Abandonment of fuel oil tanks, shall comply with this chapter applies.~~
5. Refrigeration systems complying with ~~(see Section 608).~~
6. Storage and display of aerosol products complying with Chapter 51.
7. Storage and use of liquids that do not have a fire point when tested in accordance with ASTM D92.
8. Liquids with a *flash point* greater than 95°F (35°C) in a water-miscible solution or dispersion with a water and inert (noncombustible) solids content of more than 80 percent by weight, which do not sustain combustion.
9. Liquids without *flash points* that can be flammable under some conditions, such as certain halogenated hydrocarbons and mixtures containing halogenated hydrocarbons.
10. The storage of beer, distilled spirits and wines in barrels and casks.
11. Commercial cooking oil storage tank systems located within a building and designed and installed in accordance compliance with Section 607 and NFPA 30.
12. 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.
13. The off-site transportation of *flammable* or *combustible liquids* where in accordance with Department of Transportation (DOTn) regulation.

CHAPTER 58 FLAMMABLE GASES AND FLAMMABLE CRYOGENIC FLUIDS

SECTION 5801 GENERAL

Revise as follows:

5801.1 Scope.

~~The storage~~Storage and use of flammable gases and flammable *cryogenic fluids* shall ~~comply be in accordance~~ with this chapter, NFPA 2 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 above-ground hydrogen storage systems shall also be designed, constructed and maintained in accordance with Chapter 23.

Exceptions:

- ~~1. Gases used as refrigerants in refrigeration systems (see Section 608).~~
- ~~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.~~

Add new text as follows:

5801.1.1 Non-applicability. This chapter shall not apply to any of the following:

1. Gases used as refrigerants in refrigeration systems complying with Section 608.
2. Liquefied petroleum gases and natural gases complying with 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 complying with Chapter 64.

5801.1.2 Additional requirements. In addition to the requirements of this chapter, the following shall also apply:

1. *Compressed gases* shall comply with Chapter 53.
2. *Cryogenic fluids* shall comply with Chapter 55.
3. Flammable *cryogenic fluids* shall comply with Section 5806.
4. Hydrogen motor fuel-dispensing stations and repair garages and their associated above-ground hydrogen storage systems shall be designed, constructed and maintained in accordance with Chapter 23.

CHAPTER 59 FLAMMABLE SOLIDS

**SECTION 5901
GENERAL**

Revise as follows:

5901.1 Scope. ~~The storage~~Storage and use of flammable solids shall ~~comply be in accordance~~ with this chapter.

CHAPTER 60 HIGHLY TOXIC AND TOXIC MATERIALS

**SECTION 6001
GENERAL**

Revise as follows:

6001.1 Scope.

~~The storage~~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 *dwelling*s or private garages of pesticides registered by the US Environmental Protection Agency to be utilized in and around the home, garden, pool, spa and patio.~~

Add new text as follows:

6001.1.1 Non-applicability. This chapter shall not apply to any of the following:

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 there under.
 - 2.3. Storage in *dwelling*s or private garages of pesticides registered by the US Environmental Protection Agency to be utilized in and around the home, garden, pool, spa and patio.

CHAPTER 62 ORGANIC PEROXIDES

**SECTION 6201
GENERAL**

Revise as follows:

6201.1 Scope.

~~The storage~~Storage and use of *organic peroxides* shall comply ~~be in accordance~~ with this chapter and Chapter 50.

Unclassified detonable *organic peroxides* that are capable of *detonation* in their normal shipping containers under conditions of fire exposure shall be stored in accordance with Chapter 56.

CHAPTER 63 OXIDIZERS, OXIDIZING GASES AND OXIDIZING CRYOGENIC FLUIDS

**SECTION 6301
GENERAL**

Revise as follows:

6301.1 Scope.

~~The storage~~Storage and use of oxidizing materials shall comply ~~be in accordance~~ with this chapter and Chapter 50. ~~Oxidizing gases shall also comply with Chapter 53. Oxidizing cryogenic fluids shall also comply with Chapter 55.~~

Exceptions:

- ~~1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.~~
- ~~2. Bulk oxygen systems at industrial and institutional consumer sites shall be in accordance with NFPA 55.~~
- ~~3. Liquid oxygen stored or used in home health care in Group I-1, I-4 and R occupancies in accordance with Section 6306.~~

Add new text as follows:

6301.1.1 Non-applicability. This chapter shall not apply to any of the following:

1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.
2. Bulk oxygen systems at industrial and institutional consumer sites complying with NFPA 55.
3. Liquid oxygen stored or used in home health care in Group I-1, I-4 and R occupancies complying with Section 6306.

6301.1.2 Additional Requirements. In addition to the requirements of this chapter, the following shall also apply:

1. Oxidizing gases shall comply with Chapter 53.
2. Oxidizing cryogenic fluids shall comply with Chapter 55.

CHAPTER 64 PYROPHORIC MATERIALS

SECTION 6401 GENERAL

Revise as follows:

6401.1 Scope.

~~The storage~~Storage and use of *pyrophoric* materials shall comply ~~be in accordance~~ with this chapter. ~~Compressed gases shall also comply with Chapter 53.~~

Add new text as follows:

6401.1.1 Additional requirements. Compressed gases shall also comply with Chapter 53.

CHAPTER 65 PYROXYLIN (CELLULOSE NITRATE) PLASTICS

SECTION 6501 GENERAL

Revise as follows:

6501.1 Scope.

~~This chapter shall apply to the storage~~ Storage and handling of plastic substances, materials or compounds with cellulose

nitrate (pyroxylin) as a base, by whatever name known, in the form of blocks, sheets, tubes or fabricated shapes shall comply with this chapter.

Cellulose nitrate (pyroxylin) motion picture film shall comply with the requirements of Section 306.

CHAPTER 66 UNSTABLE (REACTIVE) MATERIALS

SECTION 6601 GENERAL

Revise as follows:

6601.1 Scope.

The storage Storage and use of unstable (reactive) materials shall comply ~~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. Detonable unstable (reactive) materials shall be stored in accordance with Chapter 56.~~

Add new text as follows:

6601.1.1 Non-applicability. This chapter shall not apply to any of the following:

1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.
2. Detonable unstable (reactive) materials shall be stored in compliance with Chapter 56.

6601.1.2 Additional Requirement. Compressed gases shall also comply with Chapter 53.

CHAPTER 67 WATER-REACTIVE SOLIDS AND LIQUIDS

SECTION 6701 GENERAL

Revise as follows:

6701.1 Scope.

The storage Storage and use of water-reactive solids and liquids shall comply ~~be in accordance~~ with this chapter.

Exceptions:

- ~~1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.~~
- ~~2. Detonable water-reactive solids and liquids shall be stored in accordance with Chapter 56.~~

Add new text as follows:

6701.1.1 Non-applicability. This chapter shall not apply to any of the following:

1. Display and storage in Group M and storage in Group S occupancies complying with Section 5003.11.
2. Detonable water-reactive solids and liquids stored in compliance with Chapter 56.

2024 International Wildland Urban Interface Code

CHAPTER 3 WILDLAND-URBAN INTERFACE AREAS

SECTION 301 GENERAL

Revise as follows:

301.1 Scope. ~~The provisions of this chapter provide methodology~~ Methodology for ~~to establish establishing and record recording~~ wildland-urban interface areas based on the findings of fact shall comply with this chapter.

CHAPTER 4 WILDLAND-URBAN INTERFACE AREA REQUIREMENTS

SECTION 401 GENERAL

Revise as follows:

401.1 Scope. The following items occurring in Wildland-urban interface areas shall comply with this chapter: ~~be provided with emergency vehicle access and water supply in accordance with this chapter.~~

1. Subdivisions
2. Fire Apparatus Access
3. Water Supply
4. Fire Protection Plans

401.3 General safety precautions.

General safety precautions shall comply ~~be in accordance with~~ this chapter. ~~See also Appendix A.~~

CHAPTER 5 SPECIAL BUILDING CONSTRUCTION REGULATIONS

SECTION 501 GENERAL

Revise as follows:

501.1 Scope.

Buildings and structures shall be constructed in compliance ~~accordance with this chapter~~ ~~the International Building Code~~ and this code applicable Building Code.

Exceptions:

1. ~~Accessory structures not exceeding 120 square feet (11 m²) in floor area where located not less than 50 feet (15 240 mm) from buildings containing habitable spaces.~~
2. ~~Agricultural buildings not less than 50 feet (15 240 mm) from buildings containing habitable spaces.~~

Add new text as follows:

501.1.1 Additional Requirements. In addition to complying with the applicable building code, the following types of structures shall

comply with this code:

1. Accessory Structures not exceeding 120 square feet (11 m²) in floor area located less than 50 feet (15240 mm) from buildings containing habitable spaces.
2. Agricultural buildings less than 50 feet from buildings containing habitable spaces.

CHAPTER 6 FIRE PROTECTION REQUIREMENTS

SECTION 601 GENERAL

Revise as follows:

601.1 Scope. ~~The provisions of this chapter establish general requirements for new and existing buildings, structures and premises located within *wildland urban interface areas*.~~

Mitigation of hazards from fire in wildland urban interface areas shall comply with this chapter.

Reason: Currently, there is inconsistency among all the I-Codes in how the scoping sections are written at the beginning of each chapter. The Code Correlation Committee requested a task group be formed to review the scoping section in all the I-Codes and determine if there would be a way to harmonize both the language and style across the model codes. The Scoping Task Group was formed and consisted of several members from the various Code Action Committees and interested parties (some with no client interest). The task group reviewed each chapter of the I-codes and after careful consideration, developed a format that could be incorporated and repeated for all the I-Codes.

As you will see in the proposed changes above, most of the chapters began with a style and format that was already consistent and was only slightly changed to give the scoping a more authoritative inflection. Where the chapter contained no scoping provisions, the task group added scoping language based on the content of the chapter. Where the existing scoping sections provided a laundry list of what is contained in the chapter, these list were reformatted into a list form to make it easier for users to see what information was contained. The Scoping Task group proposes that the recommended changes will improve the code by:

1. Create consistency in language used in the scope for all the I-Codes.
2. Creates a scoping section for chapters that did not have one before to clarify what is covered by the chapter.
3. Clarify the items covered and not covered in the chapter, using consistent format to send the user to different chapter(s) or code(s).
4. Remove redundant administrative language from existing scoping sections.
5. Where there were extensive number of items outlined in the scoping section, the items are now broken out into a list format to make it easier for the reader to indicate what is contained in the chapter.

To the best of the task groups knowledge the proposed changes are editorial in nature and no requirements not already addressed in the existing scoping or in the chapter being referenced were added. As these proposed changes are editorial, there is no cost impact on the cost of construction.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

As stated in the reason statement, these proposed changes are editorial, there is no cost impact on the cost of construction.

G2-24

IBC: SECTION 202 (New); IFC: SECTION 202 (New)

Proponents: Jeff O'Neil, Chair, Committee on Healthcare (ahc@iccsafe.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Add new definition as follows:

CLINICAL NEED. A known care or welfare risk to care recipients that necessitates an enhanced level of safety or security.

2024 International Fire Code

Add new definition as follows:

CLINICAL NEED. A known care or welfare risk to care recipients that necessitates an enhanced level of safety or security.

Reason: Certain sections of the code allow certain conditions based the clinical needs of the occupants. However, there has not been an official definition for what “clinical need” means and it has been widely interpreted. This proposal seeks to clear up confusion and create a common ground of understanding.

The term Clinical Need is most often found in conjunction with Group I-1 and I-2 occupancies. Certain groups of occupants within these settings require different levels of protections. There are references to the term Clinical Need in several sections, primarily having reference to locking of doors: IBC/IFC (2021 section references) 1010.2.4, 1010.2.13.1 and 1010.2.14, IEBC Section 804.14.2 (2024 reference) and one mention in relation to smoking: IFC Section 310.2.

The purpose of this change is to establish the basis for what is known as clinical need. This is a relatively short definition, but speaks to the component of how a patient in a hospital, or resident of a nursing home or assisted living setting, often have a security need that presents itself more urgently than a life-safety/egress need.

The word “known” is purposefully used related to care, and can take many forms. Court orders are a primary example of the need to put a behavioral health patient in a locked unit, and this is known on admission. Doctor’s orders are also commonly issued, particularly for individuals suffering from cognitive issues, and need to be placed into specialty units with extra security to protect them from harm. These factors become known at the time of placement.

“Welfare risk” is also purposefully used phrasing. A primary example of a welfare risk to a care recipient would be a memory care/dementia unit, where wandering throughout or outside of the building could put that individual in grave risk because of not being fully aware of their surroundings. A closed, locked unit represents the safest environment for their condition.

Similarly, many elders in assisted living have balance and gait issues that make regular use of stairways dangerous. As stair towers are not regularly used or observed, if a resident gets into the stair and falls, this can be a fatal event. Locking these stair tower doors, during non-emergency conditions, is the only way to prevent this.

Another, very common welfare risk is in maternity and neo-natal intensive care units where child abduction is a continual threat. Having the ability to lock doors for stair towers and other exits is critical to preventing this.

“Necessitates” is a term used to set up the scope of the individual technical requirements of the code chapters. By formulating this wording, the working group from the Committee for Healthcare (CHC) took particular care not to bury code requirements in the definition, to avoid creating more confusion. The locations where “clinical need” is already used in the code were reviewed and discussed, and it was determined that the technical requirements around clinical need for the specific section (such as, door locking) was covered in a better way. It did not do the definition well to try and cover each and every technical requirement.

Due to patient privacy laws, specific orders relating to patient or resident care cannot be released as part of justification for the construction of an environment appropriate for care. However, the level of care needed can be provided by the design professional representing the owner/care provider specific to the known care or welfare risk to care recipients. It is reasonable for an AHJ to request a narrative or functional program from the Design team or Owner/care provider as part of the approval process.

This proposal is submitted by the ICC Committee for Healthcare (CHC).

The Committee on Healthcare (CHC) was established by the ICC Board of Directors in 2011 to pursue opportunities to study and develop effective and efficient provisions for Hospital, Nursing Homes, Assisted Living and Ambulatory Care Facilities. This committee was formed in cooperation with the American Society for Healthcare Engineering (ASHE). In July of 2017, the ICC Board made CHC a standing committee. In 2023 the CHC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the CHC website at [CHC webpage](#).

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The addition of this definition will not add or decrease any construction costs. Yes, the implementation of special locking provisions does add cost to the project. However, the code sections that refer to this definition are already in the code. This definition simply adds clarity.

G3-24

IBC: SECTION 202; IFC: SECTION 202

Proponents: Gabriel Levy, incandescence life safety, inc, Colorado Chapter Code Development Committee
(glevy@incandescencels.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

[BE] EXIT ACCESS. That portion of a *means of egress* system that leads from any occupied portion of a *building or structure* to an *exit*.

Revise as follows:

[BE] EXIT ACCESS RAMP. ~~A~~An interior or exterior ramp within the *exit access* portion of the *means of egress* system.

[BE] EXIT ACCESS STAIRWAY. ~~A~~An interior or exterior stairway within the *exit access* portion of the *means of egress* system.

[BE] EXIT. That portion of a *means of egress* system between the *exit access* and the *exit discharge* or *public way*. Exit components include exterior exit doors at the *level of exit discharge*, *interior exit stairways* and *ramps*, *exit passageways*, exterior exit *stairways* and *ramps*, point identified by the registered design professional between an exterior *exit access stairway or ramp* and the *public way*, and *horizontal exits*.

2024 International Fire Code

[BE] EXIT ACCESS. That portion of a *means of egress* system that leads from any occupied portion of a building or structure to an *exit*.

Revise as follows:

[BE] EXIT ACCESS RAMP. ~~A~~An interior or exterior ramp within the *exit access* portion of the *means of egress* system.

[BE] EXIT ACCESS STAIRWAY. ~~A~~An interior or exterior stairway within the *exit access* portion of the *means of egress* system.

[BE] EXIT. That portion of a *means of egress* system between the *exit access* and the *exit discharge* or *public way*. Exit components include exterior exit doors at the *level of exit discharge*, *interior exit stairways* and *ramps*, *exit passageways*, exterior exit *stairways* and *ramps*, a point identified by the registered design professional between an exterior *exit access stairway or ramp* and the *public way*, and *horizontal exits*.

Reason: This proposal serves to resolve two ambiguities – clearly identifying that exit stairs are permitted to serve as exit access, and clarifying where the exit starts after an exterior exit access stair. An exit access stairway is permitted at the exterior of the building. Code change E7-12/13 deleted the word “interior” from the definition of *exit access stairway and ramp* so that the provisions which allow an unenclosed exit access stair would be equally applicable to interior or exterior stairways. However, *exterior exit stairway* provisions of IBC 1027 can be mistakenly applied to *exit access stairways* located exterior to the building. Reviewers often see an exterior stair and enforce exterior exit requirements. However, if the stair is permitted to serve as exit access rather than as an exit, the exterior exit stairway requirements of 1027 are not required and often erroneously enforced. The proposed change intends to emphasize that an exit access stairway is permitted at the exterior.

Code change E7-12/13 did not provide an obvious *exit* component for the means of egress after an exterior *exit access stairway*. The definition of *exit* is amended to identify that the *exit* component exists after an exterior *exit access stairway*. While an easy solution would be to define the exit as the bottom of the exterior *exit access stair*, there are configurations where redundant protection would be required if the travel after an exterior *exit access stair* were defined as *exit* and *exit discharge*. For example, where an *exit access stair* ends along a path adjacent to an exterior wall, that path could require egress court protection. However, under the same logic as previous code change E7-12/13, if that path were interior to the building, it would not require separation from the building. Therefore, by defining that path as a continuation of exit access (rather than defining the bottom of the stair as an exit, thus the path as exit discharge), the exit access does not require rated protection. This change would allow a designer to propose any point after an exterior exit access stair as a

the *exit*. That said, the defined *exit* must still meet all requirements of Chapter 10, such as travel distance and protection. Some figures below are provided for reference.

Example Configuration:



Exterior Stair From Level 2 Which Provides Travel Down One Story

Misinterpretation That This Proposal Intends to Prevent:



Exterior Stair Enforced as an Exit

Path Enforced as Exit Discharge (Egress Court)

Issue with "easy solution" to define the exit as the bottom of the exterior exit access stair:



Exterior Stair Does Not Require Protection

Path Enforced as Exit Discharge (Egress Court)

Intent of Proposed Code Change:



Exterior Stair Does Not Require Protection

Exit Access Complying with Sections 1016, 1017, and 1019

Exit As Defined by the Designer; Must Comply with Chapter 10

Bibliography: https://www.iccsafe.org/wp-content/uploads/02_IBC-E1.pdf

Cost Impact: Decrease

Estimated Immediate Cost Impact:

Assuming a Type IIIA Group R-2 building utilizes this configuration, ICC estimates that the cost of constructing an unrated enclosure along the exit access path to be \$177.77/sf.

Estimated Immediate Cost Impact Justification (methodology and variables):

Under the justification that this proposal is similar to E7 12/13, such that an equivalent interior space after an exit access stair would be permitted as unrated, this proposal saves the cost of that hypothetical construction.

G4-24

IBC: SECTION 202; IFC: SECTION 202

Proponents: David Renn, PE, SE, City and County of Denver, Colorado Chapter Code Development Committee
(david.renn@denvergov.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC FIRE SAFETY COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

[BF] EXTERIOR WALL. A wall or other building component, ~~bearing or nonbearing~~, that is used ~~as an enclosing wall for~~ to enclose or partially enclose a *building*, other than a *fire wall*, and that has a slope of 60 degrees (1.05 rad) or greater with the horizontal plane.

2024 International Fire Code

Revise as follows:

[BF] EXTERIOR WALL. A wall or other building component, ~~bearing or nonbearing~~, that is used ~~as an enclosing wall for~~ to enclose or partially enclose a *building*, other than a *fire wall*, and that has a slope of 60 degrees (1.05 rad) or greater with the horizontal plane.

Staff Analysis: The term *exterior wall* is also defined in the IRC but has a different definition than the IBC and IFC definition. IRC proposals will be in Group B.

Reason: Currently, exterior wall Section 705.1 requires that exterior walls comply with this section (705). For structures such as open parking garages, architects have argued that none of Section 705 applies since the structure doesn't have exterior walls, just columns, edge beams (or slab edge) and vehicle barriers - by doing this, the opening limitations of 705.8.1 would not apply and they could have unlimited openings at very small fire separation distances (including zero fire separation distance). This is clearly not the intent of the code since Table 705.9 for maximum area of exterior wall openings includes a footnote that indicates that the area of openings in an open parking garage with an FSD of 10 feet or greater shall not be limited.

To fix the issue above, this proposal modifies the definition of "exterior wall" to include walls and other building components, which would capture columns, beams, and vehicle barriers at the edge of an open parking garage or similar structure. The definition is also revised to clarify that a building can be partially enclosed, such is the case for an open parking garage. "bearing or nonbearing" is also removed since it doesn't add anything to the definition since all walls or other building components are either bearing or nonbearing. With this change, Section 705 would apply to an open parking garage or similar structure that doesn't have walls at the perimeter.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is simply a clarification that the "exterior wall" of a building can contain components other than walls, so there is no cost impact.

G4-24

G5-24

IBC: SECTION 202

Proponents: Theresa Weston, The Holt Weston Consultancy, Rainscreen Association in North America (holtweston88@gmail.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC FIRE SAFETY COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

[BF] EXTERIOR WALL ASSEMBLY. A system including the *exterior wall* covering, framing, and components such as ~~weather-resistive barriers~~ *water-resistive barriers* and insulating materials. This system provides protection of the *building* structural members and conditioned interior space from the detrimental effects of the exterior environment.

Reason: This proposal provides consistency as it updates the definition to include a reference to defined term "water-resistive barrier" rather than the currently used "weather-resistive barrier". While both "weather-resistive barrier" and "water-resistive barrier" are in common usage, "water-resistive barrier" is solely used within the code and is the defined term. Section 1403.2 is entitled "Water-resistive barrier".

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is an editorial change that corrects the definition to include the code defined term "water-resistive barrier" rather than "weather-resistant barrier".

G5-24

G6-24

IBC: SECTION 202; IFC: SECTION 202

Proponents: David Renn, PE, SE, City and County of Denver, Colorado Chapter Code Development Committee
(david.renn@denvergov.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC FIRE SAFETY COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

[BF] FIRE SEPARATION DISTANCE. The distance measured from the *building* face to one of the following:

1. The closest interior *lot line*.
2. To the centerline of a street, an alley or *public way*.
3. To an imaginary line between two *buildings* on the lot.

The distance shall be measured at right angles from the *building* face ~~of the wall~~.

2024 International Fire Code

Revise as follows:

[BF] FIRE SEPARATION DISTANCE. The distance measured from the building face to one of the following:

1. The closest interior *lot line*.
2. To the centerline of a street, an alley or *public way*.
3. To an imaginary line between two buildings on the lot.

The distance shall be measured at right angles from the *building* face ~~of the wall~~.

Staff Analysis: This definition is found in the IBC, IFC, and the IRC. A similar proposal for IRC will be heard with Group B.

Reason: Fire separation distance is measured from the "building face", per the first sentence of the definition. However, the last sentence states the distance is measured at right angles to the "face of the wall". For consistency in terminology, this proposal simply revises the last sentence to be consistent with the first sentence. "Building face" is a better term to use since some buildings, or portions of buildings, do not have exterior walls. For example, an open parking garage may have only columns, beams, and vehicle barriers at the face of the building.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal is an editorial change that simply changes the terminology in the last sentence to be consistent with terminology in the first sentence. The meaning of fire separation distance remains the same and there is no technical change in this proposal. Accordingly, there will be no cost impact.

G7-24

IBC: SECTION 202; IFC: SECTION 202; IMC®: SECTION 202; IWUIC: SECTION 202

Proponents: Mike Fischer, Kellen, The Extruded Polystyrene Foam Association (mfischer@kellencompany.com); Jonathan Roberts, UL Solutions, UL Solutions (jonathan.roberts@ul.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC FIRE SAFETY COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

[BF] FLAME SPREAD INDEX. A comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E84 or UL 723. Where ceiling and floor values are reported, the ceiling value is the *flame spread index*.

[BF] SMOKE-DEVELOPED INDEX. A comparative measure, expressed as a dimensionless number, derived from measurements of smoke obscuration versus time for a material tested in accordance with ASTM E84 or UL 723. Where ceiling and total smoke values are reported, the ceiling value is the *smoke-developed index*.

2024 International Fire Code

Revise as follows:

[BF] FLAME SPREAD INDEX. A comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E84 or UL 723. Where ceiling and floor values are reported, the ceiling value is the *flame spread index*.

[BF] SMOKE-DEVELOPED INDEX. A comparative measure, expressed as a dimensionless number, derived from measurements of smoke obscuration versus time for a material tested in accordance with ASTM E84 or UL 723. Where ceiling and total smoke values are reported, the ceiling value is the *smoke-developed index*.

2024 International Mechanical Code

Revise as follows:

[BF] FLAME SPREAD INDEX. ~~The numerical value assigned to a material tested in accordance with ASTM E84 or UL 723. A~~ comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E84 or UL 723. Where ceiling and floor values are reported, the ceiling value is the *flame spread index*.

[BF] SMOKE-DEVELOPED INDEX. ~~A numerical value assigned to a material tested in accordance with ASTM E84. A comparative~~ measure, expressed as a dimensionless number, derived from measurements of smoke obscuration versus time for a material tested in accordance with ASTM E84 or UL 723. Where ceiling and total smoke values are reported, the ceiling value is the *smoke-developed index*.

2024 International Wildland Urban Interface Code

Revise as follows:

[BF] FLAME SPREAD INDEX. A comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E84 or UL 723. Where ceiling and floor values are reported, the ceiling value is the *flame spread index*.

Staff Analysis: *Flame Spread Index* and *Smoke-Developed Index* are both defined in the IRC. The same revisions will be proposed in

Group B for IRC.

Reason: Roberts (UL):

The revisions are as follows:

1) The purpose of the test is to determine the comparative burning characteristics of the material under test by evaluating the spread of flame over its surface and the density of the smoke developed when exposed to a test fire. These measurements are made as the test flame advances along the ceiling of the sample.

However, materials that melt and drip to the floor of the test chamber and continue burning, often have a second measurement reported, based upon the flame spread advancements of material burning along the floor of the furnace. For materials exhibiting these behaviors, both ceiling and floor measurements are reported for the flame spread, while ceiling and total smoke measurements are reported for the smoke developed.

The intent of the code requirement for these materials has been that when both the floor and ceiling measurements are reported, the ceiling measurement applies to the building code. This code change proposal clarifies that the ceiling measurement is applicable to avoid confusion when these two values are reported.

UL 723 contains specific direction in Section 7 (Classification) and Section 9 (Reporting) for the determination and reporting of ceiling and floor flame spread and ceiling and total smoke developed.

2) The International Mechanical Code (IMC) definitions are revised to match the IBC, IRC, IFC and IWUIC for consistency. Reference to UL 723 is the smoke-developed index is also added for consistency.

3) There is one other flame spread and smoke-developed index test standard besides ASTM E84 and UL 723. It is the CAN/ULC S102.2 test standard used for loose fill insulation, where the product is mounted and tested on the floor of the tunnel apparatus. Therefore, this test standard is listed as an exception in IBC Section 720.4 and IRC R302.10.

The clarification to the definitions regarding reporting of ASTM E84 and UL 723 values will not impact the reporting of CAN/ULC S102.2, which is currently limited to one product with one floor measurement.

Reason: Fischer (XPSA): While ASTM E84 and UL 723 contain the same requirements, there are a few minor differences in how data are captured and reported. This proposal will clarify how the test data from testing under either standard correlates to the FS and SD requirements in the code. It will also aid in code education efforts by improving the language.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This clarification reflects current practice and as such will neither increase or decrease the cost of construction.

G8-24 Part I

IBC: SECTION 202; IFC: SECTION 202

Proponents: Jeff Grove, Chair, Building Code Action Committee (BCAC) (bcac@iccsafe.org)

THIS IS A 2 PART CODE CHANGE.

PART I WILL BE HEARD BY THE IBC EGRESS CODE COMMITTEE.

PART II WILL BE HEARD BY THE MECHANICAL CODE COMMITTEE.

SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2024 International Building Code

Revise as follows:

[BE] FLOOR AREA, GROSS. The floor area within the inside perimeter of ~~the a exterior walls of the building under consideration,~~ exclusive of ~~vent shafts with no openings and courts,~~ without deduction for *corridors, stairways, ramps,* closets, the thickness of interior walls, columns or other features. The floor area of a *building, or portion thereof,* not provided with surrounding *exterior walls* shall be the occupiable space ~~usable area~~ under the horizontal projection of ~~the a~~ roof or floor above. ~~The gross floor area shall not include shafts with no openings or interior courts.~~

[BE] FLOOR AREA, NET. The ~~actual occupied area~~ occupiable space of a building, not including unoccupied accessory areas such as *corridors, stairways, ramps,* toilet rooms, mechanical rooms and closets.

2024 International Fire Code

Revise as follows:

[BE] FLOOR AREA, GROSS. The floor area within the inside perimeter of ~~the a exterior walls of the building under consideration,~~ exclusive of ~~vent shafts with no openings and courts,~~ without deduction for *corridors, stairways, ramps,* closets, the thickness of interior walls, columns or other features. The floor area of a *building, or portion thereof,* not provided with surrounding *exterior walls* shall be the occupiable space ~~usable area~~ under the horizontal projection of ~~the a~~ roof or floor above. ~~The gross floor area shall not include shafts with no openings or interior courts.~~

[BE] FLOOR AREA, NET. The ~~actual occupied area~~ occupiable space of a building, not including unoccupied accessory areas such as *corridors, stairways, ramps,* toilet rooms, mechanical rooms and closets.

G8-24 Part I

G8-24 Part II

IMC@: SECTION 202

Proponents: Jeff Grove, Chair, Building Code Action Committee (BCAC) (bcac@iccsafe.org)

2024 International Mechanical Code

Delete without substitution:

~~**FLOOR AREA, NET.** The actual occupied area, not including unoccupied accessory areas or thicknesses of walls.~~

Reason: The changes clean up both definitions for readability and to remove redundancy. Additionally, it clarifies the use of “floor area” in IBC/IFC Table 1004.5 to point back to definitions.

The IMC includes the definition 'floor area, net', but does not use it in the text. They do include the definition of 'net occupiable floor area' which is used in Section 403.3.1.1.1.1 and footnote a in Table 403.3.1.1. We are proposing to delete this term since it is not used and is inconsistent with the IBC and IFC.

The IZC also includes definitions for 'floor area, net' and 'floor area, gross'. They are different from IBC and IFC and are not used in the text. There will be a code change in Group B to address this.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at [BCAC webpage](#).

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is an editorial change to the definitions to provide additional clarity for application in determining occupant loads. This will not result in any changes to construction.

G9-24

IBC: SECTION 202; IFC: SECTION 202; IPMC: SECTION 202

Proponents: Jennifer Goupil, Structural Engineering Institute of ASCE, American Society of Civil Engineers (jgoupil@asce.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

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

2024 International Fire Code

Revise as follows:

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

2024 International Property Maintenance Code

Revise as follows:

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

Reason: This proposal is a coordination proposal to improve the alignment between the provisions in the International Codes with the provisions of the 2022 edition of ASCE/SEI 7 Minimum Design Loads and Associated Criteria for Buildings and Other Structures (ASCE/SEI 7-22). The Dead and Live Load Subcommittee of ASCE 7 has been working for several cycles to align the requirements in these documents related to Dead and Live Loads.

The proposed changes to the definition of the word Guard are intended to remove unnecessary and potentially confusing words, as well as to improve the coordination between the definitions in the International Codes and in ASCE 7.

The word "building" is struck in two places as it is unnecessary and does not appear in the ASCE 7 definition. The definition is clear without it. Additionally, the use of the word "building" could cause confusion as the scope of the IBC includes buildings and structures per Section 101.2, but the word "structures" does not appear alongside the word "building".

The word "system" is changed to "assembly" to match the ASCE 7 definition. The words in this usage are interchangeable. However, in ASCE 7 the defined term is Guard System, and as such the ASCE 7 definition uses "assembly" to avoid using "system" in both the defined term and in the definition. It is generally considered not good practice to repeat words being defined in the definition itself.

The addition of the word "elevated" and the removal of the phrase "to a lower level" matches ASCE 7 text and uses less words to accomplish the same meaning. There is no need to define where you are falling to once it is established that the guard is on the elevated surface.

Note, this definition appears in the following I-codes and the intent is to have the proposal revise the definition in each code; IBC, IRC, IFC, and IPMC.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal will not increase or decrease costs related to guards as the proposal does not in any way revise the code requirements for guards. The proposal is an editorial code change which aligns specific words in the ICC definition with specific words in the ASCE 7 definition.

G10-24 Part I

IBC: SECTION 202; IFC: SECTION 202

Proponents: Jennifer Goupil, Structural Engineering Institute of ASCE, American Society of Civil Engineers (jgoupil@asce.org)

THIS IS A 2 PART CODE CHANGE.

PART I WILL BE HEARD BY THE IBC EGRESS CODE COMMITTEE.

PART II WILL BE HEARD BY THE SWIMMING POOL AND SPA CODE COMMITTEE.

SEE THE TENTATIVE SCHEDULE FOR THESE COMMITTEES.

2024 International Building Code

Revise as follows:

[BE] **HANDRAIL.** A horizontal or sloping rail grasped ~~intended for grasping by the hand~~ for guidance or support.

2024 International Fire Code

Revise as follows:

[BE] **HANDRAIL.** A horizontal or sloping rail grasped ~~intended for grasping by the hand~~ for guidance or support.

G10-24 Part I

G10-24 Part II

ISPSC: SECTION 202

Proponents: Jennifer Goupil, Structural Engineering Institute of ASCE, American Society of Civil Engineers (jgoupil@asce.org)

2024 International Swimming Pool and Spa Code

Revise as follows:

HANDRAIL. A support device ~~horizontal or sloping rail that is intended to be gripped or grasped by a user hand for the purpose of resting or steadying guidance or support, typically located within or at exits to the pool or spa or as part of a set of steps.~~

Reason: This proposal is a coordination proposal to improve the alignment between the provisions in the International Codes with the provisions of the 2022 edition of ASCE/SEI 7 Minimum Design Loads and Associated Criteria for Buildings and Other Structures (ASCE/SEI 7-22). The Dead and Live Load Subcommittee of ASCE 7 has been working for several cycles to align the requirements in these documents related to Dead and Live Loads.

The modified wording proposed herein matches the wording used in the ASCE 7 definition.

Removing the phrase “intended for” removes unnecessary words. Many definitions describe what an object is used for. It is not necessary to explicitly call out the use as the object’s purpose or intention. It is simpler, and clearer to just state the use.

Note, this definition appears in the following I-codes and the intent is to have the proposal revise the definition in each code; IBC, IRC, ISPSC and IFC. The IRC proposal will be in Group B.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal will not increase or decrease costs related to handrails as the proposal does not in any way revise the code requirements for handrails. The proposal is an editorial code change which aligns specific words in the ICC definition with specific words in the ASCE 7 definition.

G10-24 Part II

G11-24

IBC: SECTION 202; IFC: SECTION 202

Proponents: John Poole, Poole Fire Protection, Inc., ASI Southeast (jpoole@poolefire.com); Matthew Stepp, ASI Southeast Inc, ASI Southeast Inc (mstepp@asi-southeast.com); Dale Wheeler, Systech Fire Protection LLC, Scranton Products (sgidw@aol.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC FIRE SAFETY COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

[BF] INTERIOR WALL AND CEILING FINISH. The exposed *interior surfaces* of *buildings*, including but not limited to: fixed or movable walls and partitions; ~~toilet room privacy partitions~~; columns; ceilings; and interior wainscoting, paneling or other finish applied structurally or for decoration, acoustical correction, surface insulation, structural fire resistance or similar purposes, but not including *trim*.

2024 International Fire Code

Revise as follows:

[BF] INTERIOR WALL AND CEILING FINISH. The exposed interior surfaces of buildings, including but not limited to: fixed or movable walls and partitions; ~~toilet room privacy partitions~~; columns; ceilings; and interior wainscoting, paneling or other finish applied structurally or for decoration, acoustical correction, surface insulation, structural *fire resistance* or similar purposes, but not including trim.

Reason: POOLE: Toilet partitions are primarily made from stainless steel, powder coated galvanized, plastic laminate (particleboard with high pressure laminate facing and edging), phenolic, and high-density polyethylene (HDPE). As a result of changes made to the definition of “Interior Wall and Ceiling Finish” in 2006, toilet room privacy partitions have been defined as an interior wall partition, which subjects it to various flammability test methods to be considered compliant. Based on the extensive history in manufacturing and selling toilet partitions, along with many hours of researching fires from the National Fire Incident Reporting System (NFIRS) data and the National Fire Protection Association (NFPA) One-Stop Data Shop, that occur in a public restroom, we have yet identified a scenario where toilet room privacy partitions, made from any of these materials, was the primary source or contributing fuel for a fire, which was responsible for the loss of life or significant property damage/loss.

The current flammability testing methods are unnecessary and add significant manufacturing and other related costs. Since the changes in the 2009 IBC, Section 803.12, manufacturers of HDPE toilet room privacy partitions have been subjected to a different set of flammability testing standards than all of materials that are commercially used for producing toilet partitions without any supporting historical fire loss data to justify these increased flammability testing measures. For HDPE toilet room privacy partitions to be compliant with IBC regulations and pass the NFPA 286 room corner test, manufacturers have had to consider many reformulations, which in turn increases the cost of this product with no historical fire loss data to justify these increased costs. Each reformulation subjects the manufacturer to increase the overall cost of the product to the consumer. Additional costs come from many different aspects of the product development life cycle including additives to improve the overall performance of the product due to these testing parameters that increases the cost of the product by up to 100%, or selecting a different additive that does not increase the cost but is a known carcinogen. A manufacturer must consider all the additional expenses that will be incurred throughout the entire product process including, but not limited to: an increase in weight of the product by up to 30% which in turn increases freight costs; the repairs and maintenance of the manufacturing equipment in order to produce products due to additives; ensuring employee safety when handling the heavier material; revisions to packaging to manage the additional weight and ensure quality of product; increase in the cost of other raw materials to ensure the quality of the product; revisions to hardware components necessary to install the partitions to ensure product life cycle performance due to the additional weight; the cost of the product outside of the manufacturing facility such as freight to the construction site; additional labor costs required for installation of heavier components to ensure employee safety; reduction of product life expectancy and therefore increased replacement costs due to the introduction of additives that reduces the durability of HDPE and the replacement components. All of these above items increase the cost to the end consumer solely for the benefit of being compliant to a regulation that is not justified based upon loss of life and property fire loss data.

In addition to the significant costs imposed on toilet room privacy partition manufacturers, none of the fire test standards required by the

IBC are specific to the external fuel loading or how toilet room privacy partitions are used and installed. In terms of fire risks in public restrooms, the main ignitable materials in public restrooms are paper products such as toilet paper and/or paper hand towels. Although difficult to ignite, disinfectant and hand soap containers could also be considered ignitable fuels within public restrooms. In terms of these materials, toilet paper dispensers are generally affixed to a toilet room privacy partition to allow easy occupant access. Currently, there is no requirement for the toilet paper dispensers or other devices affixed to a toilet room privacy partition to adhere to interior wall finish requirements. The vast majority of public restrooms contain few, if any, potential ignition sources. Therefore, based on the low propensity for fire ignition, coupled with the low fuel loading within these spaces, the risks of a substantial fire occurring are nearly non-existent. And this is supported by the lack of fire data that reflects the toilet room privacy partitions were the primary source or contributing fuel source of a fire, which was responsible for the loss of life or significant property damage/loss.

HDPE toilet room privacy partitions are exclusively installed in restrooms and HDPE partitions installed in other areas cannot, by definition, be classified as toilet room privacy partitions. As discussed previously, having a fire in a restroom capable of igniting an HDPE toilet room privacy partition is not expected, especially if the restroom is provided with automatic sprinkler protection. When the toilet stall is occupied, it can be expected that the occupant will be in very close proximity to the partitions, providing for very early warning of an incipient stage fire. While it can be expected that a restroom occupant will require more pre-movement time than an occupant of other spaces, this time disparity is offset with the earlier warning. Also, due to general architectural design philosophies, restrooms are separated from most normally occupied spaces to provide their occupants with increased privacy. Therefore, in the case of a restroom fire, once outside of the restroom and in the publicly occupiable disorder, the occupant would be shielded from the restroom fire by the room's walls and door. Therefore, the smoke indices and the peak heat release rates from an HDPE toilet room privacy partition are largely irrelevant in terms of protecting a restroom occupant from a fire, even if one were to be ignited in a public restroom.

For these reasons, it can be expected that the life safety of both restroom occupants, and those within the adjacent publicly occupiable spaces will be at risk from a restroom fire from any toilet partition. Therefore, requiring toilet room privacy partitions, including those constructed of HDPE, to be fire rated to meet interior finish requirements, poses an undue burden on the toilet room privacy partition industry and the consumers, and provides no added benefit, since a restroom fire problem does not exist. For the above-described rationale, "toilet room privacy partitions" should be removed from the "interior wall and ceiling finish" definition in Section 202 of the IBC and IFC.

WHEELER:

Purpose: This code change would remove toilet room privacy partitions from the definition of Interior Wall and Ceiling Finish.

Reasons: Toilet room privacy partitions are not properly characterized as interior finish and should not be subject to interior finish requirements.

Substantiation: In IBC editions 2003 and prior, toilet room privacy partitions were not indicated to be interior wall and ceiling finish. The 2006 edition of the IBC included the current code language. However, no convincing technical substantiation was provided to support that change. Further, toilet room privacy partitions are not similar to typical interior finishes, such as wall coverings, floor coverings, or decorative items. Toilet room privacy partitions are not directly adhered to walls of ceilings as are typical interior finishes. Also, toilet room partitions are installed perpendicular to walls, and therefore are not subject to the same corner-exposure as other wall finishes. Corner configurations of traditional wall coverings are known to produce taller flames due to the reduced air entrainment, compared to a fire in the open or along a single wall, but that is not the case with toilet room partitions. Toilet room privacy partitions also differ from fixed or movable walls with regard to environment and exposure within a building. Typical sources of fire ignition found in areas other than toilet rooms do not exist in proximity to toilet room privacy partitions.

The bulk of ordinary combustibles in a toilet room are not typically near the toilet room privacy partitions. So, for example, a fire starting in a waste can, is not expected to be near to or impact toilet room partitions.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

POOLE: Building owners and those responsible for sourcing toilet room privacy partitions, specifically HDPE partitions, will initially see somewhat reduced costs from \$0 and less, which would vary based on the costs identified in the reason statement.

WHEELER: The proposed code change will reduce the cost of construction by removing requirements that are not properly applicable.

Estimated Immediate Cost Impact Justification (methodology and variables):

POOLE: It is anticipated that as additional products from additional manufacturers are able to enter the market, costs will be reduced. These manufacturers will incur lower initial costs, as they will not be required to pay for materials additives and fire tests that may not represent the real-world conditions in which these materials are installed and utilized.

WHEELER:

Logical Analysis.

G12-24 Part I

IBC: SECTION 202 (New)

Proponents: Alexander Haldeman, James Hardie Building Products, James Hardie Building Products
(alex.haldeman@jameshardie.com)

THIS IS A 5 PART CODE CHANGE.

PART I WILL BE HEARD BY THE IBC-FIRE SAFETY COMMITTEE.

PART II AND V WILL BE HEARD BY THE FIRE CODE COMMITTEE.

PART III AND IV WILL BE HEARD BY THE MECHANICAL CODE COMMITTEE.

SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

2024 International Building Code

Add new definition as follows:

NONCOMBUSTIBLE MATERIAL. A material that does not contribute appreciably to an ambient fire. Materials that comply with Section 703.3.1 of the IBC are considered noncombustible materials.

703.3.1 Noncombustible materials.

Materials required to be noncombustible shall be tested in accordance with ASTM E136. Alternately, materials required to be noncombustible shall be tested in accordance with ASTM E2652 using the acceptance criteria prescribed by ASTM E136.

Exception: Materials having a structural base of noncombustible material as determined in accordance with ASTM E136, or with ASTM E2652 using the acceptance criteria prescribed by ASTM E136, with a surfacing of not more than 0.125 inch (3.18 mm) in thickness having a *flame spread index* not greater than 50 when tested in accordance with ASTM E84 or UL 723 shall be acceptable as noncombustible.

G12-24 Part I

G12-24 Part II

IFC: SECTION 202 (New)

Proponents: Alexander Haldeman, James Hardie Building Products, James Hardie Building Products
(alex.haldeman@jameshardie.com)

2024 International Fire Code

Add new definition as follows:

NONCOMBUSTIBLE MATERIAL. A material that does not contribute appreciably to an ambient fire. Materials that comply with Section 703.3.1 of the International Building Code are considered noncombustible materials.

G12-24 Part II

G12-24 Part III

IFGC: SECTION 202

Proponents: Alexander Haldeman, James Hardie Building Products, James Hardie Building Products
(alex.haldeman@jameshardie.com)

2024 International Fuel Gas Code

Revise as follows:

~~[M] NONCOMBUSTIBLE MATERIALS. Materials that, where tested in accordance with ASTM E136, have not fewer than three of four specimens tested meeting all of the following criteria:~~

~~A material that does not contribute appreciably to an ambient fire. Materials that comply with Section 703.3.1 of the International Building Code are considered noncombustible materials.~~

- ~~1. The recorded temperature of the surface and interior thermocouples shall not at any time during the test rise more than 54°F (30°C) above the furnace temperature at the beginning of the test.~~
- ~~2. There shall not be flaming from the specimen after the first 30 seconds.~~
- ~~3. If the weight loss of the specimen during testing exceeds 50 percent, the recorded temperature of the surface and interior thermocouples shall not at any time during the test rise above the furnace air temperature at the beginning of the test, and there shall not be flaming of the specimen.~~

G12-24 Part III

G12-24 Part IV

IMC@: SECTION 202

Proponents: Alexander Haldeman, James Hardie Building Products, James Hardie Building Products
(alex.haldeman@jameshardie.com)

2024 International Mechanical Code

Revise as follows:

NONCOMBUSTIBLE MATERIAL. ~~A material that passes ASTM E136.~~ A material that does not contribute appreciably to an ambient fire. Materials that comply with Section 703.3.1 of the International Building Code are considered noncombustible materials.

G12-24 Part IV

G12-24 Part V

IWUIC: SECTION 202

Proponents: Alexander Haldeman, James Hardie Building Products, James Hardie Building Products
(alex.haldeman@jameshardie.com)

2024 International Wildland Urban Interface Code

Revise as follows:

NONCOMBUSTIBLE MATERIAL. ~~As applied to building construction material means a material that, in the form in which it is used, is either one of the following:~~

A material that does not contribute appreciably to an ambient fire. Materials that comply with Section 703.3.1 of the *International Building Code* are considered noncombustible materials.

- ~~1. Material of which no part will ignite and burn when subjected to fire. Any material conforming to ASTM E136 shall be considered noncombustible within the meaning of this section.~~
- ~~2. Material having a structural base of noncombustible material as defined in Item 1 above, with a surfacing material not over $\frac{1}{8}$ inch (3.2 mm) thick, which has a flame spread index of 50 or less. Flame spread index as used herein refers to a flame spread index obtained according to tests conducted as specified in ASTM E84 or UL 723.~~

~~"Noncombustible" does not apply to surface finish materials. Material required to be noncombustible for reduced clearances to flues, heating appliances or other sources of high temperature shall refer to material conforming to Item 1. No material shall be classified as noncombustible that is subject to increase in combustibility or flame spread index, beyond the limits herein established, through the effects of age, moisture or other atmospheric condition.~~

Reason: This proposal attempts to serve three purposes, all editorial and clarifying in nature:

1. Harmonize definitions found throughout multiple ICC codes (IBC, IRC, IFC, IWUIC, IMC, IFGC, IEBC)
2. Addresses the recent practice that ICC Codes Definitions should not contain requirements
3. Attempts to offer clarity between often-used, and often-confused terms used throughout ICC Codes: specifically, the difference between "Fire-Resistance Rating" (IFC, IBC, IWUIC) "Ignition-Resistant Building Material" (IWUIC), "Flame-Spread Index" (IBC, IRC, IFC, IWUIC, IMC), "Flammable Material" (IBC, IFC) , and "Noncombustible Material" (IRC, IWUIC, IMC, IFGC, IEBC)

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal focusses on terminology harmonization, and does not add any requirements or change exiting requirements.

G12-24 Part V

G13-24

IBC: SECTION 202

Proponents: Jeff Grove, Chair, Building Code Action Committee (BCAC) (bcac@iccsafe.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

[BE] RESTRICTED ENTRANCE. An entrance that is made available for *common use* on a controlled basis, but not public use, and that is not a *service entrance*. A controlled basis is where entry access is verified by security personnel and entry is limited to authorized occupants and excludes their guests or companions.

Reason: With the current definition of restricted entrances, there is a misinterpretation that locking a door and requiring a card or key for access makes the entrance a restricted entrance. With the requirement for automatic doors added to the codes for all public entrances, we are seeing this becoming even more of an issues for hotels and office buildings.

The following is from the guidance for the US Access Board.

Restricted Entrances [§206.4.7] If entrances are restricted to certain occupants on a controlled basis, at least one must comply in addition to public entrances required to be accessible. This applies to those entrances where entry access is verified by security personnel and is strictly limited to certain occupants, but no one else, including guests or companions of authorized individuals. All other types of entrances, excluding service entrances, are considered “public entrances” under the Standards, including employee-only entrances requiring keys or access cards or codes but that lack the level of security of restricted entrances.

Please refer the the definitions for 'public entrance', 'service entrance' and the requirements in Section 1105.1.1 Power-operated doors at public entrances.

This proposal is submitted by the ICC Building Code Action Committee (BCAC).

BCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 the BCAC has held several virtual meetings open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the BCAC website at [BCAC webpage](#).

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This is a clarification for where Section 1105.1 is applicable. There are no changes to construction requirements.

G13-24

G14-24

IBC: SECTION 202; IFC: SECTION 202

Proponents: David Cooper, Stair Manufacturing and Design Consultants, Stairbuilders and Manufacturers Association, SMA (coderep@stairways.org)

THIS CODE CHANGE WILL BE HEARD BY THE IBC EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

[BE] **SCISSOR STAIRWAY.** ~~Two interlocking~~ Independent stairways located within a common exit enclosure, providing not less than two separate paths of egress located within one *exit* enclosure.

2024 International Fire Code

Revise as follows:

[BE] **SCISSOR STAIRWAY.** ~~Two interlocking~~ Independent stairways located within a common exit enclosure, providing not less than two separate paths of egress located within one *exit* enclosure.

Reason: The term interlocking as defined in most dictionaries implies connection, and is defined as:

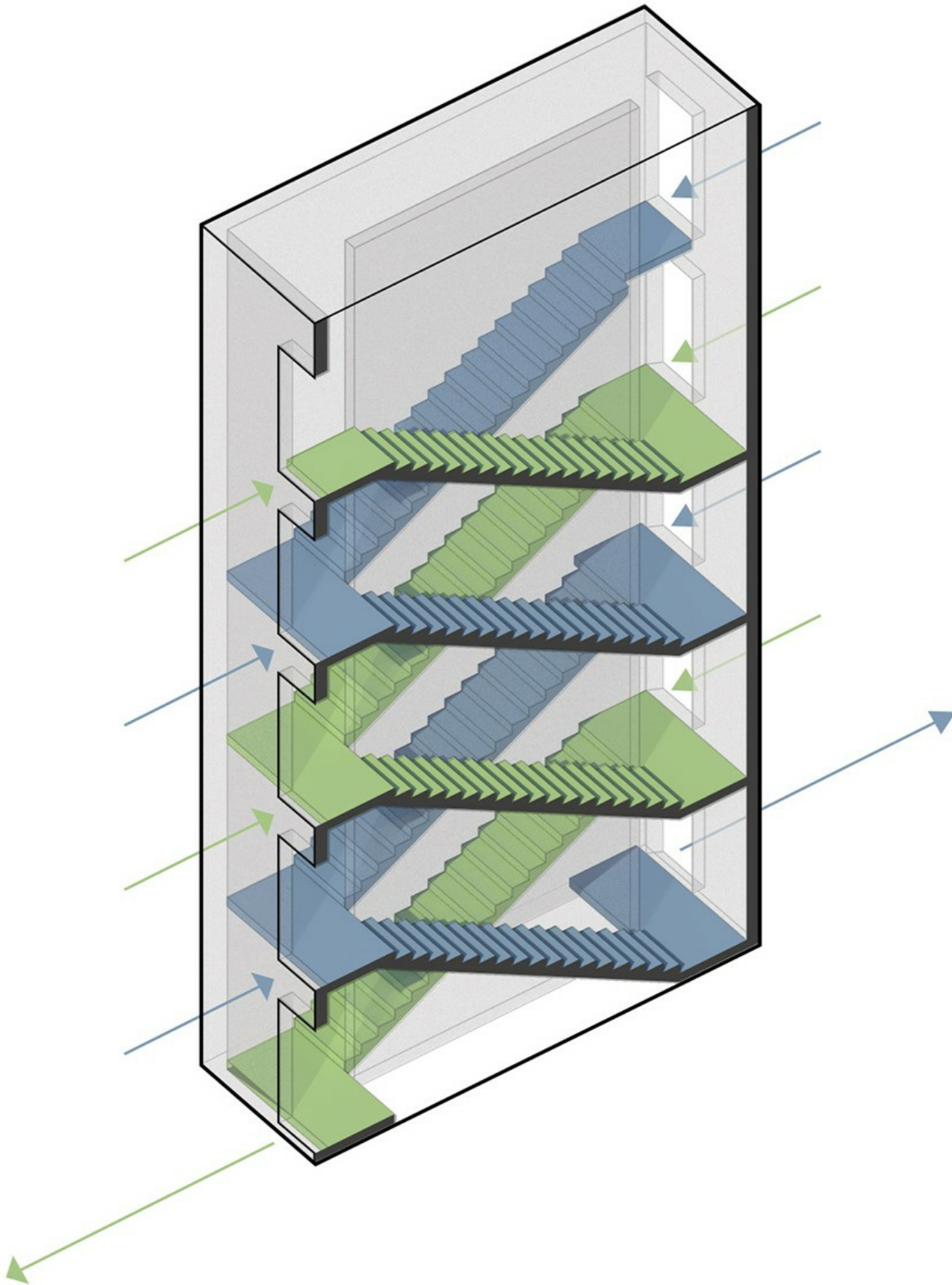
- Webster: 1. to lock together; join with one another. 2. to connect or be connected so that neither part can be operated independently.
- Merriam-Webster: 1. locked together. 2. to connect so that the motion or operation of any part is constrained by another.

A scissor stairway consists of separate stairways that are not connected. Each stairway serves the same function within a common enclosure, but they do so independently without constraining the other. Deleting the term interlocking and inserting independent offers a clearer description. The limit of “two” stairways is incorrect and must be deleted. Figure 1 shows an example of a scissor stairway with 8 stairways as the term stairway is defined in the IBC:

Stairway. One or more flights of stairs, either exterior or interior, with the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage from one level to another.

Please support approval as submitted. This proposal offers clarification and will promote consistent interpretation.

Graphic courtesy of Chris Johns, ThoughtCraft Architects LLC



Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal modifies the descriptive language by providing a more appropriate adjective, adds clarifying language and corrects the numerical error within the definition to align with the ICC defined terms used in the definition. It will have no impact on the cost of construction as it makes no technical changes relative to construction or the cost thereof.

G15-24

IBC: [F] 307.1; IFC: 203.6

Proponents: Robert Marshall, FCAC, FCAC (fcac@iccsafe.org); Robert J Davidson, Davidson Code Concepts LLC, Self (rjd@davidsoncodeconcepts.com); Julius Ballanco, P.E., JB Engineering and Code Consulting, P.C., Self (jbengineer@aol.com); Kevin Scott, KH Scott & Associates LLC, self (khscottassoc@gmail.com)

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

[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 rooftop storage or use and shall comply with the *International Fire Code*. For retail and wholesale storage and display in Group M occupancies and Group S storage, see Section 414.2.5.

2024 International Fire Code

Revise as follows:

203.6 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 5003.8.3, based on the maximum allowable quantity limits for *control areas* set forth in Tables 5003.1.1(1) and 5003.1.1(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 code and the requirements of Section 415 of the *International Building Code*. Hazardous materials stored or used on top of roofs or canopies shall be classified as rooftop storage or use and shall comply with this code. For retail and wholesale storage and display in Group M occupancies and Group S storage, see Section 414.2.5 of the *International Building Code*.

Reason: MARSHALL: This is an editorial correlation proposal. The goal over the past few code cycles has been to correlate the MAQ tables in the IBC and IFC. This proposal simply adds a reference to the MAQs allowed in retail and wholesale occupancies with specific storage configurations. Without this sentence, there is no obvious route from this MAQ table to the tables for retail and wholesale. This fills a void and does not provide any new requirements. This sentence is duplicated from IFC Section 5003.1.1. With this additional sentence the directions for use of the MAQ tables is the same in the IBC and IFC.

FCAC was established by the ICC Board of Directors in July 2011 to pursue opportunities to improve and enhance assigned International Codes or portions thereof. In 2023 and early 2024 the FCAC has held several virtual meetings and one in-person meeting open to any interested party. In addition, there were numerous virtual Working Group meetings for the current code development cycle, which included members of the committee as well as interested parties. Related documents and reports are posted on the [FCAC Website](#)

SCOTT: When evaluating the allowable quantities, the IBC does not currently contain a reference to Table 414.2.5 as does the IFC. This proposal simply adds this reference so the code user reaches the appropriate requirements for retail facilities.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

MARSHALL: There is no new technical requirement language. Simply a pointer to assist the code user.

SCOTT: This proposal is editorial and clarifies the application of the provisions.

G16-24

IBC: [F] 403.3.3; IFC: 914.3.2

Proponents: Jeffrey Shapiro, International Code Consultants, National Fire Sprinkler Association (jeff.shapiro@intlcodeconsultants.com)

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 403 HIGH-RISE BUILDINGS

Revise as follows:

[F] 403.3.3 Secondary water supply.

An *automatic* secondary on-site water supply having a capacity not less than the hydraulically calculated sprinkler demand, ~~including the hose stream requirement~~, in accordance with Section 903.3.1.1, shall be provided for *high-rise buildings* assigned to *Seismic Design Category C, D, E or F* as determined by Section 1613. The calculated sprinkler demand used to determine the volume of the secondary on-site water supply shall not be required to include any allowance for water to supply standpipes or inside or outside hoses connected to an *automatic sprinkler system*.

An additional fire pump shall not be required for the secondary water supply unless needed to provide the minimum design intake pressure at the suction side of the fire pump supplying the *automatic sprinkler system*. The secondary water supply shall have a duration of not less than 30 minutes as determined by the occupancy hazard classification in accordance with Section 903.3.1.1 .

2024 International Fire Code

Revise as follows:

914.3.2 Secondary water supply.

An *automatic* secondary on-site water supply having a capacity not less than the hydraulically calculated sprinkler demand, ~~including the hose stream requirement~~, shall be provided for high-rise buildings assigned to Seismic Design Category C, D, E or F as determined by the *International Building Code*. The calculated sprinkler demand used to determine the volume of the secondary on-site water supply shall not be required to include any allowance for water to supply standpipes or inside or outside hoses connected to an *automatic sprinkler system*.

An additional fire pump shall not be required for the secondary water supply unless needed to provide the minimum design intake pressure at the suction side of the fire pump supplying the *automatic sprinkler system*. The secondary water supply shall have a duration of not less than 30 minutes as determined by the occupancy hazard classification in accordance with NFPA 13.

Reason: Although at first glance this might appear to constitute a significant change to the code, it is not. In preparing this proposal, I tracked the topic back to its origin in the 1973 UBC and followed the provisions forward to the 2024 IBC, evaluating every change and reviewing each version of the code text. I will include a summary, albeit a long one, of that research below. But, the bottom line is that the volume of secondary water required for hoses in the 2024 code is minimal, and a system design that follows all applicable code requirements provides no way for anyone outside of the building to access water from the secondary water supply for outside hose demand.

Specifically, the code now says to add a volume of water for hoses that is sufficient to supply the hose stream demand specified in NFPA 13 (not NFPA 14) for a 30 minute duration. For a high-rise building, likely designed as light hazard under NFPA 13, Section 19.1.6.3 and Table 19.2.3.1.2 require "0" gpm for inside hoses if hoses will not be installed. Given that occupant use hoses are not required by the IBC and would not typically be found in a fully sprinklered high-rise building built today, that equates to "0" gpm being added for inside hoses. Next, Table 19.2.3.1.2 specifies a combined inside and outside hose demand of 100 gpm for light hazard with a 30 minute duration that matches the IBC duration requirement. Doing the math, you end up with a required additional storage capacity of 3,000 gallons, beyond

what is needed for sprinklers, to be stored onsite.

However, given that the 3,000 gallons is entirely for outside hoses, remembering that the inside hose demand is "0," one must question how anyone would get access to this water even if it were a scenario where it might be used. The stored water is going to be in or near the building, and there is no requirement for exterior hose connections or hydrants supplied by the secondary water supply to access water designated for outside hoses.

All of this aside, there's the bigger question of "in what scenario might this additional water be helpful?" If the primary water supply to a high-rise building has been lost interrupted due to a seismic event (note that the trigger for storing a secondary water supply is limited entirely to buildings that are assigned to Seismic Design Category C, D, E, or F so the water is only there for an earthquake induced failure of the primary water supply), does anyone really think that 3,000 gallons of additional water for outside hoses at a high-rise will make a difference to emergency responders who will be dealing with countless emergencies from an earthquake of that magnitude?

Does it really hurt anything to leave this in the code as a safety factor? In a word, yes. The current provision adds roughly 27,000 pounds of concentrated water load in a building that has to be carried by the structure, nearly doubling what would otherwise be required for sprinklers alone, and that additional weight comes at a cost for the size of the tank and the structure that must carry it. With no legitimate justification, it wastes funds to continue an outdated code requirement that was originally added to codes when it was uncommon for high-rise buildings to have sprinklers.

Background:

Uniform Building Code (International Conference of Building Officials – ICBO): 1973 and 1976 UBC

An on-site supply of water equal to a 20-minute demand or 15,000 gallons on a combined sprinkler and standpipe, whichever is the smaller, shall be provided. This supply shall be available automatically if the principal supply fails.

The origin of the requirement for a secondary water supply for high-rise buildings in areas with an elevated risk of a seismic event traces back to the original high-rise building requirements in the Uniform Building Code (UBC), published in 1973 (Section 1807). At the time, an option of using either compartmentation or sprinklers was offered. The code also provided a variety of sprinkler incentives, such as reducing the structural fire-resistance rating. For areas with seismic risk, the code added a requirement to provide a secondary water supply to qualify for the incentives, based on an assumption that the public water supply serving sprinklers might fail in response to an earthquake.

Gus Degenkolb, one of the original contributors to Section 1807, wrote an article for ICBO's Building Standards Magazine titled "The Reasoning Behind The Requirements for High Rise Buildings," which documented the early thought on this topic. Gus' article conveyed that, at the time, there was a deliberate disagreement between the UBC and NFPA 13's new Chapter 8 on high-rise buildings, published in the 1972 edition. It also conveyed that there was a misinterpretation of the NFPA 13 provisions that led to additional divergence.

The group that put UBC Section 1807 together established the UBC's secondary water supply volume by taking the 500 gpm water supply requirement for standpipe systems from NFPA 14 and multiplying that flow rate by 30-minutes, which was the required water supply duration for sprinklers under NFPA 13. That yielded a secondary/backup storage volume requirement of 15,000 gallons. However, the ICBO group did not initially consider that NFPA 13's minimum 30-minute water supply was not associated with secondary/backup storage. Subsequent debate considered adjusting the 15,000 gallon figure, but the proposal retained that initially-derived figure as the base requirement.

The group later revisited the issue of flow duration and decided that 20 minutes, rather than 30 minutes, was a more reasonable basis for a secondary/backup water supply. This decision was based on an assumption that, in areas where high-rise buildings would be constructed, fire engines should be capable of supplying fire department connections within 20 minutes of an incident report. In the end, the code provided an option of selecting the lesser of a 20-minute supply for the NFPA 14 standpipe demand or 15,000 gallons as the required secondary water supply.

It is important to note that there was no mandate to provide a secondary water supply at that time, because sprinklers weren't mandatory. The secondary water supply requirement only applied when sprinkler protection was chosen in lieu of providing compartmentation, presumably with the intent of using the incentive of a reduced structural fire-resistance rating.

1979 to 1997 UBC

In Seismic Zones No. 2, No. 3 and No. 4, in addition to the main water supply, a secondary on-site supply of water equal to the hydraulically calculated sprinkler design demand plus 100 gallons per minute additional for the total standpipe system shall be provided. This supply shall be automatically available if the principal supply fails and shall have a duration of 30 minutes.

The reasonableness of the UBC secondary water supply requirement was subsequently reconsidered during the development process for the 1979 edition, and the basis of the requirement was revised to focus on supplying the fire sprinkler system demand rather than the standpipe system demand.

In lieu of 20 minutes or 15,000 gallons of water focused on a sufficient supply for standpipe hoses, the 1979 UBC required the much lesser amount, sufficient to only meet the hydraulically calculated sprinkler demand plus 100 GPM (as the entire volume of water needed for standpipe hose connections) for 30 minutes duration. The basis for this change was included in ICBO's publication "1979 Uniform Codes Analysis of Revisions" as follows:

...clarifies the intent of the required sprinkler systems and more reliance is placed on the design of the systems based on UBC Standard No. 38-1 (NFPA 13). The requirement to provide on-site water supply has been revised so that it would not apply in Seismic Zones 0 and 1. The quantity of on-site water required in Seismic Zones Nos. 2, 3 and 4 has been revised so that the quantity of water is based on performance criteria and a minimum of a 30-minute supply is required rather than a 20-minute supply. The 30-minute supply agrees with requirements of nationally recognized standards.

With this change, the focus of the secondary water supply requirement for high-rise buildings in seismic zones changed from: 1) Providing the water supply associated with the standpipe demand for manual firefighting; to 2) Providing the water supply associated with the sprinkler system demand, including a modest additional volume of water required to supply a hose that is consistent with NFPA 13 provisions for light hazard occupancies.

It is also noteworthy that the compartmentation option was eliminated from the UBC in the 1988 edition. Beginning with that edition, sprinklers became mandatory for all newly constructed high-rise buildings. Accordingly, the secondary water supply requirement became mandatory for all high-rise buildings in seismic zones 2, 3 and 4 because there was no longer an option to use compartmentation in lieu of sprinklers.

IBC Working Draft

903.3.8.3 A secondary on-site water supply equal to the hydraulically calculated sprinkler demand plus 100 gpm shall be provided for high-rise buildings located in seismic event areas where the effective short-period peak velocity related acceleration (A) from the 500 year seismic event is greater than 0.2 in accordance with Chapter 16. The secondary water supply shall have a duration not less than 30 minutes.

A NFSA public comment on the IBC Working Draft (Comment 903.3.8.2-2) by Gene Endthoff changed "plus 100 gallons per minute..." to "including hose stream requirements" during the IBC development process, which involved bringing the former UBC provision into the IBC. The reason offered by NFSA for this change was ensuring that the previous "plus 100 gpm" wasn't treated as additive to the volume of water already required by NFPA 13 for hose streams as part of the "hydraulically calculated sprinkler demand." That public comment was accepted, and the change it proposed was included in the 2000 (first) edition of the International Building Code (IBC).

2000 IBC

903.3.5.2 Secondary water supply. A secondary on-site water supply equal to the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings in Seismic Design Category C, D, E or F as determined by Section 1616.3. The secondary water supply shall have a duration of not less than 30 minutes.

Between the 2000 and 2003 editions of the IBC, proposal F43-01, submitted by the Los Angeles Basin Chapter of ICBO added additional text to the last sentence, "as determined by the occupancy hazard classification in accordance with NFPA 13," which further tied the secondary water supply provision to NFPA 13, including the hose demand. The reason statement offered by the proponent makes this clear, "This will clearly distinguish the requirement from the previous UBC requirement of 30 minutes. Water duration is based on the hazard classification in accordance with NFPA 13 which is an IBC referenced standard. Duration varies based upon hazard classification."

2003 IBC (essentially unchanged in 2006 and 2009)

903.3.5.2 Secondary water supply. A secondary on-site water supply equal to the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings in Seismic Design Category C, D, E or F as determined by the International Building Code. The secondary water supply shall have a duration not less than 30 minutes as determined by the occupancy hazard classification in accordance with NFPA 13.

In the 2006 and 2009 editions of the IBC, this section remained essentially unchanged, with the exception of an editorial style revision. In 2012, two revisions were made by Proposal F83-09/10, submitted by AFSA, one of which was further modified by a public comment submitted by The Code Consortium. The AFSA change added a requirements for the secondary water supply to be "automatic" and a

statement that an additional dedicated fire pump was not required for the secondary water supply. The public comment further modified the allowance to have a single fire pump for both the primary and secondary water supply, by limiting that allowance to cases where an additional pump wasn't needed to relay water from the secondary water supply to the intake of the primary fire pump.

2012 IBC (essentially unchanged in the 2015 through 2021 editions, other than the text being relocated)

903.3.5.2 Secondary water supply. An automatic secondary on-site water supply having a capacity not less than the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings assigned to Seismic Design Category C, D, E or F as determined by the International Building Code. An additional fire pump shall not be required for the secondary water supply unless needed to provide the minimum design intake pressure at the suction side of the fire pump supplying the automatic sprinkler system. The secondary water supply shall have a duration of not less than 30 minutes as determined by the occupancy hazard classification in accordance with NFPA 13.

In the 2015 editions of the IBC and IFC, the secondary water supply requirements were relocated out of the general installation requirements in 903.3 to sections that were specifically scoped to high-rise buildings, since secondary water supply requirements did not apply to any other structures. In the IBC, the section was moved to IBC Section 403.3, and in the IFC, it was moved to IFC Section 914.3.3. This change was accomplished by Proposal F139-13, which was submitted by NFSA. No technical changes were made. It was simply a relocation of the provisions. A flaw in that proposal, which failed to correlate the IFC and IBC text when the relocation occurred, was later corrected by NFSA Proposal F175-18.

In the 2024 edition code cycle, NFSA Proposal G58-21 revised the text to further improve the connection between the secondary water supply provisions for hydraulic calculations, hose stream demand and water supply duration in the IBC associated with seismic risk and NFPA 13. And, it specifically intends to clarify that hose demand to be included in the secondary water supply calculation is that required by NFPA 13 and not NFPA 14.

2024 IBC

403.3.3 Secondary water supply. An automatic secondary on-site water supply having a capacity not less than the hydraulically calculated sprinkler demand, including the hose stream requirement in accordance with Section 903.3.1.1, shall be provided for high-rise buildings assigned to Seismic Design Category C, D, E or F as determined by Section 1613. An additional fire pump shall not be required for the secondary water supply unless needed to provide the minimum design intake pressure at the suction side of the fire pump supplying the automatic sprinkler system. The secondary water supply shall have a duration of not less than 30 minutes as determined by the occupancy hazard classification in accordance with Section 903.3.1.1.

NFSA's reason statement emphasized this important point as follows: "*The purpose of this proposal is to clarify the intent of the code section. High-rise buildings will be subject to both NFPA 13 provisions, which have a hose stream requirement, as well as NFPA 14 provisions, which set forth the total hose demand for the standpipe system. The current wording does not clarify which hose demand is to be used in calculating the volume of the secondary water supply. There is significant difference in the required flow rate between the two hose demands. The proposal seeks to clarify that secondary water supply volume is to incorporate the hose stream demand from NFPA 13 only and is not required to satisfy the hose demand from NFPA 14.*"

Conclusion:

The 2024 International Code text on secondary water supplies remains consistent with the longstanding intent of the IBC, which is rooted in the legacy UBC provision dating to the 1979 edition. However, an objective fresh look at where the code is and where it came from, including changes that have taken place in NFPA 13 over the past 5 decades, led me to the conclusion that there is no valid justification for continuing the existing requirement to store secondary water for hose streams to be used after a major seismic event.

It should be noted that it is general protocol in the IBC to use references to Section 903.3.1.1 as the means to point to NFPA 13 versus directly pointing to the NFPA standard. NFPA 13 is adopted by reference in Section 903.3.1.1, and that section includes some modifications to the NFPA standard that would otherwise be missed if other sections of the code were to directly reference NFPA 13.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

The reduced tank size could directly save \$4,000 to \$10,000 in direct savings. There are too many variables with respect to tank location and associated structural design to be able to assign a dollar value to the structural cost impact.

Estimated Immediate Cost Impact Justification (methodology and variables):

ChatGPT provided an estimated tank cost savings that seemed reasonable. It wasn't smart enough to provide a number for the structural savings impact. I can ask again before the code hearing.

G17-24

IBC: 406.5.9 (New)

Proponents: Steve Skalko, Stephen V. Skalko, P.E. & Associates LLC, Precast/Prestressed Concrete Institute (svskalko@svskalko-pe.com)

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 406 MOTOR-VEHICLE-RELATED OCCUPANCIES

Add new text as follows:

406.5.9 Automatic sprinkler system. *An open parking garage shall be equipped with an automatic sprinkler system where required by Section 903.2.10*

Reason: This change provides a cross-reference to guide the code user to the requirements in Section 903.2.10 for sprinkler protection in open parking garages. This is similar to the cross-reference in existing Section 406.5.8 for standpipe systems.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

It only places a cross-reference to Section 903.2.10 for automatic sprinklers in open parking garages

G17-24

G18-24

IBC: [BE] 412.2.2.3, [BE] 412.2.2.3.1

Proponents: William Cooper, Protection Engineers, LLC, FAA Fire Protection Engineering Code Team (wacooper@protengineers.com); David Clark, Protection Engineers, LLC, FAA Fire Protection Engineering Code Team (dwclark@protengineers.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC EGRESS COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 412 AIRCRAFT-RELATED OCCUPANCIES

Revise as follows:

[BE] 412.2.2.3 Number of exits.

~~Airport traffic control towers shall be permitted to be served by Not less than one a single exit stairway shall be permitted for airport traffic control towers of any height provided that the occupant load of each per floor is not greater than 15 and the area per floor does not exceed 1,500 square feet (140 m²).~~

[BE] 412.2.2.3.1 Interior finish.

Where an airport traffic control tower is provided with only ~~one a single exit stairway~~, interior wall and ceiling finishes shall be either Class A or Class B.

Reason: (1) The revision is in part intended to restructure the provision into a positive statement in lieu of the current negative statement. This restructuring is not intended to change the intent of the provision.

(2) The "single exit stairway" terminology is provided in the revision, in lieu of the current "one exit stairway" language, to better align language with other sections of the codes. This alignment of language is proposed for consistency with other code sections and not intended to change the intent of the provision.

(3) The revision proposes to remove the 1,500 sq. ft. limit. The current 1500 sq. ft. limit aligned with the previously applied business use occupant load factor of 100 sf per person gross. The business use occupant load factor has since been increased to 150 sf per person gross. The 1,500 sq. ft. limitation in the current code is now arbitrarily limiting the floor area of airport traffic control towers where the safety of the specific number of occupants is secured by the robust safety measures required by the IBC and not by limiting the floor area to a fixed number.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The code change proposal generally should provide no cost impact. The code change proposal removes the prescriptive square footage area limitation for single stair airport traffic control towers, which allows designers more freedom in design and space allocation of airport traffic control towers. However, the floor areas of single stair airport traffic control towers are still limited overall by limiting the occupant load per floor.

G18-24

G19-24

IBC: [F] 412.2.3.3

Proponents: William Cooper, Protection Engineers, LLC, FAA Fire Protection Engineering Code Team (wacooper@protengineers.com); David Clark, Protection Engineers, LLC, FAA Fire Protection Engineering Code Team (dwclark@protengineers.com)

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 412 AIRCRAFT-RELATED OCCUPANCIES

Revise as follows:

[F] 412.2.3.3 Smoke removal.

To facilitate smoke ~~Smoke~~ removal in post-fire salvage and overhaul operations, smoke removal in airport traffic control towers shall be provided in accordance with Section 403.4.7.

Reason: This proposal incorporates language from the already referenced code section (IBC 403.4.7) to clarify the intent of the code section to mandate inclusion of post-fire smoke removal features and not automatic smoke control features per IBC 909, as is incorrectly being included by a number of designers. This proposal is not intended to alter the intent of the code section.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The change just includes some of the language from the already referenced IBC 403.4.7 section. No change in intent is intended.

G19-24

G20-24

IBC: [F] 412.3.6; IFC: 914.8.3

Proponents: Douglas Fisher, Fisher Engineering, Inc., National Air Transportation Association

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 412 AIRCRAFT-RELATED OCCUPANCIES

Revise as follows:

[F] 412.3.6 Fire suppression.

Aircraft hangars shall be provided with a fire suppression system designed in accordance with NFPA 409, based on the classification for the hangar given in Table 412.3.6.

Exception: ~~Where a fixed base operator has separate repair facilities on-site,~~ Group II hangars operated by a *fixed base operator* used for storage or non-hazardous maintenance of ~~transient aircraft only~~ shall have a fire ~~suppression~~ sprinkler system, but the system is exempt from foam requirements. Hazardous operations are those defined in Section 412.3.6.1.

2024 International Fire Code

Revise as follows:

914.8.3 Fire suppression for aircraft hangars.

Aircraft hangars shall be provided with a fire suppression system designed in accordance with NFPA 409, based on the classification for the hangar given in Table 914.8.3.

Exception: ~~Where a fixed base operator has separate repair facilities on-site,~~ Group II hangars operated by a fixed base operator used for storage or non-hazardous maintenance of ~~transient aircraft only~~ shall have a fire ~~sprinkler suppression~~ system, but the system shall be exempt from foam requirements. Hazardous operations are those defined in Section 914.8.3.1

Reason: The current exception was added to the 2009 edition through code change G25-07/08. In an attempt to clarify previous language, the change actually has caused more confusion. "Where a fixed base operator has separate repair facilities on-site" has been interpreted to mean that the FBO actually owns a repair facility at that airport. This leaves out 1) any aircraft hangar at an airport that doesn't have maintenance facilities and 2) any aircraft hangar that does not perform maintenance. For example, a corporate aircraft hangar that stores corporate aircraft and performs line maintenance and A/B checks (all non-hazardous maintenance operations) cannot comply with this exception because they do not own a separate maintenance facility at the airport. The vast majority of maintenance performed on aircraft is scheduled maintenance. Aircraft owners can fly the aircraft to another maintenance facility to have any hazardous maintenance operations performed. To counter the argument that the fire department cannot enforce no hazardous maintenance, it should be noted that maintenance performed on aircraft is limited by FAA certification. An aircraft maintenance operator cannot simply change what type of maintenance is performed at their facility without achieving FAA approval.

Further, the term "fire suppression" has also caused confusion as fire sprinkler systems for aircraft hangars are not designed for suppression. The intent of the code change was to provide a fire sprinkler system, therefore, that term should be used.

The term "transient" has also caused confusion, penalizes aircraft that are based at that location (charter, corporate, privately owned) and has no bearing on whether a fuel spill will occur. It should be noted that the reason for a foam fire suppression system is due to the potential for a fuel spill that ignites. Simply because the aircraft is only located at the facility but not fully based there does not reduce the potential for a fuel spill. Only the level of maintenance performed on an aircraft has an effect on the risk of a fuel spill.

Finally, NFPA 409 has recently revised the requirements for foam fire suppression systems in Group II hangars. The proposed revisions

will better align with NFPA 409 to reduce confusion. As currently written, an aircraft hangar that does not meet the exception in the IFC would still meet the exception in NFPA 409. In that instance, which requirement governs? The IFC would require a fire suppression system in accordance with NFPA 409 but NFPA 409 would exempt a Group II hangar that does not perform hazardous operations.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

The proposed change is editorial in nature to clarify the intent of the exception. Where used, this exception will have no cost impact. It may, however, permit more facilities to utilize the exception that were previously not permitted to utilize the exception due to the unclear text.

G20-24

G21-24

IBC: [F] 412.3.6; IFC: 914.8.3

Proponents: Douglas Fisher, Fisher Engineering, Inc., National Air Transportation Association (doug.fisher@feifire.com)

2024 International Building Code

SECTION 412 AIRCRAFT-RELATED OCCUPANCIES

Revise as follows:

[F] 412.3.6 Fire suppression.

Aircraft hangars shall be provided with a fire suppression system designed in accordance with NFPA 409, based on the classification for the hangar given in Table 412.3.6.

Exception: Where a *fixed base operator* has separate repair *facilities* on site, ~~Group II hangars~~ Hangars operated by a *fixed base operator* used for storage of *transient aircraft* only shall have a fire suppression system, but the system is exempt from foam requirements.

2024 International Fire Code

Revise as follows:

914.8.3 Fire suppression for aircraft hangars.

Aircraft hangars shall be provided with a fire suppression system designed in accordance with NFPA 409, based on the classification for the hangar given in Table 914.8.3.

Exception: Where a fixed base operator has separate repair facilities on-site, ~~Group II hangars~~ Hangars operated by a fixed base operator used for storage of transient aircraft only shall have a fire suppression system, but the system shall be exempt from foam requirements.

Attached Files

- **NFPA 409 Research Report (Revised).pdf**
<https://www.cdpassess.com/proposal/10614/30731/files/download/4816/>

Reason: The purpose of this exception, as noted in the original code change proposal G25-07/08 is to provide an allowance for aircraft hangars where the risk of fuel spill is limited. If the risk of a fuel spill, and subsequent ignition, is limited, then a foam fire suppression system is not necessary. This is a similar approach to that taken by NFPA 409 in the 2022 edition. The proposed revision removes the limitation on Group II hangars. If the exception limits the risk of a fuel spill, it should not matter what hangar group it applies to. The following research report provides an analysis of how hangar groups do not correlate to hazard. There are a number of aircraft that have a tail height to fit in a Group II hangar that have the same fuel capacity as aircraft whose tail height would require them to be located in a Group I hangar.

[NFPA 409 Research Report](#)

In addition, there are aircraft that must be located in a Group I hangar due to tail height that have significantly less fuel capacity than aircraft that would be located in a Group II hangar. Foam fire suppression is necessary to provide fire suppression of a fuel spill fire. Aircraft in storage or those where maintenance is performed that is unrelated to the fuel system (tire changes, avionics repair or similar), have a limited risk of a fuel spill as indicated by NFPA 409, 2022 edition. The tail height has no bearing on the risk of a fuel spill and, therefore, the limitation to Group II should be deleted.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

If enacted, this exception will be permitted to be used for Group I hangars in addition to Group II hangars (as already permitted). If this exception is used for a facility, it will reduce the initial construction cost between \$500,000 and \$1M depending on the size of the hangar bay.

Estimated Immediate Cost Impact Justification (methodology and variables):

The estimated cost reduction is based on the cost of the foam equipment only and is based on historical cost data for foam fire suppression systems (high-expansion foam systems). Additional savings could be realized with reduced fire pump sizes and number. The actual cost savings is dependent upon the size of the hangar bay. A group I hangar is typically at least 40,000 sf but could be up to 130,000 sf or larger depending on the aircraft. A more detailed cost estimate cannot be performed due to the variability in hangar bay sizes.

Estimated Life Cycle Cost Impact:

Life cycle cost impact would also be reduced as inspection, testing and maintenance of a foam fire suppression system would not be required. The annual cost of foam system ITM (not including any possible reduction in cost due to the elimination of a foam releasing system) can range from \$10,000 - \$25,000 per year depending on hangar bay size.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

The estimated reduction in cost of ITM for a foam fire suppression system is based on historical data from similar aircraft hangars where all required ITM is being performed. The LCC will vary based on hangar bay size, type of foam system and local regulations related to disposal of any test liquid.

G22-24

IBC: [F] 412.3.6.1; IFC: 914.8.3.1

Proponents: Douglas Fisher, Fisher Engineering, Inc., National Air Transportation Association

2024 International Building Code

SECTION 412 AIRCRAFT-RELATED OCCUPANCIES

Revise as follows:

[F] 412.3.6.1 Hazardous operations.

Any Group III aircraft hangar according to Table 412.3.6 that contains hazardous operations including, but not limited to, the following shall be provided with a Group I or II fire suppression system in accordance with NFPA 409 as applicable:

1. Doping.
2. Hot work including, but not limited to, welding, torch cutting and torch soldering.
3. Fuel transfer.
4. Fuel tank repair or maintenance not including defueled tanks in accordance with NFPA 409, inerted tanks or tanks that have never been fueled.
5. Spray finishing operations.
6. Total fuel capacity of all aircraft within the unsprinklered single *fire area* in excess of 1,600 gallons (6057 L).
7. ~~Total fuel capacity of all aircraft within the maximum single *fire area* in excess of 7,500 gallons (28 390 L) for a hangar with an *automatic sprinkler system* in accordance with Section 903.3.1.1.~~

2024 International Fire Code

Revise as follows:

914.8.3.1 Hazardous operations.

Any Group III aircraft hangar in accordance with Table 914.8.3 that contains hazardous operations including, but not limited to, the following shall be provided with a Group I or II fire suppression system in accordance with NFPA 409 as applicable:

1. Doping.
2. *Hot work* including, but not limited to, welding, torch cutting and torch soldering.
3. Fuel transfer.
4. Fuel tank repair or maintenance not including defueled tanks in accordance with NFPA 409, inerted tanks or tanks that have never been fueled.
5. Spray finishing operations.
6. Total fuel capacity of all aircraft within the unsprinklered single *fire area* in excess of 1,600 gallons (6057 L).
7. ~~Total fuel capacity of all aircraft within the maximum single *fire area* in excess of 7,500 gallons (28 390 L) for a hangar equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1.~~

Attached Files

- **NFPA 409 Research Report (Revised).pdf**
<https://www.cdpassess.com/proposal/10621/30742/files/download/4817/>

Reason: Section 914.8.3.1 was added to the 2009 edition via code change G25-07/08. In reviewing the substantiation for the code change, there is no discussion or justification for the 7,500 gallon capacity limitation. Total fuel capacity is misleading. Most aircraft are kept within a hangar at minimum or reserve levels (typically 10-15% of total capacity). Since fuel is stored in the wings, fuel is weight which provides stress on the wings. After a flight, aircraft will typically enter the hangar without refueling to reduce the stress on the wings and structural frame. When the aircraft maintenance is complete and/or aircraft is ready for flight, it leaves the hangar and is fueled. Limiting fuel capacity to 7500 gallons equates to actual fuel in aircraft of 750 - 1,125 gallons. However, the quantity of fuel in the aircraft does not correlate to a risk of a fuel spill. The risk of a fuel spill is a function of the maintenance operations. If the risk of a fuel spill, and subsequent ignition, is limited, then a foam fire suppression system is not necessary. This is a similar approach to that taken by NFPA 409 in the 2022 edition.

If the exception to 914.8.3 is compared to this section, it is possible to have a Group II hangar that is not required to have a foam fire suppression system regardless of fuel capacity. For this example, the total fuel capacity of all aircraft in the hangar is 8000 gallons. If that same hangar is classified as a Group III, a foam fire suppression system would be required simply because the total fuel capacity is 8000 gallons. If the risk of a fuel spill is limited in the exception to 914.8.3 so that a foam system is not required, why is a foam system required in a Group III hangar simply because the aircraft have a fuel capacity greater than 7500 gallons.

The attached research report provides an analysis of how hangar groups do not correlate to hazard. [NFPA 409 Research Report](#)

There are a number of aircraft that have a tail height to fit in a Group II hangar that have the same fuel capacity as aircraft whose tail height would require them to be located in a Group I hangar. In addition, there are aircraft that must be located in a Group I hangar due to tail height that have significantly less fuel capacity than aircraft that would be located in a Group II hangar. Foam fire suppression is necessary to provide fire suppression of a fuel spill fire. Aircraft in storage or those where maintenance is performed that is unrelated to the fuel system (tire changes, avionics repair or similar), have a limited risk of a fuel spill as indicated by NFPA 409, 2022 edition. Fuel capacity has no correlation to the risk of a fuel spill and, therefore, the limitation to should be deleted.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

If this exception is used for a facility, it will reduce the initial construction cost between \$200,000 and \$500,000 depending on the size of the hangar bay, local requirements and fire pump sizes.

Estimated Immediate Cost Impact Justification (methodology and variables):

The estimated cost reduction is based on the cost of the foam equipment only and is based on historical cost data for foam fire suppression systems (high-expansion foam systems). Additional savings could be realized with reduced fire pump sizes and number. The actual cost savings is dependent upon the size of the hangar bay. A more detailed cost estimate cannot be performed due to the variability in hangar bay sizes and local environmental regulations.

Estimated Life Cycle Cost Impact:

Life cycle cost impact would also be reduced as inspection, testing and maintenance of a foam fire suppression system would not be required. The annual cost of foam system ITM (not including any possible reduction in cost due to the elimination of a foam releasing system) can range from \$2,500 - \$5,000 per year for a Group III hangar with foam. The variability depends on hangar bay size.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

The estimated reduction in cost of ITM for a foam fire suppression system is based on historical data from similar aircraft hangars where all required ITM is being performed. The LCC will vary based on hangar bay size, type of foam system and local regulations related to disposal of any test liquid.

G23-24

Proponents: Douglas Fisher, Fisher Engineering, Inc., National Air Transportation Association

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 412 AIRCRAFT-RELATED OCCUPANCIES

Revise as follows:

[F] 412.3.6.2 Separation of maximum single fire areas.

Maximum single *fire areas* established in accordance with hangar classification and construction type in Table 412.3.6 shall be separated by 2-hour ~~*fire walls*~~ *fire barriers* constructed in accordance with Section ~~707~~706. In determining the maximum single *fire area* as set forth in Table 412.3.6, ancillary uses that are separated from aircraft servicing areas by a *fire barrier* of not less than 1 hour, constructed in accordance with Section 707, shall not be included in the area.

2024 International Fire Code

Revise as follows:

914.8.3.2 Separation of maximum single fire areas.

Maximum single *fire areas* established in accordance with hangar classification and construction type in Table 914.8.3 shall be separated by 2-hour ~~*fire walls*~~ *fire barriers* constructed in accordance with Section ~~707~~706 of the International Building Code. In determining the maximum single *fire area* as set forth in Table 914.8.3, ancillary uses that are separated from aircraft servicing areas by not less than a 1-hour *fire barrier* constructed in accordance with Section 707 of the International Building Code shall not be included in the area.

Reason: The addition of 2-hour fire walls was added in the 2009 edition via code change G25-07/08. The substantiation for "fire walls" vs. fire barriers is limited. The substantiation states "NFPA handles the lack of required separation of hangar buildings by requiring two two-hour wall on each hangar building. This seems to be like a "fire wall" as defined by IBC Section 705. This proposal thus adds this requirement for separation of single hangar buildings with a fire wall as defined by ICB Section 705 in lieu of the NFAP 409 requirement of two 2-hour walls."

This substantiation is no longer valid and the code requirement causes confusion. Two 2-hour fire barrier walls, while meeting the intent of a fire wall in that one wall might fall while leaving the other standing, do not meet the requirements of a fire wall.

NFPA 409, 2022 edition, section 7.3.1 states "Where aircraft storage and servicing areas are subdivided into separate fire areas, the separation shall be by a fire barrier wall having not less than a 2-hour fire resistance rating." As currently written, NFPA 409 requires fire areas to be separated by a 2-hour fire barrier wall whereas IFC section 914.8.3.2 requires fire areas to be separated by a 2-hour fire wall. This difference creates significant confusion where both the IFC and NFPA 409 are adopted by a jurisdiction. If NFPA 409 has defined fire protection criteria based on a hangar fire area separated by a 2-hour fire barrier, what justification does the IFC have to increase the separation requirements?

The requirement for a fire wall is not justified by the original code change substantiation and does not align with the current edition of NFPA 409. The use of a fire barrier for separation of hangar fire areas aligns with NFPA 409.

Cost Impact: Decrease

Estimated Immediate Cost Impact:

A decrease in construction cost is expected in a reduction from fire wall to fire barrier, mostly due to elimination of special foundations

and required structural stability of the wall. The actual cost is difficult to quantify as it will vary based on length of wall and height of wall as well as how many hangars this would apply to. There will be a cost decrease but it is difficult to quantify, therefore for the purpose of this proposal, the cost decrease is \$0

Estimated Immediate Cost Impact Justification (methodology and variables):

As noted above, a cost impact (other than a decrease) is difficult to quantify as the length of wall and height of wall would be different from hangar to hangar. Changing from a fire wall to a fire barrier eliminates the requirement for a foundation and, in many cases, would eliminate additional columns to support the report on either side of the fire wall.

Estimated Life Cycle Cost Impact:

No change.

G24-24

IBC: [F] 415.11, [F] 415.11.1, [F] 415.11.1.1, [F]TABLE 415.11.1.1, [F] 415.11.1.2, [F] 415.11.1.3, [F] 415.11.1.4, [F] 415.11.1.5, [F] 415.11.1.6, [F] 415.11.1.7, [F] 415.11.1.8, [F] 415.11.1.8.1, [F] 415.11.2, [F] 415.11.3, [F] 415.11.3.1, [F] 415.11.3.2, [F] 415.11.3.3, [F] 415.11.3.4, [F] 415.11.4, [F] 415.11.4.1, [F] 415.11.4.2, [F] 415.11.4.3, [F] 415.11.4.4, [F] 415.11.4.5, [F] 415.11.5, [F] 415.11.6, [F] 415.11.6.1, [F] 415.11.6.2, [F] 415.11.6.3, [F] 415.11.6.4, [F] 415.11.6.5, [F] 415.11.6.6, [F] 415.11.6.7, [F] 415.11.6.8, [F] 415.11.6.9, [F] 415.11.7, [F] 415.11.7.1, [F] 415.11.7.2, [F] 415.11.7.3, [F] 415.11.7.4, [F] 415.11.7.5, [F] 415.11.8, [F] 415.11.8.1, [F] 415.11.8.1.1, [F] 415.11.8.1.2, [F] 415.11.8.1.3, [F] 415.11.8.1.4, [F] 415.11.8.2, [F] 415.11.8.2.1, [F] 415.11.8.2.2, [F] 415.11.9, [F] 415.11.10, [F] 415.11.10.1, [F] 415.11.10.2, [F] 415.11.10.3, [F] 415.11.11, [F] 415.11.11.1, [F] 415.11.11.2, [F] 415.11.12, [F] 415.11.12.1, [F] 415.11.12.2, [F] 415.11.12.3, NFPA Chapter 35 (New)

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THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 415 GROUPS H-1, H-2, H-3, H-4 AND H-5

Revise as follows:

[F] 415.11 Group H-5.

In addition to the requirements set forth elsewhere in this code, Group H-5 shall comply with the provisions of NFPA 318 Sections 415.11.1 through 415.11.12 and the *International Fire Code*.

Delete without substitution:

[F] 415.11.1 Fabrication areas.

~~Fabrication areas shall comply with Sections 415.11.1.1 through 415.11.1.8.~~

[F] 415.11.1.1 Hazardous materials.

~~The aggregate quantities of hazardous materials stored and used in a single fabrication area shall not exceed the quantities set forth in Table 415.11.1.1.~~

Exception: The quantity limitations for any hazard category in Table 415.11.1.1 shall not apply where the fabrication area contains quantities of hazardous materials not exceeding the maximum allowable quantities per control area established by Tables 307.1(1) and 307.1(2).

[F]TABLE 415.11.1.1 QUANTITY LIMITS FOR HAZARDOUS MATERIALS IN A SINGLE FABRICATION AREA IN GROUP H-5^a

HAZARD CATEGORY		SOLIDS (pounds per square foot)	LIQUIDS (gallons per square foot)	GAS (cubic feet @ NTP/square foot)
PHYSICAL-HAZARD MATERIALS				
Combustible dust		Note b	Not Applicable	Not Applicable
Combustible fiber	Loose	Note b	Not Applicable	Not Applicable
	Baled	Notes b and c		
Combustible liquid	II	Not Applicable	0.02	Not Applicable

HAZARD CATEGORY		SOLIDS (pounds per square foot)	LIQUIDS (gallons per square foot)	GAS (cubic feet @ NTP/square foot)
	IIIA		0.04	
	IIIB		Not Limited	
Combination Class	I, II and IIIA		0.08	
Cryogenic gas	Flammable	Not Applicable	Not Applicable	Note d
	Oxidizing			2.5
Explosives		Note b	Note b	Note b
Flammable gas	Gaseous	Not Applicable	Not Applicable	Note d
	Liquefied			Note d
Flammable liquid	IA	Not Applicable	0.005	Not Applicable
	IB		0.05	
	IC		0.05	
Combination Class	IA, IB and IC		0.05	
Combination Class	I, II and IIIA		0.08	
Flammable solid		0.002	Not Applicable	Not Applicable
Organic peroxide	Unclassified detonable	Note b	Note b	Not Applicable
	Class I	Note b	Note b	
	Class II	0.05	0.0025	
	Class III	0.2	0.02	
	Class IV	Not Limited	Not Limited	
	Class V	Not Limited	Not Limited	
Oxidizing gas	Gaseous	Not Applicable	Not Applicable	2.5
	Liquefied			2.5
Combination of gaseous and liquefied				2.5
Oxidizer	Class 4	Note b	Note b	Not Applicable
	Class 3	0.006	0.06	
	Class 2	0.006	0.06	
	Class 1	0.006	0.06	
Combination Class	1, 2, 3	0.006	0.06	
Pyrophoric materials		Note b	0.0025	Notes d and e
Unstable (reactive)	Class 4	Note b	Note b	Note b
	Class 3	0.05	0.005	Note b
	Class 2	0.2	0.02	Note b
	Class 1	Not Limited	Not Limited	Not Limited
Water reactive	Class 3	0.02 ^f	0.0025	Not Applicable
	Class 2	0.5	0.05	
	Class 1	Not Limited	Not Limited	

HAZARD CATEGORY	SOLIDS (pounds per square foot)	LIQUIDS (gallons per square foot)	GAS (cubic feet @ NTP/square foot)
HEALTH-HAZARD MATERIALS			
Corrosives	Not Limited	Not Limited	Not Limited
Highly toxic	Not Limited	Not Limited	Note d
Toxics	Not Limited	Not Limited	Note d

For SI: 1 pound = 0.454 kg, 1 pound per square foot = 4.882 kg/m², 1 gallon per square foot = 40.7 L/m², 1 cubic foot @ NTP/square foot = 0.305 m³@ NTP/m², 1 cubic foot = 0.02832 m³.

- a. Hazardous materials within piping shall not be included in the calculated quantities.
- b. Quantity of hazardous materials in a single fabrication shall not exceed the maximum allowable quantities per control area in Tables 307.1(1) and 307.1(2).
- c. Densely packed baled cotton that complies with the packing requirements of ISO 8115 shall not be included in this material class.
- d. The aggregate quantity of flammable, pyrophoric, toxic and highly toxic gases shall not exceed the greater of 0.2 cubic feet at NTP/square foot or 9,000 cubic feet at NTP.
- e. The aggregate quantity of pyrophoric gases in the building shall not exceed the amounts set forth in Table 415.6.5.
- f. Quantity of Class 3 water reactive solids in a single tool shall not exceed 1 pound.

[F] 415.11.1.2 Separation.

Fabrication areas, whose sizes are limited by the quantity of *hazardous materials* allowed by Table 415.11.1.1, shall be separated from each other, from *corridors* and from other parts of the *building* by not less than 1-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

Exceptions:

1. Doors within such *fire barrier* walls, including doors to *corridors*, shall be only *self-closing fire door assemblies* having a *fire protection rating* of not less than ³/₄ hour.
2. Windows between *fabrication areas* and *corridors* are permitted to be fixed glazing *listed and labeled* for a *fire protection rating* of not less than ³/₄ hour in accordance with Section 716.

[F] 415.11.1.3 Location of occupied levels.

Occupied levels of *fabrication areas* shall be located at or above the first *story above grade plane*.

[F] 415.11.1.4 Floors.

Except for surfacing, floors within *fabrication areas* shall be of noncombustible construction.

Openings through floors of *fabrication areas* are permitted to be unprotected where the interconnected levels are used solely for mechanical equipment directly related to such *fabrication areas* (see Section 415.11.1.5).

Floors forming a part of an occupancy separation shall be liquid tight.

[F] 415.11.1.5 Shafts and openings through floors.

Elevator hoistways, vent *shafts* and other openings through floors shall be enclosed where required by Sections 712 and 713.

Mechanical, duct and piping penetrations within a *fabrication area* shall not extend through more than two floors. The *annular space*

around penetrations for cables, cable trays, tubing, piping, conduit or ducts shall be sealed at the floor level to restrict the movement of air. The *fabrication area*, including the areas through which the ductwork and piping extend, shall be considered to be a single conditioned environment.

[F] 415.11.1.6 Ventilation.

Mechanical exhaust *ventilation* at the rate of not less than 1 cubic foot per minute per square foot [0.0051 m³/(s × m²)] of floor area shall be provided throughout the portions of the *fabrication area* where *HPM* are used or stored. The exhaust air duct system of one *fabrication area* shall not connect to another duct system outside that *fabrication area* within the *building*.

A *ventilation* system shall be provided to capture and exhaust gases, fumes and vapors at *workstations*.

Two or more operations at a *workstation* shall not be connected to the same exhaust system where either one or the combination of the substances removed could constitute a fire, *explosion* or hazardous chemical reaction within the exhaust duct system.

Exhaust ducts penetrating *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711 shall be contained in a *shaft* of equivalent fire resistance rated construction. Exhaust ducts shall not penetrate *fire walls*.

Fire dampers shall not be installed in exhaust ducts.

[F] 415.11.1.7 Transporting hazardous production materials to fabrication areas.

HPM shall be transported to *fabrication areas* through enclosed piping or tubing systems that comply with Section 415.11.7, through *service corridors* complying with Section 415.11.3, or in *corridors* as permitted in the exception to Section 415.11.2. The *handling* or transporting of *HPM* within *service corridors* shall comply with the *International Fire Code*.

[F] 415.11.1.8 Electrical.

Electrical equipment and devices within the *fabrication area* shall comply with NFPA 70. The requirements for hazardous locations need not be applied where the average air change is not less than four times that set forth in Section 415.11.1.6 and where the number of air changes at any location is not less than three times that required by Section 415.11.1.6. The use of recirculated air shall be permitted.

[F] 415.11.1.8.1 Workstations.

Workstations shall not be energized without adequate exhaust *ventilation*. See Section 415.11.1.6 for *workstation* exhaust *ventilation* requirements.

[F] 415.11.2 Corridors.

Corridors shall comply with Chapter 10 and shall be separated from *fabrication areas* as specified in Section 415.11.1.2. *Corridors* shall not contain *HPM* and shall not be used for transporting such materials except through closed piping systems as provided in Section 415.11.7.4.

Exception: Where existing *fabrication areas* are altered or modified, *HPM* is allowed to be transported in existing *corridors*, subject to the following conditions:

1. Nonproduction *HPM* is allowed to be transported in *corridors* if utilized for maintenance, lab work and testing.

2. Where existing *fabrication areas* are altered or modified, *HPM* is allowed to be transported in existing *corridors*, subject to the following conditions:
- 2.1. *Corridors*. *Corridors* adjacent to the *fabrication area* where the *alteration* work is to be done shall comply with Section 1020 for a length determined as follows:
 - 2.1.1. The length of the common wall of the *corridor* and the *fabrication area*; and
 - 2.1.2. For the distance along the *corridor* to the point of entry of *HPM* into the *corridor* serving that *fabrication area*.
 - 2.2. *Emergency alarm system*. There shall be an emergency telephone system, a local manual alarm station or other *approved* alarm *initiating device* within *corridors* at not more than 150 foot (45 720 mm) intervals and at each exit and doorway. The signal shall be relayed to an *approved* central, proprietary or remote station service or the *emergency control station* and shall initiate a local audible alarm.
 - 2.3. *Pass throughs*. *Self closing* doors having a *fire protection rating* of not less than 1 hour shall separate *pass throughs* from existing *corridors*. *Pass throughs* shall be constructed as required for the *corridors* and protected by an *approved automatic sprinkler system*.

[F] 415.11.3 Service corridors.

Service corridors within a Group H-5 occupancy shall comply with Sections 415.11.3.1 through 415.11.3.4.

[F] 415.11.3.1 Use conditions.

Service corridors shall be separated from *corridors* as required by Section 415.11.1.2. *Service corridors* shall not be used as a required *corridor*.

[F] 415.11.3.2 Mechanical ventilation.

Service corridors shall be mechanically ventilated as required by Section 415.11.1.6 or at not less than six air changes per hour.

[F] 415.11.3.3 Means of egress.

The distance of travel from any point in a *service corridor* to an *exit*, *exit access corridor* or door into a *fabrication area* shall be not greater than 75 feet (22 860 mm). Dead ends shall be not greater than 4 feet (1219 mm) in length. There shall be not less than two *exits*, and not more than one half of the required *means of egress* shall require travel into a *fabrication area*. Doors from *service corridors* shall swing in the direction of egress travel and shall be *self closing*.

[F] 415.11.3.4 Minimum width.

The clear width of a *service corridor* shall be not less than 5 feet (1524 mm), or 33 inches (838 mm) wider than the widest cart or truck used in the *service corridor*, whichever is greater.

[F] 415.11.4 Emergency alarm system.

Emergency alarm systems shall be provided in accordance with this section and Sections 415.5.1 and 415.5.2. The maximum allowable quantity per *control area* provisions shall not apply to *emergency alarm systems* required for *HPM*.

[F] 415.11.4.1 Service corridors.

An ~~emergency alarm system~~ shall be provided in ~~service corridors~~, with not fewer than one alarm device in each ~~service corridor~~.

[F] 415.11.4.2 Corridors and interior exit stairways and ramps.

Emergency alarms for ~~corridors, interior exit stairways and ramps and exit passageways~~ shall comply with Section 415.5.2.

[F] 415.11.4.3 Liquid storage rooms, HPM rooms and gas rooms.

Emergency alarms for ~~liquid storage rooms, HPM rooms and gas rooms~~ shall comply with Section 415.5.1.

[F] 415.11.4.4 Alarm-initiating devices.

An ~~approved~~ emergency telephone system, local alarm manual pull stations, or other ~~approved~~ alarm ~~initiating devices~~ are allowed to be used as emergency alarm ~~initiating devices~~.

[F] 415.11.4.5 Alarm signals.

Activation of the ~~emergency alarm system~~ shall sound a local alarm and transmit a signal to the ~~emergency control station~~.

[F] 415.11.5 Storage of hazardous production materials.

Storage of ~~hazardous production materials (HPM) in fabrication areas~~ shall be within ~~approved or listed storage cabinets or gas cabinets or within a workstation~~. The storage of HPM in quantities greater than those specified in Section 5004.2 of the International Fire Code shall be in ~~liquid storage rooms, HPM rooms or gas rooms~~ as appropriate for the materials stored. The storage of other ~~hazardous materials~~ shall be in accordance with other applicable provisions of this code and the ~~International Fire Code~~.

[F] 415.11.6 HPM rooms, gas rooms, liquid storage room construction.

~~HPM rooms, gas rooms and liquid storage rooms~~ shall be constructed in accordance with Sections 415.11.6.1 through 415.11.6.9.

[F] 415.11.6.1 HPM rooms and gas rooms.

~~HPM rooms and gas rooms~~ shall be separated from other areas by ~~fire barriers~~ constructed in accordance with Section 707 or ~~horizontal assemblies~~ constructed in accordance with Section 711, or both. The ~~fire resistance rating~~ shall be not less than 2 hours where the area is 300 square feet (27.9 m²) or more and not less than 1 hour where the area is less than 300 square feet (27.9 m²).

[F] 415.11.6.2 Liquid storage rooms.

~~Liquid storage rooms~~ shall be constructed in accordance with the following requirements:

1. Rooms greater than 500 square feet (46.5 m²) in area, shall have not fewer than one exterior door ~~approved~~ for fire department access.
2. Rooms shall be separated from other areas by ~~fire barriers~~ constructed in accordance with Section 707 or ~~horizontal assemblies~~ constructed in accordance with Section 711, or both. The ~~fire resistance rating~~ shall be not less than 1 hour for rooms up to 150 square feet (13.9 m²) in area and not less than 2 hours where the room is more than 150 square feet (13.9 m²) in area.
3. Shelving, racks and wainscoting in such areas shall be of noncombustible construction or wood of not less than 1-inch (25 mm) nominal thickness or ~~fire retardant treated wood~~ complying with Section 2303.2.
4. Rooms used for the storage of Class I ~~flammable liquids~~ shall not be located in a ~~basement~~.

[F] 415.11.6.3 Floors.

Except for surfacing, floors of *HPM* rooms and *liquid storage rooms* shall be of noncombustible liquid-tight construction. Raised grating over floors shall be of noncombustible materials.

[F] 415.11.6.4 Location.

Where *HPM* rooms, *liquid storage rooms* and *gas rooms* are provided, they shall have not fewer than one *exterior wall* and such wall shall be not less than 30 feet (9144 mm) from *lot lines*, including *lot lines* adjacent to *public ways*.

[F] 415.11.6.5 Explosion control.

Explosion control shall be provided where required by Section 414.5.1.

[F] 415.11.6.6 Exits.

Where two *exits* are required from *HPM* rooms, *liquid storage rooms* and *gas rooms*, one shall be directly to the outside of the *building*.

[F] 415.11.6.7 Doors.

Doors in a *fire barrier wall*, including doors to *corridors*, shall be *self closing fire door assemblies* having a *fire protection rating* of not less than $\frac{3}{4}$ hour.

[F] 415.11.6.8 Ventilation.

Mechanical exhaust ventilation shall be provided in *liquid storage rooms*, *HPM* rooms and *gas rooms* at the rate of not less than 1 cubic foot per minute per square foot (0.044 L/s/m²) of floor area or six air changes per hour.

Exhaust ventilation for *gas rooms* shall be designed to operate at a negative pressure in relation to the surrounding areas and direct the exhaust ventilation to an exhaust system.

[F] 415.11.6.9 Emergency alarm system.

An *approved emergency alarm system* shall be provided for *HPM* rooms, *liquid storage rooms* and *gas rooms*.

Emergency alarm initiating devices shall be installed outside of each interior exit door of such rooms.

Activation of an *emergency alarm initiating device* shall sound a local alarm and transmit a signal to the *emergency control station*.

An *approved emergency telephone system*, local alarm manual pull stations or other *approved alarm initiating devices* are allowed to be used as *emergency alarm initiating devices*.

[F] 415.11.7 Piping and tubing.

Hazardous production materials piping and tubing shall comply with this section and ASME B31.3.

[F] 415.11.7.1 HPM having a health hazard ranking of 3 or 4.

Systems supplying *HPM* liquids or gases having a health hazard ranking of 3 or 4 shall be welded throughout, except for connections, to the systems that are within a ventilated enclosure if the material is a gas, or an *approved method of drainage or containment* is provided for the connections if the material is a *liquid*.

[F] 415.11.7.2 Location in service corridors.

Hazardous production materials supply piping or tubing in *service corridors* shall be exposed to view.

[F] 415.11.7.3 Excess flow control.

Where *HPM* gases or liquids are carried in pressurized piping above 15 pounds per square inch gauge (psig) (103.4 kPa), excess flow control shall be provided. Where the piping originates from within a *liquid storage room*, *HPM room* or gas room, the excess flow control shall be located within the *liquid storage room*, *HPM room* or gas room. Where the piping originates from a bulk source, the excess flow control shall be located as close to the bulk source as practical.

[F] 415.11.7.4 Installations in corridors and above other occupancies.

The installation of *HPM* piping and tubing within the space defined by the walls of *corridors* and the floor or roof above, or in concealed spaces above other occupancies, shall be in accordance with Sections 415.11.7.1 through 415.11.7.3 and the following conditions:

1. Automatic sprinklers shall be installed within the space unless the space is less than 6 inches (152 mm) in the least dimension.
2. *Ventilation* not less than six air changes per hour shall be provided. The space shall not be used to convey air from any other area.
3. Where the piping or tubing is used to transport *HPM* liquids, a receptor shall be installed below such piping or tubing. The receptor shall be designed to collect any discharge or leakage and drain it to an *approved* location. The 1-hour enclosure shall not be used as part of the receptor.
4. *HPM* supply piping and tubing and nonmetallic waste lines shall be separated from the corridor and from occupancies other than Group H-5 by *fire barriers* or by an *approved* method or assembly that has a *fire resistance rating* of not less than 1 hour. Access openings into the enclosure shall be protected by *approved* fire protection rated assemblies.
5. Ready access to manual or automatic remotely activated fail safe emergency shutoff valves shall be installed on piping and tubing other than waste lines at the following locations:
 - 5.1. At branch connections into the *fabrication area*.
 - 5.2. At entries into *corridors*.

Exception: Transverse crossings of the *corridors* by supply piping that is enclosed within a ferrous pipe or tube for the width of the *corridor* need not comply with Items 1 through 5.

[F] 415.11.7.5 Identification.

Piping, tubing and *HPM* waste lines shall be identified in accordance with ANSI A13.1 to indicate the material being transported.

[F] 415.11.8 Gas detection systems.

A *gas detection system* complying with Section 916 shall be provided for *HPM* gases where the *physiological warning threshold level* of the gas is at a higher level than the accepted permissible exposure limit (PEL) for the gas and for flammable gases in accordance with Sections 415.11.8.1 through 415.11.8.2.

[F] 415.11.8.1 Where required.

A *gas detection system* shall be provided in the areas identified in Sections 415.11.8.1.1 through 415.11.8.1.4.

[F] 415.11.8.1.1 Fabrication areas.

A *gas detection system* shall be provided in *fabrication areas* where *HPM* gas is used in the *fabrication area*.

[F] 415.11.8.1.2 HPM rooms.

A *continuous gas detection system* shall be provided in *HPM* rooms where *HPM* gas is used in the room.

[F] 415.11.8.1.3 Gas cabinets, exhausted enclosures and gas rooms.

A *gas detection system* shall be provided in *gas cabinets* and *exhausted enclosures* for *HPM* gas. A *gas detection system* shall be provided in *gas rooms* where *HPM* gases are not located in *gas cabinets* or *exhausted enclosures*.

[F] 415.11.8.1.4 Corridors.

Where *HPM* gases are transported in piping placed within the space defined by the walls of a *corridor* and the floor or roof above the *corridor*, a *gas detection system* shall be provided where piping is located and in the *corridor*.

Exception: A *gas detection system* is not required for occasional transverse *crossings* of the *corridors* by supply piping that is enclosed in a ferrous pipe or tube for the width of the *corridor*.

[F] 415.11.8.2 Gas detection system operation.

The *gas detection system* shall be capable of monitoring the room, area or equipment in which the *HPM* gas is located at or below all the following gas concentrations:

1. Immediately dangerous to life and health (*IDLH*) values where the monitoring point is within an *exhausted enclosure*, ventilated enclosure or *gas cabinet*.
2. Permissible exposure limit (*PEL*) levels where the monitoring point is in an area outside an *exhausted enclosure*, ventilated enclosure or *gas cabinet*.
3. For flammable gases, the monitoring detection threshold level shall be vapor concentrations in excess of 25 percent of the lower flammable limit (*LFL*) where the monitoring is within or outside an *exhausted enclosure*, ventilated enclosure or *gas cabinet*.
4. Except as noted in this section, monitoring for *highly toxic* and *toxic* gases shall also comply with Chapter 60 of the International Fire Code.

[F] 415.11.8.2.1 Alarms.

The *gas detection system* shall initiate a local alarm and transmit a signal to the *emergency control station* when a short term hazard condition is detected. The alarm shall be both visual and audible and shall provide warning both inside and outside the area where the gas is detected. The audible alarm shall be distinct from all other alarms.

[F] 415.11.8.2.2 Shutoff of gas supply.

The *gas detection system* shall automatically close the shutoff valve at the source on gas supply piping and tubing related to the system being monitored for which gas is detected when a short term hazard condition is detected. Automatic closure of shutoff valves shall comply with the following:

1. Where the gas detection sampling point initiating the *gas detection system* alarm is within a *gas cabinet* or *exhausted enclosure*, the shutoff valve in the *gas cabinet* or *exhausted enclosure* for the specific gas detected shall automatically close.
2. Where the gas detection sampling point initiating the *gas detection system* alarm is within a room and *compressed gas* containers are not in *gas cabinets* or an *exhausted enclosure*, the shutoff valves on all gas lines for the specific gas detected shall automatically close.
3. Where the gas detection sampling point initiating the *gas detection system* alarm is within a piping distribution manifold enclosure, the shutoff valve supplying the manifold for the *compressed gas* container of the specific gas detected shall automatically close.

Exception: Where the gas detection sampling point initiating the *gas detection system* alarm is at the use location or within a gas valve enclosure of a branch line downstream of a piping distribution manifold, the shutoff valve for the branch line located in the piping distribution manifold enclosure shall automatically close.

[F] 415.11.9 Manual fire alarm system.

An *approved* manual *fire alarm* system shall be provided throughout *buildings* containing Group H-5. Activation of the alarm system shall initiate a local alarm and transmit a signal to the *emergency control station*. The *fire alarm* system shall be designed and installed in accordance with Section 907.

[F] 415.11.10 Emergency control station.

An *emergency control station* shall be provided in accordance with Sections 415.11.10.1 through 415.11.10.3.

[F] 415.11.10.1 Location.

The *emergency control station* shall be located on the premises at an *approved* location outside the *fabrication area*.

[F] 415.11.10.2 Staffing.

Trained personnel shall continuously staff the *emergency control station*.

[F] 415.11.10.3 Signals.

The *emergency control station* shall receive signals from emergency equipment and alarm and detection systems. Such emergency equipment and alarm and detection systems shall include, but not be limited to, the following where such equipment or systems are required to be provided either in this chapter or elsewhere in this code:

1. *Automatic sprinkler system* alarm and monitoring systems.
2. *Manual fire alarm* systems.
3. *Emergency alarm* systems.
4. *Gas detection* systems.
5. *Smoke detection* systems.
6. *Emergency power* system.
7. Automatic detection and alarm systems for *pyrophoric* liquids and Class 3 water reactive liquids required in Section 2705.2.3.4 of the International Fire Code.
8. Exhaust *ventilation* flow alarm devices for *pyrophoric* liquids and Class 3 water reactive liquids cabinet exhaust *ventilation* systems required in Section 2705.2.3.4 of the International Fire Code.

[F] 415.11.11 Emergency power system.

An *emergency power system* shall be provided in Group H-5 occupancies in accordance with Section 2702. The *emergency power system* shall supply power automatically to the electrical systems specified in Section 415.11.11.1 when the normal electrical supply system is interrupted.

[F] 415.11.11.1 Required electrical systems.

Emergency power shall be provided for electrically operated equipment and connected control circuits for the following systems:

1. *HPM* exhaust *ventilation* systems.
2. *HPM* gas cabinet *ventilation* systems.
3. *HPM* exhausted enclosure *ventilation* systems.
4. *HPM* gas room *ventilation* systems.
5. *HPM* gas detection systems.

6. ~~Emergency alarm systems.~~
7. ~~Manual and automatic fire alarm systems.~~
8. ~~Automatic sprinkler system monitoring and alarm systems.~~
9. ~~Automatic alarm and detection systems for pyrophoric liquids and Class 3 water reactive liquids required in Section 2705.2.3.4 of the International Fire Code.~~
10. ~~Flow alarm switches for pyrophoric liquids and Class 3 water reactive liquids cabinet exhaust ventilation systems required in Section 2705.2.3.4 of the International Fire Code.~~
11. ~~Electrically operated systems required elsewhere in this code or in the International Fire Code applicable to the use, storage or handling of HPM.~~

[F] 415.11.11.2 Exhaust ventilation systems.

~~Exhaust ventilation systems are allowed to be designed to operate at not less than one-half the normal fan speed on the emergency power system where it is demonstrated that the level of exhaust will maintain a safe atmosphere.~~

[F] 415.11.12 Automatic sprinkler system protection in exhaust ducts for HPM.

~~An approved automatic sprinkler system shall be provided in exhaust ducts conveying gases, vapors, fumes, mists or dusts generated from HPM in accordance with Sections 415.11.12.1 through 415.11.12.3 and the International Mechanical Code.~~

[F] 415.11.12.1 Metallic and noncombustible nonmetallic exhaust ducts.

~~An approved automatic sprinkler system shall be provided in metallic and noncombustible nonmetallic exhaust ducts where all of the following conditions apply:~~

1. ~~Where the largest cross-sectional diameter is equal to or greater than 10 inches (254 mm).~~
2. ~~The ducts are within the building.~~
3. ~~The ducts are conveying flammable gases, vapors or fumes.~~

[F] 415.11.12.2 Combustible nonmetallic exhaust ducts.

~~Automatic sprinkler system protection shall be provided in combustible nonmetallic exhaust ducts where the largest cross-sectional diameter of the duct is equal to or greater than 10 inches (254 mm).~~

Exception: ~~Ducts need not be provided with automatic sprinkler protection as follows:~~

1. ~~Ducts listed or approved for applications without automatic sprinkler system protection.~~
2. ~~Ducts not more than 12 feet (3658 mm) in length installed below ceiling level.~~

[F] 415.11.12.3 Automatic sprinkler locations.

~~Automatic sprinklers shall be installed at 12-foot (3658 mm) intervals in horizontal ducts and at changes in direction. In vertical ducts, sprinklers shall be installed at the top and at alternate floor levels.~~

Add new standard(s) as follows:

NFPA

318-22

Standard for the Protection of Semiconductor Fabrication Facilities

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

Reason: The overall intent of this proposal is to be more reliant on the nationally recognized standard, NFPA 318. Similar to a proposal submitted for the IFC, since the provisions in this section are design and construction related are proposed for deletion. Some of the provisions in the IFC have been retained in that proposal for several reasons, one of which is that the requirements of NFPA 318 do not apply to existing facilities. The MAQ tables that are proposed for deletion have been the subject of several proposals submitted almost every cycle to correlate the tables in the IBC with the tables in NFPA 318. Due to the different revision cycles, the tables in a particular edition of the IBC will not necessarily correlate with the tables in the edition of NFPA 318 that is referenced. Lastly, the deletion of text will reduce the likelihood of potential claims regarding copyright infringement issues.

For the most part, the proposal is not intended to be a technical change. The text that is proposed for deletion is covered in NFPA 318 or the IFC. For example, sprinkler protection will still be required for semiconductor facilities based upon the requirements of NFPA 318. The installation requirements that currently are contained in the IFC are also contained in either NFPA 318 or NFPA 13, which also references NFPA 318. NFPA 318 requires electrical systems to comply with NFPA 70 in addition to a requirement in the IFC for electrical systems to comply with NFPA 70.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

While not editorial or a clarification, the proposal does result in better correlation between the IBC and NFPA 318. The proposal may decrease the cost of construction in instances where NFPA 318 contains a provision that is not currently specifically permitted by the IBC.

G25-24

IBC: [F] 415.11.1.2

Proponents: William Koffel, Koffel Associates, Inc., Semiconductor Industry Association (wkoffel@koffel.com)

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 415 GROUPS H-1, H-2, H-3, H-4 AND H-5

Revise as follows:

[F] 415.11.1.2 Separation.

Fabrication areas, whose sizes are limited by the quantity of *hazardous materials* allowed by Table 415.11.1.1, shall be separated from each other, from *corridors* and from other parts of the *building* by not less than 1-hour *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both.

Exceptions:

1. Doors within such *fire barrier* walls, including doors to *corridors*, shall be ~~only self-~~ or automatic-closing *fire door assemblies* having a *fire protection rating* of not less than $\frac{3}{4}$ hour.
2. Windows between *fabrication areas* and *corridors* are permitted to be fixed glazing *listed and labeled* for a *fire protection rating* of not less than $\frac{3}{4}$ hour in accordance with Section 716.

Reason: The original intent of the code provision was to keep the doors to the adjacent areas closed. With the growth of semiconductor buildings, there is a need for multiple fabrication areas in the same building. The proposed change will allow the doors between these similar use spaces to be on hold-open devices but be automatic-closing to protect the rated compartment during a fire event. As fabrication areas have the same table for quantities of materials, the use of automatic-closing doors would allow for automatic material handling systems (AMHS) to move between fabrication areas, while still protecting the compartment during a fire event.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

While the cost of automatic-closing doors is higher than self-closing doors, the proposed change allows automatic-closing fire doors as an alternative compliance option.

G25-24

G26-24

IBC: [F] 427.2, [F] TABLE 427.2 (New)

Proponents: Richard Williams, Washington Association of Building Officials Technical Code Development Committee (richard@cwaconsultants.net); Micah Chappell, Seattle Department of Construction and Inspections, Washington Association of Building Officials Technical Code Development Committee (micah.chappell@seattle.gov); Quyen Thai, City of Tacoma, Washington Association of Building Officials Technical Code Development Committee (qthai@cityoftacoma.org)

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 427 MEDICAL GAS SYSTEMS

Revise as follows:

[F] 427.2 Interior supply location.

Medical gases shall be located in areas dedicated to the storage of such gases without other storage or uses. Where containers of medical gases in quantities greater than the ~~permitted amount~~ amounts specified per Table 427.2 are located inside the buildings, they shall be located in a 1-hour exterior room, 1-hour interior room or a *gas cabinet* in accordance with Section 427.2.1, 427.2.2 or 427.2.3, respectively. Rooms or areas where medical gases are stored or used in quantities exceeding the maximum allowable quantity per control area as set forth in Tables 307.1(1) and 307.1(2) shall be in accordance with Group H occupancies.

Add new text as follows:

[F] TABLE 427.2 PERMIT AMOUNTS FOR COMPRESSED GASES

<u>TYPE OF GAS</u>	<u>AMOUNT (cubic feet at NTP)</u>
<u>Carbon dioxide used in carbon dioxide enrichment systems</u>	<u>875 (100 lb)</u>
<u>Carbon dioxide used in insulated liquid carbon dioxide beverage dispensing applications</u>	<u>875 (100 lb)</u>
<u>Corrosive</u>	<u>200</u>
<u>Flammable (except cryogenic fluids and liquefied petroleum gases)</u>	<u>200</u>
<u>Highly toxic</u>	<u>Any Amount</u>
<u>Inert and simple asphyxiant</u>	<u>6,000</u>
<u>Oxidizing (including oxygen)</u>	<u>504</u>
<u>Pyrophoric</u>	<u>Any Amount</u>
<u>Toxic</u>	<u>Any Amount</u>

Reason: The IBC commentary for Section 427.2 mentions IFC Section 105, which deals with permits for various materials. Without the commentary, it is not clear that IFC Section 105 applies in this case, because there is no mention of it in the body of the code section. Also, the IFC and the IMC both specifically state “**permit** amounts”, not “**permitted** amounts”. The word permitted in this context suggests an allowable amount, not an amount allowed by permit. It is also confusing because maximum allowable quantities are listed later in this section and also deal with allowable (permitted) amounts, but are referring to a completely different set of requirements - maximum allowable quantities for a control area.

The proposed change will bring over Table 105.5.9 from the IFC and will rename it Table 427.2. In our opinion it is cleaner to bring the table over rather than referencing individual sections in the IFC (Sections 105.5.9 and 105.6.3 both reference Table 105.5.9). This change will help to make clear when one-hour rooms (and sprinklers) or gas cabinets are required for medical gas installations.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

This proposal does not impact the cost of construction because it does not change existing requirements - it only attempts to clarify them. However, this clarification may in some cases result in situations where it is determined that fire rated construction, sprinklers and gas cabinets that would have previously been provided are no longer required.

G26-24

G27-24

IBC: [F] TABLE 509.1

Proponents: Allison Cook, Arlington, Virginia (acook1@arlingtonva.us)

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

Revise as follows:

[F] TABLE 509.1 INCIDENTAL USES

ROOM OR AREA	SEPARATION AND/OR PROTECTION ^d
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic sprinkler system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic sprinkler system
Refrigerant machinery room	1 hour or provide automatic sprinkler system
Hydrogen fuel gas rooms, not classified as Group H	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and provide automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic sprinkler system
In Group E occupancies, laboratories and vocational shops not classified as Group H	1 hour or provide automatic sprinkler system
In Group I-2 occupancies, laboratories not classified as Group H	1 hour and provide automatic sprinkler system
In ambulatory care facilities, laboratories not classified as Group H	1 hour or provide automatic sprinkler system
Laundry rooms over 100 square feet	1 hour or provide automatic sprinkler system
In Group I-2, laundry rooms over 100 square feet	1 hour and provide automatic sprinkler system
Group I-3 cells and Group I-2 patient rooms equipped with padded surfaces	1 hour and provide automatic sprinkler system
In Group I-2, physical plant maintenance shops	1 hour and provide automatic sprinkler system
In ambulatory care facilities or Group I-2 occupancies, waste and linen collection rooms with containers that have an aggregate volume of 8.67 cubic feet or greater	1 hour and provide automatic sprinkler system
In other than ambulatory care facilities and Group I-2 occupancies, waste and linen collection rooms over 100 square feet	1 hour or provide automatic sprinkler system
In ambulatory care facilities or Group I-2 occupancies, storage rooms greater than 50 square feet	1 hour and provide automatic sprinkler system
Electrical installations and transformers	See Sections 110.26 through 110.34 and Sections 450.8 through 450.48 of NFPA 70 for protection and separation requirements.

For SI: 1 square foot = 0.0929 m², 1 pound per square inch (psi) = 6.9 kPa, 1 British thermal unit (Btu) per hour = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L, 1 cubic foot = 0.0283 m³.

- a. Where an automatic sprinkler system is used without a fire barrier, the incidental uses shall comply with the requirements of Section 509.4.2

Reason: As written, it is very easy to not understand that in addition to an automatic sprinkler system, the incidental use is required to be separated from the remainder of the building by construction capable of resisting the passage of smoke and has specific requirements for the doors and any transfer opening into that room or space per section 509.4.2

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

There is no change in cost because this is strictly editorial to provide a "pointer" to better assist design professionals and code officials.

G28-24

IBC: [P] 1210.2.2, [P] 1210.3, [P] 1210.3.1, [P] 1210.3.2, Chapter 35 IAPMO (New)

Proponents: Julius Ballanco, P.E., JB Engineering and Code Consulting, P.C., Bradley Corp. (jbenigneer@aol.com)

THIS CODE CHANGE WILL BE HEARD BY THE PLUMBING COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEES.

2024 International Building Code

SECTION 1210 TOILET AND BATHROOM REQUIREMENTS

Revise as follows:

[P] 1210.2.2 Walls and partitions.

Walls and partitions within 2 feet (610 mm) of service sinks, urinals and water closets shall have a smooth, hard, nonabsorbent surface, to a height of not less than 4 feet (1219 mm) above the floor, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture. Premanufactured partitions for water closets or urinals shall comply with IAPMO Z124.10.

Exception: This section does not apply to the following *buildings* and spaces:

1. *Dwelling units* and *sleeping units*.
2. Toilet rooms that are not for use by the general public and that have not more than one water closet.

Accessories such as grab bars, towel bars, paper dispensers and soap dishes, provided on or within walls, shall be installed and sealed to protect structural elements from moisture.

[P] 1210.3 Privacy.

Public restrooms shall ~~be visually screened from outside entry or exit doorways to ensure user privacy within the restroom. This provision shall also apply where mirrors would compromise personal privacy. Privacy at~~ provide privacy for water closets and urinals shall be provided in accordance with Sections 1210.3.1 and 1210.3.2.

Exception: ~~Visual screening shall not be required for single-occupant toilet rooms with a lockable door.~~

[P] 1210.3.1 Water closet compartment.

Each water closet utilized by the public or employees shall occupy a separate compartment with walls or partitions and a door enclosing the fixtures to ensure privacy. Premanufactured partitions for water closets located in separate gender toilet or bathing rooms shall comply with the Type B privacy requirements of IAPMO Z124.10. Premanufactured partitions for water closets located in all gender toilet rooms shall comply with the Type A privacy requirements of IAPMO Z124.10 or the water closet shall be located in separate room with a lockable door.

Exceptions:

1. Water closet compartments shall not be required in a single-occupant toilet room with a lockable door.
2. Toilet rooms located in child day care *facilities* and containing two or more water closets shall be permitted to have one water closet without an enclosing compartment.
3. This provision is not applicable to toilet areas located within Group I-3 occupancy housing areas.

[P] 1210.3.2 Urinal partitions.

Each urinal utilized by the public or employees shall occupy a separate area with walls or partitions to provide privacy. Premanufactured partitions for urinals located in separate gender toilet or bathing rooms shall comply with the Type C privacy requirements of IAPMO Z124.10. The horizontal dimension between walls or partitions at each urinal shall be not less than 30 inches (762 mm). The walls or

~~partitions shall begin at a height not more than 12 inches (305 mm) from and extend not less than 60 inches (1524 mm) above the finished floor surface. The walls or partitions shall extend from the wall surface at each side of the urinal not less than 18 inches (457 mm) or to a point not less than 6 inches (152 mm) beyond the outermost front lip of the urinal measured from the finished backwall surface, whichever is greater. Urinals located in all gender toilet rooms shall be enclosed by premanufactured partitions complying with the Type A privacy requirements of IAPMO Z124.10 or the urinals shall be located in a separate room.~~

Exceptions:

1. Urinal partitions shall not be required in a single-occupant or family or assisted-use toilet room with a lockable door.
2. Toilet rooms located in child day care *facilities* and containing two or more urinals shall be permitted to have one urinal without partitions.

Add new text as follows:

IAPMO ANSI/CAN Z124.10-2022. Water Closets And Urinal Partitions

Staff Analysis: A review of the standard proposed for inclusion in the code, IAPMO ANSI/CAN Z124.10-2022, Water Closets And Urinal Partitions, with regard to some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before March 18, 2024.

Reason: IAPMO Z124.10 is a new standard that regulates water closet and urinal partitions. The standard was published in 2022. The standard specified three different privacy ratings. In addition, there are tests for the quality of the partition. The tests include load, coating, surface examination, subsurface, colorfastness, stain resistance, wear and cleanability, chemical resistance, and stress test to name a few.

Type A privacy partitions are intended for all gender toilet rooms and provide the highest level of privacy. The standard states the following privacy requirements, "The bottom edge of the partition including the door shall be located less than or equal to 100 mm (4 in) off the finished floor. The top edge of the partition including the door shall be located greater than or equal to 2.13 m (84 in) above the finished floor. The full height of the door to the partitions on both sides shall prevent any visual observation from the outside of the partition enclosure. Doors shall be lockable from the inside of the partition enclosure. The door locking device shall be readily distinguishable as locked from the outside of the partition enclosure." Furthermore, the standard requires a visual indication that the compartment is occupied when the partition door lock is activated.

Type B privacy partitions are standard water closet partitions found in separate gender toilet rooms. The standard states the following for privacy, "The bottom edge of the partition including the door shall be located within 406 mm (16 in) of the finished floor. The top edge of the partition including the door shall be located greater than or equal to 1.75 m (69 in) above the finished floor. The door to the partitions shall have a maximum of 13 mm (½ in) gap between the edge of the door and the wall of the partition. Doors shall be lockable from the inside of the partition enclosure."

Type C privacy partitions are urinal partitions. The standard specifies the following requirements, "The bottom of the urinal partition shall be located a maximum of 406 mm (16 in) above the finished floor. The top of the urinal partition shall be a minimum of 1.5 m (60 in) above the finished floor. The urinal partition shall extend a minimum of 457 mm (18 in) from the wall."

With the increase in the number of all gender toilet rooms, it is important to have proper privacy requirements to assure both privacy and security. This proposed change will require water closets and urinals in all gender toilet rooms to be enclosed in Type A privacy partitions or be located in a separate room. This will provide the highest level of privacy and security. Because of the added high level of privacy and security, the exception to Section 1210.3 becomes unnecessary. All of the privacy requirements are listed in the following two sections.

Type B privacy partitions are standard water closet partitions found in men's and ladies' rooms today. However, the gap between partition sections or between the door and frame have been reduced to ½ inch. Currently, there is no regulation on the gap in partitions nor are there any regulations for the quality of the partitions.

Type C privacy partitions are urinal partitions currently found in men's rooms. Type C partitions are only intended for separate gender toilet rooms. In all gender toilet rooms, urinals are located similar to water closets to ensure privacy.

Cost Impact: Increase

Estimated Immediate Cost Impact:

This change could increase the cost of construction \$0.12 to \$6.04 per partition, dependent on partition production volume. Compliance with the standard will add a cost to manufacturers for the testing and listing of partitions. That cost may or may not be added to the cost of the product.

Estimated Immediate Cost Impact Justification (methodology and variables):

If a design professional intended to select a standard partition for an all gender toilet room, this change will increase the cost of construction by mandating a higher level of privacy and security. It should be noted that manufacturers are prohibited by Federal Law to discuss prices. That being stated, one can review the cost of listing a product on-line. Compliance with the standard will add a cost to manufacturers for the testing and listing of partitions. In an attempt to find out the listing costs, one can check the ICC-ES website. The questions of what a cost of a listing is results in the following answer: Fees may vary. Contact us for a Statement of Work and/or an initial estimate. Similarly, IAPMO R&T does not publish fees. One can only request a quote for a listing. A Google search for the cost of a UL listing identified the cost as ranging between \$5,000 and \$50,000. Intertek advertises an annual listing fee of \$6,040 for a single sanitary product, which is what a partition would likely be classified as. Hence, the exact dollar amount for a listing is unknown. That listing cost may or may not be added to the cost of the product. If it is added to the cost of the product, that additional cost will add to the cost of construction. However, manufacturers do not indicate if listing costs increase the cost of the product (construction). Hence, the impact is unknown. If one assumes the Intertek price for a listing and further assumes that the manufacturer sells 50,000 partitions a year, the increase cost of construction per partition could be assumed to be \$0.12. If they only sell 1,000 partitions, the increased cost per partition would be \$6.04.

Estimated Life Cycle Cost Impact:

Once installed, privacy partitions do not have any impact on life cycle costs.

Estimated Life Cycle Cost Impact Justification (methodology and variables):

Once installed, privacy partitions do not have any impact on life cycle costs.

G29-24

IBC: [F] 3003.1.4

Proponents: Kevin Brinkman, NEI, NEII (klbrinkman@neii.org)

THIS CODE CHANGE WILL BE HEARD BY THE FIRE CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

2024 International Building Code

SECTION 3003 EMERGENCY OPERATIONS

Revise as follows:

[F] 3003.1.4 ~~Temperature Control Venting~~. Where standby power is connected to elevators, ~~the machine room ventilation or air conditioning and a temperature control means is provided per Section 3005.2, the temperature control means shall be connected to the standby power source.~~

Reason: To correlate the title and requirements with IBC Section 3005.2. The current titles and language are misleading because the real purpose is to provide standby power for the means to control the temperature for proper operation of the elevator equipment. This public comment to modify the proposal correlates with the public comment and proposal for IFC 604.3.4.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

Justification for no cost impact:

There is no change in the requirement for standby power, only a clarification to better align with another section in IBC.

G29-24

