

1.1 **Department of Labor and Industry**

1.2 **Adopted Permanent Rules Relating to Changes to the Fire Code**

1.3 **7511.0090 CODES AND STANDARDS INCORPORATED BY REFERENCE.**

1.4 Subpart 1. **International Fire Code.** For purposes of this chapter, "IFC" means the  
1.5 2018 edition of the International Fire Code as promulgated by the International Code Council,  
1.6 Inc., Washington, D.C. The IFC is incorporated by reference and made a part of Minnesota  
1.7 Rules pursuant to statutory authority, subject to the alterations and amendments in this  
1.8 chapter. Portions of this chapter reproduce text and tables from the IFC. The IFC is not  
1.9 subject to frequent change and is available at the office of the commissioner of the  
1.10 Department of Labor and Industry and at the State Law Library, 25 Rev. Dr. Martin Luther  
1.11 King Jr. Blvd., St. Paul, Minnesota 55155. The IFC is copyright 2017 by the International  
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1.13 Subp. 2. [Repealed, 40 SR 1437]

1.14 **7511.0102 SECTION 102, APPLICABILITY.**

1.15 *[For text of subpart 1, see Minnesota Rules]*

1.16 Subp. 2. **IFC section 102.2.** IFC section 102.2 is amended by adding a section to read:

1.17 **102.2.1 Operational provisions - defined.** The operational provisions of this code are  
1.18 those operations defined in Sections 105.6.1 through 105.6.50.

1.19 Subp. 3. **IFC section 102.7.3.** IFC section 102.7 is amended by adding a section to  
1.20 read:

1.21 **102.7.3 References to ICC codes.** The references to the codes and standards  
1.22 promulgated by the International Code Council (listed under ICC in Chapter 80) are  
1.23 modified as follows:

- 2.1 1. Wherever this code references the ICC Electrical Code, it means the Electrical  
2.2 Code, Minnesota Rules, chapter 1315.
- 2.3 2. Wherever this code references the International Building Code, it means the  
2.4 Minnesota Building Code, Minnesota Rules, chapter 1305.
- 2.5 3. Wherever this code references the International Fuel Gas Code, it means the  
2.6 Minnesota Mechanical Code, Minnesota Rules, chapter 1346.
- 2.7 4. Wherever this code references the International Mechanical Code, it means the  
2.8 Minnesota Mechanical Code, Minnesota Rules, chapter 1346.
- 2.9 5. Wherever this code references the International Plumbing Code, it means the  
2.10 Minnesota Plumbing Code, Minnesota Rules, chapter 4714.
- 2.11 6. Wherever this code references the International Residential Code, it means the  
2.12 Minnesota Residential Code, Minnesota Rules, chapter 1309.
- 2.13 7. Wherever this code references the International Existing Building Code, it means  
2.14 the Minnesota Conservation Code for Existing Buildings, Minnesota Rules, chapter  
2.15 1311.

2.16 Subp. 4. **IFC section 102.** IFC section 102 is amended by adding sections to read:

2.17 **102.13 Standards for existing Group I occupancies.** The provisions of protection in  
2.18 existing Group I-2 occupancies, and in existing Group I-3 occupancies used as detention  
2.19 and correctional facilities, shall be in accordance with the applicable provisions of the Life  
2.20 Safety Code, ANSI/NFPA 101, referred to as Standard No. 101, published by the National  
2.21 Fire Protection Association (Quincy, Massachusetts, 2012). Standard No. 101 is incorporated  
2.22 by reference, is not subject to frequent change and is available at the State Law Library, 25  
2.23 Rev. Dr. Martin Luther King Jr. Blvd., Saint Paul, Minnesota 55155.

3.1 Construction provisions of Standard No. 101 that are more restrictive than those found in  
3.2 the Building Code shall not be applicable. For the purposes of Section 102.13, construction  
3.3 provisions shall include those relating to type of construction, automatic fire-extinguishing  
3.4 and standpipe systems, fire alarm and detection systems, vertical opening protection, escape  
3.5 windows, exits, smoke barriers, accessibility for persons with disabilities, and hazardous  
3.6 area separations.

3.7 **102.13.1 Standard 101 modified.** Sections 23.3.7 through 23.3.7.3 of Standard No.  
3.8 101 are deleted.

3.9 **102.14 Mixed occupancies.** Where a building is occupied for two or more uses not included  
3.10 in the same occupancy, the building or portion thereof shall be classified as a mixed  
3.11 occupancy. The mixed occupancy shall be further classified as either nonseparated uses or  
3.12 separated uses according to the Building Code. Areas of Group H shall only be as separated  
3.13 uses as permitted by the Building Code.

3.14 **102.14.1 Separated uses.** Each portion of the building shall be individually classified  
3.15 as to use. Each fire area shall comply with the Fire Code based on the use of that space.  
3.16 Provisions for egress between different occupancies shall be in accordance with Chapter  
3.17 10.

3.18 **102.14.2 Nonseparated uses.** Each portion of the building shall be individually  
3.19 classified as to use. The most restrictive provisions of the Fire Code shall apply to the  
3.20 nonseparated uses. Provisions for egress between different occupancies shall be in  
3.21 accordance with Chapter 10.

3.22 **7511.0105 SECTION 105, PERMITS.**

3.23 IFC section 105.7.21 is deleted.

4.1 **7511.0108 [Renumbered 7511.0109]**

4.2 **7511.0109 SECTION 109, BOARD OF APPEALS.**

4.3 Subpart 1. **IFC section 109.1.** IFC section 109.1 is amended to read:

4.4 **SECTION 109**

4.5 **APPEALS**

4.6 **109.1 Appeals to state fire marshal.** As outlined in Minnesota Statutes, section 299F.011,  
4.7 subdivisions 5 and 5b, any person may appeal an order issued to them by the state fire  
4.8 marshal or action taken by the local governing body on issues regulated by this code. Appeals  
4.9 can be made to determine the suitability of alternate materials and types of construction, to  
4.10 provide for reasonable interpretations of the provisions of this code, and to grant variances  
4.11 from orders issued by representatives of the state fire marshal. Persons wishing to present  
4.12 matters for appeal shall do so in writing and, in the case of persons who have received  
4.13 written orders, applications for variances shall be made prior to the expiration of the orders.  
4.14 Orders shall not be considered to be expired until any time extensions granted by the state  
4.15 fire marshal have elapsed. The state fire marshal shall not accept applications for variances  
4.16 after criminal action for noncompliance has been initiated pursuant to Minnesota Statutes,  
4.17 section 299F.011, subdivision 6.

4.18 Subp. 2. **IFC sections 109.2 and 109.3.** IFC sections 109.2 and 109.3 are deleted.

4.19 **7511.0109 [Renumbered 7511.0110]**

4.20 **7511.0110 SECTION 110, VIOLATIONS.**

4.21 IFC section 110.4 is amended to read:

4.22 **110.4 Violation penalties.** A person who violates a provision of this code shall be guilty  
4.23 of a misdemeanor.

4.24 (Subsection 110.4.1 remains unchanged.)

5.1 **7511.0201 SECTION 201, GENERAL.**

5.2 IFC section 201.4 is amended to read:

5.3 **201.4 Terms not defined.** When terms are not defined, they shall have their ordinary  
5.4 accepted meanings within the context with which they are used. The Merriam-Webster  
5.5 Collegiate Dictionary, available on the Internet at [www.merriam-webster.com](http://www.merriam-webster.com), shall be  
5.6 considered as providing ordinarily accepted meanings. The dictionary is incorporated by  
5.7 reference, is subject to frequent change, and is available through the Minitex interlibrary  
5.8 loan system.

5.9 **7511.0202 SECTION 202, GENERAL DEFINITIONS.**

5.10 IFC section 202 is amended by adding or amending definitions to read:

5.11 **ADULT DAY CARE CENTER OR ADULT DAY SERVICES CENTER.** A facility,  
5.12 licensed by the Department of Human Services under Minnesota Rules, parts 9555.9600 to  
5.13 9555.9730, that provides a program of adult day care services to functionally impaired  
5.14 adults for periods of less than 24 hours per day in a setting other than a participant's home  
5.15 or the residence of the facility's operator.

5.16 **AERIAL LUMINARIES.** Aerial luminaries, sky lanterns, and similar devices are an  
5.17 unmanned type of balloon made from lightweight materials, which require a flame, candle,  
5.18 fuel cell, or other open flame to develop lift and propel them. When released, there is no  
5.19 way to control the flight path, altitude, or landing area.

5.20 **AMBULATORY CARE FACILITY.** Buildings or portions of buildings used to provide  
5.21 medical, surgical, psychiatric, nursing, or similar care on a less than 24-hour basis to  
5.22 individuals who are rendered incapable of self-preservation by the services provided. For  
5.23 the purposes of this chapter, federally certified end-stage renal disease facilities (kidney  
5.24 dialysis facilities) located on the level of exit discharge shall not be considered ambulatory  
5.25 care facilities.

6.1 **AISLE.** That portion of an exit that connects an aisle accessway to an exit access doorway,  
6.2 corridor, or an exit.

6.3 **APPROVED.** "Approved" means approval by the fire code official, pursuant to the  
6.4 Minnesota State Fire Code, by reason of:

6.5 A. inspection, investigation, or testing;

6.6 B. accepted principles;

6.7 C. computer simulations;

6.8 D. research reports; or

6.9 E. testing performed by either a licensed engineer or by a locally or nationally recognized  
6.10 testing laboratory.

6.11 **AUTHORITY HAVING JURISDICTION.** Any municipal fire code official serving  
6.12 within their appointed jurisdiction or the state fire marshal or any of their authorized  
6.13 representatives.

6.14 **AUTOMOTIVE MOTOR FUEL-DISPENSING FACILITY.** That portion of property  
6.15 where flammable or combustible liquids or gases used as motor fuels are stored and dispensed  
6.16 from fixed equipment into the fuel tanks of motor vehicles. For purposes of this definition,  
6.17 a motor vehicle is any self-propelled vehicle that: (1) conveys an operator, such as an  
6.18 automobile, truck, motorcycle, recreational vehicle, camper, all-terrain vehicle, snowmobile,  
6.19 lawn care vehicle, tractor, or dozer; and (2) is used for personal, commercial, recreational,  
6.20 maintenance, or construction purposes.

6.21 **BUILDING CODE.** The Minnesota Building Code, Minnesota Rules, chapter 1305.

6.22 **CARE FACILITY.** Occupancies used as care facilities shall be classified into the occupancy  
6.23 group category identified in the following table.

6.24 **Table 202.1**

7.1

**Care Facility Classifications**

7.2

7.3

7.4

**Type of Licensed Facility****Number or Type of Care Recipients****IBC Occupancy Classification**

7.5

Child Care (Day Family Child Care Home Care)

10 occupants maximum with  $\leq 6$  below school age<sup>1</sup>

R-3 Dwelling Unit

7.6

7.7

Group Child Care Home  
< 24 hours per day

11-14 occupants maximum

R-3 Dwelling Unit

7.8

7.9

Child Care Center  
< 24 hours per day> 5 but  $\leq 100$  children  $\leq 2.5$  years of age and each room at, and with, an exit at the level of exit discharge

E

7.10

7.11

7.12

7.13

Child Care Center  
< 24 hours per day

More than 5 children &gt; 2.5 years of age

E

7.14

7.15

Child Care Center  
< 24 hours per dayMore than 5 children  $\leq 2.5$  years of age and not classified as E

I-4

7.16

7.17

7.18

Adult Day Care Family Adult Day Services (Day Services) (located in caregiver's primary residence)

 $\leq 8$  care recipients age 13 and older

R-3 Dwelling Unit

7.19

7.20

7.21

Adult Day Services Center  
< 24 hours per day

6 or more care recipients, age 13 and older, all may or may not be capable of self-preservation without assistance

I-4 Unless meets criteria for E below

7.22

7.23

7.24

7.25

7.26

Adult Day Services Center  
< 24 hours per day

6 or more care recipients, age 13 and older, all capable of self-preservation without assistance

E

7.27

7.28

7.29

7.30

Adult Day Services Center  
< 24 hours per day

6 or more care recipients, age 13 and older, where at least one care recipient but no more than 50 percent of the care recipients require assistance for self-preservation

I-4 E if meets all conditions for classification as E under definition of Occupancy Classification,

7.31

7.32

7.33

7.34

7.35

7.36

7.37

8.1				Classification
8.2				as Group E
8.3		Day Training and	Program participants age 13	Classified by primary use/training function
8.4		Habilitation	and older	
8.5				
8.6				
8.7	Supervised	Class A-1	6 or fewer residents; all of	
8.8	Living Facilities		whom are capable of	Dwelling Unit
8.9			self-preservation without	
8.10			assistance	
8.11		Class A-2	7 to 16 residents; all of	R-4 Condition
8.12			whom are capable of	1
8.13			self-preservation without	
8.14			assistance	
8.15		Class A-2	More than 16 residents; all	I-1 Condition
8.16			of whom are capable of	1
8.17			self-preservation without	
8.18			assistance	
8.19		Class B-1	6 or fewer residents; all of	R-3
8.20			whom may not be capable of	
8.21			self-preservation without	
8.22			assistance	
8.23		Class B-2	7 to 16 residents; of which	R-4 Condition
8.24			some may require limited	2
8.25			assistance for	
8.26			self-preservation	
8.27		Class B-3	More than 16 residents; all	I-2 Condition
8.28			of whom may not be capable	1
8.29			of self-preservation without	
8.30			assistance	
8.31	Hospice	Residential Hospice Facility	1-5 terminally ill persons	R-3
8.32		Residential Hospice Facility	6-12 terminally ill persons	R-4 Condition
8.33				2
8.34	Adult Foster	Adult Foster Care Home	1-5 impaired adults	R-3
8.35	Care			Dwelling Unit



9.1	Child Foster Care	Foster Care	1-6 foster children without severe disability or assisted medical technology	R-3 Dwelling Unit	
9.2					
9.3					
9.4		Foster Care	1-4 foster children with medical or special care services	R-3 Dwelling Unit	
9.5					
9.6					
9.7	Housing with Services Establishment	Housing with Services Establishment	1-5 adult residents $\geq$ 80 percent 55 years of age or older unless registered under MN Statutes, section 144D.025	R-3 Dwelling Unit	
9.8					
9.9			Housing with Services Establishment Providing Assisted Living Services		
9.10					
9.11					
9.12		Housing with Services Establishment	6-16 adult residents $\geq$ 80 percent 55 years of age or older unless registered under MN Statutes, section 144D.025	R-4 Condition 2	
9.13					
9.14		Housing with Services Establishment Providing Assisted Living Services			
9.15					
9.16					
9.17		Housing with Services Establishment	> 16 adult residents $\geq$ 80 percent 55 years of age or older unless registered under MN Statutes, section 144D.025	I-1 Condition 2	
9.18					
9.19		Housing with Services Establishment Providing Assisted Living Services			
9.20					
9.21					
9.22	Boarding Care	Boarding Care Home	$\leq$ 5 residents	R-3 Dwelling Unit	
9.23					
9.24			Boarding Care Home	6-16 residents all of whom are capable of self-preservation without assistance	R-4 Condition 1
9.25					
9.26					
9.27					
9.28		Boarding Care Home	> 16 residents all of whom are capable of self-preservation without assistance	I-1 Condition 1	
9.29					
9.30					
9.31					
9.32	Boarding and Lodging	Boarding and Lodging	$\leq$ 16 residents in sleeping rooms or $\leq$ 2 dwelling units in one building	R-3	
9.33					
9.34					
9.35		Boarding and Lodging	> 16 residents in sleeping rooms or > 2 dwelling units in one building all of whom	R-2	
9.36					
9.37					

10.1			are capable of	
10.2			self-preservation without	
10.3			assistance	
10.4		Boarding and Lodging	Lodging facilities with 6 or	R-1
10.5		< 30 days	more sleeping units	
10.6			Boarding houses with > 10	
10.7			occupants	
10.8		Boarding and Lodging	Lodging facilities with 5 or	R-3
10.9		< 30 days	fewer sleeping units	Dwelling Unit
10.10			Boarding houses with $\leq$ 10	
10.11			occupants	
10.12	Senior Housing	Senior Housing (See IBC	More than 2 dwelling units	R-2
10.13		310)	in one building	
10.14		Senior Housing (See IBC	2 family dwelling units in	R-3
10.15		310)	one building	
10.16		Senior Housing (See IBC	1 dwelling unit	R-3
10.17		310)		Dwelling Unit
10.18	Congregate	Congregate Residence	$\leq$ 16 residents	R-3
10.19	Residence			
10.20		Congregate Residence	17 or more residents	R-2
10.21	Chemical	Chemical Dependency and	Not regulated	B
10.22	Dependency	Mental Health Treatment		
10.23	and Mental	Programs - Outpatient (< 24		
10.24	Health	hrs.)		
10.25	Treatment			
10.26	Programs			
10.27		Chemical Dependency and	$\leq$ 5 residents	R-3
10.28		Mental Health Treatment		Dwelling Unit
10.29		Programs - Residential		
10.30		Chemical Dependency and	6-16 residents all of whom	R-4 Condition
10.31		Mental Health Treatment	may not be capable of	2
10.32		Programs - Residential	self-preservation without	
10.33			assistance	
10.34		Chemical Dependency and	> 16 residents all of whom	I-1 Condition
10.35		Mental Health Treatment	may not be capable of	2
10.36		Programs - Residential		

- 11.1 self-preservation without  
11.2 assistance
- 11.3 Ambulatory Nursing and medical care for Includes skilled medical care, B  
11.4 Care Facility < 24 hours emergency care, surgery,  
11.5 obstetrics, or patient  
11.6 stabilization for psychiatric  
11.7 or detox
- 11.8 Nursing Home Nursing and medical care for Does NOT include: I-2 Condition  
11.9 > 24 hours emergency care, surgery, 1  
11.10 obstetrics, or in-patient  
11.11 stabilization for psychiatric  
11.12 or detox
- 11.13 Hospital Nursing and medical care for Includes skilled medical care, I-2 Condition  
11.14 > 24 hours emergency care, surgery, 2  
11.15 obstetrics, or in-patient  
11.16 stabilization for psychiatric  
11.17 or detox
- 11.18 <sup>1</sup> "School age" means the age of a "school-age child" as defined in Minnesota Statutes  
11.19 2018, section 245A.02, subdivision 16.
- 11.20 **CHIEF.** See FIRE CHIEF.
- 11.21 **CORRIDOR.** An interior passageway having a length at least three times its width, having  
11.22 walls, partitions, or other obstructions to exit travel over 6 feet (1,829 mm) in height on two  
11.23 opposing sides and having openings from rooms or similar spaces.
- 11.24 **DECORATIVE MATERIALS.** Combustible materials used for decorative effects such  
11.25 as curtains; draperies; streamers; surface coverings applied over building interior finishes  
11.26 for decorative, acoustical, or other effect; cloth; cotton batting; paper; plastics; vegetation;  
11.27 hay; split bamboo; straw; vines; leaves; trees; moss; and similar materials used for decorative  
11.28 effect. Decorative materials do not include educational materials that are displayed in an  
11.29 approved manner, ordinary window shades, floor coverings, interior finish materials used

12.1 as surface coverings (See Chapter 8 for regulations of such materials) and materials 1/28  
12.2 inch (0.9 mm) or less in thickness applied directly to a noncombustible backing.

12.3 **FAMILY ADULT DAY SERVICES.** A program providing services for up to eight  
12.4 functionally impaired adults for less than 24 hours per day in the license holder's primary  
12.5 residence in accordance with Minnesota Statutes, section 245A.143. This includes programs  
12.6 located in residences licensed by the Department of Human Services for adult foster care,  
12.7 provided not more than eight adults, excluding staff, are present in the residence at any time.

12.8 **FAMILY DAY CARE HOME.** A residence, licensed by the Department of Human Services  
12.9 under Minnesota Rules, parts 9502.0315 to 9502.0445, in which no more than ten children  
12.10 at any one time receive care, maintenance, and supervision by other than their relatives or  
12.11 legal guardians for less than 24 hours per day.

12.12 **FIRE CHIEF.** The chief officer of the fire department serving the jurisdiction or the chief's  
12.13 authorized representatives.

12.14 **FIRE CODE OFFICIAL.** The state fire marshal, the state fire marshal's authorized  
12.15 representative, fire chief, fire department representatives authorized by the fire chief, or  
12.16 other authority specifically designated by ordinance or regulation that is charged with the  
12.17 administration and enforcement of the code. The appointing authority shall ensure that the  
12.18 fire code official is competent by virtue of certification as a fire inspector, training, or  
12.19 experience in fire prevention inspections and enforcement.

12.20 **FIRE DEPARTMENT.** A regularly organized fire department, fire protection district, or  
12.21 fire company regularly charged with the responsibility of providing firefighting or fire  
12.22 protection services to the state or a political subdivision.

12.23 **FLEET VEHICLE MOTOR FUEL-DISPENSING FACILITY.** That portion of a  
12.24 commercial, industrial, governmental, or manufacturing property where liquids used as  
12.25 fuels are stored and dispensed into the fuel tanks of motor vehicles that are used in connection

13.1 with such businesses, by persons within the employ of such businesses. For purposes of  
13.2 this definition, a motor vehicle is any self-propelled vehicle that: (1) conveys an operator,  
13.3 such as an automobile, truck, motorcycle, recreational vehicle, camper, all-terrain vehicle,  
13.4 snowmobile, lawn care vehicle, tractor, or dozer; and (2) is used for personal, commercial,  
13.5 recreational, maintenance, or construction purposes.

13.6 **GENERAL EVACUATION SIGNAL.** "General evacuation signal" means a fire alarm  
13.7 occupant notification system in accordance with Section 907.5.

13.8 **GROUP DAY CARE HOME.** A residence, licensed by the Department of Human Services  
13.9 under Minnesota Rules, parts 9502.0315 to 9502.0445, in which at least 11 but not more  
13.10 than 14 children receive care, maintenance, and supervision by other than their relatives or  
13.11 legal guardians for less than 24 hours per day.

13.12 **GUEST ROOM.** A room or a group of rooms used or intended to be used for purposes of  
13.13 lodging by guests.

13.14 **INTERMEDIATE BULK CONTAINER.** A storage container meeting the requirements  
13.15 of and containing products authorized by the United States Department of Transportation  
13.16 Hazardous Materials Regulations, Code of Federal Regulations, title 49, or by Part 6 of the  
13.17 United Nations Recommendations on the Transport of Dangerous Goods for classes 31H1,  
13.18 31H2, and 31HZ1.

13.19 **INTERNATIONAL BUILDING CODE (IBC).** The Minnesota Building Code, Minnesota  
13.20 Rules, chapter 1305.

13.21 **INTERNATIONAL FUEL GAS CODE.** The Minnesota Mechanical Code, Minnesota  
13.22 Rules, parts 1346.5050 to 1346.6014.

13.23 **INTERNATIONAL MECHANICAL CODE.** The Minnesota Mechanical Code, Minnesota  
13.24 Rules, parts 1346.0050 to 1346.1606.

14.1 **INTERNATIONAL RESIDENTIAL CODE (IRC).** The Minnesota Residential Code,  
14.2 Minnesota Rules, chapter 1309.

14.3 **MECHANICAL CODE.** The Minnesota Mechanical Code, Minnesota Rules, parts  
14.4 1346.0050 to 1346.1606.

14.5 **MINNESOTA BUILDING CODE.** Minnesota Rules, chapter 1305.

14.6 **MINNESOTA MECHANICAL CODE.** Minnesota Rules, parts 1346.0050 to 1346.1606.

14.7 **MINNESOTA RESIDENTIAL CODE.** Minnesota Rules, chapter 1309.

14.8 **MUNICIPALITY.** Any statutory or home rule charter city, county, or town meeting the  
14.9 requirements of Minnesota Statutes, section 368.01, subdivision 1, the University of  
14.10 Minnesota, or the state for public buildings.

14.11 **NFPA.** National Fire Protection Association.

14.12 **OCCUPANCY CLASSIFICATION.** Except as modified by this part, for the purposes of  
14.13 this code, certain occupancies and uses are defined. All other subdefinitions in the IFC  
14.14 definition of "occupancy classification" that are not modified in this definition still apply:

14.15 **Institutional Group I.**

14.16 **Group I-1.** This occupancy shall include buildings, structures, or portions thereof for  
14.17 more than 16 persons who reside, on a 24-hour basis, in a supervised environment and  
14.18 receive custodial care services. Examples of this group include the following:

14.19 Alcohol and drug centers

14.20 Assisted living

14.21 Boarding care homes

14.22 Congregate care facilities

14.23 Convalescent facilities

15.1 Group homes

15.2 Halfway houses

15.3 Housing with services establishment

15.4 Residential board and care facilities

15.5 Social rehabilitation facilities

15.6 Supervised living facilities Class A-2

15.7 **Occupancy conditions.** Buildings of Group I-1 shall be classified as one of the  
15.8 following conditions:

15.9 **Condition 1.** This occupancy condition includes buildings in which all persons  
15.10 receiving custodial care, without any assistance, are capable of responding to an  
15.11 emergency situation to complete building evacuation.

15.12 **Condition 2.** This occupancy condition includes buildings in which there are any  
15.13 persons receiving custodial care who require limited verbal or physical assistance  
15.14 while responding to an emergency situation to complete building evacuation.

15.15 **Six to 16 persons receiving custodial care.** A facility housing at least six and not  
15.16 more than 16 persons receiving custodial care, all of whom are capable of  
15.17 self-preservation shall be classified as Group R-4, Condition 1.

15.18 **Five or fewer persons receiving custodial care.** A facility with five or fewer  
15.19 persons receiving custodial care shall be classified as Group R-3.

15.20 **Group I-2.** This occupancy shall include buildings and structures used for medical  
15.21 care on a 24-hour basis for more than five persons who are incapable of  
15.22 self-preservation. Examples of this group include the following:

15.23 Detoxification facilities

16.1 Foster care facilities

16.2 Hospitals

16.3 Nursing homes

16.4 Psychiatric hospitals

16.5 Supervised living facilities Class B-3

16.6 **Occupancy conditions.** Buildings of Group I-2 shall be classified as one of the  
16.7 following occupancy conditions:

16.8 **Condition 1.** This occupancy condition includes facilities that provide nursing  
16.9 and medical care but do not provide emergency care, surgery, obstetrics, or  
16.10 in-patient stabilization units for psychiatric or detoxification, including but not  
16.11 limited to nursing homes and foster care facilities.

16.12 **Condition 2.** This occupancy condition includes facilities that provide nursing  
16.13 and medical care and could provide emergency care, surgery, obstetrics, or  
16.14 in-patient stabilization units for psychiatric or detoxification, including but not  
16.15 limited to hospitals.

16.16 **Five or fewer persons receiving care.** A facility with five or fewer persons  
16.17 receiving care consistent with Group I-2 occupancies shall be classified as Group  
16.18 R-3.

16.19 **Group I-4, Day care and day services facilities.** This group includes buildings and  
16.20 structures occupied by more than five persons of any age who receive custodial care  
16.21 for less than 24 hours per day by persons other than parents or guardians, relatives by  
16.22 blood, marriage, or adoption, and in a place other than the home of the person receiving  
16.23 care. This group shall include, but not be limited to, the following:

16.24 Adult day services



17.1 Child day care

17.2 **Classification as Group E.** Day care and day services uses are classified as Group E  
17.3 occupancies in accordance with the following:

17.4 **Adult day services centers serving only persons capable of self-preservation.**  
17.5 Adult day services centers serving only persons who, without assistance, are capable  
17.6 of self-preservation under emergency conditions are classified as Group E.

17.7 **Adult day services centers serving both persons capable and persons not**  
17.8 **capable of self-preservation.** Adult day services centers are classified as Group  
17.9 E where all of the following conditions apply.

17.10 1. At least one person served but not more than 50 percent of persons served  
17.11 require assistance with self-preservation under emergency conditions.

17.12 2. The rooms in which the adults are cared for are located on the level of exit  
17.13 discharge serving such rooms, with all exits discharging directly to grade  
17.14 without intervening stairs. Each exit discharge shall provide an accessible  
17.15 route, without stairs, to the public way or safe dispersal area in accordance  
17.16 with the exception to Section 1028.5.

17.17 3. The day services center is protected with an automatic fire alarm system  
17.18 consisting of automatic smoke detection in all corridors and at the top of all  
17.19 stairways, and automatic fire detection in boiler and furnace rooms, kitchens,  
17.20 storage rooms, custodial closets, laundry and soiled linen rooms, and other  
17.21 hazardous areas.

17.22 4. The center shall demonstrate the ability to evacuate the entire population  
17.23 of the center within three minutes.

17.24 **Child day care.** A child day care facility shall be classified as Group E where all  
17.25 of the following conditions apply:

- 18.1 1. The facility provides care for more than five but not more than 100 children  
18.2 2-1/2 years or less of age.
- 18.3 2. The rooms in which the children are cared for are located on the level of  
18.4 exit discharge serving such rooms.
- 18.5 3. Each room providing day care has an exit door directly to the exterior.

18.6 **Within a place of religious worship.** Rooms and spaces within places of religious  
18.7 worship providing such care during religious functions shall be classified as part  
18.8 of the primary occupancy.

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

18.11 **Five or fewer occupants receiving care in a dwelling unit.** Adult day services  
18.12 or child day care within a dwelling unit and having five or fewer persons receiving  
18.13 custodial care shall be classified as a Group R-3 occupancy. Where the adult day  
18.14 services or child day care is located in a one- or two-family dwelling or townhouse,  
18.15 the dwelling: (1) shall be constructed in accordance with either the Building Code  
18.16 or the Minnesota Residential Code; and (2) shall be equipped with an automatic  
18.17 sprinkler system when required by Section 903.2.8.

18.18 **Residential Group R.**

18.19 Residential Group R includes, among others, the use of a building or structure, or a  
18.20 portion thereof, for sleeping purposes when not classified as an Institutional Group I.

18.21 **Exception:** Group R-3 and R-4 occupancies located in a one- or two-family  
18.22 dwelling or townhouse and classified as a "dwelling unit" in Table 202.1: (1) shall  
18.23 be constructed in accordance with either the Building Code or the Minnesota  
18.24 Residential Code; and (2) shall be equipped with an automatic sprinkler system  
18.25 when required by Section 903.2.8.

19.1 Residential occupancies shall be classified according to the following:

19.2 **Residential Group R-1.** Residential occupancies containing sleeping units where the  
19.3 occupants are primarily transient in nature, including:

19.4 Boarding houses (transient) with more than ten occupants

19.5 Congregate living facilities (transient) with more than ten occupants

19.6 Hotels (transient)

19.7 Lodging houses with six or more guest rooms or more than ten occupants

19.8 Motels (transient)

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

19.12 Apartment houses

19.13 Congregate living facilities (nontransient) with more than sixteen occupants

19.14 Boarding houses

19.15 Convents

19.16 Dormitories

19.17 Fraternities and sororities

19.18 Monasteries

19.19 Hotels (not transient)

19.20 Motels (not transient)

19.21 Vacation time-share properties

20.1 **Residential Group R-3.** Residential occupancies where the occupants are primarily  
20.2 permanent in nature and not classified as R-1, R-2, R-4, or I, including:

20.3 Assisted living

20.4 Buildings that do not contain more than two dwelling units

20.5 Boarding care homes

20.6 Care facilities that provide accommodations for five or fewer persons receiving  
20.7 care

20.8 Congregate living facilities (nontransient) with 16 or fewer occupants

20.9 Boarding houses (nontransient)

20.10 Dormitories

20.11 Fraternities and sororities

20.12 Convents

20.13 Monasteries

20.14 Congregate living facilities (transient) with ten or fewer occupants

20.15 Boarding houses (transient)

20.16 Dwelling units (two or fewer) in mixed occupancy buildings

20.17 Family adult foster home

20.18 Foster care

20.19 Housing with services establishment

20.20 Lodging houses (transient) with five or fewer guest rooms and 10 or fewer  
20.21 occupants

21.1 Residential hospice with five or fewer occupants

21.2 **Lodging houses.** Owner-occupied lodging houses with five or fewer guest rooms  
21.3 and 10 or fewer total occupants shall be permitted to be constructed in accordance  
21.4 with the Minnesota Residential Code.

21.5 **Residential Group R-4.** This occupancy shall include buildings, structures or portions  
21.6 thereof for more than five but not more than 16 persons, excluding staff, who reside  
21.7 on a 24-hour basis in a supervised residential environment and receive custodial care.  
21.8 This group shall include the following:

21.9 Alcohol and drug centers

21.10 Assisted living

21.11 Boarding care homes

21.12 Congregate care facilities

21.13 Group homes

21.14 Halfway houses

21.15 Housing with services establishment (including those that provide assisted living)

21.16 Residential board and care facilities

21.17 Residential hospice with twelve or fewer occupants

21.18 Social rehabilitation facilities

21.19 Group R-4 occupancies shall meet the requirements for construction as defined for  
21.20 Group R-3, except as otherwise provided for in this code.

21.21 **Occupancy conditions.** Buildings of Group R-4 shall be classified as one of the  
21.22 following occupancy conditions:

22.1 **Condition 1.** This occupancy condition includes buildings in which all persons  
22.2 receiving custodial care, without any assistance, are capable of responding to an  
22.3 emergency situation to complete building evacuation.

22.4 **Condition 2.** This occupancy condition includes buildings in which there are any  
22.5 persons receiving custodial care who require limited verbal or physical assistance  
22.6 while responding to an emergency situation to complete building evacuation.

22.7 **OUTPATIENT CLINIC.** Buildings or portions thereof used to provide medical care on a  
22.8 less than 24-hour basis to persons who are not rendered incapable of self-preservation by  
22.9 the services provided, including federally certified end-stage renal disease facilities (kidney  
22.10 dialysis facilities) not classified as an ambulatory care facility.

22.11 **PERFORMANCE-BASED DESIGN.** An engineering approach to design elements of a  
22.12 building based on agreed-upon performance goals and objectives, engineering analysis, and  
22.13 quantitative assessment of alternatives against the design goals and objectives using accepted  
22.14 engineering tools, methodologies, and performance criteria.

22.15 **POWER TAP.** A device that is connected to an electrical receptacle, has built-in overcurrent  
22.16 protection and allows connection of one or more electrical plugs to supply electricity to  
22.17 other devices and equipment.

22.18 **REQUIRED BY THE FIRE CHIEF.** Determined by the fire chief to be directly related  
22.19 to safeguarding life and property from the hazards of fire, and uniform for each class or  
22.20 kind of building, structure, or property covered.

22.21 **RESIDENTIAL HOSPICE FACILITY.** A facility located in a residential area that directly  
22.22 provides 24-hour residential and support services in a home-like setting for not more than  
22.23 12 persons who have been diagnosed as terminally ill with a probable life expectancy of  
22.24 under one year.

23.1 **ROOM.** A space or area bounded by any obstructions over 6 feet in height which at any  
23.2 time enclose more than 80 percent of the perimeter of the area. In computing the unobstructed  
23.3 perimeter, openings less than 3 feet in clear width and less than 6 feet 8 inches high shall  
23.4 not be considered. Aisles and corridors shall not be construed to form rooms.

23.5 **SMALL HOSE CONNECTION.** "Small hose connection" means a 1-1/2-inch (38 mm)  
23.6 connection supplied inside of a building for firefighting overhaul operations in  
23.7 sprinkler-protected structures.

23.8 **STANDPIPE SYSTEM, CLASSES OF.** "Classes of standpipe system" means the following:

23.9 **Class I system.** "Class I system" means a system providing 2-1/2 inch (64 mm) and  
23.10 1-1/2 inch (38 mm) hose connections to supply water for use by fire departments and  
23.11 those trained in handling heavy fire streams.

23.12 **Class II system.** "Class II system" means a system providing 1-1/2 inch (38 mm) hose  
23.13 stations to supply water for use primarily by the building occupants or by the fire  
23.14 department during initial response.

23.15 **STATE FIRE MARSHAL.** The Minnesota state fire marshal or the state fire marshal's  
23.16 authorized representatives.

23.17 **SUPERVISED LIVING FACILITY.** A facility in which supervision, lodging, meals, and,  
23.18 in accordance with the rules of the Department of Human Services and the Department of  
23.19 Health, counseling and developmental habilitative or rehabilitative services are provided  
23.20 to persons who are chemically dependent, adult mentally ill, or physically or developmentally  
23.21 disabled.

23.22 **Class A-1 supervised living facility.** A supervised living facility for six or fewer  
23.23 ambulatory or mobile disabled persons who are capable of taking appropriate action  
23.24 for self-preservation under emergency conditions as determined by program licensure  
23.25 provisions.

24.1 **Class A-2 supervised living facility.** A supervised living facility for more than six  
24.2 ambulatory or mobile disabled persons who are capable of taking appropriate action  
24.3 for self-preservation under emergency conditions as determined by program licensure  
24.4 provisions.

24.5 **Class B-1 supervised living facility.** A supervised living facility for six or fewer  
24.6 ambulatory or nonambulatory, mobile or nonmobile persons who are not mentally or  
24.7 physically capable of taking appropriate action for self-preservation under emergency  
24.8 conditions as determined by program licensure provisions.

24.9 **Class B-2 supervised living facility.** A supervised living facility for seven to 16  
24.10 ambulatory or nonambulatory, mobile or nonmobile persons who are not mentally or  
24.11 physically capable of taking appropriate action for self-preservation under emergency  
24.12 conditions as determined by program licensure provisions.

24.13 **Class B-3 supervised living facility.** A supervised living facility for 17 or more  
24.14 ambulatory or nonambulatory, mobile or nonmobile persons who are not mentally or  
24.15 physically capable of taking appropriate action for self-preservation under emergency  
24.16 conditions as determined by program licensure provisions.

24.17 **7511.0304 SECTION 304, COMBUSTIBLE WASTE MATERIAL.**

24.18 *[For text of subparts 1 and 2, see Minnesota Rules]*

24.19 Subp. 3. **IFC section 304.** IFC section 304 is amended by adding a section to read:

24.20 **304.4 Clothes dryers.** Clothes dryers and their exhaust systems shall be cleaned as necessary  
24.21 to keep lint traps, exhaust ducts, and mechanical and heating components free from excessive  
24.22 lint accumulation.

24.23 **7511.0315 SECTION 315, GENERAL STORAGE.**

24.24 Subpart 1. **IFC section 315.3.1.** IFC section 315.3.1 is amended to read:



25.1 **315.3.1 Ceiling clearance.** Storage shall be maintained 2 feet (610 mm) or more below  
25.2 the ceiling in nonsprinklered areas of buildings or a minimum of 18 inches (457 mm)  
25.3 below sprinkler head deflectors in sprinklered areas of buildings. Where more restrictive  
25.4 clearances between sprinkler head deflectors and storage are required by the sprinkler  
25.5 listing or NFPA 13, the more restrictive clearances shall apply.

25.6 **Exceptions:**

25.7 1. The 2-foot (610 mm) ceiling clearance is not required for storage along walls  
25.8 in nonsprinklered areas of buildings.

25.9 2. The 18-inch (457 mm) ceiling clearance is not required for storage along walls  
25.10 in areas of buildings equipped with an automatic sprinkler system in accordance  
25.11 with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3.

25.12 *[For text of subpart 2, see Minnesota Rules]*

25.13 Subp. 3. **IFC section 315.7.5.** IFC section 315.7.5 is deleted.

25.14 **7511.0319 [Renumbered 7511.0320]**

25.15 **7511.0320 SECTION 320, CLEARANCE OF VEGETATION FROM STRUCTURES.**

25.16 IFC chapter 3 is amended by adding a section to read:

25.17 **SECTION 320**

25.18 **CLEARANCE OF VEGETATION FROM STRUCTURES**

25.19 **320.1 General.** Land that is covered with grass, grain, brush, or forest, whether privately  
25.20 or publicly owned, which is so situated or is of such inaccessible location that a fire  
25.21 originating upon the land would present an abnormally difficult job of suppression or would  
25.22 result in great and unusual damage through fire or resulting erosion, shall comply with  
25.23 Section 320.2.

26.1 **320.2 Fire breaks.** Persons owning, leasing, controlling, operating, or maintaining buildings  
26.2 or structures in, upon, or adjoining land covered with grass, grain, brush, or forest, and  
26.3 persons owning, leasing, or controlling land adjacent to such buildings or structures, shall  
26.4 comply at all times with all of the following requirements:

26.5 1. Maintain an effective fire break by removing and clearing away flammable vegetation  
26.6 and combustible growth from areas within 30 feet (9,144 mm) of such buildings or  
26.7 structures.

26.8 **Exception:** Single specimens of trees, ornamental shrubbery, or similar plants  
26.9 used as ground covers, provided they do not form a means of rapidly transmitting  
26.10 fire from the native growth to any structure.

26.11 2. Maintain additional fire protection or firebreak by removing brush, flammable  
26.12 vegetation, and combustible growth located from 30 feet to 100 feet (9,144 mm to 30,  
26.13 480 mm) from such buildings or structures, when required by the fire chief because of  
26.14 extrahazardous conditions causing a firebreak of only 30 feet (9,144 mm) to be  
26.15 insufficient to provide reasonable fire safety.

26.16 **Exception:** Grass and other vegetation located more than 30 feet (9,144 mm) from  
26.17 buildings or structures and less than 18 inches (457 mm) in height above the ground  
26.18 need not be removed where necessary to stabilize the soil and prevent erosion.

26.19 3. Remove portions of trees that extend within 10 feet (3,048 mm) of the outlet of a  
26.20 chimney.

26.21 4. Maintain trees adjacent to or overhanging a building free of deadwood.

26.22 5. Maintain the roof of a structure free of leaves, needles, or other dead vegetative  
26.23 growth.

27.1 **7511.0321 SECTION 321, COVERED MALL BUILDINGS.**

27.2 Subpart 1. [See repealer.]

27.3 Subp. 2. [See repealer.]

27.4 Subp. 3. **IFC section 321.** IFC chapter 3 is amended by adding a section and  
27.5 subsections to read as follows:

27.6 **SECTION 321**

27.7 **COVERED MALL BUILDINGS**

27.8 **321.1 Egress.** The minimum egress width in covered mall buildings shall be maintained in  
27.9 conformance with the Building Code.

27.10 **321.2 Kiosks.** Kiosks and similar structures, whether temporary or permanent, located in  
27.11 covered mall buildings shall be constructed, protected, and located in conformance with  
27.12 the Building Code.

27.13 **7511.0403 SECTION 403, EMERGENCY PREPAREDNESS REQUIREMENTS.**

27.14 IFC section 403.10.3.5 is deleted.

27.15 **7511.0408 [Renumbered 7511.0321]**

27.16 **7511.0604 SECTION 604, ELECTRICAL EQUIPMENT, WIRING, AND HAZARDS.**

27.17 Subpart 1. **IFC section 604.10.4.** IFC section 604.10.4 is deleted.

27.18 Subp. 2. [See repealer.]

27.19 Subp. 3. [See repealer.]

27.20 **7511.0606 SECTION 606, ELEVATOR OPERATION, MAINTENANCE, AND FIRE**  
27.21 **SERVICE KEYS.**

27.22 IFC section 606.2.3 is amended to read as follows:

28.1 **606.2.3 Two or more elevators.** Where two or more elevators are controlled by a  
28.2 common operating system, all elevators shall automatically transfer to standby power  
28.3 within 60 seconds after failure of normal power where the standby power source is of  
28.4 sufficient capacity to operate all elevators at the same time. Where the standby power  
28.5 source is not of sufficient capacity to operate all elevators at the same time, the elevators  
28.6 shall operate according to ASME A17.1/CSA B44-2016 Section 2.27.2.

28.7 **7511.0607 SECTION 607, COMMERCIAL KITCHEN HOODS.**

28.8 IFC section 607.3 is amended to read:

28.9 **607.3 Operations and maintenance.** Commercial cooking systems shall be operated and  
28.10 maintained in accordance with Sections 607.3.1 through 607.3.4, and NFPA 96.

28.11 (Sections 607.3.1 through 607.3.4 remain unchanged.)

28.12 **7511.0610 SECTION 610, PEDESTRIAN WALKWAYS AND PEDESTRIAN**  
28.13 **TUNNELS.**

28.14 IFC Chapter 6 is amended by adding a section 610 to read:

28.15 **SECTION 610**

28.16 **PEDESTRIAN WALKWAYS, PEDESTRIAN TUNNELS, AND MEZZANINES**

28.17 **610.1 Installation and maintenance.** New pedestrian walkways and tunnels shall be  
28.18 constructed and maintained in conformance with the Building Code. Existing pedestrian  
28.19 walkways and pedestrian tunnels shall comply with the following:

28.20 1. Unless all buildings connected to them are protected throughout by approved  
28.21 automatic fire-extinguishing systems, pedestrian walkways and pedestrian tunnels shall,  
28.22 at a minimum, be separated from the interior of buildings by walls and self-closing  
28.23 doors constructed to form a barrier to limit the transfer of smoke.

29.1 2. The unobstructed width of pedestrian walkways and pedestrian tunnels shall not be  
29.2 less than 44 inches (1,118 mm).

29.3 3. Combustible materials or decorations shall not be located in pedestrian walkways  
29.4 or pedestrian tunnels. Interior wall, ceiling, and floor finishes shall comply with Chapter  
29.5 8.

29.6 4. Pedestrian walkways and pedestrian tunnels that serve as required means of egress  
29.7 from attached buildings shall comply with Sections 1031 and 1104.

29.8 5. Pedestrian walkways and pedestrian tunnels exceeding 400 feet (122 m) in length  
29.9 shall be provided with means of egress so arranged that the maximum length of exit  
29.10 access travel to reach an exit does not exceed 200 feet (60,960 mm).

29.11 6. Means of egress from pedestrian walkways and pedestrian tunnels shall not be locked  
29.12 unless provisions for emergency egress are provided.

29.13 **610.2 Mezzanines.** Mezzanines in buildings shall conform to the requirements of the  
29.14 Building Code.

29.15 **7511.0611 [Renumbered 7511.0610]**

29.16 **7511.0701 SECTION 701, GENERAL.**

29.17 IFC section 701.1 is amended by adding an exception to read:

29.18 **Exception:** This exception applies to the following elements that exceed the  
29.19 requirements for new structures or facilities: existing fire-resistance-rated construction,  
29.20 existing construction to resist the passage of smoke, and existing opening protectives.  
29.21 When approved by the fire code official: (1) maintenance of these elements is not  
29.22 required; and (2) removal of these elements is permitted as long as any decommissioned  
29.23 equipment is clearly labeled as such.

30.1 **7511.0705 SECTION 705, DOOR AND WINDOW OPENINGS.**

30.2 IFC section 705.2 is amended by adding an exception to read:

30.3 **Exception:** Periodic testing and inspection in accordance with NFPA 80 and NFPA  
30.4 105 is not required for swinging fire door and smoke door assemblies. Swinging fire  
30.5 door and smoke door assemblies shall be maintained in an operable condition in  
30.6 accordance with NFPA 80 and NFPA 105. Damaged or defective swinging fire door  
30.7 and smoke door assemblies shall be repaired or replaced.

30.8 **7511.0706 SECTION 706, DUCT AND AIR TRANSFER OPENINGS.**

30.9 IFC section 706.1 is amended by adding an exception to read:

30.10 **Exception:** When approved by the fire code official, periodic testing and inspection  
30.11 in accordance with NFPA 80 and NFPA 105 is not required for inaccessible fire  
30.12 dampers, inaccessible smoke dampers, and inaccessible combination fire and smoke  
30.13 dampers. Inaccessible fire dampers, inaccessible smoke dampers, and inaccessible  
30.14 combination fire and smoke dampers shall be maintained in accordance with NFPA  
30.15 80 and NFPA 105 and repaired or replaced where damaged or defective.

30.16 **7511.0806 SECTION 806, DECORATIVE VEGETATION IN NEW AND EXISTING**  
30.17 **BUILDINGS.**

30.18 IFC section 806.1 and its subsections are deleted entirely and replaced with the  
30.19 following:

30.20 **806.1 Natural cut trees and natural decorative vegetation.** Natural cut trees and natural  
30.21 decorative vegetation shall comply with Sections 806.1.1 through 806.1.4.

30.22 **806.1.1 Natural or resin-bearing trees.** The use, display, or storage of natural or  
30.23 resin-bearing trees for use or decoration inside buildings shall be in accordance with  
30.24 Sections 806.1.1.1 through 806.1.1.5.

31.1 **806.1.1.1 Group R occupancies.** The use and display of natural or resin-bearing  
31.2 trees inside dwelling units of Group R-2 and R-3 occupancies is permitted.

31.3 **806.1.1.2 Sprinkler protected areas.** Trees located in areas protected by an  
31.4 approved automatic sprinkler system installed in accordance with Section 903.3.1.1  
31.5 or 903.3.1.2 are permitted in all occupancies except Group I and ambulatory care  
31.6 facilities.

31.7 **806.1.1.3 Where allowed.** Trees without open flames or electric lights are allowed  
31.8 in Group A used for worship purposes, Group B, E, and M occupancies.

31.9 **806.1.1.4 Restricted.** Trees used inside buildings for other occupancies or  
31.10 conditions are not allowed.

31.11 **806.1.1.5 Location.** The use and display of natural or resin-bearing trees shall not  
31.12 be placed in a location that would obstruct egress, fire protection systems and  
31.13 equipment, and shall not be allowed to accumulate inside a building. In buildings  
31.14 where more than one tree is located, they shall be separated by at least 20 feet as  
31.15 measured from the tree branches.

31.16 **806.1.2 Support devices.** The support device that holds the tree in an upright position  
31.17 shall be of a type that is stable and that meets all of the following criteria:

31.18 1. The device shall hold the tree securely and be of adequate size to avoid tipping  
31.19 over of the tree.

31.20 2. The device shall be capable of containing a minimum two-day supply of water.

31.21 3. The water level, when full, shall cover the tree stem at least 2 inches (51 mm).  
31.22 The water level shall be maintained above the fresh cut and checked at least once  
31.23 daily.

32.1 **806.1.3 Dryness.** The tree shall be removed from the building whenever the needles  
32.2 or leaves fall off readily when a tree branch is shaken or if the needles are brittle and  
32.3 break when bent between the thumb and index finger. The tree shall be checked daily  
32.4 for dryness.

32.5 **806.1.4 Decorative natural vegetation.** The use, display, or storage of wreaths, hay  
32.6 bales, corn stalks, and other cut natural decorative vegetation shall be in accordance  
32.7 with Sections 806.1.4.1 through 806.1.4.4.

32.8 **806.1.4.1 Occupancies.** Limited quantities of cut natural decorative vegetation  
32.9 shall be permitted where the fire code official determines that adequate safeguards  
32.10 are provided based on the quantity and nature of the combustible vegetation.

32.11 **806.1.4.2 Group I occupancies.** Cut, natural, decorative vegetation is not permitted  
32.12 in Group I occupancies.

32.13 **806.1.4.3 Group M occupancies.** The use and display of decorative natural  
32.14 vegetation for resale in Group M occupancies is permitted.

32.15 **806.1.4.4 Location.** The use and display of cut natural decorative vegetation shall  
32.16 not obstruct aisles, egress, or exit paths, block access to fire protection systems or  
32.17 equipment, and shall not accumulate inside a building.

32.18 **7511.0807 SECTION 807, DECORATIVE MATERIALS AND ARTIFICIAL**  
32.19 **DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS.**

32.20 Subpart 1. **IFC section 807.2.** IFC section 807.2 is amended and a subsection is added  
32.21 to read as follows:

32.22 **807.2 Combustible decorative materials.** In dormitories in Group R-2 and in Groups A,  
32.23 B, E, I, M, and R-1, curtains, draperies, fabric hangings and similar combustible decorative  
32.24 materials suspended from walls or ceilings shall comply with Section 807.3 and shall not  
32.25 exceed 20 percent of the specific wall or ceiling area to which such materials are attached.



33.1 **Exceptions:**

33.2 1. In auditoriums in Group A, the permissible amount of curtains, draperies, fabric  
33.3 hangings, and similar combustible decorative materials suspended from walls or ceilings  
33.4 shall not exceed 75 percent of the aggregate wall area where the building is equipped  
33.5 throughout with an approved automatic sprinkler system in accordance with Section  
33.6 903.3.1.1 and where the material is installed in accordance with IBC Section 803.15.

33.7 2. In existing Group A occupancies, the permissible amount of curtains, draperies,  
33.8 fabric hangings, and similar combustible decorative material suspended from walls or  
33.9 ceilings shall not be limited where such materials comply with Section 807.3.

33.10 3. In Group R-2 dormitories, within sleeping units and dwelling units, the permissible  
33.11 amount of curtains, draperies, fabric hangings and similar decorative materials suspended  
33.12 from walls or ceilings shall not exceed 50 percent of the aggregate wall areas where  
33.13 the building is equipped throughout with an approved automatic sprinkler system  
33.14 installed in accordance with Section 903.3.1.

33.15 4. In Group A, B, E, and M occupancies, the amount of combustible fabric partitions  
33.16 suspended from the ceiling and not supported by the floor shall comply with Section  
33.17 807.3 and shall not be limited.

33.18 5. The 20 percent limit shall not apply to curtains, draperies, fabric hangings, and similar  
33.19 combustible decorative materials used as window coverings.

33.20 **807.2.1 Fixed or movable walls and partitions, paneling, and wall pads and crash**  
33.21 **pads.** Fixed or movable walls and partitions, paneling, wall pads and crash pads applied  
33.22 structurally or for decoration, acoustical correction, surface insulation or other purposes  
33.23 covering more than 10 percent of the wall or ceiling area shall be considered interior  
33.24 finish, shall comply with Section 803, and shall not be considered to be decorative  
33.25 materials or furnishings.

34.1           **Exception:** In existing buildings, fixed or movable walls and partitions, paneling,  
34.2 wall pads and crash pads applied structurally or for decoration, acoustical  
34.3 correction, surface insulation or other purposes shall not be considered interior  
34.4 finish unless covering more than 20 percent of the wall or ceiling area, provided  
34.5 the room or area is protected with an approved automatic fire sprinkler system  
34.6 installed in accordance with Section 903.3.1.

34.7           Subp. 2. [See repealer.]

34.8           Subp. 3. **IFC section 807.5.2.1.** IFC section 807.5.2.1 is amended by modifying  
34.9 exceptions 1 and 2 to read as follows:

34.10                   1. Corridors protected by an approved automatic sprinkler system installed  
34.11 in accordance with Section 903.3.1.1, provided the minimum required egress  
34.12 width is maintained.

34.13                   2. Buildings provided with an approved fire alarm system and equipped with  
34.14 corridor smoke detection, provided the minimum required egress width is  
34.15 maintained.

34.16                   (Exception 3 still applies)

34.17           Subp. 3a. **IFC section 807.5.2.2.** IFC section 807.5.2.2 is amended by adding an  
34.18 exception to read:

34.19                   **Exception:** Artwork and teaching materials shall not exceed 50 percent of  
34.20 the wall area when the building is protected throughout with an approved  
34.21 automatic sprinkler system in accordance with Section 903.3.1.1.

34.22           Subp. 3b. **IFC section 807.5.2.3.** IFC section 807.5.2.3 is amended to read:

35.1 **807.5.2.3 Artwork in classrooms.** Artwork and teaching materials shall be limited  
35.2 on walls of classrooms to not more than 50 percent of the total aggregate wall area  
35.3 of the room.

35.4 Subp. 3c. **IFC section 807.5.3.4.** IFC section 807.5.3.4 is amended to read as follows:

35.5 **807.5.3.4 Other areas in Groups I-1 and I-2.** In Groups I-1 and I-2 occupancies,  
35.6 in areas not equipped throughout with an approved automatic sprinkler system,  
35.7 combustible decorations shall be prohibited unless one or more of the following  
35.8 criteria are met:

35.9 1. the decorations are flame-retardant or are treated with approved fire-retardant  
35.10 coating that is listed and labeled for application to the material to which it is  
35.11 applied;

35.12 2. the decorations meet the requirements of NFPA 701, Standard Methods of  
35.13 Fire Tests for Flame Propagation of Textiles and Films;

35.14 3. the decorations exhibit a heat release rate not exceeding 100 kW when  
35.15 tested in accordance with NFPA 289, Standard Method of Fire Test for  
35.16 Individual Fuel Packages, using the 20 kW ignition source; or

35.17 4. decorations, such as photographs and paintings, are in such limited quantities  
35.18 that a hazard of fire development or spread is not present.

35.19 Subp. 4. **IFC Section 807.5.5.1.** IFC Section 807.5.5.1 is amended by modifying  
35.20 exceptions 1 and 2 to read as follows:

35.21 1. Corridors protected by an approved automatic sprinkler system installed  
35.22 in accordance with Section 903.3.1.1, provided the minimum required egress  
35.23 width is maintained.

36.1 2. Buildings provided with an approved fire alarm system and equipped with  
36.2 corridor smoke detection, provided the minimum required egress width is  
36.3 maintained.

36.4 (Exception 3 still applies)

36.5 Subp. 5. **IFC section 807.5.5.2.** IFC section 807.5.5.2 is amended by adding an  
36.6 exception to read as follows:

36.7 **Exception:** Artwork and teaching materials shall not exceed 50 percent of  
36.8 the wall area when the building is protected throughout with an approved  
36.9 automatic sprinkler system in accordance with Section 903.3.1.1.

36.10 Subp. 6. [Renumbered subp 3c]

36.11 **7511.0901 SECTION 901, GENERAL.**

36.12 Subpart 1. **IFC section 901.6.1.** IFC section 901.6.1 is amended by adding an exception  
36.13 to read:

36.14 **Exception:** Fire alarm and water-based automatic fire-extinguishing systems shall  
36.15 be inspected and tested annually. Inspections and testing shall be conducted in  
36.16 accordance with the procedures specified in the referenced standards listed in Table  
36.17 901.6.1. As part of the annual inspections covered under this exception, all weekly,  
36.18 monthly, quarterly, semiannual, and annual inspections, tests, and maintenance  
36.19 requirements in the listed standards shall be conducted and any problems observed  
36.20 shall be noted.

36.21 *[For text of subpart 2, see Minnesota Rules]*

36.22 **7511.0903 SECTION 903, AUTOMATIC SPRINKLER SYSTEMS.**

36.23 Subpart 1. **IFC section 903.2.3.** IFC section 903.2.3 is amended to read as follows:

37.1 **903.2.3 Group E.** An automatic sprinkler system shall be provided for Group E  
37.2 occupancies as follows:

37.3 1. Throughout all Group E fire areas greater than 12,000 square feet (1,115 m<sup>2</sup>)  
37.4 in area.

37.5 2. Whenever the Group E fire area is located on a floor other than a level of exit  
37.6 discharge serving such occupancies.

37.7 **Exception:** In buildings where every classroom has not fewer than one exterior  
37.8 exit door at a level of exit discharge, an automatic sprinkler system is not  
37.9 required in any area below the lowest level of exit discharge serving that area.

37.10 3. Whenever the Group E fire area has an occupant load of 300 or more.

37.11 Subp. 1a. **IFC section 903.2.8.** IFC section 903.2.8 and its subsections are amended  
37.12 to read as follows:

37.13 **903.2.8 Group R.** An automatic sprinkler system shall be installed throughout all  
37.14 buildings with a Group R fire area in accordance with Section 903.3.

37.15 **Exceptions:**

37.16 1. A Group R-1, R-2, or combined R-1 and R-2 building where less than 4,500  
37.17 square feet of the building area consists of R-1 fire area, R-2 fire area, or a  
37.18 combination of R-1 and R-2 fire areas.

37.19 2. A Group R-3 dwelling unit with less than 4,500 square feet of building area,  
37.20 excluding garages, unless the Group R-3 dwelling unit contains a state licensed  
37.21 care facility that is required to be provided with an automatic sprinkler system as  
37.22 a condition of the license.

37.23 3. An automatic fire sprinkler system shall not be required if additions or alterations  
37.24 are made to existing Group R-3 or R-4 buildings or a portion thereof that do not

38.1 have an automatic sprinkler system installed, unless required by a Minnesota  
38.2 license.

38.3 4. Group R-1 multiunit resort buildings, as defined in Minnesota Statutes, section  
38.4 157.15, and licensed by the Department of Health, with less than 9,250 square feet  
38.5 of building area.

38.6 **903.2.8.1 Group R-3.** Where required by Section 903.2.8, Group R-3 occupancies  
38.7 shall be provided with an automatic sprinkler system that complies with Section  
38.8 903.3.1.1, 903.3.1.2, or 903.3.1.3.

38.9 **903.2.8.2 Group R-4.** Where required by Section 903.2.8, Group R-4 occupancies  
38.10 shall be provided with an automatic sprinkler system that complies with Section  
38.11 903.3.1.1 or 903.3.1.2.

38.12 **Exception:** Group R-4 Condition 1 occupancies equipped with an automatic  
38.13 sprinkler system that complies with Section 903.3.1.3.

38.14 **903.2.8.3 State licensed facilities.** Group R-3 or R-4 occupancies containing  
38.15 facilities licensed by Minnesota shall be provided with an automatic sprinkler  
38.16 system as required by the applicable licensing provisions or this section, whichever  
38.17 is more restrictive.

38.18 **903.2.8.4 Residential hospice facilities.** An automatic sprinkler system installed  
38.19 in accordance with NFPA 13 shall be provided throughout all buildings with a  
38.20 Group R-3 or R-4 fire area containing a residential hospice facility.

38.21 **Exception:** An automatic sprinkler system installed in accordance with Section  
38.22 903.3.1.2 or 903.3.1.3 is permitted if all habitable spaces and closets are  
38.23 protected by an automatic sprinkler system.

38.24 Subp. 1b. **IFC section 903.2.9.** IFC section 903.2.9 is amended and a subsection  
38.25 added to read as follows:

39.1 **903.2.9 Group S-1.** An automatic sprinkler system shall be provided throughout all  
39.2 buildings containing a Group S-1 occupancy where one of the following conditions  
39.3 exists:

39.4 1. A Group S-1 fire area exceeds 12,000 square feet (1,115 m<sup>2</sup>).

39.5 2. A Group S-1 fire area is located more than three stories above grade plane.

39.6 3. The combined area of all Group S-1 fire areas on all floors, including any  
39.7 mezzanines, exceeds 24,000 square feet (2,230 m<sup>2</sup>).

39.8 4. Group S-1 fire area is used for the storage of commercial motor vehicles where  
39.9 the fire area exceeds 5,000 square feet (464 m<sup>2</sup>).

39.10 (Subsections 903.2.9.1 and 903.2.9.2 remain unchanged.)

39.11 **903.2.9.3 Group S-1 upholstered furniture and mattresses.** An automatic  
39.12 sprinkler system shall be provided throughout a Group S-1 fire area used for the  
39.13 storage of upholstered furniture or mattresses that exceeds 2,500 square feet (232  
39.14 m<sup>2</sup>).

39.15 **Exception:** Self-service storage facilities (mini-storage) no greater than one  
39.16 story above grade plane where all storage spaces can be accessed directly  
39.17 from the exterior.

39.18 Subp. 2. **IFC section 903.2.11.4.** IFC section 903.2.11.4 is amended by deleting the  
39.19 section in its entirety and replacing it with the following:

39.20 **903.2.11.4 Fire protection for exhaust systems.** Where required by the Minnesota  
39.21 Mechanical Code, automatic sprinklers shall be provided in ducts having a  
39.22 cross-sectional area of 75 square inches (480 cm<sup>2</sup>) or more and that: (1) convey  
39.23 flammable or combustible components; or (2) have the potential for combustible  
39.24 residue buildup on the inside. When sprinkler protection is installed, means shall

40.1 be provided to prevent water accumulation in the duct and the flow of water back  
40.2 to a process where the application of water constitutes a serious life or fire hazard.

40.3 Subp. 2a. **IFC section 903.3.1.** IFC section 903.3.1 is amended as follows:

40.4 **903.3.1 Standards.** Sprinkler systems shall be designed and installed in accordance  
40.5 with Section 903.3.1.1, unless otherwise permitted by Sections 903.3.1.2 and 903.3.1.3  
40.6 and other chapters of this code, as applicable. Automatic sprinkler systems installed in  
40.7 state-licensed or state-registered facilities shall be installed in accordance with this  
40.8 code and the applicable licensing or registration provisions of other Minnesota state  
40.9 agencies.

40.10 Subp. 2b. **IFC section 903.3.1.1.1.** IFC section 903.3.1.1.1 is amended by adding a  
40.11 new item 7 to the list of exempt locations to read as follows:

40.12 7. Sprinkler protection shall not be installed in elevator shafts, elevator  
40.13 pits, or elevator machine rooms.

40.14 **Exception to #7:** Health care occupancies that: (1) are required to  
40.15 have NFPA 13 systems; (2) are licensed by the Minnesota  
40.16 Department of Health; and (3) participate in Title XVIII (Medicare)  
40.17 or Title XIX (Medicaid) of the Social Security Act.

40.18 Subp. 3. **IFC Section 903.3.1.2.1.** IFC Section 903.3.1.2.1 is amended to read:

40.19 **903.3.1.2.1 Protection of decks and balconies.** Decks and balconies greater than  
40.20 6 feet (1.8 m) above grade, greater than 4 feet (1.2 m) deep, with an area greater  
40.21 than 40 square feet (3.72 m<sup>2</sup>), and attached to new Group R-1 or R-2 occupancy  
40.22 buildings protected in accordance with Section 903.3.1.2 that are three or more  
40.23 stories in height and with 30 or more units, shall be protected with sprinklers under  
40.24 the balcony or deck framing and under attic eaves when both of the following two  
40.25 conditions exist:



41.1 1. the building has an unsprinklered attic; and

41.2 2. the building has combustible siding.

41.3 Subp. 4. **IFC section 903.3.1.** IFC section 903.3.1 is amended by adding sections to  
41.4 read:

41.5 **903.3.1.4 Buildings of undetermined use.** When fire sprinkler systems are required  
41.6 in buildings of undetermined use, they shall be designed and installed to have a  
41.7 sprinkler density of not less than that required for an Ordinary Hazard Group 2  
41.8 use with a minimum design area of 3,000 square feet (279 m<sup>2</sup>). Use is considered  
41.9 undetermined if not specified at the time a permit is issued. Where a subsequent  
41.10 occupancy requires a system with greater capability, it shall be the responsibility  
41.11 of the owner to upgrade the system to the required density for the new hazard, use  
41.12 or occupancy.

41.13 **903.3.1.5 Special sprinkler design criteria.** When fire sprinkler systems are  
41.14 required in areas containing the following uses, they shall be designed and installed  
41.15 to have a sprinkler density of not less than that required for an Ordinary Hazard  
41.16 Group 2 use:

41.17 1. chemistry labs; or

41.18 2. wrestling rooms or gymnastic rooms.

41.19 **903.3.1.6 Modifications to sprinkler standards.** The sprinkler installation  
41.20 standards as referenced in Sections 903.3.1.1, 903.3.1.2, and 903.3.1.3 are modified  
41.21 as follows:

41.22 **903.3.1.6.1 Hose stream requirements.** When, in the opinion of the fire  
41.23 chief, an adequate alternate water supply for hose stream requirements is  
41.24 provided or available, the water supply requirements for the sprinkler system  
41.25 hose stream demands may be modified.

42.1 **903.3.1.6.2 Elevator shafts and equipment.** Sprinkler protection shall not  
42.2 be installed in elevator shafts, elevator pits, or elevator machine rooms.

42.3 **Exception:** Health care occupancies that: (1) are required to have NFPA  
42.4 13 systems; (2) are licensed by the Minnesota Department of Health; and  
42.5 (3) participate in Title XVIII (Medicare) or Title XIX (Medicaid) of the  
42.6 Social Security Act.

42.7 **903.3.1.6.3 Swimming pools.** Sprinkler protection need not be provided on  
42.8 the ceiling of rooms containing swimming pools when the pool area is used  
42.9 exclusively for swimming purposes and when sprinklers are provided around  
42.10 the perimeter of the pool area.

42.11 **903.3.1.6.4 NFPA 13 modifications.** Sections 8.15.8.2, 8.17.2.5, and 23.2.1.1  
42.12 of NFPA 13 are amended to read:

42.13 **8.15.8.2 Linen closets and pantries.** Sprinklers are not required in linen  
42.14 closets and pantries within dwelling units that meet the following conditions:

- 42.15 1. the area of the space does not exceed 12 square feet (1.1 m<sup>2</sup>);
- 42.16 2. the least dimension does not exceed 3 feet (0.9 m);
- 42.17 3. the walls and materials are surfaced with noncombustible or limited  
42.18 combustible materials; and
- 42.19 4. the closet or pantry contains no mechanical equipment, electrical equipment,  
42.20 or electrical appliances.

42.21 **8.17.2.5 Valves.**

42.22 **8.17.2.5.1 Fire department connection.** A listed check valve shall be installed  
42.23 in each fire department connection.

43.1 **8.17.2.5.1.1 Maximum pipe length.** There shall be a maximum of 25  
43.2 feet (7.6 m) of pipe between the check valve and the fire department  
43.3 connection inlet.

43.4 **Exception:** This maximum shall not apply to the check valve serving  
43.5 a free-standing fire department connection.

43.6 **8.17.2.5.1.2 Check valve location.** The check valve shall be located to  
43.7 minimize freezing potential.

43.8 **23.2.1.1 Water supply capacity information.** Where a waterflow test is used for  
43.9 the purposes of system design, the test shall be conducted no more than 36 months  
43.10 prior to the working plan submittal.

43.11 **903.3.1.6.5 Vestibules.** Sprinkler protection is not required in vestibules that  
43.12 meet all of the following conditions:

- 43.13 1. the vestibule is 225 square feet or less in floor area;
- 43.14 2. the vestibule is of noncombustible or limited combustible construction;
- 43.15 3. the vestibule has glazing allowing vision into vestibule;
- 43.16 4. the vestibule's only purpose is ingress and egress; and
- 43.17 5. the vestibule contains no fueled equipment, flammable or combustible  
43.18 liquids, or furniture. Incidental combustible storage in the vestibule is  
43.19 limited to five cubic feet of material.

43.20 **903.3.1.6.6 NFPA 13D sprinkler systems.** Automatic sprinkler systems  
43.21 installed in townhouses and Groups R-3 and R-4, Condition 1 occupancies  
43.22 shall be permitted to be installed throughout in accordance with NFPA 13D.  
43.23 Attached garages in townhouse buildings are required to have one dry head

44.1 sprinkler located within 5 linear feet of each door installed in the common  
44.2 wall separating the dwelling unit and the attached garage.

44.3 Subp. 4a. **IFC section 903.3.9.** IFC section 903.3 is amended by adding a section to  
44.4 read:

44.5 **903.3.9 Sprinkler system design pressure safety margin.** For new sprinkler systems  
44.6 or additions to existing sprinkler systems, the available water supply shall exceed the  
44.7 sprinkler system demand, including the hose stream requirements, by 5 psi (0.34 bars)  
44.8 or more.

44.9 **Exception:** NFPA 13D systems installed in accordance with Section 903.3.1.3.

44.10 Subp. 5. [See repealer.]

44.11 *[For text of subpart 6, see Minnesota Rules]*

44.12 Subp. 6a. **IFC section 903.4.2.** IFC section 903.4.2 is amended to read as follows:

44.13 **903.4.2 Alarms.** An approved audible alarm and an approved visible alarm are required  
44.14 on the exterior of the building in an approved location. These alarms can be part of the  
44.15 same device or separate devices. The alarms shall be connected to each automatic  
44.16 sprinkler system. The alarms shall be located above the fire department connection and  
44.17 visible from the street or nearest point of fire department vehicle access, or as otherwise  
44.18 approved by the fire code official. Such sprinkler water-flow alarms shall be activated  
44.19 by water flow equivalent to the flow of a single sprinkler of the smallest orifice size  
44.20 installed in the system. Where a fire alarm system is installed, actuation of the automatic  
44.21 sprinkler system shall actuate the building fire alarm system.

44.22 *[For text of subparts 7 and 8, see Minnesota Rules]*

45.1 **7511.0904 SECTION 904, ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING**  
45.2 **SYSTEMS.**

45.3 Subpart 1. **IFC section 904.1.1.** IFC section 904.1.1 is amended to read:

45.4 **904.1.1 Certification of service personnel for fire-extinguishing equipment.** Service  
45.5 personnel installing, providing, or conducting maintenance on automatic  
45.6 fire-extinguishing systems, other than automatic sprinkler systems, shall possess a valid  
45.7 certificate issued by an approved organization for the type of system and work  
45.8 performed.

45.9 Subp. 2. **IFC section 904.13.** IFC section 904.13, item 3, is amended to read as follows:

45.10 3. In Group R-2 congregate living facilities where domestic cooking facilities are  
45.11 installed in accordance with Section 420.10 of the Minnesota Building Code.

45.12 **7511.0905 SECTION 905, STANDPIPE SYSTEMS.**

45.13 Subpart 1. **IFC section 905.2.** IFC section 905.2 is amended by adding subsections  
45.14 to read:

45.15 **905.2.1 Modification to standards.** In buildings other than high rise that are equipped  
45.16 throughout with an automatic sprinkler system installed in accordance with Section  
45.17 903.3.1.1 or 903.3.1.2, and a Class I standpipe system, the pipe shall be sized to meet  
45.18 the pressure and flow requirements for the sprinkler system. Such systems shall comply  
45.19 with Sections 905.2.1.1 through 905.2.1.4.

45.20 **905.2.1.1 System pipe size.** Pipe sizes for combined portions of the sprinkler and  
45.21 standpipe systems shall not be less than 4 inches (101.6 mm).

45.22 **905.2.1.2 System design flow and pressure.** The standpipe shall provide a  
45.23 minimum pressure of 100 psi (6.9 bar) at the uppermost outlet and a minimum  
45.24 flow rate of 250 gpm (946 L/min.) at the two hydraulically most remote hose  
45.25 connections on the standpipe when the standpipe system is supported through the

46.1 fire department connection. The hydraulic calculations shall be performed between  
46.2 the hydraulically most demanding standpipe hose connection and the fire  
46.3 department connection.

46.4 **905.2.1.3 Design pressure.** A maximum design pressure of 150 psi (10.3 bars) is  
46.5 permitted at the fire department connection when the standpipe is supported by  
46.6 local fire department apparatus.

46.7 **905.2.1.4 Automatic sprinkler system demand.** The automatic sprinkler system  
46.8 demand, including the inside and outside hose stream demands from NFPA 13, is  
46.9 to be provided by the municipal water supply system without requiring fire  
46.10 department pumping into the system.

46.11 Subp.1a. **IFC section 905.3.** IFC section 905.3 is amended to read as follows:

46.12 **905.3 Required installations.** Standpipe systems shall be installed where required by  
46.13 Sections 905.3.1 through 905.3.10. Standpipe systems are allowed to be combined with  
46.14 automatic sprinkler systems.

46.15 **Exception:** Standpipe systems are not required in Group R-3 occupancies.

46.16 Subp. 1b. **IFC section 905.3.1.** IFC section 905.3.1 is amended to read as follows:

46.17 **905.3.1 Height.** Class I wet standpipe systems shall be installed throughout buildings  
46.18 where any of the following conditions exist:

- 46.19 1. Four or more stories are above or below grade plane.
- 46.20 2. The floor level of the highest story is located more than 30 feet (9,144 mm)  
46.21 above the lowest level of the fire department vehicle access.
- 46.22 3. The floor level of the lowest story is located more than 30 feet (9,144 mm)  
46.23 below the highest level of fire department vehicle access.

47.1           **Exception:** Class I manual, automatic, or semiautomatic dry standpipes are  
47.2 allowed in buildings that are subject to freezing temperatures, provided that  
47.3 the hose connections are located as required for Class II standpipes in  
47.4 accordance with Section 905.5.

47.5           **905.3.1.1 Lowest level.** In determining the lowest level of fire department vehicle  
47.6 access, the following areas should not be considered:

- 47.7           1. recessed loading docks for four vehicles or less; and
- 47.8           2. areas where topography makes access from the fire department vehicle to  
47.9 the building impractical or impossible.

47.10          Subp. 2. **IFC section 905.3.2.1.** IFC section 905.3.2 is amended by adding a subsection  
47.11 to read:

47.12           **905.3.2.1 Group A exhibition.** Class I automatic standpipes shall be provided in  
47.13 Group A-3 occupancies where the floor area used for exhibition exceeds 12,000  
47.14 square feet (1,115 m<sup>2</sup>).

47.15          Subp. 3. **IFC sections 905.3.4, 905.3.4.1.** IFC sections 905.3.4 and 905.3.4.1 are  
47.16 deleted and replaced with the following:

47.17           **905.3.4 Stages.** Stages are not required to be equipped with standpipe systems.

47.18          Subp. 3a. **IFC section 905.3.6.** IFC section 905.3.6 is amended to read as follows:

47.19           **905.3.6 Helistops and heliports.** Each building with a rooftop helistop or heliport shall  
47.20 be equipped with a Class I standpipe system extended to the roof level on which the  
47.21 helistop or heliport is located in accordance with Section 2007.5.

47.22          Subp. 4. **IFC section 905.3.** IFC section 905.3 is amended by adding sections to read:

47.23           **905.3.9 Detention and correctional facilities.** Regardless of the height of the building  
47.24 or number of stories, every building in a Group I-3 detention and correctional facility,

48.1 where 50 or more persons are under restraint or security under Occupancy Condition  
48.2 3, 4, or 5, shall be provided with a Class I automatic wet or semiautomatic dry standpipe  
48.3 system.

48.4 **Exception:** Combined systems meeting the provisions of Section 905.2 may be  
48.5 used.

48.6 When acceptable to the fire chief, fire department connections may be located inside  
48.7 all security walls or fences on the property.

48.8 Standpipes shall be located in accordance with Section 905. In addition, standpipes  
48.9 shall be located so that it will not be necessary to extend hose lines through smoke  
48.10 barriers. When located in cell complexes, standpipes may be located in secured pipe  
48.11 chases.

48.12 **905.3.10 Group R-2 occupancies; small hose connections.** Small hose connections  
48.13 shall be installed in Group R-2 occupancies three or more stories in height where any  
48.14 portion of the building's interior area is more than 200 feet (60,960 mm) of travel,  
48.15 vertically or horizontally, from the nearest point of fire department vehicle access.  
48.16 Small hose connections required by this section shall comply with the following:

48.17 1. Supply one 1-1/2-inch (38 mm) fire hose valve at each floor level or intermediate  
48.18 stair landing in each required and enclosed stairway.

48.19 2. The water for the small hose connections shall be supplied separately from the  
48.20 sprinkler system protecting that area so that the small hose connections are still  
48.21 functional if the water supply to the sprinkler system is shut down following fire  
48.22 extinguishment.

48.23 3. The piping shall be a minimum of 1-1/2-inch (38 mm).

48.24 4. The water shall be supplied from a wet-pipe sprinkler system only.



49.1 5. The piping shall be comprised of metallic piping and hose valve connections.

49.2 Permanent signage shall be required which reads "Fire Department Overhaul Hose  
49.3 Connection" at each connection in the building. If a separate standpipe system is  
49.4 provided, a sign shall also be provided at the exterior fire department connection.

49.5 Subp. 5. **IFC section 905.5.1.** IFC section 905.5.1 is deleted.

49.6 Subp. 6. **IFC section 905.6.** IFC section 905.6 and all subsections are deleted in their  
49.7 entirety.

49.8 **7511.0906 SECTION 906, PORTABLE FIRE EXTINGUISHERS.**

49.9 Subpart 1. **IFC section 906.1.** IFC section 906.1 is amended to read:

49.10 **906.1 Where required.** Portable fire extinguishers shall be installed in the following  
49.11 locations:

49.12 1. In all Group A, B, E, F, H, I, M, R-1, R-2, R-4, and S occupancies.

49.13 **Exception:** In Group E occupancies equipped throughout with an approved  
49.14 automatic sprinkler system installed in accordance with Section 903.3.1.1, fire  
49.15 extinguishers shall be required only in laundry and soiled linen rooms, boiler and  
49.16 furnace rooms, mechanical and electrical rooms, garages, stages, projection booths,  
49.17 shops, laboratories, kitchens, locker rooms, custodial closets, trash-collection  
49.18 rooms, storage rooms greater than 100 square feet, and similar areas.

49.19 2. Within 30 feet (9,144 mm) distance of travel from commercial cooking equipment  
49.20 and from domestic cooking equipment in Group I-1; I-2, Condition 1; and R-2  
49.21 congregate living facilities.

49.22 3. In areas where flammable or combustible liquids are stored, used, or dispensed.

49.23 4. On each floor of structures under construction, except Group R-3 occupancies, in  
49.24 accordance with Section 3315.1.

- 50.1 5. Where required by the sections indicated in Table 906.1.
- 50.2 6. Special-hazard areas, including but not limited to laboratories, computer rooms and
- 50.3 generator rooms, where required by the fire code official.
- 50.4 7. R-3 occupancies used as family day care, group family day care, foster care, adult
- 50.5 family day services, and residential hospices.

50.6 *[For text of subparts 2 and 3, see Minnesota Rules]*

50.7 **7511.0907 SECTION 907, FIRE ALARM AND DETECTION SYSTEMS.**

50.8 Subpart 1. [Repealed, 40 SR 1437]

50.9 Subp. 1a. **IFC section 907.1.2.** IFC section 907.1.2 is amended to read as follows:

50.10 **907.1.2 Fire alarm shop drawings.** Shop drawings for fire alarm systems shall be

50.11 submitted for review and approval before system installation, and shall include all of

50.12 the following where applicable to the system being installed:

- 50.13 1. A floor plan that indicates the use of all rooms.
- 50.14 2. Locations of alarm-initiating devices.
- 50.15 3. Locations of alarm notification appliances, including candela ratings for visible
- 50.16 alarm notification appliances.
- 50.17 4. Design minimum audibility level for occupant notification.
- 50.18 5. Maximum sound pressure.
- 50.19 6. Location of fire alarm control unit, transponders, and notification power supplies.
- 50.20 7. Annunciators.
- 50.21 8. Power connections.
- 50.22 9. Battery calculations.

- 51.1 10. Conductor type and size.
- 51.2 11. Voltage drop calculations.
- 51.3 12. Manufacturers' data sheets indicating model numbers and listing information
- 51.4 for equipment, devices, and materials.
- 51.5 13. Details of ceiling height and construction.
- 51.6 14. The interface of fire safety control functions.
- 51.7 15. Classification of the supervising station.

51.8 Subp. 2. **IFC section 907.2.** IFC section 907.2 is amended to read:

51.9 **907.2 Where required in new buildings and occupancies.** An approved manual, automatic,

51.10 or manual and automatic fire alarm system shall be provided in new buildings and

51.11 occupancies in accordance with Sections 907.2.1 through 907.2.24.2 and NFPA 72. For the

51.12 purposes of Sections 907.2.1 through 907.2.24.2, fire barrier walls or fire walls shall not

51.13 define separate buildings. In buildings containing mixed occupancies that are designed as

51.14 separated uses (see Section 102.14), fire alarm and detection systems need only be installed

51.15 in those occupancies where required by this section.

51.16 **Exception:** In areas protected by an approved, supervised automatic sprinkler system

51.17 installed in accordance with Section 903.3.1.1 or 903.3.1.2, automatic fire detectors

51.18 required by Section 907.2 need not be provided. Where Section 907.2 requires smoke

51.19 detectors, such protection shall be installed.

51.20 Subp. 3. **IFC section 907.2.1.** IFC section 907.2.1 is amended, and sections added,

51.21 to read:

51.22 **907.2.1 Group A, general.** A fire alarm system shall be installed in accordance with

51.23 Sections 907.2.1 through 907.2.1.3 in Group A occupancies having an occupant load

51.24 of 300 or more.

52.1 **Exceptions:**

52.2 1. Assembly areas used solely for worship purposes.

52.3 2. A fire alarm system is not required in buildings with an occupant load less than  
52.4 1,000 when an approved automatic fire sprinkler system is installed throughout  
52.5 the building.

52.6 3. Assembly uses located inside Group E occupancies shall have alarms as required  
52.7 for the Group E occupancy.

52.8 4. Group A-5 occupancies.

52.9 **907.2.1.1 Initiation.** Initiation of the fire alarm system shall be by automatic  
52.10 means. Approved automatic fire detectors shall be installed in laundry rooms,  
52.11 boiler and furnace rooms, mechanical and electrical rooms, shops, kitchens,  
52.12 trash-collection rooms, storage rooms, and similar areas.

52.13 **907.2.1.2 Notification.** The required fire alarm system shall activate an audible  
52.14 and visible notification appliance at a constantly attended location within the  
52.15 building for the purposes of initiating emergency action. A presignal feature and  
52.16 positive alarm sequencing in accordance with NFPA 72 are permitted.

52.17 Occupant notification shall be by means of voice announcements, either live or  
52.18 prerecorded, initiated by the person in the constantly attended location.

52.19 **Exception:** Where no constantly attended location exists, an automatic fire  
52.20 alarm system providing a general evacuation signal or an approved emergency  
52.21 voice/alarm communications system is permitted.

52.22 **907.2.1.3 System initiation in Group A occupancies with occupant load of**  
52.23 **1,000 or more.** Activation of the fire alarm system in Group A occupancies with  
52.24 an occupant load of 1,000 or more shall immediately initiate an approved

53.1 prerecorded message announcement using an approved emergency voice/alarm  
53.2 communications system in accordance with NFPA 72.

53.3 **Exception:** Where approved, the prerecorded announcement is allowed to be  
53.4 manually deactivated for a period of time, not to exceed three minutes, for  
53.5 the sole purpose of allowing a live voice announcement from an approved,  
53.6 constantly attended location.

53.7 *[For text of subpart 4, see Minnesota Rules]*

53.8 Subp. 5. **IFC section 907.2.3.** IFC section 907.2.3 is amended, and sections added,  
53.9 to read:

53.10 **907.2.3 Group E, general.** A fire alarm system shall be installed in accordance with  
53.11 Sections 907.2.3 through 907.2.3.3 in Group E occupancies having an occupant load  
53.12 of 50 or more.

53.13 **907.2.3.1 Initiation.** Initiation of the fire alarm system shall be by manual and  
53.14 automatic means. Approved automatic fire detectors shall be provided in laundry  
53.15 rooms, boiler and furnace rooms, mechanical and electrical rooms, shops,  
53.16 laboratories, kitchens, locker rooms, custodial closets, trash-collection rooms,  
53.17 storage rooms, lounges, and similar areas.

53.18 **Exception:** In buildings protected throughout by an approved automatic  
53.19 sprinkler system or having an approved fire alarm system equipped with  
53.20 corridor smoke detection, manual fire alarm boxes are only required in any  
53.21 main office and in any custodial area.

53.22 **907.2.3.2 Travel through adjoining rooms.** Where the only means of egress  
53.23 travel from an interior room or rooms having an aggregate occupant load of more  
53.24 than 10 occupants is through an adjoining or intervening room, automatic smoke

54.1 detectors shall be installed throughout the common atmosphere through which the  
54.2 path of egress travel passes.

54.3 **Exception:** In buildings that are protected throughout by an approved  
54.4 automatic sprinkler system installed in accordance with Section 903.3.1.1,  
54.5 smoke detectors are not required in intervening or adjoining rooms.

54.6 **907.2.3.3 Notification.** Activation of the fire alarm system or automatic sprinkler  
54.7 system shall initiate an emergency voice/alarm communication system meeting  
54.8 the requirements of Section 907.5.2.2 and installed in accordance with Section  
54.9 907.6.

54.10 **Exception:** An emergency voice/alarm communication system is not required  
54.11 in Group E occupancies with occupant loads of 100 or less, as long as the  
54.12 activation of the fire alarm system or automatic sprinkler system in those  
54.13 occupancies initiates a general evacuation signal.

54.14 *[For text of subpart 6, see Minnesota Rules]*

54.15 Subp. 7. **IFC section 907.2.5.** IFC section 907.2.5 is amended, and sections added,  
54.16 to read:

54.17 **907.2.5 Group H, general.** A fire alarm system shall be installed in accordance with  
54.18 Sections 907.2.5 through 907.2.5.2 in Group H-5 occupancies, occupancies used for  
54.19 the manufacture of organic coatings and, when required by Chapters 60, 62, and 63,  
54.20 at the following locations:

- 54.21 1. rooms or areas where highly toxic compressed gases are stored or used;
- 54.22 2. rooms or areas where Class I, II, or III organic peroxides are stored; and
- 54.23 3. liquid and solid oxidizer storage areas.

55.1           **907.2.5.1 Initiation.** Initiation of the fire alarm system in Group H-5 occupancies  
55.2           and in occupancies used for the manufacture of organic coatings shall be by manual  
55.3           means. Initiation of fire alarm systems installed for highly toxic gases, organic  
55.4           peroxides, and oxidizers shall be by automatic means, as specified in Chapters 60,  
55.5           62, and 63.

55.6           **907.2.5.2 Notification.** Activation of the fire alarm system in Group H-5  
55.7           occupancies and in occupancies used for the manufacture of organic coatings shall  
55.8           initiate a general evacuation signal. Activation of the automatic detection systems  
55.9           installed for highly toxic gases, organic peroxides, and oxidizers shall sound a  
55.10          local alarm.

55.11          Subp. 8. **IFC section 907.2.6.** IFC section 907.2.6 and all subsections are deleted in  
55.12          their entirety and replaced with the following:

55.13          **907.2.6 Group I, general.** A fire alarm system shall be installed in accordance with  
55.14          Sections 907.2.6.1 through 907.2.6.4.2 in Group I occupancies.

55.15          **907.2.6.1 Group I-1 occupancies, general.** A manual and automatic fire alarm  
55.16          system shall be installed in Group I-1 occupancies in accordance with Sections  
55.17          907.2.6.1.1 through 907.2.6.1.3.

55.18                 **907.2.6.1.1 Initiation.** Initiation of the fire alarm system shall be by manual  
55.19                 and automatic means. Approved automatic fire detectors shall be installed in  
55.20                 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and  
55.21                 electrical rooms, shops, laboratories, kitchens, locker rooms, custodial closets,  
55.22                 trash-collection rooms, storage rooms, lounges, gift shops, and similar areas.  
55.23                 Automatic smoke detectors shall be provided in corridors and areas that are  
55.24                 open to corridors.

56.1                   **Exception:** Manual fire alarm boxes in patient sleeping areas of Group  
56.2 I-1 occupancies shall not be required at exits if located at all nurses'  
56.3 stations or other constantly attended staff locations, provided such fire  
56.4 alarm boxes are visible and continuously accessible and provided that  
56.5 travel distances required by Section 907.4.2 are not exceeded.

56.6                   **907.2.6.1.2 Notification.** Activation of the fire alarm system or automatic  
56.7 sprinkler system shall initiate a general evacuation signal. In addition,  
56.8 activation of the fire alarm system shall immediately transmit an alarm to an  
56.9 approved central station or remote station service.

56.10                   **Exceptions:**

56.11                   1. In lieu of audible notification appliances, visible notification appliances  
56.12 shall be allowed to be used in critical care areas.

56.13                   2. Where occupants are incapable of evacuating themselves because of  
56.14 age, physical/mental disabilities or physical restraint, only the attendants  
56.15 or other personnel required to evacuate occupants from a zone, area,  
56.16 floor, or building shall be required to be notified. This notification shall  
56.17 include means to readily identify the zone, area, floor, or building in need  
56.18 of evacuation.

56.19                   **907.2.6.1.3 Sleeping room smoke alarms.** Smoke alarms shall be installed  
56.20 in resident sleeping rooms in accordance with Section 907.2.10.2.

56.21                   **907.2.6.2 Group I-2 occupancies, general.** A manual and automatic fire alarm  
56.22 system shall be installed in Group I-2 occupancies in accordance with Sections  
56.23 907.2.6.2.1 through 907.2.6.2.4.

56.24                   **907.2.6.2.1 Initiation.** Initiation of the fire alarm system shall be by manual  
56.25 and automatic means. Approved automatic fire detectors shall be installed in



57.1 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and  
57.2 electrical rooms, shops, laboratories, kitchens, locker rooms, custodial closets,  
57.3 trash-collection rooms, storage rooms, lounges, gift shops, and similar areas.  
57.4 Hospitals, nursing homes (both intermediate care and skilled nursing facilities),  
57.5 board and care homes, and detoxification facilities shall be provided with  
57.6 smoke detection throughout the corridor and areas open to the corridors, other  
57.7 than nurse's stations.

57.8 **Exceptions:**

57.9 1. Corridor smoke detection shall not be required where the sleeping  
57.10 room smoke detectors required in Section 907.2.6.2.3 are connected to  
57.11 an approved fire alarm system and activate a general evacuation signal.

57.12 2. Manual fire alarm boxes shall not be required at exits from patient  
57.13 sleeping areas if located at all nurses' stations or other constantly attended  
57.14 staff locations, provided such fire alarm boxes are visible and continuously  
57.15 accessible and provided that travel distances horizontally on the same  
57.16 floor shall not exceed 200 feet to reach a manual fire alarm box.

57.17 **907.2.6.2.2 Notification.** Activation of the fire alarm system or automatic  
57.18 sprinkler system shall initiate a signal that is distinctive from audible signals  
57.19 used for other purposes in the same building. Such signal is intended to notify  
57.20 staff and need not meet the minimum sound pressure levels required for general  
57.21 evacuation fire alarm notification. In addition, activation of the fire alarm  
57.22 system shall immediately transmit an alarm to an approved central station or  
57.23 remote station service.

57.24 **Exceptions:**

58.1 1. In lieu of audible notification appliances, visible notification appliances  
58.2 shall be allowed to be used in critical care areas.

58.3 2. Where occupants are incapable of evacuating themselves because of  
58.4 age, physical/mental disabilities, or physical restraint, only the attendants  
58.5 or other personnel required to evacuate occupants from a zone, area,  
58.6 floor, or building shall be required to be notified. This notification shall  
58.7 include means to readily identify the zone, area, floor, or building in need  
58.8 of evacuation.

58.9 3. Where total evacuation of occupants is impractical due to building  
58.10 configuration, only the occupants in the affected zones shall be initially  
58.11 notified. Provisions shall be made to selectively notify occupants in other  
58.12 zones to afford orderly evacuation of the entire building.

58.13 **907.2.6.2.3 Patient room smoke detectors.** Smoke detectors shall be installed  
58.14 in patient sleeping rooms of hospitals and nursing homes. Such detector's  
58.15 primary power shall be other than battery power. Actuation of such detectors  
58.16 shall cause a visual display on the corridor side of the room where the detector  
58.17 is located and shall cause a distinct audible and visual alarm at the nurse's  
58.18 station attending the room. Such detectors may be part of the facility's fire  
58.19 alarm system, nurse's call system, or a standalone system.

58.20 **907.2.6.2.3.1 Integral smoke detectors for automatic door-closing**  
58.21 **devices.** Integral smoke detectors for automatic door-closing devices on  
58.22 sleeping room doors can be installed only if they also meet all of the  
58.23 requirements in Section 907.2.6.2.3.

58.24 **907.2.6.2.4 Sleeping room smoke alarms.** For Group I-2 facilities, other  
58.25 than hospitals and nursing homes, single station smoke alarms shall be installed  
58.26 in resident sleeping rooms.

59.1 **907.2.6.3 Group I-3 occupancies, general.** A manual and automatic fire alarm  
59.2 system shall be installed in Group I-3 occupancies in accordance with Sections  
59.3 907.2.6.3.1 through 907.2.6.3.4.

59.4 **907.2.6.3.1 Initiation.** Initiation of the fire alarm system shall be by manual  
59.5 and automatic means. Approved automatic fire detectors shall be installed in  
59.6 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and  
59.7 electrical rooms, shops, laboratories, kitchens, locker rooms, custodial closets,  
59.8 trash-collection rooms, storage rooms, lounges, gift shops, commissaries, and  
59.9 similar areas. Actuation of an automatic fire-extinguishing system, a manual  
59.10 fire alarm box or a fire detector shall initiate an approved fire alarm signal,  
59.11 which automatically notifies staff. Presignal systems shall not be used.

59.12 **907.2.6.3.2 Manual fire alarm boxes.** Manual fire alarm boxes are not  
59.13 required to be located in accordance with Section 907.4 where the fire alarm  
59.14 boxes are provided at staff-attended locations having direct supervision over  
59.15 areas where manual fire alarm boxes have been omitted.

59.16 Manual fire alarm boxes are permitted to be locked in areas occupied by detainees,  
59.17 provided that staff members are present within the subject area and have keys  
59.18 readily available to operate the manual fire alarm boxes.

59.19 **907.2.6.3.3 Smoke detectors.** An approved automatic smoke-detection system  
59.20 shall be installed throughout resident housing areas, including sleeping areas  
59.21 and contiguous day rooms, group activity spaces, and other common spaces  
59.22 normally accessible to residents.

59.23 **Exceptions:**

59.24 1. Other approved smoke-detection arrangements providing equivalent  
59.25 protection, such as placing detectors in exhaust ducts from cells or behind

60.1 protective grills, are allowed when necessary to prevent damage or  
60.2 tampering.

60.3 2. Smoke detectors are not required in sleeping rooms with four or fewer  
60.4 occupants in smoke compartments that are equipped throughout with an  
60.5 approved automatic sprinkler system.

60.6 **907.2.6.3.4 Notification.** Activation of the fire alarm system or automatic  
60.7 sprinkler system shall initiate a signal that is distinctive from audible signals  
60.8 used for other purposes in the same building. Such signal is intended to notify  
60.9 staff and need not meet the minimum sound pressure levels required for general  
60.10 evacuation fire alarm notification. In addition, activation of the fire alarm  
60.11 system shall immediately transmit an alarm to an approved central station or  
60.12 remote station service.

60.13 **907.2.6.4 Group I-4 occupancies, general.** A manual and automatic fire alarm  
60.14 system shall be installed in Group I-4 occupancies in accordance with Sections  
60.15 907.2.6.4.1 through 907.2.6.4.2.

60.16 **907.2.6.4.1 Initiation.** Initiation of the fire alarm system shall be by manual  
60.17 and automatic means. Approved automatic fire detectors shall be installed in  
60.18 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and  
60.19 electrical rooms, shops, laboratories, kitchens, locker rooms, custodial closets,  
60.20 trash-collection rooms, storage rooms, lounges, gift shops, and similar areas.  
60.21 Automatic smoke detectors shall be provided in corridors and areas that are  
60.22 open to corridors.

60.23 **907.2.6.4.2 Notification.** Activation of the fire alarm system or automatic  
60.24 sprinkler system shall initiate a general evacuation signal. In addition,  
60.25 activation of the fire alarm system shall immediately transmit an alarm signal  
60.26 to an approved central station or remote station service.

61.1 *[For text of subpart 9, see Minnesota Rules]*

61.2 Subp. 10. **IFC section 907.2.8.** IFC section 907.2.8 and all subsections are deleted in  
61.3 their entirety and replaced with the following:

61.4 **907.2.8 Group R-1, general.** A fire alarm system shall be installed in accordance with  
61.5 Sections 907.2.8.1 through 907.2.8.3 in Group R-1 occupancies.

61.6 **Exceptions:**

61.7 1. A fire alarm system is not required in buildings not over two stories in height  
61.8 where all individual sleeping units and contiguous attic and crawl spaces are  
61.9 separated from each other and public or common areas by at least one-hour fire  
61.10 partitions and each sleeping unit has an exit directly to a public way, exit court or  
61.11 yard.

61.12 2. Buildings containing five or fewer sleeping units shall be allowed to be equipped  
61.13 with approved multiple-station smoke alarms installed as required for Group R-3  
61.14 occupancies. Installation shall be in accordance with Section 907.2.10.

61.15 **907.2.8.1 Initiation.** Initiation of the fire alarm system shall be by automatic  
61.16 means. Approved automatic fire detectors shall be provided in boiler and furnace  
61.17 rooms, shops, laundry and soiled linen rooms, mechanical and electrical rooms,  
61.18 trash-collection rooms, storage rooms, gift shops, kitchens, locker rooms, custodial  
61.19 closets, lounges, and similar areas. Automatic smoke detectors shall be provided  
61.20 in all common areas and interior corridors serving as required means of egress.

61.21 **Exception:** System fire and smoke detectors are not required when an  
61.22 approved automatic fire-extinguishing system is installed in accordance with  
61.23 Section 903.3.1.1 or 903.3.1.2 and a manual fire alarm box is provided at a  
61.24 constantly attended location. When a constantly attended location is not  
61.25 provided, the manual fire alarm box shall be provided at the main exit.

62.1 **907.2.8.2 Notification.** Activation of the fire alarm system or automatic sprinkler  
62.2 system shall initiate a general evacuation signal.

62.3 **907.2.8.3 Sleeping unit smoke alarms.** Sleeping unit smoke alarms required by  
62.4 Section 907.2.10 shall not be connected to a fire alarm system.

62.5 **Exception:** Connection of such alarms for annunciation only.

62.6 Subp. 11. **IFC section 907.2.9.** IFC section 907.2.9 and all subsections are deleted  
62.7 and replaced with the following:

62.8 **907.2.9 Groups R-2 and R-4, general.** Fire alarm systems and smoke alarms shall be  
62.9 installed in Group R-2 and Group R-4 occupancies. Group R-2 occupancies shall  
62.10 comply with Sections 907.2.9.1 through 907.2.9.1.3. Group R-4 occupancies shall  
62.11 comply with Sections 907.2.9.2 through 907.2.9.2.3.

62.12 **907.2.9.1 Group R-2, general.** A fire alarm system shall be installed in accordance  
62.13 with Sections 907.2.9.1 through 907.2.9.1.2 in Group R-2 occupancies where:

- 62.14 1. any sleeping unit or dwelling unit is located two or more stories above the  
62.15 story containing the lowest level of exit discharge;
- 62.16 2. any sleeping unit or dwelling unit is located more than one story below the  
62.17 highest level of exit discharge of exits serving the dwelling unit;
- 62.18 3. the building contains more than 16 dwelling units or sleeping units; or
- 62.19 4. the building is used as a congregate living facility, dormitory, convent,  
62.20 monastery, fraternity, sorority, group home, or shelter and has an occupant  
62.21 load of 20 or more.

62.22 **Exception:** A fire alarm system is not required in buildings not over two  
62.23 stories in height where all dwelling units and contiguous attic and crawl  
62.24 spaces are separated from each other and public or common areas by at

63.1 least one-hour fire partitions and each dwelling unit has an exit directly  
63.2 to a public way, exit court, or yard.

63.3 **907.2.9.1.1 Initiation.** Initiation of the fire alarm system shall be by automatic  
63.4 means. Automatic fire detectors shall be provided in boiler and furnace rooms,  
63.5 trash-collection rooms, shops, laundry rooms, common kitchens, locker rooms,  
63.6 lounges, mechanical and electrical rooms, storage rooms, and similar areas.  
63.7 Automatic smoke detectors shall be provided in all common areas and interior  
63.8 corridors serving as a required means of egress.

63.9 **Exception:** System fire and smoke detectors are not required when an  
63.10 approved automatic fire-extinguishing system is installed throughout the  
63.11 building.

63.12 **907.2.9.1.2 Notification.** Activation of the fire alarm system or automatic  
63.13 sprinkler system shall initiate a general evacuation signal.

63.14 **907.2.9.1.3 Dwelling unit smoke alarms.** Dwelling unit smoke alarms  
63.15 required by Section 907.2.10 shall not be connected to the building fire alarm  
63.16 system.

63.17 **Exception:** Connection of such alarms for annunciation only.

63.18 **907.2.9.2 Group R-4, general.** A fire alarm system shall be installed in accordance  
63.19 with Sections 907.2.9.2.1 through 907.2.9.2.3 in Group R-4 occupancies.

63.20 **Exceptions:**

63.21 1. A fire alarm system is not required in buildings two stories or less in height  
63.22 where all individual sleeping units and attic and crawl spaces contiguous to  
63.23 those units are separated from each other and public or common areas by at  
63.24 least one-hour fire partitions and each sleeping unit room has an exit directly  
63.25 to a public way, exit court, or yard.

64.1 2. Buildings containing five or fewer sleeping units are permitted to be  
64.2 equipped with approved multiple-station smoke alarms installed as required  
64.3 for Group R-3 occupancies. Installation shall be in accordance with Section  
64.4 907.2.10.

64.5 **907.2.9.2.1 Initiation.** Initiation of the fire alarm system shall be by automatic  
64.6 means. Approved automatic fire detectors shall be provided in boiler and  
64.7 furnace rooms, shops, laundry and soiled linen rooms, mechanical and  
64.8 electrical rooms, common kitchens, lounges, trash-collection rooms, storage  
64.9 rooms, gift shops, locker rooms, and similar areas. Automatic smoke detectors  
64.10 shall be provided in all common areas and interior corridors serving as required  
64.11 means of egress.

64.12 **Exception:** System fire and smoke detectors are not required when an  
64.13 approved automatic fire-extinguishing system is installed in accordance  
64.14 with section 903.3.1.1, 903.3.1.2, or 903.3.1.3.

64.15 **907.2.9.2.2 Notification.** Activation of the fire alarm system or automatic  
64.16 sprinkler system shall initiate a general evacuation signal.

64.17 **907.2.9.2.3 Smoke alarms.** Single and multiple-station smoke alarms shall  
64.18 be installed in accordance with Section 907.2.10.

64.19 Subp. 12. [Repealed, 40 SR 1437]

64.20 Subp. 13. [See repealer.]

64.21 Subp. 14. [Repealed, 40 SR 1437]

64.22 Subp. 15. **IFC section 907.2.** IFC section 907.2 is amended by adding sections to  
64.23 read:



65.1 **907.2.24 Residential hospices.** A fire alarm system shall be installed in accordance  
65.2 with Sections 907.2.24.1 and 907.2.24.2 in residential hospices. When automatic  
65.3 sprinkler systems or automatic fire detectors are installed, such systems or detectors  
65.4 shall be connected to the building fire alarm system.

65.5 **907.2.24.1 Initiation.** Initiation of the fire alarm system shall be by manual and  
65.6 automatic means. Approved automatic fire detectors shall be provided in boiler  
65.7 and furnace rooms, kitchens, laboratories, shops, gift shops, commissaries, laundry  
65.8 and soiled linen rooms, mechanical and electrical rooms, locker rooms, storage  
65.9 rooms, custodial closets, trash-collection rooms, lounges, and similar areas.  
65.10 Automatic smoke detectors shall be provided in sleeping rooms, corridors, and  
65.11 spaces open to the corridors.

65.12 **Exception:** Manual fire alarm boxes are not required at exits if manual fire  
65.13 alarm boxes are located at all nurses' stations or other constantly attended  
65.14 staff locations, provided such fire alarm boxes are visible and continuously  
65.15 accessible and that travel distances required by Section 907.4.2 are not  
65.16 exceeded.

65.17 **907.2.24.2 Notification.** Activation of the fire alarm system or automatic sprinkler  
65.18 system shall initiate a general evacuation signal. In addition, the fire alarm system  
65.19 shall be monitored by an approved central station service in accordance with  
65.20 Section 903.4.1.

65.21 **Exception:** In lieu of audible notification appliances, visible notification  
65.22 appliances shall be allowed to be used in sleeping areas.

65.23 Subp. 15a. **IFC section 907.3.** IFC section 907.3 is amended and sections added to  
65.24 read:

66.1 **907.3 Fire safety functions.** Automatic fire detectors required by Section 907.2 and Chapter  
66.2 11 are to activate notification appliances in accordance with those sections. When automatic  
66.3 fire detectors are installed for other fire safety functions, they shall perform the intended  
66.4 function upon activation. When automatic detectors are installed for fire safety functions  
66.5 and the building has a fire alarm system, the detectors shall activate supervisory signals at  
66.6 the fire alarm control panel or at a constantly attended location. When the building does not  
66.7 have a fire alarm system, the detectors shall activate a visual and audible supervisory signal  
66.8 at an approved location, which shall indicate the source of the signal.

66.9 **907.3.1 Air distribution and air-handling systems.** Smoke detectors installed to shut  
66.10 down the air distribution or air-handling system shall, upon activation, perform the  
66.11 intended function. Air distribution or air-handling equipment that is part of a  
66.12 smoke-control system shall switch to smoke-control mode upon activation of a detector.

66.13 **907.3.1.1 Fire alarm system interface.** Smoke detectors that are installed in air  
66.14 distribution or air-handling systems for shutdown purposes and that are connected  
66.15 to a fire alarm system shall not sound a general evacuation signal.

66.16 **907.3.2 Elevator control functions.** Smoke detectors that are installed to control or  
66.17 recall elevators or to control doors for elevators, elevator lobbies, or elevator shafts  
66.18 and that are connected to a fire alarm system shall not sound a general evacuation  
66.19 signal. Elevator recall and firefighter's emergency operation for elevators shall only be  
66.20 controlled by elevator smoke detectors and shall not initiate upon other building fire  
66.21 detectors or evacuation signals.

66.22 **907.3.3 Door hold-open functions.** Smoke detectors that are installed to hold open  
66.23 fire doors under nonemergency conditions and that are connected to a fire alarm system  
66.24 shall sound a general evacuation signal when the doors being held open are part of the  
66.25 means of egress corridor or stair system. Door hold-open smoke detectors are not  
66.26 required to activate a visual or audible signal.

67.1 (Section 907.3.4 still applies.)

67.2 Subp. 15b. **IFC section 907.5.2.1.2.** IFC section 907.5.2.1.2 is amended to read:

67.3 **907.5.2.1.2 Maximum sound pressure.** Fire alarm system audibility levels  
67.4 shall not exceed 35 dB above the average ambient sound level described in  
67.5 Section 907.5.2.1.1 or 35 dB above the peak ambient sound level. The  
67.6 maximum sound pressure level for audible alarm notification appliances shall  
67.7 be 110 dBA at the minimum hearing distance from the audible appliance.  
67.8 Where the average ambient noise is greater than 95 dBA, visible alarm  
67.9 notification appliances shall be provided in accordance with NFPA 72 and  
67.10 audible alarm notification appliances shall not be required.

67.11 Subp. 15c. **IFC section 907.6.6.** IFC section 907.6.6 is amended to read as follows:

67.12 **907.6.6 Monitoring.** Where provided, monitoring of fire alarm systems shall comply  
67.13 with Sections 907.6.6.1 and 907.6.6.2.

67.14 (The exceptions are removed. Subsections 907.6.6.1 and 907.6.6.2 remain unchanged.)

67.15 *[For text of subparts 16 to 25, see Minnesota Rules]*

67.16 **7511.0909 SECTION 909, SMOKE CONTROL SYSTEMS.**

67.17 Subpart 1. [Repealed, 40 SR 1437]

67.18 Subp. 1a. **IFC section 909.1.** IFC section 909.1 is amended to read as follows:

67.19 **909.1 Scope and purpose.** This section applies to mechanical or passive smoke control  
67.20 systems when they are required for new buildings or portions thereof by provisions of this  
67.21 code or the Building Code. The purpose of this section is to establish minimum requirements  
67.22 for the design, installation, and acceptance testing of smoke control systems that are intended  
67.23 to provide a tenable environment for the evacuation or relocation of occupants and for fire

68.1 suppression and overhaul efforts. These provisions are not intended for the preservation of  
68.2 contents or the timely restoration of operations.

68.3 Subp. 1b. **IFC section 909.4.6.** IFC section 909.4.6 is amended to read as follows:

68.4 **909.4.6 Duration of operations.** All portions of the active or passive smoke control  
68.5 system shall be capable of continued operation after detection of the fire event for a  
68.6 period of not less than 20 minutes. System design shall be for 20 minutes; however  
68.7 fans shall continue to operate after 20 minutes and shall continue to operate  
68.8 automatically for smoke removal during fire suppression and overhaul efforts for a  
68.9 minimum of 5 minutes for every 10 feet vertically of protected space.

68.10 Subp. 1c. **IFC section 909.4.8.** IFC section 909.4 is amended by adding a section to  
68.11 read as follows:

68.12 **909.4.8 Door opening force.** With any of the design methods allowed by Section 909,  
68.13 the door opening force, latch release, and set-in-motion force shall comply with Section  
68.14 1010.1.3 requirements when the system is in smoke control mode.

68.15 Subp. 1d. **IFC section 909.20.** IFC section 909.20 is amended and a section added to  
68.16 read:

68.17 **909.20 Maintenance.** Smoke control systems and post-fire smoke exhaust systems shall  
68.18 be maintained to ensure to a reasonable degree that the system is capable of controlling  
68.19 smoke for the duration required. The system shall be maintained in accordance with the  
68.20 manufacturer's instructions and Sections 909.20.1 through 909.20.7.

68.21 (Sections 909.20.1 to 909.20.6 remain unchanged.)

68.22 **909.20.7 Qualifications.** Special inspection agencies for smoke control shall have  
68.23 expertise in fire protection engineering, mechanical engineering, and certification as  
68.24 air balancers.

69.1 Subp. 2. **IFC section 909.22.** IFC section 909 is amended by adding a section to read:

69.2 **909.22 High-rise and covered mall smoke-exhaust systems.** High-rise buildings, not  
69.3 provided with a smoke control or a post-fire smoke exhaust system, shall be equipped with  
69.4 a smoke removal system installed and maintained in accordance with the Building Code.  
69.5 Covered mall buildings exceeding 50,000 square feet (4,645 m<sup>2</sup>) in floor area, excluding  
69.6 anchor stores, and not provided with a smoke control system, shall be equipped with a  
69.7 post-fire smoke exhaust system installed and maintained in accordance with the Building  
69.8 Code.

69.9 **7511.0910 SECTION 910, SMOKE AND HEAT REMOVAL.**

69.10 Subpart 1. **IFC section 910.1.** IFC section 910.1 is amended by adding sections to  
69.11 read:

69.12 **910.1.1 Required venting method.** Required smoke and heat venting shall be  
69.13 accomplished with mechanical smoke exhaust according to Section 910.4.

69.14 **Exceptions:**

69.15 1. Calculated engineering design of mechanical smoke exhaust in accordance with  
69.16 Section 910.5 shall be permitted for buildings sprinklered throughout.

69.17 2. For non-sprinklered buildings, smoke and heat vents as specified in Section  
69.18 910.3 shall be permitted.

69.19 3. Where approved by the fire code official, smoke and heat vents as specified in  
69.20 Section 910.3 shall be permitted in sprinklered buildings.

69.21 **910.1.2 Listing.** Smoke and heat vents and mechanical smoke exhaust fans shall be  
69.22 listed for the intended purpose.

69.23 **910.1.3 Curtain boards.** When mechanical smoke exhaust is provided in accordance  
69.24 with Section 910.4 or 910.5, curtain boards are only required at the separation between

70.1 areas protected with early suppression fast response (ESFR) sprinklers and conventional  
70.2 sprinkler systems.

70.3 Subp. 2. **IFC section 910.4.** IFC section 910.4 is amended to read:

70.4 **910.4 Mechanical smoke exhaust.** Mechanical smoke exhaust shall be in accordance with  
70.5 Sections 910.4.1 through 910.4.7.

70.6 (Subsections 910.4.1 through 910.4.7 remain unchanged except as amended in subparts  
70.7 2a and 3.)

70.8 Subp. 2a. **IFC section 910.4.3.1** IFC section 910.4.3.1 is amended to read:

70.9 **910.4.3.1 Supply air.** Supply air for exhaust fans shall be sized to provide a  
70.10 minimum of 50 percent of the required exhaust. Air velocity at each supply air  
70.11 opening shall not exceed an average of 200 feet per minute when measured 4 feet  
70.12 (1,219 mm) in front of the opening. Openings for supply air shall be uniformly  
70.13 distributed around the periphery of the area served and be located or ducted to a  
70.14 position not more than one-half the storage height above the floor. Supply air  
70.15 openings shall open automatically upon operation of the smoke exhaust system  
70.16 and shall not require a manual action at each supply opening for operation. Supply  
70.17 air openings shall be kept clear of storage or obstructions to airflow for at least 4  
70.18 feet (1,219 mm) in front of the opening. Supply air openings shall be separated  
70.19 from exhaust fans and exterior combustibles to prevent introduction of smoke into  
70.20 the building.

70.21 Subp. 3. **IFC section 910.4.4.** IFC section 910.4.4 is amended to read:

70.22 **910.4.4 Operation.** Mechanical smoke exhaust fans shall be manually activated.  
70.23 Individual manual controls of each fan unit shall also be provided.

70.24 Subp. 4. [Renumbered subp 2a]

71.1 Subp. 5. **IFC section 910.5.** IFC section 910.5 is amended and subsections added to  
71.2 read as follows:

71.3 **910.5 Calculated engineering design of mechanical smoke exhaust.** Calculated engineering  
71.4 design of mechanical smoke exhaust shall be in accordance with Sections 910.5.1 through  
71.5 910.5.5.

71.6 **910.5.1 Methodology.** Mechanical smoke exhaust systems shall be designed to remove  
71.7 smoke after a fire is extinguished and to assist the fire department during suppression  
71.8 operations or during marginal sprinkler control situations. They are not considered life  
71.9 safety systems and are not designed for occupant safety.

71.10 **910.5.2 Calculation method.** Volumetric flow rate calculations shall demonstrate that  
71.11 the system will provide at least three air changes per hour for the space required to be  
71.12 provided with smoke exhaust. When only a portion of a space is used for high-piled  
71.13 storage requiring smoke exhaust, the volume to be extracted shall be based on the  
71.14 ceiling height multiplied by the actual gross floor area for storage.

71.15 **910.5.3 Operation.** Mechanical smoke exhaust fans shall be manually activated. In  
71.16 addition, individual manual controls of each fan unit shall also be provided.

71.17 **910.5.4 Supply air.** Supply air for exhaust fans shall be sized to provide a minimum  
71.18 of 50 percent of the required exhaust. Air velocity at each supply air opening shall not  
71.19 exceed an average of 200 feet per minute when measured 4 feet (1,219 mm) in front  
71.20 of the opening. Openings for supply air shall be uniformly distributed around the  
71.21 periphery of the area served and be located or ducted to a position not more than one-half  
71.22 the storage height above the floor. Supply air openings shall open automatically upon  
71.23 operation of the smoke exhaust system and shall not require a manual action at each  
71.24 supply opening for operation. Supply air openings shall be kept clear of storage or  
71.25 obstructions to airflow for at least 4 feet (1,219 mm) in front of the opening. Supply

72.1 air openings shall be separated from exhaust fans and exterior combustibles to prevent  
72.2 introduction of smoke into the building.

72.3 **910.5.5 Equipment.** Wiring and controls shall be as required in Sections 910.4.5 and  
72.4 910.4.6. Interlock controls shall be as required in Section 910.4.7. Exhaust fans shall  
72.5 be uniformly spaced and each fan shall have a maximum individual capacity of 30,000  
72.6 cfm (850 m<sup>3</sup>/min).

72.7 Subp. 6. **IFC section 910.6.** IFC section 910 is amended by adding a subsection to  
72.8 read as follows:

72.9 **910.6 Testing and maintenance.** Mechanical smoke exhaust systems shall be tested and  
72.10 maintained as required in Sections 910.6.1 through 910.6.4.

72.11 **910.6.1 Acceptance testing.** Mechanical smoke exhaust systems shall be acceptance  
72.12 tested as required by Sections 909.18 and 909.19.

72.13 **910.6.1.1 Controls.** For testing purposes, each smoke exhaust system equipped  
72.14 for automatic activation shall be put into operation by the actuation of the automatic  
72.15 initiating device. Control sequences shall be verified throughout the system,  
72.16 including verification of override from the firefighter's control panel when systems  
72.17 are equipped for automatic activation.

72.18 **910.6.2 Special inspections.** Special inspections for mechanical smoke exhaust shall  
72.19 be conducted according to Section 909.18.8.

72.20 **910.6.3 Maintenance.** Mechanical smoke exhaust systems, including exhaust fans,  
72.21 supply air openings and controls, shall be maintained and unobstructed.

72.22 **910.6.4 Operational testing.** Operational testing of the smoke exhaust system shall  
72.23 include all equipment such as initiating devices, fans, dampers, controls and supply air  
72.24 openings. Mechanical smoke exhaust systems shall be operated and tested under each  
72.25 control sequence at least annually.



73.1 Subp. 7. **IFC section 910.7.** IFC section 910 is amended by adding a section to read  
73.2 as follows:

73.3 **910.7 Maintenance.** Smoke and heat vents shall be maintained in an operative condition  
73.4 in accordance with NFPA 204. Fusible links shall be promptly replaced whenever fused,  
73.5 damaged, or painted. Smoke and heat vents shall not be modified.

73.6 **7511.0915 SECTION 915, CARBON MONOXIDE DETECTION.**

73.7 Subpart 1. **IFC section 915.1.1.** IFC section 915.1.1 is amended by adding an exception  
73.8 to read:

73.9 **Exception:** In multi-family dwellings, approved and operational carbon monoxide  
73.10 alarms may be installed between 15 and 25 feet of carbon monoxide-producing  
73.11 central fixtures and equipment provided there is a centralized alarm system or  
73.12 other approved mechanism for responsible parties to hear the alarms at all times.

73.13 Subp. 2. **IFC section 915.2.** IFC section 915.2 and subsections 915.2.1 and 915.2.2  
73.14 are amended to read as follows:

73.15 **915.2 Locations.** Where required by Section 915.1.1, carbon monoxide detection shall be  
73.16 installed in the locations specified in Sections 915.2.1 through 915.2.3.

73.17 **915.2.1 Dwelling units.** Carbon monoxide detection shall be installed in dwelling units  
73.18 outside of each separate sleeping area within 10 feet of the bedrooms. Where a  
73.19 fuel-burning appliance is located in a bedroom or its attached bathroom, carbon  
73.20 monoxide detection shall be installed within the bedroom.

73.21 **915.2.2 Sleeping units.** Carbon monoxide detection shall be installed in sleeping units.

73.22 **Exception:** Carbon monoxide detection shall be allowed to be installed outside  
73.23 of each separate sleeping area within 10 feet of the sleeping unit where the sleeping

74.1 unit or its attached bedroom does not contain a fuel-burning appliance and is not  
 74.2 served by a forced air furnace.

74.3 (Section 915.2.3 remains unchanged.)

74.4 **7511.1001 SECTION 1001, ADMINISTRATION.**

74.5 Subpart 1. **IFC section 1001.1.** IFC section 1001.1 is amended to read:

74.6 **1001.1 General.** Buildings or portions thereof shall be provided with a means of egress  
 74.7 system as required by this chapter. The provisions of this chapter shall control the design,  
 74.8 construction, and arrangement of means of egress components required to provide an  
 74.9 approved means of egress from structures and portions thereof. Sections 1003 through 1031  
 74.10 shall apply to new construction. Sections 1001, 1002, 1031, and 1104 shall apply to existing  
 74.11 buildings.

74.12 **1001.1.1 Compliance options.** Means of egress installed and maintained in accordance  
 74.13 with the Minnesota Residential Code or Building Code, when applicable, shall be  
 74.14 deemed to comply with this chapter.

74.15 Subp. 1a. [See repealer.]

74.16 *[For text of subpart 2, see Minnesota Rules]*

74.17 **7511.1006 SECTION 1006, NUMBER OF EXITS AND EXIT ACCESS DOORWAYS.**

74.18 Subpart 1. **IFC Table 1006.2.1.** Table 1006.2.1 is amended to read as follows:

74.19 **TABLE 1006.2.1**

74.20 **SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**

74.21 Maximum Common Path of Egress Travel Distance (feet)  
 74.22 Without Sprinkler System (feet)

75.1		Maximum			
75.2		Occupant Load		Occupant Load	With Sprinkler
75.3		of Space			System (feet)
75.4	Occupancy		OL ≤ 30	OL > 30	
75.5	A <sup>c</sup> , E, M	49	75	75	75 <sup>a</sup>
75.6	B	49	100	75	100 <sup>a</sup>
75.7	F	49	75	75	100 <sup>a</sup>
75.8	H-1, H-2, H-3	3	NP	NP	25 <sup>b</sup>
75.9	H-4, H-5	10	NP	NP	75 <sup>b</sup>
75.10	I-1, I-2 <sup>d</sup>	10	NP	NP	75 <sup>a</sup>
75.11	I-3	10	NP	NP	100 <sup>a</sup>
75.12	I-4	10	75	75	75 <sup>a</sup>
75.13	R-1	10	75	75	75 <sup>a</sup>
75.14	R-2	20	75	75	125 <sup>a</sup>
75.15	R-3	20	75	75	125 <sup>a,f</sup>
75.16	R-4	20	75	75	125 <sup>a,f</sup>
75.17	S <sup>c</sup>	29	100	75	100 <sup>a</sup>
75.18	U	49	100	75	75 <sup>a</sup>

75.19 NP = Not Permitted

75.20 <sup>a</sup> Buildings equipped throughout with an automatic sprinkler system in accordance  
 75.21 with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where  
 75.22 automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.

75.23 <sup>b</sup> Group H occupancies equipped throughout with an automatic sprinkler system  
 75.24 in accordance with Section 903.2.5.

75.25 <sup>c</sup> For a room or space used for assembly purposes having fixed seating, see Section  
 75.26 1029.8.

76.1 <sup>d</sup> For the travel distance limitations in Group I-2, see Section 407.4 of the Building  
76.2 Code.

76.3 <sup>e</sup> The common path of egress travel distance in a Group S-2 open parking garage  
76.4 shall not be more than 100 feet.

76.5 <sup>f</sup> For the travel distance limitations in Groups R-3 and R-4 equipped throughout  
76.6 with an automatic sprinkler system in accordance with Section 903.3.1.3, see  
76.7 Section 1006.2.2.6.

76.8 Subp. 2. **IFC section 1006.2.2.1.** IFC section 1006.2.2.1 is amended to read as follows:

76.9 **1006.2.2.1 Boiler, incinerator, and furnace rooms.** Two exit access doorways  
76.10 are required in boiler, incinerator, and furnace rooms where the area is over 500  
76.11 square feet (46 m<sup>2</sup>) and any fuel-fired equipment exceeds 400,000 British thermal  
76.12 units (Btu) (422,000 kJ) input capacity. Where two exit access doorways are  
76.13 required, one is permitted to be a fixed ladder or an alternating tread device. Exit  
76.14 access doorways shall be separated by a horizontal distance equal to one-half the  
76.15 length of the maximum overall diagonal dimension of the room. The exit access  
76.16 path of travel shall not converge to a separation distance less than one-third the  
76.17 length of the maximum overall diagonal dimension of the room.

76.18 Subp. 3. **IFC section 1006.2.2.4.** IFC section 1006.2.2.4 is amended to read as follows:

76.19 **1006.2.2.4 Group E and I-4 means of egress.** Group E and I-4 facilities, rooms,  
76.20 or spaces where care is provided for more than ten children that are 2-1/2 years of  
76.21 age or less, shall have access to not less than two exits or exit access doorways.

76.22 Subp. 4. **IFC section 1006.2.2.7.** IFC section 1006.2.2 is amended by adding a  
76.23 subsection to read as follows:

76.24 **1006.2.2.7 Educational occupancy laboratories and prep areas.** Laboratories  
76.25 and prep areas containing hazardous materials shall be provided with not less than

77.1 two means of egress when located in an E occupancy and the space is greater than  
77.2 500 square feet.

77.3 Subp. 5. **IFC section 1006.3.3.** IFC section 1006.3.3 is amended to read as follows:

77.4 **1006.3.3 Single exits.** A single exit or access to a single exit shall be permitted from  
77.5 any story or occupied roof where one of the following conditions exists.

77.6 1. The occupant load; number of dwelling units or sleeping units; and common  
77.7 path of egress travel distance do not exceed the values in Table 1006.3.3(1) or  
77.8 1006.3.3(2).

77.9 2. Rooms, areas, and spaces complying with Section 1006.2.1 with exits that  
77.10 discharge directly to the exterior at the level of exit discharge, are permitted to  
77.11 have one exit or access to a single exit.

77.12 3. Parking garages where the vehicles are mechanically parked shall be permitted  
77.13 to have one exit or access to a single exit.

77.14 4. Group R-3 and R-4 occupancies shall be permitted to have one exit or access  
77.15 to a single exit.

77.16 5. Individual single-story or multi-story dwelling units and sleeping units shall be  
77.17 permitted to have a single exit or access to a single exit from each dwelling unit  
77.18 or sleeping unit, provided that both of the following criteria are met.

77.19 5.1 Each dwelling unit and sleeping unit complies with Section 1006.2.1 as  
77.20 a space with one means of egress.

77.21 5.2 Each sleeping unit and dwelling unit either: (a) has an exit that discharges  
77.22 directly to the exterior at the level of exit discharge; or (b) has an exit access  
77.23 outside the entrance door that provides access to at least two approved  
77.24 independent exits.

78.1 (Subsection 1006.3.3.1 remains unchanged.)

78.2 **7511.1008 [Renumbered 7511.1010]**

78.3 **7511.1009 SECTION 1009, ACCESSIBLE MEANS OF EGRESS.**

78.4 IFC section 1009.1 is amended by adding a new exception to read as follows:

78.5 3. Accessible means of egress is not required for alterations to existing buildings.

78.6 **7511.1009 [Renumbered 7511.1011]**

78.7 **7511.1010 SECTION 1010, DOORS, GATES AND TURNSTILES.**

78.8 Subpart 1. **IFC section 1010.1.5.** IFC section 1010.1.5 is amended by modifying  
78.9 exception 5 to read as follows:

78.10 5. Exterior decks, patios, or balconies that are part of Type B dwelling units, have  
78.11 impervious surfaces, and that are not more than 2 inches (50 mm) below the finished  
78.12 floor level of the adjacent interior space of the dwelling unit.

78.13 Subp. 1a. **IFC section 1010.1.9.1.** IFC section 1010.1.9.1 is amended to read:

78.14 **1010.1.9.1 Hardware.** Except as permitted by Section 1010.1.9.4, door handles,  
78.15 pulls, latches, locks, and other operating devices on doors shall only require a  
78.16 single operation to release the door from the egress side.

78.17 Subp. 1b. **IFC section 1010.1.9.2.** The exception to IFC section 1010.1.9.2 is amended  
78.18 to read as follows:

78.19 **Exception:** The ingress side of access doors or gates in barrier walls and  
78.20 fences protecting pools, spas, and hot tubs shall be permitted to have operable  
78.21 parts of the latch release on self-latching devices at 54 inches (1,370 mm)  
78.22 maximum above the finished floor or ground, provided that the self-latching  
78.23 devices are not also self-locking devices operated by means of a key, electronic

79.1 opener, or integral combination lock. All hardware shall comply with Section  
79.2 1010.1.9.6.

79.3 Subp. 1c. **IFC section 1010.1.9.4.** IFC section 1010.1.9.4 is amended to read as  
79.4 follows:

79.5 **1010.1.9.4 Locks and latches.** Locks and latches shall be permitted to prevent  
79.6 operation of doors where any of the following exists:

79.7 1. Places of detention or restraint.

79.8 2. In buildings in occupancy Group A having an occupant load of 300 or less,  
79.9 in buildings in occupancy Groups B, F, M, and S and in places of religious  
79.10 worship, the main exterior door or doors are permitted to be equipped with  
79.11 key-operated locking devices from the egress side, provided:

79.12 2.1 The locking device is readily distinguishable as locked.

79.13 2.2 A readily visible durable sign is posted on the egress side on or  
79.14 adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED  
79.15 WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch  
79.16 (25 mm) high on a contrasting background.

79.17 2.3 The use of the key-operated locking device is revocable by the fire  
79.18 code official for due cause.

79.19 3. Where egress doors are used in pairs, approved automatic flush bolts shall  
79.20 be permitted to be used, provided that the door leaf having the automatic flush  
79.21 bolts has no doorknob or surface-mounted hardware.

79.22 4. Doors from individual dwelling or sleeping units of Group R occupancies  
79.23 having an occupant load of ten or less are permitted to be equipped with a

80.1 night latch, dead bolt, or security chain, provided such devices are openable  
80.2 from the inside without the use of a key or tool.

80.3 5. Fire doors, after the minimum elevated temperature has disabled the  
80.4 unlatching mechanism in accordance with listed fire door test procedures.

80.5 6. Doors serving roofs not intended to be occupied shall be permitted to be  
80.6 locked preventing entry to the building from the roof.

80.7 7. Delayed egress locks, installed and maintained in conformance with Section  
80.8 1010.1.9.8.

80.9 8. Controlled egress doors installed and maintained in conformance with  
80.10 Section 1010.1.9.7.

80.11 9. Electrically locked egress doors installed and maintained in conformance  
80.12 with Section 1010.1.9.9 or 1010.1.9.10.

80.13 10. In rooms, other than detention cells, where occupants are being restrained  
80.14 for safety or security reasons, special detention arrangements that comply  
80.15 with the requirements of Section 1010.1.11 are permitted.

80.16 11. Means of egress stairway doors, installed and maintained in conformance  
80.17 with Section 1010.1.9.12.

80.18 Subp. 1d. **IFC section 1010.1.9.7.** IFC section 1010.1.9.7 is amended to read:

80.19 **1010.1.9.7 Controlled egress doors in Groups I-1, I-2, R-3, and R-4**  
80.20 **occupancies.** Controlled egress door locking systems, including electromechanical  
80.21 locking systems and electromagnetic locking systems, shall be permitted in Groups  
80.22 I-1, I-2, R-3, and R-4 occupancies when a person's clinical needs require their  
80.23 containment. Controlled egress doors shall be permitted in these occupancies when  
80.24 the building is equipped throughout with an approved automatic sprinkler system



81.1 in accordance with Section 903.3.1.1 and an approved automatic smoke detection  
81.2 system installed in accordance with Section 907. Electric locking systems and  
81.3 controlled egress doors shall comply with the requirements in items 1 through 11  
81.4 below.

81.5 1. The egress control locks shall unlock upon actuation of either the automatic  
81.6 sprinkler system or the automatic smoke detection system within the means  
81.7 of egress served by the locked area.

81.8 2. The egress control locks shall unlock upon loss of power controlling the  
81.9 lock or lock mechanism.

81.10 3. The egress control locking system shall have the capability of being  
81.11 unlocked by a signal or switch from the fire command center, a nursing station,  
81.12 or other approved location. The signal or switch shall directly break power  
81.13 to the lock.

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

81.16 5. The procedures for the operations of the unlocking system shall be described  
81.17 and approved as part of the emergency planning and preparedness required  
81.18 by Chapter 4.

81.19 6. All clinical staff shall have the keys, codes, or other means necessary to  
81.20 operate the controlled egress locking devices or systems.

81.21 7. Emergency lighting shall be provided at both sides of a door equipped with  
81.22 a controlled egress locking device.

81.23 8. 24-hour resident or patient supervision is provided within the secured area.

82.1 9. The controlled egress locking devices are designed to fail in the open  
82.2 position.

82.3 10. Floor levels within the building or portion of the building with controlled  
82.4 egress locking devices shall be divided into at least two compartments by  
82.5 smoke barriers meeting the requirements of the Minnesota Building Code.

82.6 11. The controlled egress door locking system units shall be listed in  
82.7 accordance with UL 294.

82.8 **Exceptions to items 1 through 11:**

82.9 1. Items 1 through 4 shall not apply to doors to areas occupied by persons  
82.10 who, because of clinical needs, require restraint or containment as part  
82.11 of the function of a psychiatric treatment area.

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

82.15 3. Item 10 shall not apply to existing Group R-3 or R-4, Condition 1  
82.16 occupancies where all of the following conditions apply: (a) the  
82.17 construction of smoke barrier compartmentation is not practical; (b)  
82.18 existing sleeping rooms are provided with smoke-tight construction; and  
82.19 (c) existing sleeping rooms have an emergency escape and rescue opening  
82.20 complying with Section 1030.

82.21 Subp. 2. **IFC sections 1010.1.9.8 and 1010.1.9.8.1.** IFC sections 1010.1.9.8 and  
82.22 1010.1.9.8.1 are amended to read:

82.23 **1010.1.9.8 Delayed egress door locks.** Delayed egress locking systems shall be  
82.24 permitted to be installed on doors serving the following occupancies in buildings  
82.25 that are equipped throughout with an automatic sprinkler system in accordance

83.1 with Section 903.3.1.1 or an approved smoke detection system installed throughout  
83.2 the means of egress in accordance with Section 907:

- 83.3 1. Group B, F, I, M, R, S, and U occupancies.
- 83.4 2. Group E in locations where the means of egress does not serve an assembly  
83.5 use area.

83.6 **Exception:** Delayed egress locking systems shall be permitted to be  
83.7 installed on exit or exit access doors, other than the main exit or exit  
83.8 access door, serving a courtroom in buildings equipped throughout with  
83.9 an automatic sprinkler system in accordance with Section 903.3.1.1.

83.10 **1010.1.9.8.1 Delayed egress locking system.** The delayed egress locking  
83.11 system shall be installed and operated in accordance with one of the following:

- 83.12 1. The delay electronics of the delayed egress locking system shall  
83.13 deactivate upon actuation of the automatic sprinkler system or automatic  
83.14 fire detection system, allowing immediate free egress.
- 83.15 2. The delay electronics of the delayed egress locking system shall  
83.16 deactivate upon loss of power controlling the lock or lock mechanism,  
83.17 allowing immediate free egress.
- 83.18 3. The delayed egress locking system shall have the capability of being  
83.19 deactivated at the fire command center and other approved locations.
- 83.20 4. An attempt to egress shall initiate an irreversible process that shall  
83.21 allow egress in not more than 15 seconds when a physical effort to exit  
83.22 of not more than 15 pounds (67 N) is applied to the egress side door  
83.23 hardware for not more than one second. Initiation of the irreversible  
83.24 process shall activate an audible signal in the vicinity of the door. Once

84.1 the delay electronics have been deactivated from an approved location,  
84.2 relocking the delay electronics shall be by manual means only.

84.3 **Exception to item 4.** Where approved, a delay of not more than 30  
84.4 seconds is permitted on a delayed egress door.

84.5 5. The egress path from any point shall not pass through more than one  
84.6 delayed egress locking system.

84.7 **Exceptions to item 5.**

84.8 1. In Group I-2 or I-3 occupancies, the egress path from any point  
84.9 in the building shall pass through not more than two delayed egress  
84.10 locking systems provided that the combined delay does not exceed  
84.11 30 seconds.

84.12 2. In Group I-1 or I-4 occupancies, the egress path from any point  
84.13 in the building shall pass through not more than two delayed egress  
84.14 locking systems provided that the combined delay does not exceed  
84.15 30 seconds and the building is equipped throughout with an automatic  
84.16 sprinkler system in accordance with Section 903.3.1.1.

84.17 6. A sign shall be provided on the door and shall be located above and  
84.18 within 12 inches (305 mm) of the door exit hardware.

84.19 6.1 For doors that swing in the direction of egress, the sign shall  
84.20 read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED  
84.21 IN 15 [30] SECONDS.

84.22 6.2 For doors that swing in the opposite direction of egress, the sign  
84.23 shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE  
84.24 OPENED IN 15 [30] SECONDS.

85.1 6.3 The sign shall comply with the visual character requirements in  
85.2 ICC A117.1.

85.3 **Exception to item 6.** Where approved, in Group I occupancies, the  
85.4 installation of a sign is not required where care recipients, because  
85.5 of clinical needs, require restraint or containment as part of the  
85.6 function of the treatment area.

85.7 7. Emergency lighting shall be provided on the egress side of the door.

85.8 8. The delayed egress locking system units shall be listed in accordance  
85.9 with UL 294.

85.10 Subp. 2a. **IFC section 1010.1.9.12.** IFC section 1010.1.9.12 is amended by revising  
85.11 exception 3 to read as follows:

85.12 3. In stairways serving not more than four stories, doors are permitted to  
85.13 be locked from the side opposite the egress side. The exit door is permitted  
85.14 to be locked but shall be openable from the egress side.

85.15 Subp. 3. **IFC section 1010.1.** IFC section 1010.1 is amended by adding subsections  
85.16 to read:

85.17 **1010.1.11 Special detention arrangements.** Special detention arrangements meeting  
85.18 the requirements of Sections 1010.1.11.1 through 1010.1.11.4 are permitted for rooms,  
85.19 other than cells, where the occupants are being restrained for safety or security reasons.  
85.20 The use of Sections 1010.1.11.1 through 1010.1.11.4 may be revoked by the fire code  
85.21 official for due cause.

85.22 **1010.1.11.1 Locking hardware.** Locking devices shall release upon any of the  
85.23 following conditions:

85.24 1. Activation of the automatic sprinkler system.

- 86.1 2. Activation of any automatic fire detection device.
- 86.2 3. Activation of an automatic fire alarm system.
- 86.3 4. Loss of electrical power to the locking device or the fire alarm system.
- 86.4 5. Activation of the fire alarm trouble signal.
- 86.5 6. Operation of a manual switch located in an approved location.

86.6 All locking devices shall be designed to fail in the open position. Following  
86.7 the release of the locking devices for any of the conditions specified in Items  
86.8 1 through 6, relocking the devices shall be by manual means only at the door.

86.9 **1010.1.11.2 Fire-extinguishing system.** When special detention arrangements  
86.10 are used, the room or area being secured shall be protected with quick-response  
86.11 sprinklers.

86.12 **1010.1.11.3 Fire alarm and detection.** When special detention arrangements are  
86.13 used, the room or area and spaces between the room or area and an exterior exit  
86.14 door shall be protected with automatic smoke detection connected to the building's  
86.15 fire alarm system. If the walls of the room or area do not extend to the ceiling,  
86.16 automatic smoke detection can be provided in the adjacent room or area, provided  
86.17 that there are no substantial obstructions to delay activation of the smoke detection.

86.18 **1010.1.11.4 Door swing.** Doors separating detention rooms from other spaces  
86.19 must swing in the direction of egress travel from the detention room.

86.20 **7511.1011 SECTION 1011, STAIRWAYS.**

86.21 Subpart 1. **IFC section 1011.14.** IFC section 1011.14 is amended to read:

86.22 **1011.14 Alternating tread devices.** Alternating tread devices are limited to an element of  
86.23 a means of egress in buildings of Groups F, H, and S from a mezzanine not more than 250  
86.24 square feet (23 m<sup>2</sup>) in area and which serves not more than five occupants; and in buildings

87.1 of Groups I-3 from a guard tower, observation station, or control room not more than 250  
87.2 square feet (23 m<sup>2</sup>) in area and for access to unoccupied roofs. Access to mechanical  
87.3 equipment or appliances on a roof shall be in accordance with IBC Section 1208.3.1 and  
87.4 the Minnesota Mechanical Code.

87.5 (IFC sections 1011.14.1, 1011.14.2, and the exception still apply.)

87.6 Subp. 2. **IFC section 1011.15.** IFC section 1011.15 and all subsections are deleted in  
87.7 their entirety and replaced with the following:

87.8 **1011.15 Ships ladders.** Ships ladders constructed as required for permanent stairs in  
87.9 accordance with the Minnesota Mechanical Code, shall be permitted to be used as a means  
87.10 of egress component at the following locations:

87.11 1. Ships ladders are permitted to be used in Group I-3 occupancies for means of egress  
87.12 at control rooms or elevated facility observation stations not more than 250 square feet  
87.13 (23 m<sup>2</sup>) in floor area.

87.14 2. Ships ladders are permitted to be used as a component for means of egress at recessed  
87.15 or elevated floors or platforms when the area served has an occupant load of five or  
87.16 fewer, and the space meets all of the following criteria:

87.17 2.1 access to the area served is limited to building facilities staff, maintenance  
87.18 staff, employees, or other authorized personnel;

87.19 2.2 required access to the area served is limited and periodic;

87.20 2.3 the area served is used for building maintenance service functions, or for  
87.21 equipment access or monitoring;

87.22 2.4 the area served is not required to have a second means of egress by other  
87.23 provisions of this code; and

87.24 2.5 the area served is not classified as a Group H occupancy.

88.1 3. Ships ladders are permitted to be used for access to unoccupied spaces in accordance  
88.2 with the Minnesota Mechanical Code.

88.3 **7511.1013 [Renumbered 7511.1015]**

88.4 **7511.1015 SECTION 1015, GUARDS.**

88.5 Subpart 1. **IFC section 1015.2 Where required.** IFC section 1015.2 is amended by  
88.6 adding item 8 to the exception as follows:

88.7 8. On bleachers 55 inches or less in height, in accordance with the Minnesota  
88.8 Bleacher Safety Act, Minnesota Statutes, section 326B.112.

88.9 Subp. 2. **IFC section 1015.3 Height.** IFC section 1015.3 is amended by modifying  
88.10 exception 4 to read as follows:

88.11 4. The guard height in assembly seating areas shall be in accordance with section  
88.12 1029.17 and the Minnesota Bleacher Safety Act, Minnesota Statutes, section 326B.112.

88.13 Subp. 2a. **IFC section 1015.6 Mechanical equipment, systems, and devices.** IFC  
88.14 section 1015.6 is amended to read as follows:

88.15 **1015.6 Mechanical equipment, systems, and devices.** Guards shall be designed and  
88.16 installed in accordance with the Minnesota Mechanical Code.

88.17 Subp. 3. **IFC section 1015.8.** IFC section 1015.8 is amended to read:

88.18 **1015.8 Window openings.** In occupancy groups R-1, R-2, R-3, one- and two-family,  
88.19 multiple-family dwellings, and townhouses, where the lowest part of the opening of an  
88.20 operable window is located more than 72 inches (1,829 mm) above the finished grade or  
88.21 other surface below, the lowest part of the window opening shall be at a height not less than  
88.22 36 inches (914 mm) above the finished floor surface of the room in which the window is  
88.23 located. Operable sections of windows shall not permit openings that allow passage of a



89.1 4-inch-diameter (102 mm) sphere where such openings are located within 36 inches (914  
89.2 mm) of the finished floor.

89.3 **Exceptions:**

89.4 1. Operable windows where the lowest part of the opening is located more than 75 feet  
89.5 (22,860 mm) above the finished grade or other surface below and that are provided  
89.6 with window fall-prevention devices that comply with ASTM F 2006.

89.7 2. Windows whose openings will not allow a 4-inch-diameter (102 mm) sphere to pass  
89.8 through the opening when the window is in its largest opened position.

89.9 3. Openings that are provided with window fall-prevention devices that comply with  
89.10 ASTM F 2090.

89.11 4. Windows that are provided with window opening control devices that comply with  
89.12 section 1015.8.1.

89.13 5. Replacement windows for occupancy groups R-1, R-2, R-3, one- and two-family,  
89.14 multifamily dwellings, and townhouses located on or below the third story above grade  
89.15 plane.

89.16 (Subsection 1015.8.1 remains unchanged.)

89.17 **7511.1017 [Renumbered 7511.1018]**

89.18 **7511.1018 SECTION 1018, AISLES.**

89.19 IFC section 1018 and all subsections are deleted in their entirety and replaced with the  
89.20 following:

89.21 **SECTION 1018**

89.22 **AISLES**

90.1 **1018.1 Aisles and aisle accessways.** Aisles and aisle accessways serving as a portion of  
90.2 the exit access in the means of egress system shall comply with the requirements of this  
90.3 section. Aisles and aisle accessways shall be provided from all occupied portions of the exit  
90.4 access. Aisles and aisle accessways serving assembly areas, other than seating at tables,  
90.5 shall comply with Section 1029. Aisles and aisle accessways serving reviewing stands,  
90.6 grandstands, and bleachers shall comply with Section 1029.

90.7 **1018.2 Width determination.** Where tables or counters are served by fixed seats, the width  
90.8 of the aisle or aisle accessway shall be measured from the back of the seat. Where seating  
90.9 is located at a table or counter and is adjacent to an aisle or aisle accessway, the measurement  
90.10 of required clear width of the aisle or aisle accessway shall be made to a line 19 inches (483  
90.11 mm) away from and parallel to the edge of the table or counter. The 19-inch (483 mm)  
90.12 distance shall be measured perpendicular to the side of the table or counter. In the case of  
90.13 other side boundaries for aisle or aisle accessways, the clear width shall be measured to  
90.14 walls, tread edges, or other obstructions. The required width of aisles and aisle accessways  
90.15 shall be unobstructed.

90.16 **Exception:** Doors, when fully opened, and handrails shall not reduce the required width  
90.17 by more than 7 inches (178 mm). Doors in any position shall not reduce the required  
90.18 width by more than one-half. Other nonstructural projections, such as trim and similar  
90.19 decorative features are permitted to project into the required width 1.5 inches (38 mm)  
90.20 from each side.

90.21 **1018.2.1 Minimum aisle accessway width.** Aisle accessways not required to be  
90.22 accessible by the Minnesota Accessibility Code, Minnesota Rules, chapter 1341, shall  
90.23 provide a minimum 12 inches (305 mm) of width, plus 0.5 inch (12.7 mm) of width  
90.24 for each additional 1 foot (305 mm), or fraction thereof, beyond 12 feet (3, 658 mm)  
90.25 of aisle accessway length.

91.1 **Exception:** Portions of an aisle accessway having a length not exceeding 6 feet  
91.2 and used by a total of not more than four persons.

91.3 **1018.2.2 Minimum aisle width.** The minimum clear width shall be determined by  
91.4 Section 1005.1 for the occupant load served, but shall not be less than 36 inches (914  
91.5 mm).

91.6 **Exception:** Nonpublic aisles serving fewer than 50 people, and that are not required  
91.7 to be accessible by the Minnesota Accessibility Code, Minnesota Rules, chapter  
91.8 1341, need not exceed 28 inches (711 mm) in width.

91.9 **1018.3 Length.**

91.10 **1018.3.1 Aisle accessway.** The length of travel along the aisle accessway shall not  
91.11 exceed 30 feet ( 9,144 mm) to an aisle or exit access doorway.

91.12 **1018.3.2 Aisle.** The length of travel along an aisle or combination aisle accessway and  
91.13 aisle to a point where a person has a choice of two or more paths of egress travel to  
91.14 separate exits or exit access doorways shall not exceed that permitted by Section  
91.15 1006.2.1 for common path of egress travel.

91.16 **7511.1018 [Renumbered 7511.1020]**

91.17 **7511.1020 SECTION 1020, CORRIDORS.**

91.18 Subpart 1. **IFC Table 1020.1.** IFC Table 1020.1 is amended as follows:

91.19 **TABLE 1020.1**

91.20 **CORRIDOR FIRE-RESISTANCE RATING**

		REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system <sup>c</sup>
91.21			
91.22			
91.23	OCCUPANT		
91.24	LOAD SERVED		
91.25	OCCUPANCY BY CORRIDOR		

92.1	H-1, H-2, H-3	All	Not permitted	1
92.2	H-4, H-5	Greater than 30	Not permitted	1
92.3	A, B, E, F, M, S,			
92.4	U	Greater than 30	1	0
92.5	R	Greater than 10	1	0.5 <sup>c</sup> /1 <sup>d</sup>
92.6	I-2 <sup>a</sup>	All	Not permitted	0
92.7	I-1, I-3	All	Not permitted	1 <sup>b</sup>
92.8	I-4	All	1	0

92.9 <sup>a</sup> For requirements for occupancies in Group I-2, see IBC Sections 407.2 and 407.3.

92.10 <sup>b</sup> For a reduction in the fire-resistance rating for occupancies in Group I-3, see IBC Section  
92.11 408.8.

92.12 <sup>c</sup> Buildings equipped throughout with an automatic sprinkler system in accordance with  
92.13 Section 903.3.1.1 or 903.3.1.2, where allowed.

92.14 <sup>d</sup> Group R-3 and R-4 buildings equipped throughout with an automatic sprinkler system in  
92.15 accordance with Section 903.3.1.3. See Section 903.2.8 for occupancies where automatic  
92.16 sprinkler systems are permitted in accordance with Section 903.3.1.3.

92.17 Subp. 2. **IFC section 1020.6.** IFC section 1020.6 is amended by modifying the  
92.18 exceptions to read as follows:

92.19 **Exceptions:**

92.20 1. Foyers, lobbies, or reception rooms constructed as required for corridors shall not  
92.21 be construed as intervening rooms if the aggregate area of these spaces does not exceed  
92.22 1,000 square feet per floor.

92.23 2. Foyers, lobbies, or reception rooms that are more than 1,000 square feet per floor in  
92.24 aggregate area and other rooms or spaces that are constructed as required for corridors

93.1 shall not be construed as intervening rooms when the rooms or spaces meet the  
93.2 following:

93.3 (a) The spaces are not occupied as dwelling units, sleeping units, incidental uses  
93.4 or hazardous uses.

93.5 (b) The rooms, spaces, or corridors are protected by an automatic smoke detection  
93.6 system that initiates alarm notification devices in all normally occupied rooms or  
93.7 spaces that use the corridor for a means of egress.

93.8 (c) The room or space is arranged so that it does not obstruct access to the required  
93.9 exits.

93.10 (d) Group R occupancies shall be provided with an automatic sprinkler system  
93.11 throughout to allow the use of exception #2.

93.12 3. Enclosed elevator lobbies as permitted by Section 1016.2, item 1, shall not be  
93.13 constructed as intervening rooms.

93.14 **7511.1022 [Renumbered 7511.1023]**

93.15 **7511.1023 SECTION 1023, INTERIOR EXIT STAIRWAYS AND RAMPS.**

93.16 IFC section 1023.5 is amended to read as follows:

93.17 **1023.5 Penetrations.** Penetrations into or through interior exit stairways and ramps are  
93.18 prohibited except for the following:

93.19 1. Equipment and ductwork necessary for independent ventilation or pressurization.

93.20 2. Fire protection systems.

93.21 3. Security systems that serve the exit stairway or ramp.

93.22 4. Wiring that serves the exit stairway or ramp.

93.23 5. Two-way communication systems that serve the exit stairway or ramp.

94.1 6. Electrical raceway for fire department communication systems.

94.2 7. Electrical raceway serving the interior exit stairway or ramp and terminating in a  
94.3 steel box not exceeding 16 square inches (0.010 m<sup>2</sup>).

94.4 Such penetrations shall be protected in accordance with Section 714 of the Building Code.

94.5 There shall not be penetrations or communication openings, whether protected or not,  
94.6 between adjacent interior exit stairways and ramps or exit passageways.

94.7 (The exception to Section 1023.5 is deleted.)

94.8 **7511.1023 [Renumbered 7511.1024]**

94.9 **7511.1024 SECTION 1024, EXIT PASSAGEWAYS.**

94.10 IFC section 1024.6 is amended to read as follows:

94.11 **1024.6 Penetrations.** Penetrations into or through an interior exit passageway are prohibited  
94.12 except for the following:

94.13 1. Equipment and ductwork necessary for independent ventilation or pressurization.

94.14 2. Fire protection systems.

94.15 3. Security systems that serve the exit passageway.

94.16 4. Wiring that serves the exit passageway.

94.17 5. Two-way communication systems that serve the exit passageway.

94.18 6. Electrical raceway for fire department communications systems.

94.19 7. Electrical raceway serving the exit passageway and terminating in a steel box not  
94.20 exceeding 16 square inches (0.010 m<sup>2</sup>).

94.21 Such penetrations shall be protected in accordance with Section 714 of the Building Code.

94.22 There shall not be penetrations or communication openings, whether protected or not,  
94.23 between adjacent interior exit stairways and ramps or adjacent exit passageways.

95.1 (The exception to Section 1024.6 is deleted.)

95.2 **7511.1028 [Renumbered 7511.1029]**

95.3 **7511.1029 SECTION 1029, ASSEMBLY.**

95.4 Subpart 1. **IFC section 1029.1.1.** IFC section 1029.1.1 is amended to read as follows:

95.5 **1029.1.1 Bleachers.** Bleachers, grandstands, and folding and telescopic seating, that  
95.6 are not building elements, shall comply with International Code Council (ICC) 300,  
95.7 with the following amendments to ICC 300:

95.8 a. ICC 300 Section 404.5 is amended by adding an exception as follows:

95.9 **Exception:** Aisles shall not be required to be more than 66 inches (1,676 mm)  
95.10 in width when the following are satisfied:

- 95.11 1. the seating area served by such aisles is composed entirely of bleachers;  
95.12 2. the row-to-row dimension is 28 inches (71 cm) or less; and  
95.13 3. front egress is not limited.

95.14 b. ICC 300 Section 405.1 is amended to read as follows:

95.15 **405.1 Aisles.** The minimum width of aisles shall be in accordance with Section 404.5, but  
95.16 not less than that required by this section. An aisle is not required in seating facilities where  
95.17 all of the following conditions exist:

- 95.18 1. Seats are without backrest.  
95.19 2. The rise from row to row does not exceed 6 inches (152 mm) per row.

95.20 **Exception:** Bleachers 55 inches or less in height.

- 95.21 3. The row-to-row spacing does not exceed 28 inches (711 mm) unless the seat boards  
95.22 and footboards are at the same elevation.

- 96.1 4. The number of rows does not exceed 16 rows in height.
- 96.2 5. The first seat board is not more than 12 inches (305 mm) above the ground floor or
- 96.3 a cross aisle.

96.4 **Exception:** Bleachers 55 inches or less in height.

- 96.5 6. Seat boards have a continuous flat surface.
- 96.6 7. Seat boards provide a walking surface with a minimum width of 11 inches (279 mm).
- 96.7 8. Egress from seating is not restricted by rails, guards, or other obstructions.

96.8 c. ICC 300 Section 405.6 is amended by adding an exception as follows:

96.9 3. Aisles serving bleachers in compliance with Section 404.5.

96.10 d. ICC 300 Section 408.1, item 1, is amended by modifying the exceptions to read

96.11 as follows:

96.12 **Exceptions:**

96.13 1. Tiered seating is not required to have a guard if: (a) the tiered seating is

96.14 located adjacent to a wall; and (b) the space between the wall and the tiered

96.15 seating is less than 4 inches (102 mm).

96.16 2. In accordance with the Minnesota Bleacher Safety Act, Minnesota Statutes,

96.17 section 326B.112:

96.18 (a) bleachers must have vertical perimeter guards or other approved

96.19 guards that address climbability and are designed to prevent accidents;

96.20 and

96.21 (b) guards are not required on bleachers 55 inches (1,397 mm) and less

96.22 in height.

96.23 e. ICC 300 Section 408.3 is amended to read as follows:



97.1 **408.3 Guard design.** Guards and their attachment shall be designed to resist the loads  
97.2 indicated in Section 303. Bleachers must have vertical perimeter guards or other approved  
97.3 guards that address climbability and are designed to prevent accidents, in accordance with  
97.4 the Minnesota Bleacher Safety Act, Minnesota Statutes, section 326B.112.

97.5 f. ICC 300 Chapter 5 is deleted and replaced with the following:

97.6 All bleachers or bleacher open spaces over 55 inches (1,397 mm) above grade or the  
97.7 floor below, and all bleacher guardrails, if any part of the guardrail is over 30 inches (762  
97.8 mm) above grade or the floor below, must be certified to conform with the safety  
97.9 requirements contained in Minnesota Statutes, section 326B.112.

97.10 (IFC Section 1029.1.1.1 still applies.)

97.11 Subp. 2. **IFC section 1029.6.** IFC section 1029.6 is amended by adding a section to  
97.12 read:

97.13 **1029.6.4 Width of means of egress for bleacher facilities.** Aisles for bleachers shall  
97.14 not be required to be more than 66 inches (167 cm) in width when calculated in  
97.15 accordance with Section 1029.6.1 or 1029.6.3 when the following conditions are  
97.16 satisfied:

- 97.17 1. the seating area served by such aisles is composed entirely of bleachers;  
97.18 2. the row-to-row dimension is 28 inches (71 cm) or less; and  
97.19 3. front egress is not limited.

97.20 Subp. 3. **IFC section 1029.9.5.** IFC section 1029.9.5 is amended by adding an  
97.21 exception to read:

97.22 5. Aisles serving bleachers in compliance with Section 1029.6.4.

97.23 Subp. 4. **IFC section 1029.17.** IFC section 1029.17 is amended by adding an exception  
97.24 to read:

98.1 **Exception:** In accordance with the Minnesota Bleacher Safety Act, Minnesota Statutes,  
98.2 section 326B.112:

98.3 1. guards are not required on bleachers 55 inches and less in height; and

98.4 2. bleachers must have vertical perimeter guards or other approved guards that address  
98.5 climbability and are designed to prevent accidents.

98.6 (Subsections 1029.17.1 through 1029.17.4 remain unchanged.)

98.7 **7511.1029 [Renumbered 7511.1030]**

98.8 **7511.1030 SECTION 1030, EMERGENCY ESCAPE AND RESCUE.**

98.9 Subpart 1. **IFC section 1030.1.** IFC section 1030.1 is amended to read as follows:

98.10 **1030.1 General.** In addition to the means of egress required by this chapter, emergency  
98.11 escape and rescue openings shall be provided in Group R occupancies as follows. Basements  
98.12 and sleeping rooms below the fourth story above grade plane shall have at least one exterior  
98.13 emergency escape and rescue opening in accordance with this section. Where basements  
98.14 contain one or more sleeping rooms, emergency escape and rescue openings shall be required  
98.15 in each sleeping room, but shall not be required in adjoining areas of the basement. Such  
98.16 openings shall open directly into a public way or to a yard or court that opens to a public  
98.17 way.

98.18 **Exceptions:**

98.19 1. Basements with a ceiling height of less than 80 inches (2,032 mm) and not used for  
98.20 purposes other than mechanical equipment or storage shall not be required to have  
98.21 emergency escape and rescue openings.

98.22 2. Emergency escape and rescue openings are not required from basements or sleeping  
98.23 rooms that have an exit door or exit access door that opens directly into a public way  
98.24 or to a yard, court, or exterior exit balcony that opens to a public way.

99.1 3. Basements without habitable spaces and having not more than 200 square feet (18.6  
99.2 m<sup>2</sup>) in floor area shall not be required to have emergency escape and rescue openings.

99.3 4. Emergency escape and rescue openings shall not be required under the following  
99.4 conditions:

99.5 A. the building is equipped throughout with an approved automatic sprinkler system  
99.6 in accordance with Section 903.3.1.1 or 903.3.1.2; and

99.7 B. the means of egress system complies without utilizing Section 1006.3.3.

99.8 5. In other than Group R-3 occupancies, sleeping rooms provided with a door to a  
99.9 fire-resistance-rated corridor having access to two remote exits in opposite directions.

99.10 6. The emergency escape and rescue opening is permitted to open onto a balcony within  
99.11 an atrium in accordance with the requirements of IBC Section 404, provided the balcony  
99.12 provides access to an exit and the dwelling unit or sleeping unit has a means of egress  
99.13 that is not open to the atrium.

99.14 7. High-rise buildings in accordance with IBC Section 403.

99.15 8. Basements in Group R-3 occupancies used only to house mechanical equipment and  
99.16 not exceeding total floor area of 200 square feet (18.58 m<sup>2</sup>).

99.17 Subp. 2. [See repealer.]

99.18 Subp. 3. [See repealer.]

99.19 **7511.1030 [Renumbered 7511.1031]**

99.20 **7511.1031 SECTION 1031, MAINTENANCE OF THE MEANS OF EGRESS.**

99.21 Subpart 1. **IFC section 1031.2.** IFC section 1031.2 and subsection 1031.2.1 are  
99.22 amended and subsection 1031.2.3 is added to read as follows:

100.1 **1031.2 Reliability.** Required exit accesses, exits, and exit discharges shall be continuously  
100.2 maintained free from obstructions or impediments to full instant use in the case of fire or  
100.3 other emergency.

100.4 **1031.2.1 Security devices and egress locks.** Security devices affecting means of egress  
100.5 shall be subject to approval of the fire code official. Security devices and locking  
100.6 arrangements in the means of egress that restrict, control, or delay egress shall be  
100.7 installed and maintained as required by this chapter or IFC Chapter 11, as amended.  
100.8 (IFC section 1031.2.2 remains unchanged.)

100.9 **1031.2.3 Inspection and testing.** Locking arrangements in the means of egress that  
100.10 restrict, control, or delay egress, including locking arrangements and devices in  
100.11 accordance with Sections 1010.1.9.7 through 1010.1.9.10, shall be tested as follows:

- 100.12 1. The primary release functions shall be tested monthly for operability.
- 100.13 2. Fire alarm and sprinkler system interconnects and other failsafe release functions  
100.14 shall be tested at least annually for operability.
- 100.15 3. Testing shall be done by individuals who can demonstrate knowledge and  
100.16 understanding of the operating components of the door being tested.
- 100.17 4. Deficiencies shall be corrected without delay. Written records of inspection and  
100.18 testing shall be kept and available to the fire code official.

100.19 Subp. 2. **IFC section 1031.3.** IFC section 1031.3 is amended to read:

100.20 **1031.3 Obstructions.** A means of egress shall be free from obstructions that would prevent  
100.21 its use, including the accumulation of snow and ice. Means of egress shall remain free of  
100.22 any material or matter where its presence would obstruct or render the means of egress  
100.23 hazardous. No combustible storage is allowed in corridors or exit stairs.

100.24 Subp. 3. **IFC section 1031.7.** IFC section 1031.7 is amended to read:

101.1 **1031.7 Emergency escape and rescue openings.** Required emergency escape and rescue  
101.2 openings shall be operational from the inside of the room without the use of keys or tools.  
101.3 Bars, grilles, grates, or similar devices are allowed to be placed over emergency escape and  
101.4 rescue openings provided the minimum net clear opening size complies with this code and  
101.5 such devices shall be releasable or removable from the inside without the use of a key, tool,  
101.6 or force greater than that which is required for normal operation of the escape and rescue  
101.7 opening.

101.8 **Exception:** Window fall protection required by the building code.

101.9 Subp. 4. **IFC section 1031.10.2.** IFC section 1031.10.2 is amended to read:

101.10 **1031.10.2 Power test.** For battery-powered emergency lighting, a power test of the  
101.11 emergency lighting equipment shall be completed annually. The power test shall operate  
101.12 the emergency lighting for a minimum of 30 minutes. All emergency lighting shall  
101.13 remain sufficiently illuminated for the duration of the test.

101.14 **7511.1103 SECTION 1103, FIRE SAFETY REQUIREMENTS FOR EXISTING**  
101.15 **BUILDINGS.**

101.16 Subpart 1. **IFC section 1103.1.** IFC section 1103.1 is amended to read:

101.17 **1103.1 Required construction.** Existing buildings shall comply with the minimum  
101.18 provisions specified in Sections 1103.2 through 1106.1.2.

101.19 Table 1103.1 is deleted.

101.20 Subp. 2. **IFC section 1103.2.** IFC section 1103.2 is deleted.

101.21 Subp. 3. **IFC section 1103.3.** IFC section 1103.3 and all subsections are deleted.

101.22 Subp. 4. **IFC section 1103.4.** IFC section 1103.4 and all subsections are deleted  
101.23 entirely and replaced with the following:

102.1 **1103.4 Vertical openings.** Interior vertical shafts, including stairways, elevator hoistways,  
 102.2 and service and utility shafts, that connect two or more stories of a building, shall be enclosed  
 102.3 or protected as specified in Section 1103.4.1 and Table 1103.4.

102.4 **1103.4.1 Fire-resistive-rated construction.** Where one-hour fire-resistive rated  
 102.5 construction is required by IFC Chapter 11, as amended, it includes equivalent ratings  
 102.6 for openings in that construction. When openings are required to be protected, opening  
 102.7 protectives shall be maintained self-closing or automatic-closing by smoke detection.  
 102.8 Existing fusible-link-type automatic door-closing devices are permitted if the fusible  
 102.9 link rating does not exceed 135° F (57° C).

102.10 **TABLE 1103.4**

102.11 **VERTICAL OPENING PROTECTION REQUIRED**

102.12 <b>OCCUPANCY</b>	<b>CONDITIONS</b>	<b>PROTECTION</b>
102.13 <b>CLASSIFI-</b>		<b>REQUIRED</b>
102.14 <b>CATION</b>		
102.15 Group I	Vertical openings connecting two or more stories	1-hour protection
102.16		
102.17 All, other than	Vertical openings connecting two stories	No protection required <sup>a,b</sup>
102.18 Group I		
102.19 All, other than	Vertical openings connecting three to five stories	1-hour protection or automatic sprinklers throughout <sup>a,b</sup>
102.20 Group I		
102.21		
102.22 All, other than	Vertical openings connecting more than five stories	1-hour protection <sup>a,b</sup>
102.23 Group I		
102.24 All	Mezzanines open to the floor below	No protection required <sup>a,b</sup>
102.25 All, other than	Atriums and covered mall buildings	1-hour protection or automatic sprinklers throughout
102.26 Group I		
102.27		

103.1	All, other than Groups B and M	Escalator openings connecting four or less stories in a sprinklered building. Openings must be protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.	No protection required
103.2			
103.3			
103.4			
103.5			
103.6	Group B and M	Escalator openings in a sprinklered building protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13.	No protection required
103.7			
103.8			
103.9			

103.10 <sup>a</sup> Vertical opening protection is not required for Group R-3 occupancies.

103.11 <sup>b</sup> Vertical opening protection is not required for open parking garages and ramps.

103.12 Subp. 5. [See repealer.]

103.13 Subp. 6. **IFC section 1103.5.** IFC section 1103.5 and its subsections are deleted  
103.14 entirely and replaced with the following:

103.15 **1103.5 Sprinkler systems.** An automatic sprinkler system shall be provided in existing  
103.16 buildings in accordance with Sections 1103.5.1 through 1103.5.5.

103.17 **1103.5.1** Reserved.

103.18 **1103.5.2 Group I-2.** An automatic sprinkler system shall be provided throughout  
103.19 existing Group I-2 fire areas. The sprinkler system shall be provided throughout the  
103.20 floor where the Group I-2 occupancy is located, and in all floors between the Group  
103.21 I-2 occupancy and the level of exit discharge, including the level of exit discharge.

103.22 **1103.5.3 Basement access or sprinkler protection.** An approved automatic sprinkler  
103.23 system shall be provided in the following occupancies located in basements when such  
103.24 areas exceed 2,500 square feet (232.3 m<sup>2</sup>) in size and do not have 20 square feet (1.86  
103.25 m<sup>2</sup>) of opening entirely above the adjoining ground level in each 50 lineal feet (15,240  
103.26 mm) or fraction thereof of exterior wall on at least one side of the building:

103.27 1. Group A occupancies used as commercial drinking and dining establishments.

- 104.1 2. Group A occupancies used as bowling alleys.
- 104.2 3. Group E occupancies used for student occupancy.
- 104.3 4. Group I occupancies.
- 104.4 5. Group R-1 and R-2 occupancies having dwelling units or guest rooms.
- 104.5 Openings required by this section shall have a minimum dimension of 30 inches (762
- 104.6 mm).
- 104.7 If any portion of the basement is located more than 75 feet (22.86 m) from required
- 104.8 openings, the basement shall be provided with an approved automatic sprinkler system
- 104.9 throughout.
- 104.10 **1103.5.4 Pyroxylin plastics.** An automatic sprinkler system shall be provided throughout
- 104.11 existing buildings where cellulose nitrate film or pyroxylin plastics are manufactured,
- 104.12 stored, or handled in quantities exceeding 100 pounds (45 kg). Vaults located within
- 104.13 buildings for the storage of raw pyroxylin shall be protected with an approved automatic
- 104.14 sprinkler system capable of discharging 1.66 gallons per minute per square foot (68
- 104.15 L/mn/m<sup>2</sup>) over the area of the vault.
- 104.16 **1103.5.5 Existing rubbish and linen chutes.** Existing rubbish and linen chutes that
- 104.17 connect three or more stories shall be protected with automatic sprinklers installed and
- 104.18 maintained in conformance with Section 903.2.11.2.
- 104.19 Subp. 7. **IFC section 1103.7.** IFC section 1103.7 and its subsections are deleted
- 104.20 entirely and replaced with the following:
- 104.21 **1103.7 Fire alarm systems.** An approved fire alarm system shall be installed in existing
- 104.22 buildings and structures in accordance with Sections 1103.7.1 through 1103.7.6.1.



105.1 In buildings containing mixed occupancies that are designed as separated uses (see Section  
105.2 102.14), fire alarm and detection systems need only be installed in those occupancies where  
105.3 required by this section.

105.4 In areas protected by an approved, supervised automatic sprinkler system installed in  
105.5 accordance with Section 903.3.1.1 or 903.3.1.2, automatic fire detectors required by Section  
105.6 1103.7 need not be provided. Where Section 1103.7 requires smoke detectors, such protection  
105.7 shall be installed.

105.8 **1103.7.1 Group A, general.** A fire alarm system shall be installed in accordance with  
105.9 Sections 1103.7.1 through 1103.7.1.3.1 in existing Group A occupancies having an  
105.10 occupant load of 300 or more.

105.11 **1103.7.1.1 Exemptions for Group A.** A fire alarm system is not required in Group  
105.12 A occupancies having the following conditions:

105.13 1. Assembly areas used solely for worship purposes.

105.14 2. A fire alarm system is not required when an approved automatic  
105.15 fire-sprinkler system is installed throughout the building.

105.16 3. Assembly uses located inside Group E occupancies shall have alarms as  
105.17 required for the Group E occupancy.

105.18 4. A-5 occupancies.

105.19 **1103.7.1.2 Initiation.** Initiation of the fire alarm system shall be by automatic  
105.20 means. Approved automatic fire detectors shall be installed in laundry rooms,  
105.21 boiler and furnace rooms, mechanical and electrical rooms, shops, kitchens,  
105.22 trash-collection rooms, storage rooms, and similar areas.

105.23 **1103.7.1.3 Notification.** The required fire alarm system shall activate an audible  
105.24 and visible notification appliance at a constantly attended location within the

106.1 building for the purposes of initiating emergency action. A presignal feature and  
106.2 positive alarm sequencing in accordance with NFPA 72 are permitted. Occupant  
106.3 notification shall be by means of voice announcements, either live or prerecorded,  
106.4 initiated by the person in the constantly attended location.

106.5 **1103.7.1.3.1 Exemption for voice evacuation.** Where no constantly attended  
106.6 location exists, an automatic fire alarm system providing a general evacuation  
106.7 signal or an approved emergency voice/alarm communications system is  
106.8 permitted.

106.9 **1103.7.2 Group E, general.** A fire alarm system shall be installed in accordance with  
106.10 Sections 1103.7.2 through 1103.7.2.4 in existing Group E occupancies having an  
106.11 occupant load of 50 or more.

106.12 **1103.7.2.1 Exemption for single classroom.** A fire alarm system is not required  
106.13 for a building with a maximum area of 1,000 square feet (93 m<sup>2</sup>) that contains a  
106.14 single classroom and is located no closer than 20 feet (15,240 mm) from another  
106.15 building.

106.16 **1103.7.2.2 Initiation.** Initiation of the fire alarm system shall be by manual and  
106.17 automatic means. Approved automatic fire detectors shall be provided in laundry  
106.18 rooms, boiler and furnace rooms, mechanical and electrical rooms, shops,  
106.19 laboratories, kitchens, locker rooms, custodial closets, trash-collection rooms,  
106.20 storage rooms, lounges, and similar areas.

106.21 **1103.7.2.2.1 Manual activation.** In buildings protected throughout by an  
106.22 approved, automatic fire sprinkler system or having an approved fire alarm  
106.23 system equipped with corridor smoke detection, manual fire alarm boxes are  
106.24 only required in the main office and in a custodial area.

107.1 **1103.7.2.3 Travel through adjoining rooms.** Where the only means of egress  
107.2 travel from an interior room or rooms having an aggregate occupant load of more  
107.3 than ten occupants is through an adjoining or intervening room, automatic smoke  
107.4 detectors shall be installed throughout the common atmosphere through which the  
107.5 path of egress travel passes.

107.6 **1103.7.2.3.1 Sprinkler protection.** In buildings that are protected throughout  
107.7 by an approved automatic sprinkler system installed in accordance with Section  
107.8 903.3.1.1, smoke detectors are not required in intervening or adjoining rooms.

107.9 **1103.7.2.4 Notification.** Activation of the fire alarm system or automatic sprinkler  
107.10 system shall initiate a general evacuation signal.

107.11 **1103.7.3 Group I, general.** A fire alarm system shall be installed in accordance with  
107.12 Sections 907.2.6 through 907.2.6.4.2 in existing Group I occupancies.

107.13 **1103.7.4 Group R-1, general.** A fire alarm system shall be installed in accordance  
107.14 with Sections 1103.7.4 through 1103.7.4.4.1 in existing Group R-1 occupancies where:

107.15 1. Any sleeping unit or dwelling unit is located two or more stories above the story  
107.16 containing the lowest level of exit discharge.

107.17 2. Any sleeping unit or dwelling unit is located more than one story below the  
107.18 highest level of exit discharge of exits serving the dwelling unit.

107.19 3. The building contains 20 or more guest rooms or dwelling units.

107.20 4. The building is used as a congregate living facility, dormitory, convent,  
107.21 monastery, fraternity, sorority, group home, or shelter and has an occupant load  
107.22 of 20 or more.

107.23 **1103.7.4.1 Direct exits to exterior.** A fire alarm system is not required in buildings  
107.24 that do not have interior corridors serving guest rooms and where each guest room

108.1 has an exit door opening directly to an exterior exit access that leads directly to  
108.2 the exits.

108.3 **1103.7.4.2 Initiation.** Initiation of the fire alarm system shall be by automatic  
108.4 means. Approved automatic fire detectors shall be provided in boiler and furnace  
108.5 rooms, shops, laundry rooms, mechanical and electrical rooms, trash-collection  
108.6 rooms, storage rooms, gift shops, locker rooms, and similar areas. Automatic  
108.7 smoke detectors shall be provided in all common areas and interior corridors  
108.8 serving as required means of egress.

108.9 **1103.7.4.2.1 Sprinkler protection.** System fire and smoke detectors are not  
108.10 required when an approved automatic fire-extinguishing system is installed  
108.11 in accordance with Section 903.3.1.1 or 903.3.1.2 and a manual fire alarm  
108.12 box is provided at a constantly attended location. When a constantly attended  
108.13 location is not provided the manual fire alarm box shall be provided at the  
108.14 main exit.

108.15 **1103.7.4.3 Notification.** Activation of the fire alarm system or automatic sprinkler  
108.16 system shall initiate a general evacuation signal.

108.17 **1103.7.4.4 Guest room smoke alarms.** Guest room smoke alarms required by  
108.18 Section 1103.8 shall not be connected to a fire alarm system.

108.19 **1103.7.4.4.1 Annunciation allowed.** Connection of such alarms for annunciation  
108.20 is permitted.

108.21 **1103.7.5 Group R-2, general.** A fire alarm system shall be installed in accordance  
108.22 with Sections 1103.7.5 through 1103.7.5.3 in existing Group R-2 occupancies where:

108.23 1. any sleeping unit or dwelling unit is located two or more stories above the story  
108.24 containing the lowest level of exit discharge;

109.1 2. any sleeping unit or dwelling unit is located more than one story below the  
109.2 highest level of exit discharge of exits serving the dwelling unit;

109.3 3. the building contains more than 16 sleeping units or dwelling units; or

109.4 4. the building is used as a congregate living facility, dormitory, convent,  
109.5 monastery, fraternity, sorority, group home, or shelter and has an occupant load  
109.6 of 20 or more.

109.7 **1103.7.5.1 Direct exits to exterior.** A fire alarm system is not required in buildings  
109.8 that do not have interior corridors serving guest rooms and where each dwelling  
109.9 unit has an exit door opening directly to an exterior exit access that leads directly  
109.10 to the exits.

109.11 **1103.7.5.2 Initiation.** Initiation of the fire alarm system shall be by automatic  
109.12 means. Approved automatic fire detectors shall be provided in boiler and furnace  
109.13 rooms, shops, laundry rooms, mechanical and electrical rooms, trash-collection  
109.14 rooms, storage rooms, and similar areas. Automatic smoke detectors shall be  
109.15 provided in all common areas and interior corridors serving as required means of  
109.16 egress.

109.17 **1103.7.5.2.1 Sprinkler protection.** System fire and smoke detectors are not  
109.18 required when an approved automatic fire-extinguishing system is installed  
109.19 throughout the building.

109.20 **1103.7.5.3 Notification.** Activation of the fire alarm system or automatic sprinkler  
109.21 system shall initiate a general evacuation signal.

109.22 **1103.7.5.4 Dwelling unit smoke alarms.** Dwelling unit smoke alarms required  
109.23 by Section 1103.8 shall not be connected to the building fire alarm system.

109.24 **1103.7.5.4.1 Annunciation allowed.** Connection of such alarms for  
109.25 annunciation is permitted.

110.1 **1103.7.6 Audible alarms.** Audible alarm notification appliances shall be provided and  
110.2 sound a distinctive sound that is not to be used for any purpose other than that of a fire  
110.3 alarm. The audible alarm notification appliances shall provide a sound pressure level  
110.4 of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the  
110.5 maximum sound level having a duration of at least 60 seconds, whichever is greater,  
110.6 in every occupied space within the building. The maximum sound pressure level for  
110.7 audible alarm notification appliances shall be 110 dBA at the minimum hearing distance  
110.8 from the audible appliance. Where the average ambient noise is greater than 105 dBA,  
110.9 visible alarm notification appliances shall be provided in accordance with NFPA 72  
110.10 and audible alarm notification appliances shall not be required.

110.11 **1103.7.6.1 Maximum sound pressure.** Fire alarm system audibility levels shall  
110.12 not exceed 35 dB above the average ambient sound level described in Section  
110.13 907.5.2.1.1 or 35 dB above the peak ambient sound level. The maximum sound  
110.14 pressure level for audible alarm notification appliances shall be 110 dBA at the  
110.15 minimum hearing distance from the audible appliance. Where the average ambient  
110.16 noise is greater than 95 dBA, visible alarm notification appliances shall be provided  
110.17 in accordance with NFPA 72 and audible alarm notification appliances shall not  
110.18 be required.

110.19 Subp. 8. **IFC section 1103.8.** IFC section 1103.8 and its subsections are deleted  
110.20 entirely and replaced with the following:

110.21 **1103.8 Single- and multiple-station smoke alarms.** Single- and multiple-station smoke  
110.22 alarms shall be installed in existing Group I-1 and R occupancies in accordance with Table  
110.23 1103.8.

110.24 **TABLE 1103.8**

110.25 **SMOKE ALARM REQUIREMENTS**

	<b>Condition:</b>	<b>Location:</b>	<b>Power Supply:</b>	<b>Interconnection Required:</b>
111.1				
111.2				
111.3	Existing	In hallways outside	If constructed on or after	No
111.4	buildings that do	sleeping rooms. In sleeping	8/1/1989, smoke alarms are	interconnection
111.5	not have any	rooms. On each level of the	required to be hard-wired	is required for
111.6	smoke alarms	building and in basements.	(120 volt).	battery-powered
111.7	(same as new).	On ceiling or wall (less than	If constructed before	alarms.
111.8		12 inches below ceiling).	8/1/1989, smoke alarms can	
111.9		On center of ceiling above	be battery-powered.	
111.10		stairways.		
111.11	Existing	In hallways outside	Smoke alarms are required	No
111.12	buildings	sleeping rooms. On each	to be hard-wired (120 volt).	interconnection
111.13	(constructed on	level and in basements. On		is required.
111.14	or after	ceiling or wall (less than 12		
111.15	8/1/1989).	inches below ceiling).		
111.16	Existing	In hallways outside	Smoke alarms can be	No
111.17	buildings	sleeping rooms. On each	battery-powered.	interconnection
111.18	(constructed	level and in basements. On		is required.
111.19	before 8/1/1989).	ceiling or wall (less than 12		
111.20		inches below ceiling).		
111.21	Replacement of	Smoke alarms must be	Power supply must be the	Interconnection
111.22	smoke alarms in	installed in same locations	same as the smoke alarms	must be provided
111.23	existing	as originally installed.	being replaced.	if the smoke
111.24	buildings.			alarms being
111.25				replaced were
111.26				interconnected.

111.27 **1103.8.1 Replacement of smoke alarms.** Single and multiple-station smoke alarms  
 111.28 shall be replaced when:

111.29 1. They fail to respond to operability tests.

111.30 2. They exceed ten years from the date of manufacture.

111.31 Smoke alarms shall be replaced with smoke alarms having the same type of power  
 111.32 supply.

111.33 Subp. 9. **IFC section 1103.11.** IFC section 1103 is amended by adding a section to  
 111.34 read:

112.1 **1103.11 Protection of existing cooking equipment.** Approved automatic fire-extinguishing  
112.2 systems shall be provided for the protection of existing commercial-type cooking equipment  
112.3 that produces grease-laden vapors in accordance with Section 904.

112.4 **7511.1104 SECTION 1104, MEANS OF EGRESS FOR EXISTING BUILDINGS.**

112.5 Subpart 1. **IFC section 1104.1.** IFC section 1104.1 is amended and sections added to  
112.6 read:

112.7 **1104.1 General.** Means of egress in existing buildings shall comply with the minimum  
112.8 egress requirements specified in Sections 1104.1 through 1104.26.7.

112.9 **1104.1.1 Occupant loads.** The number of occupants shall be determined in accordance  
112.10 with Section 1004.

112.11 **1104.1.2 Egress width.** The minimum required egress width shall be determined in  
112.12 accordance with Section 1005.1.

112.13 **1104.1.3 Ceiling height.** The ceiling height in corridors shall be not less than 78 inches  
112.14 (1,981 mm).

112.15 **1104.1.4 Special exiting provisions for younger students.** Rooms in Group E  
112.16 occupancies used by preschool, kindergarten, first- or second-grade pupils, latchkey,  
112.17 child care, early childhood family education, teen parent, or similar programs shall be  
112.18 located as required by the Building Code.

112.19 *[For text of subparts 2 and 3, see Minnesota Rules]*

112.20 Subp. 4. **IFC section 1104.5.** IFC section 1104.5 is amended and sections added to  
112.21 read:

112.22 **1104.5 Illumination - general.** Normal and emergency illumination of the means of egress  
112.23 shall comply with Sections 1104.5.1 through 1104.5.3.



113.1 **1104.5.1 Illumination required.** The means of egress shall be illuminated at all times  
113.2 that the building space served by the means of egress is occupied. Natural lighting in  
113.3 the interior rooms or spaces can be used to satisfy this requirement during periods of  
113.4 daylight.

113.5 **1104.5.1.1 Group U occupancies.** Illumination is not required in Group U  
113.6 occupancies.

113.7 **1104.5.1.2 Aisle accessways.** Illumination is not required for aisle accessways.

113.8 **1104.5.1.3 Dwelling units and sleeping rooms.** Illumination is not required for  
113.9 dwelling units and sleeping rooms of Group I, R-1, R-2, and R-3 occupancies.

113.10 **1104.5.2 Illumination level.** Floors and other walking surfaces within the means of  
113.11 egress shall be illuminated according to Sections 1104.5.2.1 and 1104.5.2.2:

113.12 **1104.5.2.1 General.** The means of egress illumination level shall not be less than  
113.13 one foot-candle (11 lux) at the floor level.

113.14 **1104.5.2.2 Assembly performances.** In assembly occupancies, the illumination  
113.15 of the floors of exit access shall be at least 0.2 foot-candle (2.2 lux) during periods  
113.16 of performances or projections involving directed light.

113.17 **1104.5.3 Illumination emergency power.** The power supply for means of egress  
113.18 illumination shall normally be provided by the premises' electrical supply. In the event  
113.19 of power supply failure, illumination shall be automatically provided from an emergency  
113.20 system for the following occupancies where such occupancies require two or more  
113.21 means of egress:

113.22 1. Group A having 50 or more occupants. Assembly occupancies used exclusively  
113.23 as a place of worship and having an occupant load of less than 300 are not required  
113.24 to have emergency illumination.

- 114.1 2. Group B buildings three or more stories in height, buildings with 100 or more  
114.2 occupants above or below the level of exit discharge, or buildings with 1,000 or  
114.3 more total occupants.
- 114.4 3. Group E in interior stairs, corridors, windowless areas with student occupancy,  
114.5 shops, and laboratories.
- 114.6 4. Group F having more than 100 occupants. Buildings used only during daylight  
114.7 hours that are provided with windows for natural light are not required to have  
114.8 emergency illumination.
- 114.9 5. Group I.
- 114.10 6. Group M buildings greater than 3,000 square feet (2,879 m<sup>2</sup>) in gross sales area  
114.11 or exceeding one story in height.
- 114.12 7. Group R-1. Where each guest room has direct access to the outside of the  
114.13 building at grade, emergency illumination is not required.
- 114.14 8. Group R-2. Where each living unit has direct access to the outside of the building  
114.15 at grade, emergency illumination is not required.
- 114.16 9. Group R-4. Where each sleeping room has direct access to the outside of the  
114.17 building at ground level, emergency illumination is not required.
- 114.18 The emergency power system shall provide power for not less than 30 minutes and  
114.19 consist of storage batteries, unit equipment, or an on-site generator. The installation of  
114.20 the emergency power system shall be in accordance with Section 1203.
- 114.21 Subp. 5. **IFC section 1104.6.** IFC section 1104.6 and its subsections are deleted  
114.22 entirely and replaced with the following:
- 114.23 **1104.6 Guards.** Guards complying with this section shall be provided at the open sides of  
114.24 means of egress that are more than 30 inches (762 mm) above the floor or grade below.

115.1 **Exception:** Approved existing open guards.

115.2 **1104.6.1 Height of guards.** Guards shall form a protective barrier not less than 42  
115.3 inches (1,067 mm) high except for the following existing guards:

115.4 1. Existing guards on the open side of stairs, which are permitted to be not less  
115.5 than 30 inches (760 mm) high.

115.6 2. Existing guards within dwelling units, which are permitted to be not less than  
115.7 36 inches (910 mm) high.

115.8 3. Existing guards in assembly areas.

115.9 4. Existing guards on stairs and balconies of buildings designated as historic  
115.10 structures, which are permitted to be not less than 24 inches (610 mm) high.

115.11 **1104.6.2 Opening limitations.** Open guards shall have balusters or ornamental patterns  
115.12 such that a 6-inch (152 mm) diameter sphere cannot pass through any opening up to a  
115.13 height of 34 inches (864 mm) except when one of the following conditions exist:

115.14 1. At elevated walking surfaces for access to and use of electrical, mechanical, or  
115.15 plumbing systems or equipment, guards shall have balusters or be of solid materials  
115.16 such that a sphere with a diameter of 21 inches (533 mm) cannot pass through any  
115.17 opening.

115.18 2. In occupancies in Group I-3, F, H, or S, the clear distance between intermediate  
115.19 rails measured at right angles to the rails shall not exceed 21 inches (533 mm).

115.20 Subp. 6. **IFC section 1104.7.** IFC section 1104.7 and its subsections are deleted  
115.21 entirely and replaced with the following:

115.22 **1104.7 Doors - general.** Except where modified by Section 1010.1.2, doors shall be of the  
115.23 side-hinged swing type. Doors shall swing in the direction of egress travel when serving an  
115.24 occupant load of 50 or more persons. The minimum width of each door opening shall be

116.1 sufficient for the occupant load thereof. Locks and latches shall comply with Sections  
116.2 1010.1.9 through 1010.1.11.4.

116.3 **1104.7.1 Size of doors.** Except where modified by this section, each required means  
116.4 of egress door shall comply with the minimum dimensions specified herein. Doors  
116.5 shall provide a clear width of not less than 28 inches (711 mm). Where this section  
116.6 requires a minimum clear width of 28 inches (711 mm) and a door opening includes  
116.7 two door leaves without a mullion, one leaf shall provide a clear opening width of 28  
116.8 inches (711 mm). The maximum width of a swinging door leaf shall be 48 inches (1,219  
116.9 mm) nominal. The height of doors shall not be less than 80 inches (2,032 mm).

116.10 **1104.7.1.1 Closets.** Door openings to storage closets less than 10 square feet (0.93  
116.11 m<sup>2</sup>) in area shall not be limited by the minimum width.

116.12 **1104.7.1.2 Revolving doors.** Width of door leaves in revolving doors shall not be  
116.13 limited.

116.14 **1104.7.1.3 Dwelling units.** Door openings within a dwelling unit are permitted to  
116.15 be 78 inches (1,981 mm) in height.

116.16 **1104.7.1.4 Small rooms.** Exit access doors serving a room not larger than 70  
116.17 square feet (6.5 m<sup>2</sup>) are permitted to be 24 inches (610 mm) in door width.

116.18 **1104.7.1.5 Health care facilities.** The minimum clear width for doors in the means  
116.19 of egress from hospitals; nursing homes; limited care facilities; psychiatric hospital  
116.20 sleeping rooms; and diagnostic and treatment areas, such as x-ray, surgery, or  
116.21 physical therapy, shall be not less than 32 inches (810 mm) wide. Existing 34-inch  
116.22 (865 mm) doors shall be permitted. Existing 28-inch (710 mm) corridor doors in  
116.23 facilities where the fire plans do not require evacuation by bed, gurney, or  
116.24 wheelchair shall be permitted.

117.1 Subp. 7. **IFC section 1104.10.** IFC section 1104.10 and subsection 1104.10.1 are  
117.2 amended to read:

117.3 **1104.10 Stair dimensions for existing stairs.** Existing stairs in buildings shall be permitted  
117.4 to remain if the rise does not exceed 8.25 inches (210 mm) and the run is not less than 9  
117.5 inches (229 mm). Existing stairs are permitted to have a minimum width of 36 inches (914  
117.6 mm) but not less than the width required for the number of occupants served as determined  
117.7 by Section 1005.1. Existing stairs can be rebuilt.

117.8 **1104.10.1 Stair dimensions for replacement stairs.** The replacement of an existing  
117.9 stairway in a structure shall not be required to comply with the new stairway  
117.10 requirements of Section 1011 where the existing space and construction will not allow  
117.11 a reduction in pitch or slope.

117.12 *[For text of subpart 8, see Minnesota Rules]*

117.13 Subp. 9. **IFC section 1104.16.** IFC section 1104.16 and its subsections are deleted in  
117.14 their entirety and replaced with the following:

117.15 **1104.16 Fire escape stairs.** Fire escape stairs shall comply with Sections 1104.16.1 through  
117.16 1104.16.7.

117.17 **1104.16.1 Existing means of egress.** Fire escape stairs shall be permitted in existing  
117.18 buildings but shall not constitute more than 50 percent of the required exit capacity.

117.19 **1104.16.2 Protection of openings.** Openings within 10 feet (3,048 mm) of fire escape  
117.20 stairs shall be protected by fire assemblies having a minimum 3/4-hour fire-resistance  
117.21 rating. In buildings equipped throughout with an approved automatic sprinkler system,  
117.22 opening protection is not required.

117.23 **1104.16.3 Dimensions.** Fire escape stairs shall meet the minimum width, capacity,  
117.24 riser height, and tread depth as specified in Table 1104.16.

118.1 **1104.16.4 Access.** Access to a fire escape from a corridor shall not be through an  
 118.2 intervening room. Access to a fire escape stair shall be from a door or window meeting  
 118.3 the criteria of Section 1005.3.2. Access to a fire escape stair shall be directly to a  
 118.4 balcony, landing, or platform. These shall be no higher than the floor or windowsill  
 118.5 level and no lower than 8 inches (203 mm) below the floor level or 18 inches (457 mm)  
 118.6 below the windowsill.

118.7 **1104.16.5 Materials and strength.** Components of fire escape stairs shall be constructed  
 118.8 of noncombustible materials.

118.9 Fire escape stairs and balconies shall support the dead load plus a live load of not less  
 118.10 than 100 pounds per square foot (4.78 kN/m<sup>2</sup>). Fire escape stairs and balconies shall  
 118.11 be provided with a top and intermediate handrail on each side.

118.12 The fire code official is authorized to require testing or other satisfactory evidence that  
 118.13 an existing fire escape stair meets the requirements of this section.

118.14 **1104.16.6 Termination.** The lowest balcony shall not be more than 18 feet (5,486 mm)  
 118.15 from the ground. Fire escape stairs shall extend to the ground or be provided with  
 118.16 counterbalanced stairs reaching the ground. For fire escape stairs serving ten or fewer  
 118.17 occupants, an approved fire escape ladder is allowed to serve as the termination for  
 118.18 fire escape stairs.

118.19 **1104.16.7 Maintenance.** Fire escapes shall be kept clear and unobstructed at all times  
 118.20 and shall be maintained in good working order.

118.21 **TABLE 1104.16**

118.22 **DIMENSIONS FOR EXISTING FIRE ESCAPE STAIRS**

118.23 118.24	<b>Feature:</b>	<b>Serving More Than 10 Occupants</b>	<b>Serving 10 or Fewer Occupants</b>
118.25	Minimum Width	22 inches	18 inches

119.1	Maximum Height of Risers	9 inches	12 inches
119.2	Minimum Tread Depth	9 inches	6 inches

119.3 Subp. 10. **IFC section 1104.17.** IFC section 1104.17 and its subsections are deleted  
119.4 entirely and replaced with the following:

119.5 **1104.17 Corridors.** Corridors, common path of travel, and travel distance shall comply  
119.6 with Sections 1104.17.1 through 1104.17.4.1. Corridors complying with Section 1020.1  
119.7 need not be fire-resistance rated.

119.8 **1104.17.1 Construction.** Corridors shall be fire-resistance rated in accordance with  
119.9 this section and Table 1104.17.1. Existing walls surfaced with wood lath and plaster  
119.10 in good condition or 1/2-inch gypsum wallboard are acceptable for corridor walls and  
119.11 ceilings. Where Table 1104.17.1 allows a sprinkler system in lieu of fire-resistance-rated  
119.12 construction, the building shall be protected throughout with an automatic sprinkler  
119.13 system in accordance with Section 903.3.1.1 or 903.3.1.2.

119.14 **1104.17.1.1 Existing places of religious worship.** In Group A occupancies used  
119.15 as places of religious worship, existing corridor walls, ceilings, and opening  
119.16 protection not in compliance with Section 1104.17.1 may be continued when such  
119.17 buildings are protected with an approved automatic fire alarm system. The fire  
119.18 alarm system shall include automatic smoke detection throughout the exit system  
119.19 and approved detection in all boiler rooms, furnace rooms, mechanical rooms, and  
119.20 storage rooms.

119.21 **1104.17.1.2 Existing Group B occupancies.** In office areas of Group B  
119.22 occupancies not exceeding 10,000 square feet (929 m<sup>2</sup>) in size, existing corridor  
119.23 walls, ceilings, and opening protection not in compliance with Section 1104.17.1  
119.24 may be continued when such buildings are protected with an approved automatic  
119.25 fire alarm system. The fire alarm system shall include automatic smoke detection

120.1 throughout the exit system and approved detection in all boiler rooms, furnace  
120.2 rooms, mechanical rooms, and storage rooms.

120.3 **1104.17.1.3 Existing Group E occupancies.** In Group E occupancies, existing  
120.4 corridor walls, ceilings, and opening protection not in compliance with Section  
120.5 1104.17.1 may be continued when such buildings are protected with an approved  
120.6 automatic fire alarm system that is monitored by a central, proprietary, or remote  
120.7 station service. The fire alarm system shall include automatic smoke detection  
120.8 throughout the exit system and approved detection in all rooms and areas other  
120.9 than classrooms and offices.

120.10 **TABLE 1104.17.1**

120.11 **CORRIDOR FIRE-RESISTANCE RATING**

Occupancy	Occupant Load Served by Corridor	Required Fire-Resistance Rating (hours)	
		Without sprinkler system	With sprinkler system
A, B, E, F, H, M, S, U	Greater than 30	1	0
I	Greater than 10	1 (see Section 1104.17.2.3)	0
R	Greater than 10	1	0

120.19 **1104.17.2 Corridor openings.** Openings into corridors shall comply with Sections  
120.20 1104.17.2.1 through 1104.17.2.3.

120.21 **1104.17.2.1 Doors.** Doors opening into corridors required by Table 1104.17.1 to  
120.22 be fire-resistance rated shall be protected by 20-minute fire assemblies or solid  
120.23 wood doors not less than 1-3/4 inches (45 mm) thick. Where the existing frame  
120.24 will not accommodate the 1-3/4 inches (45 mm) thick door, a 1-3/8 inches (35  
120.25 mm) thick solid bonded wood core door or equivalent insulated steel door shall  
120.26 be permitted. Doors shall be self-closing or automatic-closing by smoke detection.



121.1 **1104.17.2.2 Other openings.** Openings with fixed wired glass set in steel frames  
121.2 are permitted for corridor walls and ceilings. Transoms, louvers, and openings  
121.3 other than doors from corridors to rooms shall be automatic-closing by smoke  
121.4 detection or shall be covered with a minimum of 3/4-inch (19 mm) gypsum  
121.5 wallboard or equivalent material on the room side.

121.6 **1104.17.2.3 Existing Group I-2 and I-3 occupancies.** Group I-3 corridor doors  
121.7 and patient room doors in Group I-2 corridors need not be fire-resistance rated or  
121.8 self-closing where smoke barriers are provided in accordance with the Building  
121.9 Code or NFPA 101.

121.10 **1104.17.3 Corridor width.** The minimum corridor width shall be in accordance with  
121.11 Sections 1104.17.3.1 through 1104.17.3.2.

121.12 **1104.17.3.1 Minimum width.** The minimum corridor width shall be as determined  
121.13 by the occupant load calculations in Section 1005.3 but not less than 36 inches.

121.14 **1104.17.3.2 Minimum width in mechanical areas.** The minimum corridor width  
121.15 is allowed to be reduced to 24 inches (610 mm) for spaces providing access to  
121.16 electrical, mechanical, or plumbing systems.

121.17 **1104.17.4 Dead ends.** Where more than one exit or exit access doorway is required,  
121.18 the exit access shall be arranged such that dead ends do not exceed the limits specified  
121.19 in Section 1104.17.4.1 and Table 1104.17.4.

121.20 **1104.17.4.1 Wide corridors and dead-end provisions.** A dead-end passageway  
121.21 or corridor shall not be limited in length where the length of the dead-end  
121.22 passageway or corridor is less and 2.5 times the least width of the dead-end  
121.23 passageway or corridor.

121.24 **TABLE 1104.17.4**

121.25 **COMMON PATH, DEAD-END, AND TRAVEL DISTANCE LIMITS (by occupancy)**

122.1 122.2	<b>Occupancy</b>	<b>Common Path Limit</b>		<b>Dead-End Corridor Limit</b>		<b>Travel Distance Limit</b>	
		<b>Unspr (feet)</b>	<b>Spr (feet)</b>	<b>Unspr (feet)</b>	<b>Spr (feet)</b>	<b>Unspr (feet)</b>	<b>Spr (feet)</b>
122.3 122.4							
122.5	Group A	20/75 <sup>a</sup>	20/75 <sup>a</sup>	20 <sup>b</sup>	20 <sup>b</sup>	200	250
122.6	Group B	75	100	50	50	200	300
122.7	Group E	75	75	50	50	200	250
122.8 122.9	Groups F-1, S-1 <sup>d</sup>	75	100	50	50	200	250
122.10 122.11	Groups F-2, S-2 <sup>d</sup>	75	100	50	50	300	400
122.12	Group H-1	25	25	0	0	75	75
122.13	Group H-2	50	100	0	0	75	100
122.14	Group H-3	50	100	20	20	100	150
122.15	Group H-4	75	75	20	20	150	175
122.16	Group H-5	75	75	20	50	150	200
122.17	Group I-1	75	75	20	20	200	250
122.18 122.19 122.20	Group I-2 (Health Care)	N/R	N/R	N/R	N/R	150	200 <sup>c</sup>
122.21	Group I-3	100	100	N/R	N/R	150 <sup>c</sup>	200 <sup>c</sup>
122.22 122.23	Group I-4 (Day Care)	75	100	20	20	200	250
122.24 122.25 122.26	Group M (Covered Mall)	75	100	50	50	200	400
122.27 122.28	Group M (Mercantile)	75	100	50	50	200	250
122.29 122.30	Group R-1 (Hotels)	75	75	50	50	200	250
122.31 122.32 122.33	Group R-2 (Apart- ments)	75	125	50	50	200	250

123.1	Groups R-3, R-4	N/R	N/R	N/R	N/R	N/R	N/R
123.2							
123.3	Group U	75	100	20	50	300	400

123.4 "Unspr" means unsprinklered and "Spr" means sprinklered.

123.5 For SI: 1 foot = 304.8 mm.

123.6 <sup>a</sup> 20 feet for common path serving more than 50 persons; 75 feet for common path serving  
123.7 50 or fewer persons.

123.8 <sup>b</sup> See Section 1029.9.5 for dead-end aisles in Group A occupancies.

123.9 <sup>c</sup> This dimension is for the total travel distance, assuming incremental portions have fully  
123.10 utilized their allowable maximums. For travel distance within the room, and from the room  
123.11 exit access door to the exit, see the appropriate occupancy chapter.

123.12 <sup>d</sup> See the International Building Code for special requirements on spacing of doors in aircraft  
123.13 hangers.

123.14 N/R = No requirements.

123.15 Subp. 10a. **IFC section 1104.18.** IFC section 1104.18 is deleted.

123.16 Subp. 11. **IFC section 1104.19.** IFC section 1104.19 is amended to read:

123.17 **1104.19 Exit access travel distance.** Exits shall be located so that the maximum length of  
123.18 exit access travel, measured from the most remote point to an approved exterior exit, vertical  
123.19 exit enclosure, horizontal exit, or exit passageway along the natural and unobstructed path  
123.20 of egress travel, does not exceed the distances given in Table 1104.17.4.

123.21 Subp. 12. **IFC section 1104.20.** IFC section 1104.20 is amended to read:

123.22 **1104.20 Common path of egress travel.** The common path of egress travel shall not exceed  
123.23 the distances given in Table 1104.17.4.

124.1 Subp. 13. **IFC section 1104.21.** IFC section 1104.21 is amended to read:

124.2 **1104.21 Stairway discharge identification.** A stairway in an exit enclosure that continues  
 124.3 below the level of exit discharge shall be arranged and marked to make the direction of  
 124.4 egress to a public way readily identifiable. Stairs that continue one-half story beyond the  
 124.5 level of exit discharge need not be provided with barriers where the exit discharge is obvious.

124.6 Subp. 14. **IFC section 1104.22.** IFC section 1104.22 is amended to read:

124.7 **1104.22 Exterior stairway protection.** Exterior exit stairs shall be separated from the  
 124.8 interior of the building as required in Section 1027.6.

124.9 Subp. 15. **IFC section 1104.23.** IFC section 1104.23 is amended and sections added  
 124.10 to read:

124.11 **1104.23 Minimum aisle width.** The minimum clear width of aisles and aisle accessways  
 124.12 shall be in accordance with this section and Table 1104.23.

124.13 **1104.23.1 Aisle and aisle accessway width.** Aisles and aisle accessway widths shall  
 124.14 be as determined by the occupant load calculations in Section 1005.3, but not less than  
 124.15 the widths shown in Table 1104.23.

124.16 **TABLE 1104.23**

124.17 **MINIMUM AISLE AND AISLE ACCESSWAY WIDTHS**

124.18	<b>Condition</b>	<b>Minimum Width (in inches)</b>
124.19 124.20	Aisle accessways serving seating areas having 50 or fewer seats, tables, or desks	24 inches (610 mm)
124.21 124.22	Aisle accessways serving seating areas more than 50 seats, tables, or desks	30 inches (760 mm)
124.23	Aisle accessways serving employee areas only	24 inches (610 mm)
124.24 124.25	Level or ramped aisles having seating on each side and serving 50 or fewer seats	36 inches (914 mm)

125.1	Level or ramped aisles having seating on each side and	42 inches (1,067 mm)
125.2	serving more than 50 seats	
125.3	Level or ramped aisles having seating on one side and serving	30 inches (760 mm)
125.4	60 or fewer seats	
125.5	Level or ramped aisles having seating on one side and serving	36 inches (914 mm)
125.6	more than 60 seats	
125.7	Aisle stairs having seating on each side and serving 50 or	36 inches ( 914 mm)
125.8	fewer seats	
125.9	Aisle stairs having seating on each side and serving more	42 inches (1,067 mm)
125.10	than 50 seats	
125.11	Aisle stairs having seating on one side and serving 60 or	30 inches (760 mm)
125.12	fewer seats	
125.13	Aisle stairs having seating on one side and serving more than	36 inches (914 mm)
125.14	60 seats	
125.15	Aisle stair - distance between seating and aisle handrail or	20 inches (508 mm)
125.16	guard when the aisle is subdivided	

125.17 Subp. 16. **IFC section 1104.24.** IFC section 1104.24 is amended to read:

125.18 **1104.24 Stairway floor number signs.** Existing stairs shall be marked in accordance with  
125.19 Section 1023.9.

125.20 Subp. 17. **IFC section 1104.25.** IFC section 1104.25 is amended and sections added  
125.21 to read:

125.22 **1104.25 Number of means of egress or exits.** The number of means of egress doors or  
125.23 exits from a room, area, story, or building shall be in accordance with Sections 1104.25.1  
125.24 through 1104.25.4 and Table 1104.25.

125.25 Where two or more means of egress doors or exits are required from a room or area, such  
125.26 doors shall be separated from each other by a distance not less than one-third of the length  
125.27 of the maximum overall diagonal dimension of the area served.

126.1 **1104.25.1 Number based on capacity.** Two means of egress doors or exits are required  
126.2 from rooms, areas, stories, or buildings when the number of occupants exceeds the  
126.3 values shown in Table 1104.25.

126.4 **1104.25.1.1 Dormitories.** Dormitory sleeping rooms having an exit doorway direct  
126.5 to the exterior are not required to have a second exit or exit access doorway  
126.6 provided that:

126.7 a. the room has 16 or fewer occupants;

126.8 b. the travel distance from any point in the room to the exit doorway does not  
126.9 exceed 30 feet;

126.10 c. the room is not located more than two stories above grade;

126.11 d. the room is not located on a level below grade; and

126.12 e. the room is provided with an emergency escape window in accordance with  
126.13 Sections 1030.2 through 1030.5 and the escape window is separated from the  
126.14 exit doorway in accordance with Section 1007.1.1.

126.15 **1104.25.2 Three egress doors or exits required.** Three means of egress doors or exits  
126.16 are required from rooms, areas, stories, or buildings when the number of occupants  
126.17 exceeds 500 persons.

126.18 **1104.25.3 Four egress doors or exits required.** Four means of egress doors or exits  
126.19 are required from rooms, areas, stories, or buildings when the number of occupants is  
126.20 1,001 or more persons.

126.21 **1104.25.4. Group E laboratories.** Group E science laboratories containing hazardous  
126.22 materials shall have two exits when exceeding 1,000 square feet (93 m<sup>2</sup>) in size.

126.23 **TABLE 1104.25**

126.24 **TWO EGRESS DOORS OR EXITS REQUIRED<sup>a</sup>**

127.1	<b>Occupancy</b>	<b>Number of Occupants</b>
127.2	A, B, E, F, M, S, U	> 49 occupants
127.3	H, I, R	> 10 Occupants
127.4	R (dormitories)	> 16 Occupants (see 1104.25.1.1)

127.5       <sup>a</sup> Two egress doors or exits shall be required when the number of occupants exceeds  
 127.6 the number listed in the table.

127.7       Subp. 18. **IFC section 1104.26.** IFC section 1104 is amended by adding section  
 127.8 1104.26 and subsections to read:

127.9       **1104.26 Escape windows.** In Group R and Group I-1 occupancies, escape windows shall  
 127.10 be provided, installed, and maintained in rooms used for sleeping below the fourth story.  
 127.11 A readily accessible escape window shall be provided from basement levels occupied as a  
 127.12 licensed family or group family child care home. Escape windows shall be in accordance  
 127.13 with this section.

127.14       **1104.26.1 Escape windows not required.** Emergency escape windows are not required  
 127.15 for the following conditions:

- 127.16           1. If the room has a door that leads directly to the exterior of the building.
- 127.17           2. In dwellings and structures constructed prior to July 1, 1972, provided they are  
 127.18 not licensed by Minnesota or used for transient lodging.
- 127.19           3. If the building is protected throughout by an approved, automatic sprinkler  
 127.20 system installed in accordance with Section 903.3.
- 127.21           4. From rooms of existing buildings having two separate means of escape, provided  
 127.22 that the means of escape are independent of each other and they pass through only  
 127.23 one adjacent nonlockable room or area.
- 127.24           5. In Group R hotels or motels constructed prior to April 11, 1983.

128.1 **1104.26.2 Minimum size and dimensions.** Escape window openings shall have a  
128.2 minimum net clear opening area of 4.5 square feet (648 square inches). Opening height  
128.3 and width dimensions shall not be less than 20 inches.

128.4 **1104.26.3 Maximum height from floor.** The maximum height from the floor to the  
128.5 window sill opening shall not exceed 48 inches.

128.6 **1104.26.4 Emergency escape windows under decks and porches.** Emergency escape  
128.7 windows are allowed to be installed under decks and porches provided the location of  
128.8 the deck allows the emergency escape window to be fully opened and provides a path  
128.9 not less than 36 inches in height to a yard or court.

128.10 **1104.26.5 Window wells.** An escape window opening with a finished sill height below  
128.11 the adjacent ground level shall be provided with a window well in accordance with  
128.12 Sections 1104.26.5.1 through 1104.26.5.2.

128.13 **1104.26.5.1 Minimum size.** The minimum horizontal area of the window well  
128.14 shall be 9 square feet, with a minimum dimension of 36 inches. The area of the  
128.15 window well shall allow the emergency escape and rescue opening to be fully  
128.16 opened.

128.17 **1104.26.5.2 Ladders or steps.** Window wells with a vertical depth of more than  
128.18 44 inches shall be equipped with an approved permanently affixed ladder or steps.  
128.19 Ladders or rungs shall have an inside width of at least 12 inches, shall project at  
128.20 least 3 inches from the wall and shall be spaced not more than 18 inches on center  
128.21 vertically for the full height of the window well. The ladder or steps shall not  
128.22 encroach into the required dimensions of the window well by more than 6 inches.  
128.23 The ladder or steps shall not be obstructed by the emergency escape and rescue  
128.24 opening. Ladders or steps required by this section are exempt from the stairway  
128.25 requirements of Sections 1011 and 1104.10 through 1104.13.



129.1 **1104.26.6 Replacement windows for emergency escape and rescue openings.** The  
129.2 replacement of windows provided for emergency escape and egress in Group R-2 and  
129.3 R-3 occupancies regulated by the International Building Code or in one- and two-family  
129.4 dwellings and townhouses regulated by the International Residential Code shall be  
129.5 exempt from the minimum opening size and maximum sill height requirements of the  
129.6 International Building Code or International Residential Code, respectively, where all  
129.7 of the following conditions are met:

129.8 1. the replacement window is the manufacturer's largest standard size window that  
129.9 will fit within the existing frame or existing rough opening. The replacement  
129.10 window shall be the same operating style as the existing window or a style that  
129.11 provides for an equal or greater window opening area than the existing window;  
129.12 and

129.13 2. the replacement of the window is not part of a change of occupancy.

129.14 **1104.26.6.1 Licensed facilities.** Required windows in rooms of care facilities  
129.15 licensed or registered by the state of Minnesota shall comply with the provisions  
129.16 of Section 1104.26.6 or Sections 1104.26.2 and 1104.26.3, whichever is more  
129.17 restrictive.

129.18 **1104.26.7 Operational constraints.** Window opening control devices complying with  
129.19 ASTM F 2090 shall be permitted for use on windows required to provide emergency  
129.20 escape and rescue openings.

129.21 **7511.1106 [Renumbered 7511.1105]**

129.22 **7511.1105 SECTION 1105, SEPARATION OF OCCUPANCIES AND HAZARDOUS**  
129.23 **AREAS.**

129.24 IFC section 1105 and all subsections are deleted and replaced with the following:

130.1 **1105.1 General.** Mixed occupancies within the same building and hazardous areas shall be  
130.2 separated in accordance with Sections 1105.2 through 1105.3.2.1.

130.3 **1105.2 Occupancy separations.** Occupancy separations shall be provided in buildings  
130.4 containing Group I and Group R occupancies as specified in Sections 1105.2.1 through  
130.5 1105.2.3.1. These separations shall be constructed and maintained in accordance with the  
130.6 Building Code. Existing wood lath and plaster in good condition or 1/2-inch (12.7 mm)  
130.7 gypsum wallboard is acceptable where one-hour occupancy separations are required.

130.8 **1105.2.1 Door openings.** Where one-hour fire-resistant construction is required,  
130.9 openings shall be protected by listed fire doors, insulated steel doors, 1-3/8-inch thick  
130.10 (35 mm) or 1-3/4-inch thick (45 mm) solid wood doors, or fixed wired glass set in steel  
130.11 frames. Doors shall be self-closing or automatic-closing by smoke detection.

130.12 **1105.2.2 Group I-1 and Group I-2 occupancies.** Group I-1 and Group I-2 occupancies  
130.13 shall be separated from other occupancies as specified in the Building Code.

130.14 **1105.2.3 Group I-3 occupancies.** Group I-3 occupancies shall be separated from other  
130.15 occupancies as specified in the Building Code.

130.16 **1105.2.3.1 Group I-3 compliance options.** Occupancy separations need not be  
130.17 provided for Group I-3 occupancies in the following conditions:

130.18 1. In buildings that are protected throughout by an approved automatic  
130.19 sprinkler system, one-hour fire-resistance-rated construction is permitted.

130.20 2. In buildings that are protected throughout by an approved automatic  
130.21 sprinkler system, openings for the passage of materials between the Group  
130.22 I-3 and adjacent occupancies are not required to be fire-resistance rated when  
130.23 such openings are not more than 4 feet (1,219 mm) above the floor and are  
130.24 provided with a metal cover or door.

131.1 **1105.2.4 Group R occupancies.** Group R occupancies and the exits therefrom shall  
131.2 be separated from Group A, B, M, S, and U occupancies by at least one-hour  
131.3 fire-resistance-rated construction. Group R occupancies shall be separated from all  
131.4 other occupancies as specified in the Building Code.

131.5 **1105.2.4.1 Group R compliance options.** Occupancy separations need not be  
131.6 provided for Group R occupancies in the following conditions:

131.7 1. In buildings that are protected throughout by an approved automatic  
131.8 sprinkler system, one-hour occupancy separations need not be provided.

131.9 2. An occupancy separation need not be provided between Group A and Group  
131.10 R occupancies if the building is provided with a fire alarm system having  
131.11 automatic smoke detection throughout the Group A occupancy.

131.12 3. Fire-resistance-rated opening protection need not be provided between  
131.13 Group A and Group R occupancies when such openings are designed to resist  
131.14 the passage of smoke and the openings are protected by an approved automatic  
131.15 sprinkler system.

131.16 4. An occupancy separation need not be provided where two or more  
131.17 occupancies occur in the same building or structure and are so intermingled  
131.18 that separations are impracticable provided that the exit provisions and  
131.19 protection requirements for the more restrictive occupancy are provided.

131.20 5. An occupancy separation need not be provided between a Group R-3  
131.21 occupancy with sleeping accommodations for ten or fewer persons and Group  
131.22 B or Group M occupancies which are accessory if interconnected smoke  
131.23 alarms are provided. At least one smoke alarm shall be located in the Group  
131.24 B or Group M occupancy and additional alarms may be needed in accordance  
131.25 with manufacturer's instructions. Smoke alarms in the sleeping areas shall be

132.1 located as specified in Section 1103.8 and shall be audible in all sleeping  
132.2 areas.

132.3 **1105.3 Incidental use areas.** Incidental use areas shall be separated from the rest of the  
132.4 building in accordance with this section. Incidental use areas are defined as shops,  
132.5 laboratories containing hazardous materials, laundry rooms exceeding 100 square feet in  
132.6 size, and rooms containing boilers or central heating plants where the largest piece of fuel  
132.7 equipment exceeds 400,000 Btu per hour input.

132.8 **1105.3.1 Separation required.** Incidental use areas in Groups A, B, E, F, H, I, M, R-1,  
132.9 R-2, and S occupancies shall be separated from the rest of the building by not less than  
132.10 a one-hour fire barrier. Existing wood lath and plaster in good condition or 1/2-inch  
132.11 (12.7 mm) gypsum wallboard is acceptable where one-hour fire barriers are required.  
132.12 Storage rooms need not be separated in Groups F, M, or S occupancies.

132.13 **1105.3.2 Sprinkler protection in lieu of separation.** Incidental use areas in Groups  
132.14 A, B, E, F, H, M, and S occupancies need not be separated when the incidental use  
132.15 area is protected with automatic sprinklers.

132.16 **1105.3.2.1 Groups I and R occupancies.** Incidental use areas in Groups I and R  
132.17 occupancies need not be separated when the incidental use area is protected with  
132.18 automatic sprinklers and the construction of such areas is capable of resisting the  
132.19 passage of smoke. Doors to such areas shall be a minimum of one-hour fire-rated,  
132.20 solid-core wood doors or insulated steel doors. Doors shall be self-closing or  
132.21 automatic-closing by smoke detection.

132.22 **7511.1203 SECTION 1203, EMERGENCY AND STANDBY POWER SYSTEMS.**

132.23 IFC section 1203.2.14 is amended to read:

132.24 **1203.2.14 Means of egress illumination.** Emergency power shall be provided for  
132.25 means of egress illumination in accordance with Sections 1008.3 and 1104.5.3.

133.1 **7511.1204 SECTION 1204, SOLAR PHOTOVOLTAIC POWER SYSTEMS.**

133.2 Subpart 1. **IFC section 1204.1** IFC section 1204.1 is amended and subsections are  
133.3 added to read:

133.4 **1204.1 General.** Solar energy systems shall be installed in accordance with Sections 1204.1  
133.5 through 1204.6 and the Building Code.

133.6 **Exception:** Buildings regulated by Minnesota Rules, chapter 1309, the Minnesota  
133.7 Residential Code.

133.8 **1204.1.1 Minnesota Electrical Code.** The electrical portion of solar PV systems shall  
133.9 be installed in accordance with the Minnesota Electrical Code.

133.10 **1204.1.2 Roof access points.** Roof access points shall meet all the following criteria.

133.11 1. Roof access points shall be located where fire departments have ground access.

133.12 2. Roof access points shall be located in areas that do not require the placement  
133.13 of fire department ground ladders over openings such as windows or doors.

133.14 3. Roof access points shall be located at strong points of building construction  
133.15 capable of supporting emergency responders.

133.16 4. Roof access points shall be in locations where the access point does not conflict  
133.17 with overhead obstructions such as tree limbs, wires, or signs.

133.18 5. Each roof access point shall be provided with a landing on the roof side not less  
133.19 than 6 feet in each direction. The landing shall be free and clear of obstructions  
133.20 such as vent pipes, conduit, and mechanical and electrical equipment.

133.21 6. Roof access point landings on roofs with slopes greater than 2 units vertical in  
133.22 12 units horizontal (2:12) shall be positioned with direct access to a pathway to  
133.23 ridge.

134.1 7. Each solar array or grouping of arrays shall have not less than two roof access  
134.2 points spaced not closer than 1/3 the diagonal dimension of the array or arrays  
134.3 served.

134.4 Subp. 2. **IFC section 1204.2.** IFC section 1204.2 and its subsections are entirely  
134.5 deleted and replaced with the following:

134.6 **1204.2 Access and pathways.** Roof access, pathways, and spacing requirements shall be  
134.7 provided in accordance with Sections 1204.2.1 through 1204.3.3. Pathways shall be over  
134.8 areas capable of supporting firefighters accessing the roof. Pathways shall be located in  
134.9 areas without obstructions such as vent pipes, conduit, and mechanical and electrical  
134.10 equipment.

134.11 **Exceptions:**

134.12 1. Detached, nonhabitable Group U structures including, but not limited to, detached  
134.13 garages serving Group R-3 buildings, parking shade structures, carports, solar trellises,  
134.14 and similar structures.

134.15 2. Roof access, pathways, and spacing requirements need not be provided where the  
134.16 fire code official has determined that rooftop operations will not be employed.

134.17 **1204.2.1 Solar photovoltaic system for roof slopes greater than 2 units vertical in**  
134.18 **12 units horizontal (2:12).** Solar photovoltaic systems for buildings with roof slopes  
134.19 greater than 2 units vertical in 12 units horizontal (2:12) shall comply with Sections  
134.20 1204.2.1.1 through 1204.2.1.3.

134.21 **1204.2.1.1 Pathways to ridge.** Not fewer than two 36-inch wide pathways on  
134.22 separate roof planes, from the lowest roof edge to ridge, shall be provided on all  
134.23 buildings. Pathways shall be provided at intervals not greater than 150 feet  
134.24 throughout the length and width of the roof. Not fewer than one pathway shall be  
134.25 provided on the street or driveway side, or fire-department-access side of the roof.

135.1 For each roof plane with a photovoltaic array, not fewer than one 36-inch wide  
135.2 pathway from lowest roof edge to ridge shall be provided on the same roof plane  
135.3 as the photovoltaic array, on an adjacent roof plane, or straddling the same and  
135.4 adjacent roof planes.

135.5 **1204.2.1.2 Setbacks at ridge.** For photovoltaic arrays occupying 33 percent or  
135.6 less of the plan view total roof area, a setback of not less than 18 inches (457 mm)  
135.7 wide is required on both sides of a horizontal ridge. For photovoltaic arrays  
135.8 occupying more than 33 percent of the plan view total roof area, a setback of not  
135.9 less than 36 inches (914 mm) wide is required on both sides of a horizontal ridge.

135.10 **1204.2.1.3 Alternative setbacks at ridge.** Where an automatic sprinkler system  
135.11 is installed within the building, setbacks at the ridge shall conform to one of the  
135.12 following criteria:

135.13 1. For photovoltaic arrays occupying 66 percent or less of the plan view total  
135.14 roof area, a setback of not less than 18 inches (457 mm) wide is required on  
135.15 both sides of a horizontal ridge.

135.16 2. For photovoltaic arrays occupying more than 66 percent of the plan view  
135.17 total roof area, a setback of not less than 36 inches (914 mm) wide is required  
135.18 on both sides of a horizontal ridge.

135.19 **1204.2.2 Emergency escape and rescue openings.** Panels and modules installed on  
135.20 Group R buildings shall not be placed on the portion of a roof that is below an  
135.21 emergency escape and rescue opening. A pathway of not less than 36 inches (914 mm)  
135.22 wide shall be provided from the roof edge to the emergency escape and rescue opening.

135.23 Subp. 3. **IFC section 1204.3.** IFC section 1204.3 and its subsections are entirely  
135.24 deleted and replaced with the following:

136.1 **1204.3 Solar photovoltaic systems for roofs with slopes of 2 units vertical in 12 units**  
136.2 **horizontal or less.** Access to systems for buildings with roofs with slopes of 2 units vertical  
136.3 in 12 units horizontal (2:12) or less, shall be provided in accordance with Sections 1204.3.1  
136.4 through 1204.3.3.

136.5 **1204.3.1 Perimeter pathways.** There shall be a minimum 6-foot wide (1,829 mm)  
136.6 clear perimeter around the edges of the roof.

136.7 **Exception:** Where either axis of the building is 250 feet (76,220 mm) or less, the  
136.8 clear perimeter around the edges of the roof shall be permitted to be reduced to a  
136.9 minimum width of 4 feet (1,219 mm).

136.10 **1204.3.2 Interior pathways.** Interior pathways shall be provided between array sections  
136.11 to meet the following requirements:

136.12 1. Pathways shall be provided at intervals not greater than 150 feet (45,720 mm)  
136.13 throughout the length and width of the roof.

136.14 2. A pathway of not less than 4 feet (1,219 mm) wide in a straight line to roof  
136.15 standpipes or ventilation hatches.

136.16 3. A pathway not less than 4 feet (1,219 mm) wide around roof access hatches,  
136.17 with not fewer than one such pathway to a parapet or roof edge.

136.18 4. A pathway not less than 4 feet (1,219 mm) wide from the perimeter pathway to  
136.19 an emergency escape and rescue opening located above the roof.

136.20 **1204.3.3 Smoke ventilation.** The solar installation shall be designed to meet the  
136.21 following requirements:

136.22 1. Where non-gravity-operated smoke and heat vents occur, a pathway not less  
136.23 than 4 feet (1,219 mm) wide shall be provided bordering all sides.

136.24 2. Smoke ventilation options between array sections shall be one of the following:



- 137.1 2.1 A pathway not less than 8 feet (2,438 mm) wide.
- 137.2 2.2 Where gravity-operated dropout smoke and heat vents occur, a pathway
- 137.3 not less than 4 feet (1,219 mm) wide on at least one side.
- 137.4 2.3 A pathway not less than 4 feet (1,219 mm) wide bordering 4-foot by 8-foot
- 137.5 (1,219 mm by 2,438 mm) venting cutouts every 20 feet (6,096 mm) on
- 137.6 alternating sides of the pathway.

- 137.7 Subp. 4. **IFC section 1204.6** IFC section 1204 is amended by adding a section to read:
- 137.8 **1204.6 Maintenance.** Equipment labeling, access, pathways, and setbacks for solar
- 137.9 photovoltaic power systems shall be continuously maintained. Existing systems shall be
- 137.10 maintained in accordance with the code in effect at the time of installation.

137.11 **7511.2007 SECTION 2007, HELISTOPS AND HELIPORTS.**

- 137.12 IFC section 2007.5 is amended to read:

- 137.13 **2007.5 Standpipe systems.** A building with a rooftop helistop or heliport shall be provided
- 137.14 with a Class 1 standpipe system extended to the roof level on which the helistop or heliport
- 137.15 is located. All portions of the helistop and heliport area shall be within 150 feet (45,720
- 137.16 mm) of a 2.5-inch (63.5 mm) outlet on the standpipe system.

137.17 **7511.2306 SECTION 2306, FLAMMABLE AND COMBUSTIBLE LIQUID MOTOR**

137.18 **FUEL-DISPENSING FACILITIES.**

- 137.19 Subpart 1. **IFC section 2306.2.3.** IFC section 2306.2.3 is amended by adding
- 137.20 exceptions to Item 1 to read:

137.21 **Exceptions:**

- 137.22 1. When approved by the fire chief, other aboveground tanks that comply with
- 137.23 Chapter 57 are allowed to be used for outside, above-grade storage and dispensing
- 137.24 of Class I liquids, provided the tanks are located in accordance with Table 2306.2.3.

138.1 2. Existing nonprotected tanks designed, fabricated, and constructed in accordance  
138.2 with Section 5704.2.7 and not exceeding 6,000 gallons individual capacity and  
138.3 18,000 gallons aggregate capacity are allowed to be located not less than 30 feet  
138.4 from the nearest dispenser and the nearest side of any public way, property line,  
138.5 building, or combustible storage located on the same property.

138.6 Subp. 2. **IFC section 2306.2.3.** IFC section 2306.2.3 is amended by numbering the  
138.7 exception to Item 2 and by adding a second exception, so that the exceptions to Item 2 read  
138.8 as follows:

138.9 **Exceptions:**

138.10 1. Other above-ground tanks that comply with Chapter 57 where approved  
138.11 by the fire code official.

138.12 2. Existing nonprotected tanks designed, fabricated, and constructed in  
138.13 accordance with Section 5704.2.7 and not exceeding 10,000 gallons individual  
138.14 capacity and 30,000 gallons aggregate capacity are allowed to be located not  
138.15 less than 30 feet from the nearest dispenser and the nearest side of any public  
138.16 way, property line, building, or combustible storage located on the same  
138.17 property.

138.18 Subp. 3. **IFC section 2306.2.3.** IFC section 2306.2.3 is amended by adding Items 6  
138.19 and 7 to read:

138.20 6. For operations not open to the public and for resort operations serving  
138.21 registered guests only, which dispense Class I liquids from one tank having  
138.22 a capacity of 560 gallons ( 2,120 L) or less, having the dispenser located on  
138.23 or adjacent to the tank is permitted. Such tanks shall be located in accordance  
138.24 with Table 2306.2.3.

139.1 7. For operations not open to the public and for resort operations serving  
139.2 registered guests only, which dispense Class II liquids from two tanks having  
139.3 a capacity of up to 1,000 gallons ( 3,785 L) each, having the dispenser located  
139.4 on or adjacent to the tank is permitted. Such tanks shall be located in  
139.5 accordance with Table 2306.2.3.

139.6 Subp. 4. **IFC Table 2306.2.3.** IFC Table 2306.2.3 is amended by modifying footnote  
139.7 "a" to read:

139.8 <sup>a</sup> When approved by the fire chief, dispensing devices are permitted to be installed  
139.9 on top of or adjacent to protected aboveground tanks or tanks in vaults.

139.10 **7511.2404 SECTION 2404, SPRAY FINISHING.**

139.11 IFC section 2404.2, Exception 2, is amended to read:

139.12 2. In buildings other than Group A, I, or R occupancies, approved limited spraying  
139.13 space in accordance with Section 2404.9.

139.14 **7511.3308 SECTION 3308, OWNER'S RESPONSIBILITY FOR FIRE**  
139.15 **PROTECTION.**

139.16 IFC section 3308 is amended by adding a section to read:

139.17 **3308.9 Construction barriers.** Where construction, remodeling, or demolition is taking  
139.18 place involving the use of cutting and welding, temporary heating with open flames, or  
139.19 flammable-liquid-fueled equipment, such areas shall be separated from occupied areas of  
139.20 a building by materials that will resist the spread of fire and smoke as specified for  
139.21 draft-stopping materials in the Building Code.

139.22 **7511.5306 SECTION 5306, MEDICAL GASES.**

139.23 IFC section 5306 is amended by adding a subsection to read:

140.1 **5306.6 Domestic storage and use of medical gases.** The storage and use of medical gases  
140.2 for personal use within a dwelling or dwelling unit shall comply with NFPA 99.

140.3 **7511.5704 SECTION 5704, STORAGE.**

140.4 *[For text of subpart 1, see Minnesota Rules]*

140.5 Subp. 2. **IFC section 5704.2.11.2.** IFC section 5704.2.11.2 is amended by adding  
140.6 sections to read:

140.7 **5704.2.11.2.1 Burial depth.** The maximum burial depth for underground  
140.8 storage tanks shall be specified by the tank manufacturer, marked on the tank,  
140.9 and in accordance with NFPA 30.

140.10 **5704.2.11.2.2 Minimum depth of cover.** Underground tanks shall be covered  
140.11 with not less than 24 inches (600 mm) of earth, or not less than 12 inches (300  
140.12 mm) of earth on top of which shall be placed a slab of reinforced concrete not  
140.13 less than 4 inches (100 mm) thick. Where the tanks are subjected to traffic,  
140.14 they shall be protected against damage from vehicles passing over them by  
140.15 at least 36 inches (900 mm) of earth cover, or 18 inches (450 mm) of  
140.16 well-tamped earth plus either 6 inches (150 mm) of reinforced concrete or 8  
140.17 inches (200 mm) of asphaltic concrete. When asphaltic or reinforced concrete  
140.18 paving is used as part of the protection, it shall extend at least 12 inches (300  
140.19 mm) horizontally beyond the outline of the tank in all directions.

140.20 Subp. 3. **IFC section 5704.3.1.2.** IFC section 5704.3.1 is amended by adding a section  
140.21 to read:

140.22 **5704.3.1.2 Rigid nonmetallic intermediate bulk containers.** The design,  
140.23 construction and capacity of rigid nonmetallic intermediate bulk containers for the  
140.24 storage of flammable and combustible liquids shall be in accordance with this  
140.25 section and NFPA 30. When inside buildings, rigid nonmetallic intermediate bulk

141.1 containers containing flammable or combustible liquids shall be subjected to a  
141.2 standard fire test that demonstrates acceptable inside storage fire performance and  
141.3 shall be listed and labeled in accordance with UL 2368, Standard for Fire Exposure  
141.4 Testing of Intermediate Bulk Containers for Flammable and Combustible Liquids,  
141.5 2014.

141.6 Subp. 4. **IFC section 5704.3.3.** IFC section 5704.3.3 and its subsections are amended  
141.7 to read:

141.8 **5704.3.3 Indoor storage.** Storage of flammable and combustible liquids inside buildings  
141.9 in containers and portable tanks shall be in accordance with Sections 5704.3.3.1 through  
141.10 5704.3.3.11.

141.11 **Exceptions:**

141.12 1. Liquids in the fuel tanks of motor vehicles, aircraft, boats, or portable or  
141.13 stationary engines.

141.14 2. The storage of distilled spirits and wines in wooden barrels or casks.

141.15 (Sections 5704.3.3.1 to 5704.3.3.10 remain unchanged.)

141.16 **5704.3.3.11 Fire-extinguishing systems.** Automatic sprinkler and foam-water  
141.17 systems provided for the protection of container, intermediate bulk container and  
141.18 portable tank storage shall be of the wet pipe, deluge, or preaction type. If preaction  
141.19 systems are used, they shall be designed so that water or foam solution discharges  
141.20 immediately from the sprinkler opened by heat from a fire.

141.21 **7511.5706 SECTION 5706, SPECIAL OPERATIONS.**

141.22 *[For text of subpart 1, see Minnesota Rules]*

141.23 Subp. 2. **IFC section 5706.5.4.** IFC section 5706.5.4 is amended to read:

142.1 **5706.5.4 Liquid transfers from tank vehicles and tank cars.** Class I liquids shall be  
142.2 transferred from a tank vehicle or tank car only into an approved atmospheric tank or  
142.3 approved portable tank, except as provided in Sections 5706.5.4.1 through 5706.5.4.4.  
142.4 Class II and III-A liquids shall be transferred from a tank vehicle or tank car only into  
142.5 an approved atmospheric tank, approved container or approved portable tank, except  
142.6 as provided in Sections 5706.5.4.1 through 5706.5.4.5.

142.7 *[For text of subpart 3, see Minnesota Rules]*

142.8 Subp. 4. **IFC section 5706.6.4.** IFC section 5706.6.4 is amended to read:

142.9 **5706.6.4 Portable fire extinguisher.** Tank vehicles shall be equipped with a portable  
142.10 fire extinguisher in accordance with Code of Federal Regulations, title 49, section  
142.11 393.95.

142.12 **7511.5707 SECTION 5707, ON-DEMAND MOBILE FUELING OPERATIONS.**

142.13 IFC section 5707.2 is amended to read:

142.14 **5707.2 Mobile fueling vehicle.** An on-demand mobile fueling vehicle shall be a vehicle  
142.15 that has chassis-mounted tanks or containers where the aggregate cargo capacity does not  
142.16 exceed 1,200 gallons (4,592 L). A mobile fueling vehicle with a mounted tank in excess of  
142.17 110 gallons (415 L) shall comply with the requirements of Sections 5706.6 and 5707, and  
142.18 NFPA 385. The mobile fueling vehicle shall comply with all local, state, and federal  
142.19 requirements. The mobile fueling vehicle and its equipment shall be maintained in good  
142.20 repair.

142.21 **7511.6101 CHAPTER 61, LIQUEFIED PETROLEUM GASES.**

142.22 Chapter 61 is deleted in its entirety and replaced with the following:

142.23

## CHAPTER 61

142.24

## LIQUEFIED PETROLEUM GASES

143.1 **SECTION 6101**143.2 **NFPA STANDARD NO. 58 INCORPORATED**

143.3 **6101.1 Incorporation by reference.** The storage, handling, transportation, and use of  
143.4 liquefied petroleum gas and the installation of all equipment pertinent to systems for such  
143.5 uses shall be designed, constructed, installed, operated, and maintained in accordance with  
143.6 the provisions of NFPA Standard No. 58, Liquefied Petroleum Gas Code (Quincy,  
143.7 Massachusetts, 2017). Standard No. 58, as amended by Section 6102, is incorporated by  
143.8 reference, is not subject to frequent change, and is available at the State Law Library, 25  
143.9 Rev. Dr. Martin Luther King Jr. Blvd., St. Paul, Minnesota 55155.

143.10 **SECTION 6102**143.11 **AMENDMENTS TO NFPA STANDARD NO. 58**

143.12 **6102.1 Amendments.** NFPA 58 shall apply to the storage, handling, transportation, and  
143.13 use of liquefied petroleum gas and the installation of all equipment pertinent to systems for  
143.14 such uses, except as amended by this section.

143.15 1. Section 6.5.3.8 of NFPA Standard No. 58 is amended to read:

143.16 **6.5.3.8.** No horizontal separation shall be required between aboveground LP-Gas  
143.17 containers and underground tanks containing flammable or combustible liquids installed in  
143.18 accordance with Chapter 57 of the International Fire Code.

143.19 2. Section 6.5.3.11 of NFPA Standard No. 58 is amended to read:

143.20 **6.5.3.11** The minimum separation between LP-Gas containers and liquefied  
143.21 hydrogen containers shall be in accordance with Chapter 55 of the International Fire Code.

143.22 3. Footnote "b" of Table 6.7.2.1 of NFPA Standard No. 58 is amended to read:

143.23 b. Walls constructed of noncombustible materials having a fire rating of at least one  
143.24 hour as determined by the Building Code.

144.1 4. Section 6.8.7.1 of NFPA Standard No. 58 is amended to read:

144.2 **6.8.7.1.** Installation of containers on roofs of buildings shall be prohibited.

144.3 5. Section 6.8.7.2 of NFPA Standard No. 58 is deleted.

144.4 6. Section 6.22.11.1 of NFPA Standard No. 58 is deleted.

144.5 7. Section 6.25.2.1 of NFPA Standard No. 58 is amended to read:

144.6 **6.25.2.1** Electrical equipment and wiring shall be of a type specified by and shall  
144.7 be installed in accordance with the Minnesota Electrical Code for ordinary locations except  
144.8 that fixed electrical equipment in classified areas shall comply with Section 6.25.2.2.

144.9 8. The first sentence of Section 6.25.2.2 of NFPA Standard No. 58 is amended to read:

144.10 **6.25.2.2** Fixed electrical equipment and wiring installed within the classified areas  
144.11 specified in Table 6.25.2.2 shall comply with Table 6.25.2.2 and shall be installed in  
144.12 accordance with the Minnesota Electrical Code.

144.13 9. Section 10.2.3 of NFPA Standard No. 58 is amended to read:

144.14 **10.2.3 Structure or building heating.** Heating shall be by steam or hot water  
144.15 radiation or other heating transfer medium with the heat source located outside the building  
144.16 or structure (see Section 6.25, Ignition Source Control), or by electrical appliances listed  
144.17 for Class I, Group D, Division 2 locations, in accordance with the Minnesota Electrical  
144.18 Code.

144.19 **7511.7900 AMENDMENTS TO APPENDICES OF INTERNATIONAL FIRE CODE.**

144.20 Subpart 1. [Repealed, 40 SR 1437]

144.21 Subp. 2. **IFC Appendix O.** The IFC is amended by adding an Appendix O to read:

144.22 *The provisions contained in this appendix are not mandatory unless specifically*  
144.23 *referenced in the local adopting ordinance.*



145.1

**APPENDIX O**

145.2

**FIRES OR BARBECUES ON BALCONIES OR PATIOS**

145.3

**SECTION 1 - OPEN FLAME AND FUEL STORAGE PROHIBITED**

145.4

**1.1 Open flame prohibited.** In any structure containing three or more dwelling units, no

145.5

person shall kindle, maintain, or cause any fire or open flame on any balcony above ground

145.6

level, or on any ground floor patio within 15 feet (4,572 mm) of the structure.

145.7

**1.2 Fuel storage prohibited.** No person shall store or use any fuel, barbecue, torch, or other

145.8

similar heating or lighting chemical or device in the locations designated in Section 1.1.

145.9

**Exception:** Listed electric or gas-fired barbecue grills that are permanently mounted

145.10

and wired or plumbed to the building's gas supply or electrical system and that maintain

145.11

a minimum clearance of 18 inches (457 mm) on all sides, unless listed for lesser

145.12

clearances, may be installed on balconies and patios when approved by the fire chief.

145.13

Subp. 3. [Repealed, 40 SR 1437]

145.14

Subp. 4. [Repealed, 40 SR 1437]

145.15

Subp. 5. **IFC Appendix P.** The IFC is amended by adding an appendix to read as

145.16 follows:

145.17

*The provisions contained in this appendix are not mandatory unless specifically*

145.18

*referenced in the local adopting ordinance.*

145.19

**APPENDIX P**

145.20

**EMERGENCY RESPONDER RADIO COVERAGE**

145.21

**P101 Emergency responder radio coverage in existing buildings.** Existing buildings that

145.22

do not have approved radio coverage for emergency responders within the building based

145.23

upon the existing coverage levels of the public safety communication systems of the

146.1 jurisdiction at the exterior of the building, shall be equipped with such coverage according  
146.2 to one of the following:

146.3 1. Whenever an existing wired communication system cannot be repaired or is being  
146.4 replaced, or where not approved.

146.5 2. Within a time frame established by the adopting authority.

146.6 **Exception:** Where it is determined by the fire code official that the radio coverage  
146.7 system is not needed.

146.8 **P102 Emergency responder radio coverage in new buildings.** All new buildings shall  
146.9 have approved radio coverage for emergency responders within the building based upon  
146.10 the existing coverage levels of the public safety communication systems of the jurisdiction  
146.11 at the exterior of the building. This section shall not require improvement of the existing  
146.12 public safety communication systems.

146.13 **Exceptions:**

146.14 1. Where approved by the building official and the fire code official, a wired  
146.15 communication system in accordance with Section 907.2.12.2 shall be permitted to be  
146.16 installed or maintained in lieu of an approved radio coverage system.

146.17 2. Where it is determined by the fire code official that the radio coverage system is not  
146.18 needed.

146.19 3. In facilities where emergency responder radio coverage is required and such systems,  
146.20 components, or equipment required could have a negative impact on the normal  
146.21 operations of that facility, the fire code official shall have the authority to accept an  
146.22 automatically activated emergency responder radio coverage system.

146.23 4. Where it is determined to be unreasonably burdensome to implement an approved  
146.24 radio coverage system.

147.1 **P103 Permit required.** A construction permit for the installation of or modification to  
147.2 emergency responder radio coverage systems and related equipment is required. Maintenance  
147.3 performed in accordance with this code is not considered a modification and does not require  
147.4 a permit.

147.5 **P104 Technical requirements.** Systems, components, and equipment required to provide  
147.6 emergency responder radio coverage system shall comply with Sections P104.1 through  
147.7 P104.2.6.

147.8 **P104.1 Radio signal strength.** The building shall be considered to have acceptable  
147.9 emergency responder radio coverage when signal strength measurements in 95 percent  
147.10 of all areas on each floor of the building meet the signal strength requirements in  
147.11 Sections P104.1.1 and P104.1.2.

147.12 **P104.1.1 Minimum signal strength into the building.** A minimum signal strength  
147.13 of -95 dBm shall be receivable within the building at a hip-worn device.

147.14 **P104.1.2 Minimum signal strength out of the building.** A minimum signal  
147.15 strength of -95 dBm shall be received by the agency's radio system when transmitted  
147.16 from within the building from a hip-worn device.

147.17 **P104.2 System design.** The emergency responder radio coverage system shall be  
147.18 designed in accordance with Sections P104.2.1 through P104.2.6.

147.19 **P104.2.1 In-building coverage systems allowed.** Buildings and structures which  
147.20 cannot support the required level of radio coverage shall be equipped with a  
147.21 radiating cable system, a distributed antenna system with Federal Communications  
147.22 Commission (FCC) certified repeaters, bi-directional amplifiers, picocells or their  
147.23 equivalents, or other system approved by the fire code official in order to achieve  
147.24 the required adequate radio coverage.

148.1 **P104.2.2 Technical criteria.** The fire code official shall maintain a document  
148.2 providing the specific technical information and requirements for the emergency  
148.3 responder radio coverage system. This document shall contain the various  
148.4 frequencies required, the location of radio sites, effective radiated power of radio  
148.5 sites, and other supporting technical information.

148.6 **P104.2.3 Standby power.** Emergency responder radio coverage systems shall be  
148.7 provided with dedicated standby batteries or provided with 2-hour standby batteries  
148.8 and connected to the facility generator power system accordance with Section  
148.9 1203. The standby power supply shall be capable of operating the emergency  
148.10 responder radio coverage system at 100 percent system capacity for a duration of  
148.11 not less than 12 hours.

148.12 **P104.2.4 In-building coverage system requirements.** If used, in-building coverage  
148.13 systems shall meet the following requirements:

148.14 1. All in-building coverage system components shall be contained in a National  
148.15 Electrical Manufacturer's Association (NEMA) 4-type waterproof cabinet.

148.16 2. Battery systems used for the emergency power source shall be contained  
148.17 in a NEMA 4-type waterproof cabinet.

148.18 3. The in-building coverage system and battery system shall be electrically  
148.19 supervised and monitored by a supervisory service, or when approved by the  
148.20 fire code official, shall sound an audible signal at a constantly attended  
148.21 location.

148.22 4. Equipment shall have FCC certification prior to installation.

148.23 **P104.2.5 Additional frequencies and change of frequencies.** The emergency  
148.24 responder radio coverage system shall be capable of modification or expansion in  
148.25 the event frequency changes are required by the FCC or additional frequencies are

149.1 made available by the FCC, or public safety entities operating in a given jurisdiction  
149.2 make modifications, changes, or upgrades to their communication system(s) that  
149.3 change the frequencies such systems utilize.

149.4 **P104.2.6 Availability.** The in-building coverage system, in general, shall operate  
149.5 according to its intended specification with "5-9s" availability of 99.999 percent  
149.6 of each year; i.e., no critical component of the system shall be out of normal  
149.7 operation for more than 5.26 minutes of each year.

149.8 **P105 Installation requirements.** The installation of the public safety radio coverage system  
149.9 shall be in accordance with Sections P105.1 through P105.5.

149.10 **P105.1 Approval prior to installation.** Amplification systems capable of operating  
149.11 on frequencies licensed to any public safety agency by the FCC shall not be installed  
149.12 without prior coordination and approval of the fire code official.

149.13 **P105.2 Minimum qualifications of personnel.** The minimum qualifications of the  
149.14 system designer and lead installation personnel shall include at least one of the  
149.15 following:

149.16 1. Certification of in-building system training issued by a nationally recognized  
149.17 organization or school.

149.18 2. A certificate issued by the manufacturer of the equipment being installed.

149.19 These qualifications shall not be required where demonstration of adequate skills and  
149.20 experience satisfactory to the fire code official is provided.

149.21 **P105.3 Acceptance test procedure.** When an emergency responder radio coverage  
149.22 system is required, and upon completion of installation, the building owner shall have  
149.23 the radio system tested to ensure that two-way coverage on each floor of the building  
149.24 is a minimum of 95 percent. The test procedure shall be conducted as follows:

- 150.1 1. Each floor of the building shall be divided into a grid of 20 approximately equal  
150.2 test areas.
- 150.3 2. The test shall be conducted using a calibrated handheld or hip-worn device of  
150.4 the latest brand and model used by the agency talking through the agency's radio  
150.5 communications system.
- 150.6 3. Failure of a maximum of two nonadjacent test areas shall not result in failure  
150.7 of the test.
- 150.8 4. In the event that three of the test areas fail the test, in order to be more statistically  
150.9 accurate, the floor shall be permitted to be divided into 40 equal test areas. Failure  
150.10 of a maximum of four nonadjacent test areas shall not result in failure of the test.  
150.11 If the system fails the 40-area test, the system shall be altered to meet the 95 percent  
150.12 coverage requirement.
- 150.13 5. A test location approximately in the center of each test area shall be selected  
150.14 for the test, with the radio enabled to verify two-way communications to and from  
150.15 the outside of the building through the public agency's radio communications  
150.16 system. Once the test location has been selected, that location shall represent the  
150.17 entire test area. Failure in the selected test location shall be considered failure of  
150.18 that test area. Additional test locations shall not be permitted.
- 150.19 6. The gain values of all amplifiers, if applicable, shall be measured and the test  
150.20 measurement results shall be kept on file with the building owner so that the  
150.21 measurements can be verified during annual tests. In the event that the measurement  
150.22 results become lost, the building owner shall be required to rerun the acceptance  
150.23 test to reestablish the gain values.
- 150.24 7. As part of the installation, a spectrum analyzer or other suitable test equipment  
150.25 shall be utilized to ensure spurious oscillations are not being generated by the

151.1 subject in-building coverage system. This test shall be conducted at time of  
151.2 installation and subsequent annual inspections.

151.3 8. A test shall be considered a "failure" when a transmission from the test device  
151.4 within the building fails to deliver intelligible audio or data to the appropriate  
151.5 public safety dispatch center or equivalent as would be expected during normal  
151.6 operation; and/or when a transmission from a public safety dispatch center or  
151.7 equivalent fails to deliver intelligible audio or data to the test device within the  
151.8 building as would be expected during normal operation.

151.9 **P105.5 FCC compliance.** The emergency responder radio coverage system installation  
151.10 and components shall also comply with all applicable federal regulations including  
151.11 FCC 47 CFR Part 90.219.

151.12 **P106 Maintenance.** The emergency responder radio coverage system shall be maintained  
151.13 operational at all times in accordance with Sections P106.1 through P106.4.

151.14 **P106.1 Testing and proof of compliance.** The emergency responder radio coverage  
151.15 system shall be inspected and tested annually or whenever structural changes occur  
151.16 including additions or remodels that could materially change the original field  
151.17 performance tests. Testing shall consist of the following:

151.18 1. In-building coverage test as described in Section P105.3.

151.19 2. Signal boosters in-building coverage systems shall be tested to ensure that the  
151.20 gain is the same as it was upon initial installation and acceptance.

151.21 3. Backup batteries and power supplies shall be tested under load of a period of  
151.22 one hour to verify that they will properly operate during an actual power outage.  
151.23 If, within the one-hour test period, the battery exhibits symptoms of failure, the  
151.24 test shall be extended for additional one hour periods until the integrity of the  
151.25 battery can be determined.

152.1 4. All other active components shall be checked to verify operation within the  
152.2 manufacturer's specifications.

152.3 5. At the conclusion of the testing, a report, which shall verify compliance with  
152.4 Section P105.3, shall be submitted to the fire code official.

152.5 **P106.2 Additional frequencies.** The building owner shall modify or expand the  
152.6 emergency responder radio coverage system at their expense in the event frequency  
152.7 changes are required by the FCC or additional frequencies are made available by the  
152.8 FCC, or public safety entities operating in a given jurisdiction make modifications,  
152.9 changes, or upgrades to their communication system(s) that change the frequencies  
152.10 such systems utilize. Prior approval of a public safety radio coverage system on previous  
152.11 frequencies does not exempt this section.

152.12 ~~106.3~~ **P106.3 Field testing.** Agency personnel shall have the right to enter onto the  
152.13 property at any reasonable time to conduct field testing to verify the required level of  
152.14 radio coverage.

152.15 **P106.4 Planned outages.** Any planned outages of the in-building coverage system,  
152.16 such as for replacement or upgrade of the system, shall be done with the written approval  
152.17 of an entity legitimately representing public safety agencies operating within the  
152.18 jurisdiction, such as a county sheriff.

152.19 **7511.8000 REFERENCED STANDARDS.**

152.20 Subpart 1. **NFPA 13.** Standard NFPA 13 as listed in chapter 80 is amended to read  
152.21 as follows:

152.22 **13 - 16: Standard for the Installation of Sprinkler Systems.**

152.23 315.3.1, Table 507.3, 901.11.1, 901.11.2, 903.2.8.4, 903.3.1.1, 903.3.1.1.1, 903.3.1.6.2,  
152.24 903.3.1.6.4, 903.3.2, 903.3.8.2, 903.3.8.5, 904.12, 905.2.1.4, 907.6.4, 914.3.2, 1019.3,  
152.25 Table 1103.4, 1206.2.11.1, 1206.3.5.1, 3201.1, 3204.2, Table 3206.2, 3206.4.1, 3206.10,



153.1 3207.2, 3207.2.1, 3208.2.2, 3208.2.2.1, 3208.4, 3210.1, 3401.1, 5104.1, 5104.1.1,  
153.2 5106.5.7, 5704.3.3.9, Table 5704.3.6.3(7), 5704.3.7.5.1, 5704.3.8.4.

153.3 Subp. 2. **NFPA 13D.** Standard NFPA 13D as listed in chapter 80 is amended to read  
153.4 as follows:

153.5 **13D - 16: Standard for the Installation of Sprinkler Systems in One- and Two-family**  
153.6 **Dwellings and Manufactured Homes.**

153.7 903.3.1.3, 903.3.1.6.6.

153.8 Subp. 3. **NFPA 14.** Standard NFPA 14 as listed in chapter 80 is amended to read as  
153.9 follows:

153.10 **14 - 16: Standard for the Installation of Standpipe and Hose Systems.**

153.11 905.2, 905.4.2, 905.6.2, 905.8.

153.12 Subp. 4. **NFPA 30.** Standard NFPA 30 as listed in chapter 80 is amended to read as  
153.13 follows:

153.14 **30 - 18: Flammable and Combustible Liquids Code.**

153.15 608.1, 5701.2, 5703.6.2, 5703.6.2.1, 5704.2.7, 5704.2.7.1, 5704.2.7.2, 5704.2.7.3.2,

153.16 5704.2.7.4, 5704.2.7.6, 5704.2.7.7, 5704.2.7.8, 5704.2.7.9, 5704.2.9.3, 5704.2.9.4,

153.17 5704.2.9.6.1.1, 5704.2.9.6.1.2, 5704.2.9.6.1.3, 5704.2.9.6.1.4, 5704.2.9.6.1.5,

153.18 5704.2.9.6.2, 5704.2.9.7.3, 5704.2.10.2, 5704.2.11.2.1, 5704.2.11.3, 5704.2.11.4.2,

153.19 5704.2.12.1, 5704.3.1, 5704.3.1.2, 5704.3.6, Table 5704.3.6.3(1), Table 5704.3.6.3(2),

153.20 Table 5704.3.6.3(3), 5704.3.7.2.3, 5704.3.8.4, 5706.8.3.

153.21 Subp. 5. **NFPA 58.** Standard NFPA 58 as listed in chapter 80 is amended to read as  
153.22 follows:

153.23 **58 - 17: Liquefied Petroleum Gas Code.**

154.1 319.8.3, 603.4.2.1.1, 2311.5, 3903.6, 6101.1, 6102.1.

154.2 Subp. 6. **NFPA 72.** Standard NFPA 72 as listed in Chapter 80 is amended to read as  
154.3 follows:

154.4 **72 - 16: National Fire Alarm and Signaling Code.**

154.5 508.1.6, Table 901.6.1, 903.4.1, 904.3.5, 907.2, 907.2.10, 907.2.1.2, 907.2.1.3,  
154.6 907.2.12.2, 907.5.2.1.2, 907.5.2.2, 907.5.2.2.5, 907.6, 907.6.1, 907.6.2, 907.7, 907.7.1,  
154.7 907.7.2, 907.8, 907.8.2, 907.8.5, 917.1, 1103.7.1.3, 1103.7.6, 1103.7.6.1, 1203.2.4,  
154.8 2810.11.

154.9 Subp. 7. **NFPA 96.** Standard NFPA 96 as listed in chapter 80 is amended to read as  
154.10 follows:

154.11 **96 - 2017: Standard for Ventilation Control and Fire Protection of Commercial Cooking**  
154.12 **Operations.**

154.13 607.2, 607.3, 904.12.

154.14 Subp. 8. **NFPA 99.** Standard NFPA 99 as listed in chapter 80 is amended to read as  
154.15 follows:

154.16 **99 - 2012: Health Care Facilities Code.**

154.17 609.1, 1203.4.1, 1203.5.1, 5306.4, 5306.5, 5306.6.

154.18 Subp. 9. **NFPA 101.** Standard NFPA 101 as listed in chapter 80 is amended to read  
154.19 as follows:

154.20 **101 - 2012: Life Safety Code.**

154.21 102.13, 102.13.1, 1029.6.2, 1101.5, 1104.17.2.3.

154.22 Subp. 10. **NFPA 204.** Standard NFPA 204 as listed in chapter 80 is amended to read  
154.23 as follows:

155.1 **204 - 15: Standard for Smoke and Heat Venting.**

155.2 Table 901.6.1, 910.5.1, 910.5.2, 910.7.

155.3 Subp. 11. **NFPA 289.** Standard NFPA 289 as listed in chapter 80 is amended to read  
155.4 as follows:

155.5 **289 - 18: Standard Method of Fire Test for Individual Fuel Packages.**

155.6 807.3, 807.4.1, 807.5.1.1, 807.5.3.4, 808.3.

155.7 Subp. 12. **NFPA 701.** Standard NFPA 701 as listed in chapter 80 is amended to read  
155.8 as follows:

155.9 **701 - 15: Standard Methods of Fire Tests for Flame-propagation of Textiles and Films.**

155.10 807.3, 807.4.1, 807.5.1.2, 807.5.3.4, 2603.5, 3104.2.

155.11 **7511.8100 CHAPTER 81 - ADULT DAY SERVICES CENTERS, RESIDENTIAL**  
155.12 **HOSPICE FACILITIES AND SUPERVISED LIVING FACILITIES.**

155.13 The IFC is amended by adding Chapter 81 to read:

155.14 **CHAPTER 81**

155.15 **ADULT DAY SERVICES CENTERS, RESIDENTIAL HOSPICE FACILITIES**

155.16 **AND SUPERVISED LIVING FACILITIES**

155.17 **SECTION 8101**

155.18 **GENERAL**

155.19 **8101.1 Requirements.** Adult day services centers, residential hospice facilities and  
155.20 supervised living facilities shall meet the requirements of this chapter.

155.21 **SECTION 8102**

155.22 **ADULT DAY SERVICES CENTERS**

156.1 **8102.1 Classification of adult day services centers.** Adult day services centers are  
156.2 classified in accordance with the following and must meet the fire safety requirements  
156.3 for the designated occupancy classification.

156.4 **8102.1.1 Serving only participants capable of self-preservation.** Centers serving  
156.5 only participants who are capable of taking appropriate action for self-preservation  
156.6 under emergency conditions shall meet all applicable requirements for Group E  
156.7 occupancies.

156.8 **8102.1.2 Serving only participants not capable of self-preservation.** Centers serving  
156.9 only participants who are not capable of taking appropriate action for self-preservation  
156.10 under emergency conditions shall meet all applicable requirements for Group I-4  
156.11 occupancies.

156.12 **8102.1.3 Serving both participants capable and participants not capable of**  
156.13 **self-preservation.** Centers serving a population that includes both participants who  
156.14 are capable and participants who are not capable of taking appropriate action for  
156.15 self-preservation under emergency conditions shall meet the occupancy requirements  
156.16 for Group I-4 or Group E occupancies. In addition to the requirements for Group E  
156.17 occupancies, the center shall meet the requirements set forth in Sections 8102.1.3.1  
156.18 through 8102.1.3.4.

156.19 **8102.1.3.1 Population.** Not more than 50 percent of the center's licensed capacity  
156.20 shall be made up of participants who are not capable of taking appropriate action  
156.21 for self-preservation under emergency conditions.

156.22 **8102.1.3.2 Location.** The center must be located on a floor level with all exits  
156.23 directly to grade without any intervening stairs.

156.24 **8102.1.3.3 Fire alarm and detection.** The center shall be protected with a complete  
156.25 automatic fire alarm system consisting of automatic smoke detection in all corridors

157.1 and at the top of all stairways and automatic detection in boiler and furnace rooms,  
157.2 kitchens, storage rooms, custodial closets, laundries, and other hazardous areas.

157.3 **8102.1.3.4 Evacuation time.** The center shall demonstrate the ability to evacuate  
157.4 the entire population of the center within three minutes.

157.5 **SECTION 8103**

157.6 **RESIDENTIAL HOSPICE FACILITIES**

157.7 **8103.1 Classification of residential hospice facilities.** Residential hospice facilities meeting  
157.8 the fire-protection provisions of Chapter 32 of NFPA Standard No. 101 (Quincy,  
157.9 Massachusetts, 2012) for impractical evacuation capabilities shall be classified as Group  
157.10 R-4 occupancies, if serving six to 12 persons, or as Group R-3 occupancies, if serving five  
157.11 or fewer persons. For purposes of this section, Standard No. 101 ( 2012) Chapter 32 is  
157.12 incorporated by reference, is not subject to frequent change and is available at the State  
157.13 Law Library, 25 Rev. Dr. Martin Luther King Jr. Blvd., St. Paul, Minnesota 55155.

157.14 **SECTION 8104**

157.15 **SUPERVISED LIVING FACILITIES**

157.16 **8104.1 Classification of supervised living facilities.** Supervised living facilities are classified  
157.17 in accordance with Chapter 2 and must meet the fire safety requirements for the designated  
157.18 occupancy classification.

157.19 **8104.1.1 Class A-1 supervised living facilities.** Class A-1 supervised living facilities  
157.20 must meet Group R-3 occupancy requirements.

157.21 **8104.1.2 Class A-2 supervised living facilities.** Class A-2 supervised living facilities  
157.22 housing not more than 16 persons, excluding staff, must meet Group R-4 occupancy  
157.23 requirements. Class A-2 supervised living facilities housing more than 16 persons,  
157.24 excluding staff, must meet Group I-1 occupancy requirements.

158.1 **8104.1.3 Class B-1 supervised living facilities.** Class B-1 supervised living facilities  
158.2 meeting the fire-protection provisions of Chapter 32 of NFPA Standard No. 101 (Quincy,  
158.3 Massachusetts, 2012) for impractical evacuation capabilities shall be classified as Group  
158.4 R-3 occupancies. For the purposes of Sections 8104.1.3 and 8104.1.4, Standard No.  
158.5 101 (2012) Chapter 32 is incorporated by reference, is not subject to frequent change  
158.6 and is available at the State Law Library, 25 Rev. Dr. Martin Luther King Jr. Blvd.,  
158.7 Saint Paul, Minnesota 55155.

158.8 **8104.1.4 Class B-2 supervised living facilities.** Class B-2 supervised living facilities  
158.9 meeting the fire-protection provisions of Chapter 32 of NFPA Standard No. 101 (Quincy,  
158.10 Massachusetts, 2012) for impractical evacuation capabilities shall be classified as Group  
158.11 R-4 occupancies.

158.12 **8104.1.5 Class B-3 supervised living facilities.** Class B-3 supervised living facilities  
158.13 must meet Group I-2 occupancy requirements.

158.14 **REPEALER.** Minnesota Rules, parts 7511.0308, subpart 2; 7511.0408, subparts 1 and 2;  
158.15 7511.0604, subparts 2 and 3; 7511.0605; 7511.0807, subpart 2; 7511.0903, subpart 5;  
158.16 7511.0907, subpart 13; 7511.0908; 7511.1001, subpart 1a; 7511.1007; 7511.1015; 7511.1029,  
158.17 subparts 2 and 3; 7511.1103, subpart 5; 7511.2307; 7511.5001; and 7511.5501, are repealed.

158.18 **EFFECTIVE DATE.** The amendments to this chapter are effective March 31, 2020, or  
158.19 five business days after publication of the notice of adoption appears in the State Register,  
158.20 whichever is later.