

1.1 **Department of Labor and Industry**

1.2 **Proposed Permanent Rules Adopting Changes to the International Building Code**

1.3 **1305.0011 ADOPTION OF INTERNATIONAL BUILDING CODE BY REFERENCE**
1.4 **AND ADMINISTRATIVE AUTHORITY.**

1.5 Subpart 1. **General.** For purposes of this chapter, "IBC" means the ~~2012~~ 2018 edition
1.6 of the International Building Code as promulgated by the International Code Council, Inc.
1.7 (ICC), Washington, D.C. The IBC is incorporated by reference and made part of the
1.8 Minnesota State Building Code except as qualified by the applicable provisions in Minnesota
1.9 Rules, chapter 1300, and as amended in this chapter. Portions of this chapter reproduce
1.10 excerpts from the ~~2012~~ 2018 IBC, International Code Council, Inc., Washington, D.C.,
1.11 copyright ~~2012~~ 2017, reproduced with permission, all rights reserved. The IBC is not subject
1.12 to frequent change and a copy of the IBC, with amendments for use in Minnesota, is available
1.13 in the office of the commissioner of labor and industry.

1.14 Subp. 1a. Deleted appendices. All of the IBC appendices are deleted.

1.15 Subp. 2. **Mandatory chapters.** IBC chapters 2 through ~~33~~ and 35 must be administered
1.16 by any municipality that has adopted the Minnesota State Building Code, except as qualified
1.17 by the applicable provisions in Minnesota Rules, chapter 1300, and as amended by this
1.18 chapter. Amendments to IBC ~~chapters~~ chapter 11 and ~~30~~ are incorporated by reference in
1.19 this chapter, but the actual amendments for ~~those chapters~~ IBC chapter 11 are located in
1.20 Minnesota Rules, ~~chapters~~ chapter 1341, the Minnesota Accessibility Code, and ~~1307~~, the
1.21 ~~Minnesota Elevator Code~~, respectively. Referenced documents cited in IBC ~~chapters~~ chapter
1.22 11 and ~~30~~, and Minnesota Rules, ~~chapters~~ chapter 1307 and chapter 1341, apply, unless otherwise
1.23 stated or deleted. For the complete application and mandatory requirements relating to IBC
1.24 chapter 11, see Minnesota Rules, chapter 1341. ~~For the complete application and mandatory~~
1.25 ~~requirements relating to IBC chapter 30, see Minnesota Rules, chapter 1307.~~

1.26 Subp. 3. [See repealer.]

2.1 [For text of subparts 4 and 5, see Minnesota Rules]

2.2 **1305.0021 REFERENCES TO OTHER INTERNATIONAL CODE COUNCIL**
2.3 **CODES.**

2.4 [For text of subpart 1, see Minnesota Rules]

2.5 Subp. 2. **Building code.** References to the International Building Code or IBC in this
2.6 code mean the Minnesota Building Code, adopted pursuant to this chapter and Minnesota
2.7 Statutes, section 326B.106, subdivision 1.

2.8 Subp. 3. **Residential code.** References to the International Residential Code or IRC
2.9 in this code mean the Minnesota Residential Code, Minnesota Rules, chapter 1309, and
2.10 adopted pursuant to Minnesota Statutes, section 326B.106, subdivision 1.

2.11 [For text of subparts 4 and 5, see Minnesota Rules]

2.12 Subp. 6. **Mechanical code.** References to the International Mechanical Code or IMC
2.13 in this code mean the Minnesota Mechanical Code, Minnesota Rules, chapter 1346, and
2.14 adopted pursuant to Minnesota Statutes, section 326B.106, subdivision 1.

2.15 [For text of subparts 7 to 10, see Minnesota Rules]

2.16 Subp. 11. **Fire code.** References to the International Fire Code or IFC in this code
2.17 mean the Minnesota State Fire Code, Minnesota Rules, chapter 7511, and adopted pursuant
2.18 to Minnesota Statutes, ~~chapter 299F~~ section 326B.02.

2.19 Subp. 12. **International Existing Building Code.** References to the International
2.20 Existing Building Code or IEBC in this code mean Minnesota Conservation Code for
2.21 Existing Buildings, Minnesota Rules, chapter 1311, and adopted pursuant to Minnesota
2.22 Statutes, section 326B.106, subdivision 1.

2.23 **1305.0201 SECTION 201, GENERAL.**

2.24 IBC section 201.4 is amended to read as follows:

3.1 **201.4 Terms not defined.** Where terms are not defined through the methods authorized by
3.2 this ~~chapter code~~, the Merriam-Webster Collegiate Dictionary, available at ~~www.m-w.com~~
3.3 www.merriam-webster.com, shall be considered as providing ordinarily accepted meanings.
3.4 The dictionary is incorporated by reference, is subject to frequent change, and is available
3.5 through the Minitex interlibrary loan system.

3.6 **1305.0202 SECTION 202, DEFINITIONS.**

3.7 Subpart 1. **Amended definitions.** IBC section 202 is modified by amending the
3.8 following definitions to read as follows:

3.9 **AGRICULTURAL BUILDING.** "Agricultural building" means a building that meets the
3.10 requirements of Minnesota Statutes, section 326B.103, subdivision 3.

3.11 **AISLE.** "Aisle" means that portion of an exit access that connects an aisle accessway to an
3.12 exit access doorway, corridor, or exit.

3.13 **ALTERNATING TREAD DEVICE.** "Alternating tread device" means a device standing
3.14 between 50 and 70 degrees (0.87 and 1.22 rad) from horizontal, that has a series of steps
3.15 usually attached to a center support in an alternating manner so that the user does not have
3.16 both feet on the same level at the same time. A ships ladder in compliance with Minnesota
3.17 Rules, part ~~1305.1209~~ 1346.0306, subpart 1, shall be considered equivalent to an alternating
3.18 tread device.

3.19 **AMBULATORY CARE FACILITY.** "Ambulatory care facility" means buildings or
3.20 portions of buildings used to provide medical, surgical, psychiatric, nursing, or similar care
3.21 on a less than 24-hour basis to individuals who are rendered incapable of self-preservation
3.22 by the services provided. For the purposes of this ~~chapter code~~, federally certified end-stage
3.23 renal disease facilities (kidney dialysis facilities) located on the level of exit discharge shall
3.24 not be considered ambulatory care facilities.

4.1 **APPROVED.** "Approved" means approval by the building official, pursuant to the Minnesota
4.2 State Building Code, by reason of: inspection, investigation, or testing; accepted principles;
4.3 computer simulations; research reports; or testing performed by either a licensed engineer
4.4 or by a locally or nationally recognized testing laboratory.

4.5 **CORRIDOR.** "Corridor" means an interior passageway having a length at least 3 times its
4.6 width, having walls, partitions, or other obstructions to exit travel over 6 feet (1829 mm)
4.7 in height on 2 opposing sides and having openings from rooms or similar spaces.

4.8 **HISTORIC BUILDING.** "Historic building" has the meaning given for "historical building"
4.9 in Minnesota Rules, part 1300.0070, subpart 12a.

4.10 **LIVE/WORK UNIT.** The definition of "Live/Work Unit" in IBC section 202 is deleted in
4.11 its entirety.

4.12 **OUTPATIENT CLINIC.** "Outpatient clinic" means a building or part of a building used
4.13 to provide medical care on a less than 24-hour basis to persons who are not rendered
4.14 incapable of self-preservation by the services provided, including federally certified endstage
4.15 renal dialysis facilities (kidney dialysis facilities) not classified as an ambulatory care facility.

4.16 **ROOF COVERING.** "Roof covering" means the covering applied to the roof deck for
4.17 weather resistance, fire classification, or appearance. Roof covering materials consist of
4.18 two basic types: roofing systems and prepared materials.

4.19 **STANDPIPE SYSTEM, CLASSES OF.** "Classes of standpipe system" mean the following:

4.20 "Class I system" means a system providing 2-½ inch (64 mm) and 1-½ inch (38 mm)
4.21 hose connections to supply water for use by fire departments and those trained in handling
4.22 heavy fire streams.

4.23 "Class II system" means a system providing 1-½ inch (38 mm) hose stations to supply
4.24 water for use primarily by the building occupants or by the fire department during initial
4.25 response.

5.1 Subp. 2. **Added definitions.** The definition of "townhouse" in IBC section 202 is
5.2 deleted in its entirety. IBC section 202 is modified by adding the following definitions:

5.3 **ADULT DAY CARE CENTER OR ADULT DAY SERVICES CENTER.** "Adult day
5.4 care center" or "adult day services center" means a facility, licensed by the Department of
5.5 Human Services under Minnesota Rules, parts 9555.9600 to 9555.9730, that provides a
5.6 program of adult day care services to functionally impaired adults for periods of less than
5.7 24 hours per day in a setting other than a participant's home or the residence of the facility's
5.8 operator.

5.9 **CODE.** ~~For purposes of this chapter,~~ "The code" or "this code" means Minnesota Rules,
5.10 chapter 1305, Adoption of the International Building Code.

5.11 **GENERAL EVACUATION SIGNAL.** "General evacuation signal" means a fire alarm
5.12 occupant notification system in accordance with section 907.5.

5.13 **GUEST ROOM.** "Guest room" means a room or group of rooms used or intended to be
5.14 used for purposes of lodging by guests.

5.15 **ROOM.** "Room" means a space or area bounded by any obstruction over 6 feet (1829 mm)
5.16 in height which at any time encloses more than 80 percent of the perimeter of the area. In
5.17 computing the unobstructed perimeter, openings less than 3 feet (914 mm) in clear width
5.18 and less than 6 feet 8 inches (2032 mm) in height shall not be considered. Aisles and corridors
5.19 shall not be construed to form rooms.

5.20 **SMALL HOSE CONNECTION.** "Small hose connection" means a 1 1/2-inch connection
5.21 supplied inside of a building for firefighting overhaul operations in sprinkler-protected
5.22 structures.

5.23 **1305.0302 CARE FACILITY CLASSIFICATIONS.**

5.24 IBC section 302 is amended by adding Table 302.2 to read as follows:

6.1 **Table 302.2 Care facilities.** Occupancies for care facilities shall be classified in
 6.2 accordance with the following table.

6.3 **TABLE 302.2**

6.4 **CARE FACILITIES**

6.5			IBC
6.6	Type of Licensed Facility	Number or Type of	Occupancy
6.7		Residents <u>Care Recipients</u>	Classification
6.8	Child Care (Day Family Child Care Home	10 occupants maximum with	R-3
6.9	Care)	≤ 6 below school age ¹	dwelling unit
6.10	Group Child Care Home <	11-14 occupants maximum	R-3
6.11	24 hours per day		dwelling unit
6.12	Child Care Center	> 5 but ≤ 100 children ≤	E
6.13	< 24 hours per day	2.5 years of age and each	
6.14		room at, and with, an exit at	
6.15		the level of exit discharge	
6.16	Child Care Center < 24 hours	More than 5 children > 2.5	E
6.17	per day	years of age	
6.18	Child Care Center < 24 hours	More than 5 children ≤ 2.5	I-4
6.19	per day	years of age <u>and not</u>	
6.20		<u>classified as E</u>	
6.21	Adult Day Care Family Adult Day Services	≤ 8 impaired adults <u>care</u>	R-3
6.22	(Day Services) (located in care giver's	<u>recipients age 13 and older</u>	dwelling unit
6.23	<u>primary residence</u>)		
6.24	Adult Day Care <u>Services</u>	6 or more occupants <u>care</u>	I-4 <u>unless</u>
6.25	Center < 24 hours per day	<u>recipients, age 13 and older,</u>	<u>meet criteria</u>
6.26		all may or may not be	<u>for E below</u>
6.27		capable of self-preservation	
6.28		<u>without assistance</u>	
6.29	<u>Adult Day Services Center</u>	<u>6 or more care recipients, age</u>	<u>E</u>
6.30	<u>< 24 hours per day</u>	<u>13 and older, all capable of</u>	
6.31		<u>self-preservation without</u>	
6.32		<u>assistance</u>	
6.33	Adult Day Care <u>Services</u>	6 or more occupants, but	<u>I-4</u>
6.34	Center < 24 hours per day	<u>having care recipients, age</u>	<u>E if compliant</u>
6.35		<u>13 and older, where at least</u>	<u>with all of</u>

7.1			<u>one care recipient but no</u>	<u>Section</u>
7.2			<u>more than 50 percent of the</u>	<u>308.5.1.2</u>
7.3			occupants who are not	
7.4			<u>capable of care recipients</u>	
7.5			<u>require assistance for</u>	
7.6			<u>self-preservation</u>	
7.7		<u>Day Training and</u>	<u>Program participants age 13</u>	<u>Classified by</u>
7.8		<u>Habilitation</u>	<u>and older</u>	<u>primary</u>
7.9				<u>use/training</u>
7.10				<u>function</u>
7.11	Supervised Living Facilities	Class A-1	6 or fewer residents; all of	R-3
7.12			whom are capable of	dwelling unit
7.13			self-preservation <u>without</u>	
7.14			<u>assistance</u>	
7.15		Class A-2	7 to 16 residents; all of	R-4 <u>Condition</u>
7.16			whom are capable of	<u>1</u>
7.17			self-preservation <u>without</u>	
7.18			<u>assistance</u>	
7.19		Class A-2	More than 16 residents; all	I-1 <u>Condition</u>
7.20			of whom are capable of	<u>1</u>
7.21			self-preservation <u>without</u>	
7.22			<u>assistance</u>	
7.23		Class B-1	6 or fewer residents; all of	R-3
7.24			whom may not be capable of	
7.25			self-preservation <u>without</u>	
7.26			<u>assistance</u>	
7.27		Class B-2	7 to 16 residents; all of	R-4 <u>Condition</u>
7.28			whom may not be capable of	<u>2</u>
7.29			<u>which some may require</u>	
7.30			<u>limited assistance for</u>	
7.31			<u>self-preservation</u>	
7.32		Class B-3	More than 16 residents; all	I-2 <u>Condition</u>
7.33			of whom may not be capable	<u>1</u>
7.34			of self-preservation <u>without</u>	
7.35			<u>assistance</u>	
7.36	Hospice	Residential Hospice Facility	1-5 terminally ill persons	R-3
7.37			Residential Hospice Facility	6-12 terminally ill persons
7.38				

8.1	Adult Foster Care	Adult Foster Care Home	1-5 impaired adults	R-3 dwelling unit
8.2				
8.3	Child Foster Care	Foster Care	1-6 foster children without severe disability or assisted medical technology	R-3 dwelling unit
8.4				
8.5				
8.6		Foster Care	1-4 foster children with medical or special care services	R-3 dwelling unit
8.7				
8.8				
8.9	Housing with Services Facility Establishment	Housing with Services Establishment	1-5 adult residents \geq 80 percent 55 years of age or older unless registered under MN Minnesota Statutes, section 144D.025	R-3 dwelling unit
8.10				
8.11				
8.12				
8.13				
8.14		Housing with Services Establishment	6-16 adult residents \geq 80 percent 55 years of age or older unless registered under MN Minnesota Statutes, section 144D.025	R-4 <u>Condition 2</u>
8.15				
8.16		Housing with Services Establishment Providing Assisted Living Services	\geq 16 adult residents \geq 80 percent 55 years of age or older unless registered under MN Minnesota Statutes, section 144D.025	I-1 <u>Condition 2</u>
8.17				
8.18				
8.19				
8.20				
8.21				
8.22				
8.23				
8.24	Boarding Care	Boarding Care Home	\leq 5 residents	R-3 dwelling unit
8.25				
8.26		Boarding Care Home	6-16 residents <u>all of whom are capable of self-preservation without assistance</u>	R-4 <u>Condition 1</u>
8.27				
8.28				
8.29				
8.30		Boarding Care Home	> 16 residents <u>all of whom are capable of self-preservation without assistance</u>	I-1 <u>Condition 1</u>
8.31				
8.32				
8.33				
8.34	Boarding and Lodging	Boarding and Lodging	\leq 16 residents in sleeping rooms or \leq 2 dwelling units in one building	R-3
8.35				
8.36				
8.37		Boarding and Lodging	> 16 residents in sleeping rooms or > 2 dwelling units	R-2
8.38				

9.1			in one building <u>all of whom</u>	
9.2			<u>are capable of</u>	
9.3			<u>self-preservation without</u>	
9.4			<u>assistance</u>	
9.5		Boarding and Lodging < 30	Bed and Breakfast <u>Lodging</u>	R-1
9.6		days	<u>facilities</u> with 6 or more	
9.7			sleeping units	
9.8			Boarding houses with > 10	
9.9			occupants	
9.10		Boarding and Lodging < 30	Bed and Breakfast <u>Lodging</u>	R-3
9.11		days	<u>facilities</u> with 5 or fewer	dwelling unit
9.12			sleeping units	
9.13			Boarding houses with ≤ 10	
9.14			occupants	
9.15	Senior Housing	Senior Housing (See IBC	More than 2 dwelling units	R-2
9.16		310)	in one building	
9.17		Senior Housing (See IBC	2 dwelling units in one	R-3
9.18		310)	building	
9.19		Senior Housing (See IBC	1 dwelling unit	R-3
9.20		310)		dwelling unit
9.21	Congregate	Congregate Residence	≤ 16 residents	R-3
9.22	Residence			
9.23		Congregate Residence	17 or more residents	R-2
9.24	Day Services	Day Services Facility	Adult (over 18)	I-4
9.25		Day Services Facility	Ages 13-18	I-4
9.26	Chemical	Chemical Dependency <u>and</u>	Not regulated	B
9.27	Dependency	<u>Mental Health Treatment</u>		
9.28	<u>and Mental</u>	Program Programs -		
9.29	<u>Health</u>	Outpatient (< 24 hrs.)		
9.30	Treatment			
9.31	Programs			
9.32		Chemical Dependency <u>and</u>	≤ ≤ 5 residents	R-3
9.33		<u>Mental Health Treatment</u>		dwelling unit
9.34		Program Programs -		
9.35		Residential		
9.36		Chemical Dependency <u>and</u>	6-16 residents <u>all of whom</u>	R-4 <u>Condition</u>
9.37		<u>Mental Health Treatment</u>	<u>may not be capable of</u>	<u>2</u>

10.1	Program Programs -	<u>self-preservation without</u>	
10.2	Residential	<u>assistance</u>	
10.3	Chemical Dependency and	> 16 residents <u>all of whom</u>	I-1 <u>Condition</u>
10.4	Mental Health Treatment	<u>may not be capable of</u>	<u>2</u>
10.5	Program Programs -	<u>self-preservation without</u>	
10.6	Residential	<u>assistance</u>	
10.7	<u>Ambulatory</u>	<u>Nursing and medical care for</u>	<u>B</u>
10.8	<u>Care Facility</u>	<u>< 24 hours</u>	
10.9		<u>Includes: skilled medical</u>	
10.10		<u>care, emergency care,</u>	
10.11		<u>surgery, obstetrics, or patient</u>	
		<u>stabilization for psychiatric</u>	
		<u>or detox</u>	
10.12	<u>Nursing Home</u>	<u>Nursing and medical care for</u>	<u>I-2 Condition</u>
10.13		<u>> 24 hours</u>	<u>1</u>
10.14		<u>Does not include: emergency</u>	
10.15		<u>care, surgery, obstetrics, or</u>	
		<u>in-patient stabilization for</u>	
		<u>psychiatric or detox</u>	
10.16	<u>Hospital</u>	<u>Nursing and medical care for</u>	<u>I-2 Condition</u>
10.17		<u>> 24 hours</u>	<u>2</u>
10.18		<u>Includes skilled medical care,</u>	
10.19		<u>emergency care, surgery,</u>	
10.20		<u>obstetrics, or in-patient</u>	
		<u>stabilization for psychiatric</u>	
		<u>or detox</u>	

10.21 ¹ "School age" means the age of a "school-age child" as defined in Minnesota Statutes,
 10.22 section 245A.02, subdivision 16.

10.23 **1305.0308 INSTITUTIONAL GROUP I.**

10.24 Subpart 1. **IBC section ~~308.3~~ 308.2.** IBC section ~~308.3~~ 308.2 and its subsections
 10.25 are amended to read as follows:

10.26 **~~308.3~~ 308.2 Institutional Group I-1.** This occupancy shall include buildings, structures,
 10.27 or portions thereof for more than 16 persons who reside on a 24-hour basis in a supervised
 10.28 environment and receive custodial care services. Examples of this group include the
 10.29 following:

10.30 Alcohol and drug centers

10.31 Assisted living

- 11.1 Boarding care homes
- 11.2 Congregate care facilities
- 11.3 Convalescent facilities
- 11.4 Group homes
- 11.5 Halfway houses
- 11.6 Housing with services establishment
- 11.7 Residential board and care facilities
- 11.8 Social rehabilitation facilities
- 11.9 Supervised living facilities Class A-2

11.10 (Subsections 308.2.1, 308.2.2, and 308.2.3 remain unchanged.)

11.11 ~~**308.3.1 Five or fewer persons receiving care.** A facility such as the above with five~~
 11.12 ~~or fewer persons receiving such care shall be classified as Group R-3.~~

11.13 ~~**308.3.2 Six to 16 persons receiving care.** A facility such as above, housing not fewer~~
 11.14 ~~than six and not more than 16 persons receiving such care, shall be classified as Group~~
 11.15 ~~R-4.~~

11.16 **308.2.4 Five or fewer persons receiving custodial care.** A facility with five or fewer
 11.17 persons receiving custodial care shall be classified as Group R-3.

11.18 Subp. 2. ~~IBC section 308.4~~ **308.3.** IBC section ~~308.4 is~~ 308.3 and subsection 308.3.2
 11.19 are amended to read as follows:

11.20 ~~**308.4**~~ **308.3 Institutional Group I-2.** This occupancy shall include buildings and structures
 11.21 used for medical care on a 24-hour basis for more than five persons who are incapable of
 11.22 self-preservation. Examples of this group include the following:

12.1 Detoxification facilities

12.2 Foster care facilities

12.3 Hospitals

12.4 Nursing homes

12.5 Psychiatric hospitals

12.6 Supervised living facilities Class B-3

12.7 (Subsections 308.3.1, 308.3.1.1, and 308.3.1.2 remained unchanged.)

12.8 ~~308.4.1~~ 308.3.2 **Five or fewer persons receiving care.** A facility such as the above
 12.9 with five or fewer persons receiving such care consistent with Group I-2 occupancies
 12.10 shall be classified as Group R-3.

12.11 Subp. 3. [Repealed, 39 SR 1605]

12.12 Subp. 4. **IBC section ~~308.6.4~~ 308.5.** IBC section ~~308.6.4~~ is 308.5 and its subsections
 12.13 are amended to read as follows:

12.14 **308.5 Group I-4, day care and day services facilities.** This group includes buildings and
 12.15 structures occupied by more than five persons of any age who receive custodial care for
 12.16 fewer than 24 hours per day by persons other than parents or guardians, relatives by blood,
 12.17 marriage, or adoption, and in a place other than the home of the person receiving care. This
 12.18 group shall include but not be limited to the following:

12.19 Adult day services

12.20 Child day care

12.21 **308.5.1 Classification as Group E.** Day care and day services uses shall be classified
 12.22 as Group E occupancies subject to sections 308.5.1.1 through 308.5.1.3.

13.1 **308.5.1.1 Adult day services centers serving only persons capable of**
13.2 **self-preservation.** Adult day services centers serving only persons who, without
13.3 assistance, are capable of self-preservation under emergency conditions shall be
13.4 classified as Group E.

13.5 **308.5.1.2 Adult day services centers serving both persons capable and persons**
13.6 **not capable of self-preservation.** Adult day services centers shall be classified
13.7 as Group E where all of the following conditions apply:

13.8 a. At least one person served but not more than 50 percent of persons served
13.9 require assistance with self-preservation under emergency conditions.

13.10 b. The rooms in which the adults are cared for are located on the level of exit
13.11 discharge serving such rooms, with all exits discharging directly to grade
13.12 without intervening stairs. Each exit discharge shall provide an accessible
13.13 route, without stairs, to the public way or safe dispersal area in accordance
13.14 with the exception to Section 1028.5.

13.15 c. The day services center is protected with an automatic fire alarm system
13.16 consisting of automatic smoke detection in all corridors and at the top of all
13.17 stairways, and automatic detection in boiler and furnace rooms, kitchens,
13.18 storage rooms, custodial closets, laundry and soiled linen rooms, and other
13.19 hazardous areas.

13.20 **308.5.1.3 Child day care.** A child day care facility shall be classified as Group E
13.21 where all of the following conditions apply:

13.22 a. The facility provides care for more than five but not more than 100 children
13.23 2-½ years or less of age.

13.24 b. The rooms in which the children are cared for are located on the level of
13.25 exit discharge serving such rooms.

14.1 c. Each room providing day care has an exit door directly to the exterior.

14.2 (Subsections 308.5.2 and 308.5.3 remain unchanged.)

14.3 ~~308.6.4~~ **308.5.4 Five or fewer persons receiving care in a dwelling unit.** ~~A facility~~
 14.4 ~~such as the above~~ Adult day services or child day care within a dwelling unit and having
 14.5 five or fewer persons receiving custodial care shall be classified as a Group R-3
 14.6 occupancy. Where the adult day services or child day care is located in a one- or
 14.7 two-family dwelling or townhouse, the dwelling: (1) shall be constructed in accordance
 14.8 with either this chapter or Minnesota Rules, chapter 1309, the Minnesota Residential
 14.9 Code; and (2) shall be equipped with an automatic sprinkler system when required by
 14.10 Section 903.2.8.

14.11 **1305.0310 SECTION 310, RESIDENTIAL GROUP R.**

14.12 IBC section 310 and its subsections are amended to read as follows:

14.13 **310.1 Residential Group R.** Residential Group R includes, among others, the use of a
 14.14 building or structure, or a portion thereof, for sleeping purposes when not classified as an
 14.15 Institutional Group I. This group shall not include buildings regulated by Minnesota Rules,
 14.16 chapter 1309, the International Minnesota Residential Building Code (IRC). ~~However, the~~
 14.17 ~~licensed uses specified in Sections 310.5 and 310.6, as amended by this part, are applicable~~
 14.18 ~~to a building constructed in accordance with the IRC that houses a use that is required to~~
 14.19 ~~be licensed.~~

14.20 **Exception:** Group R-3 and R-4 occupancies located in a one- or two-family dwelling
 14.21 or a townhouse and classified as a "dwelling unit" in Table 302.2: (1) shall be
 14.22 constructed in accordance with either this code or Minnesota Rules, chapter 1309, the
 14.23 Minnesota Residential Code; and (2) shall be equipped with an automatic sprinkler
 14.24 system when required by Section 903.2.8.

14.25 Residential occupancies shall be classified according to subsections 310.2 to 310.5.

15.1 ~~**310.2 Definitions.**~~ The following terms are defined in chapter 2:

15.2 ~~Boarding house~~

15.3 ~~Congregate living facility~~

15.4 ~~Dormitory~~

15.5 ~~Group home~~

15.6 ~~Personal care service~~

15.7 ~~Transient~~

15.8 ~~**310.3**~~ **310.2 Residential Group R-1.** R-1 Residential occupancies containing sleeping units
15.9 where the occupants are primarily transient in nature, including:

15.10 ~~Bed and breakfast facilities with six or more guest rooms. A facility with fewer than~~
15.11 ~~six guest rooms shall be classified as a Group R-3 occupancy.~~

15.12 Boarding houses (transient) with more than ten occupants

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

15.14 Hotels (transient)

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

15.16 Motels (transient)

15.17 ~~**310.4**~~ **310.3 Residential Group R-2.** R-2 Residential occupancies containing sleeping units
15.18 or more than two dwelling units where the occupants are primarily permanent in nature,
15.19 including:

15.20 Apartment houses

15.21 ~~Boarding houses (nontransient) with more than 16 occupants~~

15.22 Congregate living facilities (nontransient) with more than 16 occupants

- 16.1 Boarding houses
- 16.2 Convents
- 16.3 Dormitories
- 16.4 Fraternities and sororities
- 16.5 Monasteries
- 16.6 Hotels (nontransient)
- 16.7 ~~Monasteries~~
- 16.8 Motels (nontransient)
- 16.9 Vacation ~~timeshare~~ time-share properties
- 16.10 ~~310.5~~ **310.4 Residential Group R-3.** R-3 Residential occupancies where the occupants are
- 16.11 primarily permanent in nature and not classified as R-1, R-2, R-4, or I including:
- 16.12 Assisted living
- 16.13 Boarding care homes
- 16.14 ~~Boarding houses (nontransient) with 16 or fewer occupants~~
- 16.15 ~~Boarding houses (transient) with 10 or fewer occupants~~
- 16.16 Buildings that do not contain more than two dwelling units
- 16.17 Care facilities that provide accommodations for five or fewer persons receiving care
- 16.18 Congregate living facilities (nontransient) with 16 or fewer occupants
- 16.19 Boarding houses (nontransient)
- 16.20 Dormitories
- 16.21 Fraternities and sororities

- 17.1 Convents
- 17.2 Monasteries
- 17.3 Congregate living facilities (transient) with ten or fewer occupants
- 17.4 Boarding houses (transient)
- 17.5 Dwelling units (two or fewer) in mixed occupancy buildings
- 17.6 Family adult foster homes
- 17.7 Foster care
- 17.8 Housing with services establishment
- 17.9 Lodging houses (transient) with five or fewer guest rooms and ten or fewer occupants
- 17.10 Residential hospice with five or fewer occupants
- 17.11 ~~In new construction, Group R-3 occupancies shall meet the requirements for building~~
- 17.12 ~~durability of chapter 1309, the International Residential Building Code, parts 1309.0402;~~
- 17.13 ~~1309.0406, subpart 2; 1309.0702, subpart 2; 1309.0703, subpart 2a; 1309.0703, subpart 9,~~
- 17.14 ~~items A, B, and C; 1309.0903; and 2012 IRC section R703.8.1.~~
- 17.15 **~~310.5.1~~ 310.4.1 Care facilities within a dwelling.** Section ~~310.5.1~~ 310.4.1 is deleted
- 17.16 in its entirety.
- 17.17 (Subsection 310.4.2 remains unchanged.)
- 17.18 **~~310.6~~ 310.5 Residential Group R-4.** This occupancy shall include buildings, structures,
- 17.19 or portions thereof for more than five but not more than 16 persons, excluding staff, who
- 17.20 reside on a 24-hour basis in a supervised residential environment and receive custodial care.
- 17.21 ~~The persons receiving care are capable of self-preservation.~~ This group shall include the
- 17.22 following:
- 17.23 Alcohol and drug centers

- 18.1 Assisted living
- 18.2 Boarding care homes
- 18.3 Congregate care facilities
- 18.4 Group homes
- 18.5 Halfway houses
- 18.6 Housing with services establishment (including those that provide assisted living
- 18.7 services)
- 18.8 Residential board and care facilities
- 18.9 Residential hospice with 12 or fewer occupants
- 18.10 Social rehabilitation facilities
- 18.11 Group R-4 occupancies shall meet the requirements for construction as defined for Group
- 18.12 R-3, except as otherwise provided for in this code.
- 18.13 **Occupancy conditions.** Buildings of Group R-4 shall be classified as either condition 1
- 18.14 **under section 310.5.1 or condition 2 under section 310.5.2.**
- 18.15 **(Sections 310.5.1 and 310.5.2 remain unchanged.)**
- 18.16 **1305.0402 SECTION 402, COVERED MALL AND OPEN MALL BUILDINGS.**
- 18.17 Subpart 1. [See repealer.]
- 18.18 Subp. 2. [Repealed, 32 SR 7]
- 18.19 Subp. 3. **IBC section 402.7.2.** IBC section 402.7.2 is amended to read as follows:
- 18.20 **402.7.2 Smoke control.** Where a covered mall building contains an atrium, a smoke
- 18.21 control system shall be provided in accordance with Section 404.5.

19.1 **Exception:** Smoke control is not required in covered mall buildings where an
19.2 atrium connects only two stories.

19.3 Covered mall buildings exceeding 50,000 square feet (4645 m²) in floor area, excluding
19.4 anchor buildings, not provided with an approved smoke control system, shall be provided
19.5 with a ~~postfire~~ post-fire smoke exhaust system in accordance with Minnesota Rules,
19.6 part ~~1305.0916~~ 1305.0919.

19.7 **1305.0403 SECTION 403, HIGH-RISE BUILDINGS.**

19.8 Subpart 1. **IBC section 403.2.1.2.** IBC section 403.2.1.2 is deleted in its entirety.

19.9 Subp. 2. [Repealed, 39 SR 1605]

19.10 Subp. 3. **IBC section ~~403.4.8.2~~ 403.4.8.3.** IBC section ~~403.4.8.2~~ 403.4.8.3 is amended
19.11 to read as follows:

19.12 ~~403.4.8.2~~ 403.4.8.3 **Standby power loads.** The following are classified as standby
19.13 power loads:

- 19.14 1. power and lighting for the fire command center required by Section 403.4.6;
- 19.15 2. ventilation and automatic fire detection equipment for smokeproof
19.16 enclosures; and
- 19.17 3. passenger elevators serving occupied floors more than 75 feet (22,860 mm)
19.18 above the lowest level of fire department vehicle access.

19.19 **1305.0406 SECTION 406, MOTOR VEHICLE-RELATED OCCUPANCIES.**

19.20 Subpart 1. **IBC section ~~406.4.5~~ 406.2.4.** IBC section ~~406.4.5~~ 406.2.4 is amended by
19.21 adding a new exception to read as follows:

19.22 3.4. Unoccupied portions of nonpublic parking garages shall not be required to be
19.23 nonabsorbent.

20.1 [For text of subpart 2, see Minnesota Rules]

20.2 **1305.0407 SECTION 407, GROUP I-2.**

20.3 Subpart 1. IBC section 407.2.1. IBC section 407.2.1 is amended to read as follows:

20.4 **407.2.1 Spaces open to the corridor.** Spaces constructed as required for corridors
20.5 shall be permitted to be open to a corridor, only when all the following criteria are met:

20.6 1. the spaces are not occupied as care recipient sleeping rooms, treatment rooms,
20.7 or incidental uses in accordance with Section 509 or hazardous uses;

20.8 2. the open space is protected by an automatic ~~fire~~ smoke detection system installed
20.9 in accordance with Section 907;

20.10 3. the corridors onto which the spaces open, in the same smoke compartment, are
20.11 protected by an automatic ~~fire~~ smoke detection system installed in accordance
20.12 with Section 907, or the smoke compartment in which the spaces are located is
20.13 equipped throughout with quick response sprinklers in accordance with Section
20.14 903.3.2; and

20.15 4. the space is arranged so as not to obstruct access to the required exits.

20.16 Subp. 2. IBC section 407.4.4.5.1. IBC section 407.4.4.5.1 is amended to read as
20.17 follows:

20.18 **407.4.4.5.1 Area.** Care suites containing sleeping rooms shall be not greater
20.19 than 7,500 square feet (696 m²) in area.

20.20 **Exception:** Care suites containing sleeping rooms shall be permitted to
20.21 be not greater than 10,000 square feet (929 m²) in area where both of the
20.22 following criteria are met:

20.23 1. an automatic smoke detection system is provided throughout the care
20.24 suite and is installed in accordance with NFPA 72; and

21.1 2. the arrangement of sleeping rooms within the care suite allows for
21.2 continuous visual supervision by care providers. Glass walls and cubical
21.3 curtains shall be permitted for visual supervision.

21.4 Subp. 3. IBC section 407.4.4.5.2. IBC section 407.4.4.5.2 is amended to read as
21.5 follows:

21.6 **407.4.4.5.2 Exit access.** Any sleeping room, or any care suite that contains
21.7 sleeping rooms, of more than 1,000 square feet (929 m²) shall have not
21.8 fewer than two exit access doors from the care suite located in accordance
21.9 with Section 1007.

21.10 **407.4.4.5.2.1 Two means of egress.** For suites requiring two means
21.11 of egress, one means of egress from the suite shall be directly into
21.12 a corridor or exit.

21.13 **407.4.4.5.2.2 Travel distance.** Travel distance within a sleeping
21.14 suite to an exit access door shall not exceed 100 feet. Travel distance
21.15 within a sleeping suite to an exit shall not exceed 200 feet.

21.16 Subp. 4. IBC section 407.4.4.6.1. IBC section 407.4.4.6.1 is amended to read as
21.17 follows:

21.18 **407.4.4.6.1 Area.** Care suites of rooms, other than sleeping rooms, shall have
21.19 an area not greater than 10,000 square feet.

21.20 Subp. 5. IBC section 407.4.4.6.2. IBC section 407.4.4.6.2 is amended to read as
21.21 follows:

21.22 **407.4.4.6.2 Exit access.** Care suites, other than sleeping rooms, with an area
21.23 of more than 2,500 square feet (232 m²) shall have not fewer than two exit
21.24 access doors from the care suite located in accordance with Section 1007. At
21.25 least one exit access shall be directly to a corridor or exit.

22.1 **407.4.4.6.2.1 Travel distance.** Travel distance within a non-sleeping
 22.2 suite to an exit access door shall not exceed 100 feet. Travel distance
 22.3 shall not exceed 200 feet from any point in a non-sleeping suite to an
 22.4 exit.

22.5 Subp. 6. **IBC section 407.5.1.** IBC section 407.5.1 is amended by deleting both
 22.6 exceptions.

22.7 **1305.0408 SECTION 408, GROUP I-3.**

22.8 Subpart 1. [Repealed, 39 SR 1605]

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

22.10 Subp. 3. **IBC section 408.9.** IBC section ~~408~~ 408.9 is amended by ~~adding a new~~
 22.11 ~~subsection~~ to read as follows:

22.12 **408.9 Windowless buildings.** For the purposes of this section, a windowless building or
 22.13 portion of a windowless building is one with ~~nonopenable~~ non-openable or readily breakable
 22.14 windows or with skylights or exterior doors provided in all resident areas of the exit access
 22.15 with an occupant load greater than 50. Windowless buildings shall be provided with an
 22.16 engineered smoke control system to provide a tenable environment for exiting from the
 22.17 smoke compartment in the area of fire origin in accordance with Section 909 for each
 22.18 windowless smoke compartment.

22.19 **1305.0410 SECTION 410, STAGES, PLATFORMS AND TECHNICAL**
 22.20 **PRODUCTION AREAS.**

22.21 IBC section 410.7 is amended to read as follows:

22.22 **410.7 Standpipes.** Standpipes are not required.

22.23 **1305.0413 SECTION 413, COMBUSTIBLE STORAGE.**

22.24 IBC section 413 is amended by adding a subsection to read as follows:

23.1 **413.3 Fire protection of floors.** In addition to the requirements of this section, the fire
23.2 protection of floors in Groups I-1, R-1, R-2, ~~and R-3~~, and R-4 occupancies shall comply
23.3 with the requirements of Section ~~420.6~~ 420.12.

23.4 **1305.0420 SECTION 420, ~~GROUP~~ GROUPS I-1, R-1, R-2, R-3 and R-4.**

23.5 Subpart 1. **IBC section 420.1.** IBC section 420.1 is amended to read as follows:

23.6 **420.1 General.** Occupancies in Groups I-1, R-1, R-2, ~~and R-3~~, and R-4 shall comply with
23.7 the provisions of Sections 420.1 through ~~420.6~~ 420.12 and other applicable provisions of
23.8 this code.

23.9 (~~Sections 420.2 to 420.5 remain unchanged.~~)

23.10 Subp. 1a. **IBC section 420.7.** IBC section 420.7 is amended to read as follows:

23.11 **420.7 Group I-1 assisted living housing units.** In Group I-1 occupancies, where a
23.12 fire-resistance rated corridor is provided in areas where assisted living residents are housed,
23.13 shared living spaces, group meeting spaces, and multipurpose therapeutic spaces open to
23.14 the corridor shall be in accordance with all of the following criteria:

23.15 1. The walls and ceilings of the space are constructed as required for corridors.

23.16 2. The spaces are not occupied as resident sleeping rooms, treatment rooms, incidental
23.17 uses in accordance with Section 509, or hazardous uses.

23.18 3. The open space is protected by an automatic smoke detection system installed in
23.19 accordance with Section 907.

23.20 4. In Group I-1, Condition 1, the corridors onto which the spaces open are protected
23.21 by an automatic smoke detection system installed in accordance with Section 907, or
23.22 the spaces are equipped throughout with quick-response sprinklers in accordance with
23.23 Section 903.3.2.

24.1 5. In Group I-1, Condition 2, the corridors onto which the spaces open, in the same
24.2 smoke compartment, are protected by an automatic smoke detection system installed
24.3 in accordance with Section 907, or the smoke compartment in which the spaces are
24.4 located is equipped throughout with quick-response sprinklers in accordance with
24.5 Section 903.3.2.

24.6 6. The space is arranged so as not to obstruct access to the required exits.

24.7 Subp. 1b. **IBC section 420.10.** IBC section 420.10 is amended to read as follows:

24.8 **420.10 Group R-2 congregate living cooking facilities.** Domestic cooking appliances for
24.9 use by residents of Group R-2 congregate living facilities shall be in accordance with Sections
24.10 420.10.1 and 420.10.2.

24.11 **420.10.1 Cooking appliances.** Where located in Group R-2 congregate living facilities,
24.12 installed domestic cooking appliances for use by residents shall be in compliance with
24.13 all of the following:

24.14 1. the types of domestic cooking appliances shall be limited to ovens, cooktops,
24.15 ranges, warmers, coffee makers, and microwaves;

24.16 2. domestic cooking appliances shall be limited to approved locations;

24.17 3. cooktops and ranges shall be protected in accordance with Section 904.13; and

24.18 4. cooktops and ranges shall be provided with a domestic cooking hood installed
24.19 and constructed in accordance with IMC Section 505.

24.20 **420.10.2 Cooking appliances in sleeping rooms.** Cooktops, ranges, and ovens shall
24.21 not be installed or used in sleeping rooms.

24.22 Subp. 2. **IBC section 420.6 420.** IBC section 420 is amended by adding a subsection
24.23 two subsections to read as follows:

25.1 **420.11 Group R-3 and R-4 durability.** Group R-3 and R-4 occupancies shall meet the
25.2 requirements for building durability of Minnesota Rules, chapter 1309, the Minnesota
25.3 Residential Code, parts 1309.0402; 1309.0406, subpart 2; 1309.0702, subpart 2; 1309.0703,
25.4 subpart 2a; 1309.0703, subpart 9; and 1309.0903.

25.5 **420.6 420.12 Fire protection of floors.** Floor assemblies, not required elsewhere in this
25.6 code to be fire-resistance rated, shall be provided with 1/2-inch (12.7 mm) gypsum wallboard
25.7 membrane, 5/8-inch (16 mm) wood structural panel membrane, or equivalent on the underside
25.8 of the floor framing member.

25.9 **Exceptions:**

- 25.10 1. Floor assemblies located directly over a space protected by an automatic sprinkler
25.11 system in accordance with NFPA 13D, or other approved equivalent sprinkler system.
- 25.12 2. Floor assemblies located directly over a crawl space not intended for storage or
25.13 fuel-fired appliances.
- 25.14 3. Portions of the floor assemblies in Group R-3 can be unprotected when complying
25.15 with the following:
- 25.16 a. the aggregate area of the unprotected portions shall not exceed 80 square feet
25.17 per story; and
- 25.18 b. fire blocking in accordance with Section 717.2 shall be installed along the
25.19 perimeter of the unprotected portion to separate the unprotected portion from the
25.20 remainder of the floor assembly.
- 25.21 4. Wood floor assemblies in Group R-3 occupancies using dimension lumber or
25.22 structural composite lumber equal to or greater than 2-inch by 10-inch (50.8 mm by
25.23 254 mm) nominal dimension, or other approved floor assemblies demonstrating
25.24 equivalent fire performance.

26.1 **1305.0423 SECTION 423, STORM SHELTERS.**

26.2 Subpart 1. IBC section 423.3. IBC section 423.3 is amended as follows:

26.3 **423.3 Critical emergency operations.** 911 call stations, emergency operation centers, and
26.4 fire, rescue, ambulance, and police stations shall comply with Sections 423.3.1 and 423.3.2
26.5 if located in any of the following counties: Anoka, Benton, Blue Earth, Brown, Carver,
26.6 Chippewa, Chisago, Cottonwood, Dakota, Dodge, Faribault, Fillmore, Freeborn, Goodhue,
26.7 Hennepin, Houston, Isanti, Jackson, Kandiyohi, Lac qui Parle, LeSueur, Lincoln, Lyon,
26.8 Martin, McLeod, Meeker, Mower, Murray, Nicollet, Nobles, Olmsted, Pipestone, Ramsey,
26.9 Redwood, Renville, Rice, Rock, Scott, Sherburne, Sibley, Steele, Stearns, Swift, Wabasha,
26.10 Waseca, Washington, Watonwan, Winona, Wright, or Yellow Medicine.

26.11 **423.3.1.** 911 call stations, emergency operation centers, and fire, rescue, ambulance,
26.12 and police stations shall comply with Table 1604.5 as a Risk Category IV structure.

26.13 **423.3.2.** 911 call stations, emergency operation centers, and fire, rescue, ambulance,
26.14 and police stations shall be provided with a storm shelter constructed in accordance
26.15 with ICC 500.

26.16 Subp. 2. IBC section 423.4. IBC section 423.4 is amended as follows:

26.17 **423.4 Group E occupancies.** All Group E occupancies with an occupant load of 50 or more
26.18 shall have a storm shelter constructed in accordance with ICC 500 in the following counties:
26.19 Anoka, Benton, Blue Earth, Brown, Carver, Chippewa, Chisago, Cottonwood, Dakota,
26.20 Dodge, Faribault, Fillmore, Freeborn, Goodhue, Hennepin, Houston, Isanti, Jackson,
26.21 Kandiyohi, Lac qui Parle, LeSueur, Lincoln, Lyon, Martin, McLeod, Meeker, Mower,
26.22 Murray, Nicollet, Nobles, Olmsted, Pipestone, Ramsey, Redwood, Renville, Rice, Rock,
26.23 Scott, Sherburne, Sibley, Steele, Stearns, Swift, Wabasha, Waseca, Washington, Watonwan,
26.24 Winona, Wright, and Yellow Medicine.

26.25 **Exceptions:**

27.1 1. Group E day care facilities.

27.2 2. Group E occupancies accessory to places of religious worship.

27.3 3. Buildings meeting the requirements for shelter design in ICC 500.

27.4 (IBC sections 423.4.1 and 423.4.2 remain unchanged.)

27.5 ~~1305.0425~~ 1305.0429 **SECTION ~~425~~ 429, GROUP E OCCUPANCIES.**

27.6 IBC chapter 4 is amended by adding a section and subsections to read as follows:

27.7 SECTION ~~425~~ 429

27.8 GROUP E OCCUPANCIES

27.9 ~~425.1~~ 429.1 **Applicability.** This section applies to Group E school buildings containing
27.10 uses described in this section. School buildings shall comply with this section and all other
27.11 applicable provisions of this code, as provided by Minnesota Statutes, section 123B.51,
27.12 subdivision 7.

27.13 ~~425.2~~ 429.2 **Use of school buildings by lower grades.** In addition to the occupancy and
27.14 construction requirements in this code, this section applies to those special uses and
27.15 occupancies described in this section.

27.16 ~~425.2.1~~ 429.2.1 **School buildings equipped with approved automatic fire sprinkler**
27.17 **and fire alarm systems.** Rooms used by preschool, kindergarten, and first and second
27.18 grade students for classrooms, latchkey, day care, early childhood family education,
27.19 teen parent, or other programs conducted in the building may be located on any floor
27.20 level below the fourth story if the following conditions exist:

- 27.21 1. the building is protected throughout with an approved automatic fire sprinkler
- 27.22 system; and

28.1 2. the building is protected throughout with an approved automatic fire alarm
 28.2 system having automatic smoke detection devices installed throughout the exit
 28.3 system within every room or area used for purposes other than a classroom or
 28.4 office.

28.5 ~~425.2.2~~ 429.2.2 **School buildings equipped with either an approved automatic fire**
 28.6 **sprinkler system or a fire alarm system.** Rooms shall be located on the story of exit
 28.7 discharge when used for the purposes of classroom, latchkey, day care, early childhood
 28.8 education, teen parent, or other programs conducted in the building by preschool,
 28.9 kindergarten, or first grade students. Rooms shall be located on the story of exit
 28.10 discharge or one story above when used for any purpose by second grade students.

28.11 Rooms occupied by preschool, kindergarten, first, or second grade students, when used
 28.12 for the programs described in this section, may be located on floor levels other than
 28.13 those designated above if one of the following conditions is met:

28.14 1. an approved automatic fire sprinkler system is provided throughout the building
 28.15 and the use of the affected room or space is limited to one grade level at a time
 28.16 and exiting is provided from the room or space that is independent from the exiting
 28.17 system used by students above second grade; or

28.18 2. an approved automatic fire alarm system is installed throughout the building
 28.19 consisting of automatic smoke detection installed throughout the exit system and
 28.20 within all rooms and areas other than classroom and office areas, and the use of
 28.21 the affected room or space is limited to one grade level at a time, and exiting is
 28.22 provided from the room or space that is independent from the exiting system used
 28.23 by students above second grade.

28.24 For the purposes of this ~~subpart~~ section, pupils from the second grade down are
 28.25 considered one grade level.

29.1 ~~425.2.3~~ **429.2.3 Accessory spaces.** Accessory spaces, including spaces used for
29.2 gymnasiums, cafeterias, media centers, auditoriums, libraries, and band and choir
29.3 rooms, used on a temporary basis by preschool, kindergarten, first, and second grade
29.4 students are permitted to be located one level above or one level below the story of exit
29.5 discharge, if the building is protected throughout by an approved automatic sprinkler
29.6 system or an approved corridor smoke detection system.

29.7 **1305.0503 SECTION 503, GENERAL HEIGHT AND BUILDING AREA**
29.8 **LIMITATIONS.**

29.9 IBC section 503.1.4.1 is modified to read as follows:

29.10 **503.1.4.1 Enclosures over occupied roof areas.** Elements or structures enclosing
29.11 the occupied roof areas shall not extend more than 48 inches (1220 mm) above
29.12 the surface of the occupied roof.

29.13 **Exceptions:**

29.14 1. Penthouses constructed in accordance with Section 1510.2.

29.15 2. Towers, domes, spires, and cupolas constructed in accordance with Section
29.16 1510.5.

29.17 3. Where the occupied roof is considered a story and complies with the
29.18 requirements of Sections 504 and 506.

29.19 4. Enclosing walls shall not be limited in height where the occupied roof has
29.20 access to a standpipe.

29.21 **1305.0504 SECTION 504, BUILDING HEIGHT AND NUMBER OF STORIES.**

29.22 Subpart 1. IBC Table 504.3. IBC Table 504.3 is amended as follows:

29.23 Footnote "d" is deleted from the "See Footnotes" column for all "Occupancy

29.24 Classification" rows. Footnote "d" is amended to read as follows:

30.1 d. Not used.

30.2 Subp. 2. **IBC Table 504.4.** IBC Table 504.4 is amended as follows:

30.3 Footnote "d" is deleted from the "See Footnotes" column for all "Occupancy

30.4 Classification" rows. Footnote "d" is amended to read as follows:

30.5 d. Not used.

30.6 **1305.0506 SECTION 506, BUILDING AREA.**

30.7 **IBC Table 506.2.** IBC Table 506.2 is amended to read as follows:

30.8 Footnote "d" is deleted from the "See Footnotes" column for all "Occupancy

30.9 Classification" rows. Footnote "d" is amended to read as follows:

30.10 d. Not used.

30.11 **1305.0603 SECTION 603, COMBUSTIBLE MATERIALS IN TYPE I AND TYPE**
30.12 **II CONSTRUCTION.**

30.13 IBC section 603.1 is amended by adding an item to the numerical list as follows:

30.14 26 27. When not exceeding 24 48 inches above the roof deck, wood is permitted to be
30.15 used in roof construction for equipment support, building or roof system joints, skylight
30.16 or mechanical equipment, curbs, cants, blocking and backing, and for parapet or roof
30.17 edge construction.

30.18 **1305.0707 SECTION 707, FIRE BARRIERS.**

30.19 IBC section 707.5 is amended by adding a new exception, before subsection 707.5.1,
30.20 to read as follows:

30.21 3. Other fire barriers shall be permitted to terminate at a top enclosure complying with
30.22 Section 713.12. Such top enclosure must be continuous either to the underside of the
30.23 roof sheathing, or to an exterior wall, fire wall, or other fire barrier providing equal or
30.24 greater fire protection.

31.1 **1305.0709 SECTION 709, SMOKE BARRIERS.**

31.2 Subpart 1. IBC section 709.1. IBC section 709.1 is amended to read as follows:

31.3 **709.1 General.** Vertical and horizontal smoke barriers shall comply with this section. Smoke
31.4 barrier openings shall comply with Section 909.5.3.

31.5 Subp. 2. IBC section 709.5. IBC section 709.5 is amended by adding a new exception
31.6 to read as follows:

31.7 3. Doors located in smoke barriers in I-3 occupancies.

31.8 **1305.0714 SECTION 714, PENETRATIONS.**

31.9 ~~IBC section 714.4.1.2 is amended by modifying exception 7 as follows:~~

31.10 ~~7. The ceiling membrane of 1- and 2-hour fire-resistance-rated~~
31.11 ~~horizontal assemblies is permitted to be interrupted with the double~~
31.12 ~~wood top plate of a wall assembly, provided that all penetrating items~~
31.13 ~~through the double top plates are protected in accordance with~~
31.14 ~~714.4.1.1.1 or 714.4.1.1.2.~~

31.15 Subpart 1. IBC section 714.5.1. IBC section 714.5.1, exception 1, is amended to read
31.16 as follows:

31.17 1. Penetrations by steel, ferrous or copper conduits, pipes, tubes or vents, not
31.18 utilized as ducts for conveying air; or concrete or masonry items through a single
31.19 fire-resistance rated floor assembly where the annular space is protected with
31.20 materials that prevent the passage of flame and hot gases sufficient to ignite cotton
31.21 waste when subjected to ASTM E119 or UL 263 time-temperature fire conditions
31.22 under a minimum positive pressure differential of 0.01 inch (2.49 Pa) of water at
31.23 the location of the penetration for the time period equivalent to the fire-resistance
31.24 rating of the construction penetrated. Penetrating items with a maximum six-inch
31.25 (152 mm) nominal diameter shall not be limited to the penetration of a single

32.1 fire-resistance-rated floor assembly, provided that the aggregate area of the openings
32.2 through the assembly does not exceed 144 square inches (92,900 mm²) in any 100
32.3 square feet (9.3 m²) of floor area.

32.4 Subp. 2. **IBC section 714.5.2.** IBC section 714.5.2, exception 1, is amended to read
32.5 as follows:

32.6 1. Membrane penetrations by steel, ferrous or copper conduits, pipes, tubes, or
32.7 vents, not utilized as ducts for conveying air; or concrete or masonry items where
32.8 the annular space is protected either in accordance with Section 714.5.1 or to
32.9 prevent the free passage of flame and the products of combustion. The aggregate
32.10 area of the openings through the membrane shall not exceed 100 square inches
32.11 (64,500 mm²) in any 100 square feet (9.3 m²) of ceiling area in assemblies tested
32.12 without penetrations.

32.13 Subp. 3. **IBC section 714.5.2.** IBC section 714.5.2, exception 7, is amended to read
32.14 as follows:

32.15 7. The ceiling membrane of one- and two-hour fire-resistance-rated horizontal
32.16 assemblies is permitted to be interrupted with the double wood top plate of a wall
32.17 assembly, provided that all penetrating items through the double top plates are
32.18 protected in accordance with Section 714.5.1.1 or 714.5.1.2.

32.19 **1305.0717 SECTION 717, DUCTS AND AIR TRANSFER OPENINGS.**

32.20 [For text of subpart 1, see Minnesota Rules]

32.21 Subp. 2. **IBC section 717.6.1.** IBC section 717.6.1 is amended to read as follows:

32.22 **717.6.1 Through penetrations.** In occupancies other than Groups I-2 and I-3, a duct
32.23 constructed of approved materials in accordance with the International Mechanical
32.24 Code that penetrates a fire-resistance-rated floor or floor/ceiling assembly that connects
32.25 not more than two stories is permitted without a shaft enclosure protection, provided

33.1 a listed fire damper is installed at the floor line or the duct is protected in accordance
33.2 with Section ~~714.4~~ 714.5. For air transfer openings, see Section ~~712.1.8~~ 712.1.9.

33.3 **Exceptions:**

33.4 1. A duct is permitted to penetrate three floors or less without a fire damper at each
33.5 floor, provided the duct ~~meets all of the following requirements~~ complies with
33.6 paragraphs a through e:

33.7 a. The duct shall comply with either item (i) or (ii):

33.8 i. the duct shall be contained and located within the cavity of a wall and
33.9 above and below the horizontal assembly, the duct shall be constructed
33.10 of steel having a minimum wall thickness of 0.0187 inches (0.4712 mm)
33.11 (No. 26 gage), and the annular space around the duct shall be protected
33.12 with an approved noncombustible material that resists the passage of
33.13 flame and products of combustion; or

33.14 ii. the annular space around the duct shall be protected by an approved
33.15 through-penetration firestop system that: (1) is installed and tested in
33.16 accordance with ASTM E 814 or UL 1479. ~~The approved~~
33.17 ~~through-penetration firestop system shall have;~~ and (2) has an F rating
33.18 ~~or and~~ T rating ~~of not less than~~ equivalent to the required rating of the
33.19 horizontal assembly being penetrated.

33.20 b. The duct shall open into only one dwelling or sleeping unit and the duct
33.21 system shall be continuous from the unit to the exterior of the building.

33.22 c. The duct shall not exceed 4-inch (102 mm) nominal diameter and the total
33.23 area of such ducts shall not exceed 100 square inches (0.065 m²) in any 100
33.24 square feet (9.3 m²) of floor area.

34.1 d. The annular space around the duct is protected with materials that prevent
34.2 the passage of flame and hot gases sufficient to ignite cotton waste where
34.3 subjected to ASTM E 119 or UL 263 time temperature conditions under a
34.4 minimum positive pressure differential of 0.01 inch (2.49 Pa) of water at the
34.5 location of the penetration for the time period equivalent to the fire-resistance
34.6 rating of the construction penetrated.

34.7 e. Grille openings located in a ceiling of a fire-resistance-rated floor/ceiling
34.8 or roof/ceiling assembly shall be protected with a listed ceiling radiation
34.9 damper installed in accordance with Section 717.6.2.1.

34.10 2. In Groups I-2 and I-3 occupancies, a duct constructed of approved materials in
34.11 accordance with the International Mechanical Code that penetrates a
34.12 fire-resistance-rated floor or floor/ceiling assembly that connects not more than
34.13 two stories is permitted without a shaft enclosure protection, provided a listed
34.14 smoke/fire damper is installed at the floor line.

34.15 Subp. 3. **IBC section 717.6.3.** IBC section 717.6.3 is amended to read as follows:

34.16 **717.6.3 Non-fire-resistance-rated floor assemblies.** Duct systems constructed of
34.17 approved materials in accordance with the Minnesota Mechanical Code, Minnesota
34.18 Rules, chapter 1346, that penetrate non-fire-resistance-rated floor assemblies shall be
34.19 protected by any of the following methods:

34.20 1. A shaft enclosure in accordance with Section 713.

34.21 2. The duct connects not more than two stories, and the annular space around the
34.22 penetrating duct is protected with an approved non-combustible material that resists
34.23 the free passage of flame and the products of combustion.

34.24 3. The duct connects not more than three stories, the annular space around the
34.25 penetrating duct is protected with an approved noncombustible material that resists

35.1 the free passage of flame and the products of combustion, and a fire damper is
35.2 installed at each floor line.

35.3 **Exception to item 3:** Fire dampers are not required in ducts within individual
35.4 residential dwelling units.

35.5 **1305.0803 SECTION 803, WALL AND CEILING FINISHES.**

35.6 IBC section 803.3 is amended to read as follows:

35.7 **803.3 Heavy timber exemption.** Exposed portions of building elements complying with
35.8 the requirements for buildings of heavy timber construction in Section 602.4 or 2304.11
35.9 shall not be subject to interior finish requirements.

35.10 **1305.0806 SECTION 806, DECORATIVE MATERIALS AND TRIM.**

35.11 IBC section 806.2 is amended and a subsection is added to read as follows:

35.12 **806.2 Combustible decorative materials.** In Groups A, B, E, I, M, and R-1 and in
35.13 dormitories in Group R-2, curtains, draperies, fabric hangings, and similar combustible
35.14 decorative materials suspended from walls or ceilings shall comply with Section 806.4 and
35.15 shall not exceed 20 percent of the specific wall or ceiling area to which such materials are
35.16 attached.

35.17 **Exceptions:**

35.18 1. In auditoriums in Group A, the permissible amount of curtains, draperies, fabric
35.19 hangings, and similar combustible decorative materials suspended from walls or ceilings
35.20 shall not exceed 75 percent of the aggregate wall area where the building is equipped
35.21 throughout with an approved automatic sprinkler system in accordance with Section
35.22 903.3.1.1, and where the material is installed in accordance with Section 803.15.

36.1 2. In existing Group A occupancies, the permissible amount of curtains, draperies,
36.2 fabric hangings, and similar combustible decorative material suspended from walls or
36.3 ceilings shall not be limited where such materials comply with Section 806.4.

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

36.9 4. In Group A, E, B, and M occupancies, the amount of combustible fabric partitions
36.10 suspended from the ceiling and not supported by the floor shall comply with Section
36.11 806.4 and shall not be limited.

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

36.14 **806.2.1 Fixed or movable walls and partitions, paneling, wall pads, and crash pads.**
36.15 Fixed or movable walls and partitions, paneling, wall pads, and crash pads applied
36.16 structurally or for decoration, acoustical correction, surface insulation, or other purposes
36.17 covering more than ten percent of the wall or ceiling area shall be considered to be
36.18 interior finish, shall comply with Section 803, and shall not be considered to be
36.19 decorative materials or furnishings.

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

37.1 **1305.0901 SECTION 901, GENERAL.**

37.2 IBC section ~~901.6.2~~ 901.6.3 is amended by deleting the section in its entirety.

37.3 **1305.0903 SECTION 903, AUTOMATIC SPRINKLER SYSTEMS.**

37.4 Subpart 1. [Repealed, 39 SR 1605]

37.5 Subp. 1a. **IBC [F] section 903.2.3.** IBC [F] section 903.2.3 is amended to read as
37.6 follows:

37.7 **903.2.3 Group E.** An automatic sprinkler system shall be provided for Group E
37.8 occupancies as follows:

37.9 1. Throughout all Group E fire areas greater than 12,000 square feet (1115 m²) in
37.10 area.

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

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

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

37.17 Subp. ~~1a~~ 1b. **IBC [F] section 903.2.8.** IBC [F] section 903.2.8 is and its subsections
37.18 are amended to read as follows:

37.19 **903.2.8 Group R.** An automatic sprinkler system shall be installed throughout all
37.20 buildings with a Group R fire area in accordance with Section 903.3 shall be provided
37.21 throughout all buildings with a Group R fire area. For purposes of this provision, fire
37.22 walls, party walls, or attached multiple fire-resistive exterior walls shall only create
37.23 separate buildings where providing separation from occupancies other than Group R.

37.24 **Exceptions:**

38.1 1. A Group R-1 ~~or~~ R-2 ~~fire area~~, or combined ~~fire areas~~ R-1 and R-2 building
38.2 where less than 4,500 square feet of the building area consists of R-1 fire area,
38.3 R-2 fire area, or a combination of R-1 and R-2 fire areas.

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

38.8 3. An automatic fire sprinkler system shall not be required if additions or alterations
38.9 are made to existing Group R-3 or R-4 buildings or a portion thereof that do not
38.10 have an automatic sprinkler system installed, unless required by a Minnesota
38.11 license.

38.12 4. Group R-1 multiunit resort buildings, as defined in Minnesota Statutes, section
38.13 157.15, and licensed by the Department of Health, with less than 9,250 square feet
38.14 of building area.

38.15 **903.2.8.1 Group R-3 ~~or R-4~~ congregate residences.** Where required by Section
38.16 903.2.8, Group R-3 occupancies shall be provided with an automatic sprinkler
38.17 system installed in accordance that complies with Section 903.3.1.1, 903.3.1.2, or
38.18 903.3.1.3 shall be permitted in Group R-3 or R-4 congregate residences with 16
38.19 or fewer residents.

38.20 **903.2.8.2 Group R-4.** Where required by Section 903.2.8, Group R-4 occupancies
38.21 shall be provided with an automatic sprinkler system that complies with Section
38.22 903.3.1.1 or 903.3.1.2.

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

39.1 ~~903.2.8.2~~ 903.2.8.3 **State licensed facilities.** Group R-3 or R-4 occupancies
39.2 containing facilities licensed by the state of Minnesota shall be provided with an
39.3 automatic sprinkler system as required by applicable licensing provisions or this
39.4 section, whichever is more restrictive.

39.5 ~~903.2.8.3~~ 903.2.8.4 **Residential hospice facilities.** An automatic sprinkler system
39.6 installed in accordance with NFPA 13 shall be provided throughout all buildings
39.7 with a Group R-3 or R-4 fire area containing a residential hospice facility.

39.8 **Exception:** An automatic sprinkler system installed in accordance with Section
39.9 903.3.1.2 or 903.3.1.3 ~~shall be allowed, provided that~~ is permitted if all
39.10 habitable spaces and closets are sprinklered protected by an automatic sprinkler
39.11 system.

39.12 Subp. 1c. IBC [F] section 903.2.9. IBC [F] section 903.2.9 is amended and a subsection
39.13 added to read as follows:

39.14 903.2.9 Group S-1. An automatic sprinkler system shall be provided throughout all
39.15 buildings containing a Group S-1 occupancy where one of the following conditions
39.16 exists:

39.17 1. A Group S-1 fire area exceeds 12,000 square feet (1115 m²).

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

39.19 3. The combined area of all Group S-1 fire areas on all floors, including any
39.20 mezzanines, exceeds 24,000 square feet (2230 m²).

39.21 4. A Group S-1 fire area is used for the storage of commercial motor vehicles
39.22 where the fire area exceeds 5,000 square feet (464 m²).

39.23 (Subsections 903.2.9.1 and 903.2.9.2 remain unchanged.)

40.1 **903.2.9.3 Group S-1 upholstered furniture and mattresses.** An automatic
 40.2 sprinkler system shall be provided throughout a Group S-1 fire area used for the
 40.3 storage of upholstered furniture or mattresses that exceeds 2,500 square feet (232
 40.4 m²).

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

40.8 Subp. ~~1d.~~ **IBC [F] section 903.2.11.4.** IBC [F] section 903.2.11.4 is amended by
 40.9 deleting the section in its entirety and replacing it with the following:

40.10 **903.2.11.4 Fire protection for exhaust systems.** Where required by ~~the~~
 40.11 ~~International~~ Minnesota Rules, chapter 1346, the Minnesota Mechanical Code,
 40.12 automatic sprinklers shall be provided in ducts having a cross-sectional area of 75
 40.13 square inches (480 cm²) or more and that: (1) convey flammable or combustible
 40.14 components; or that (2) have the potential for combustible residue buildup on the
 40.15 inside. When sprinkler protection is installed, and where the application of water
 40.16 constitutes a serious life or fire hazard, a means shall be provided to prevent water
 40.17 accumulation in the duct or and to prevent the flow of water back to equipment,
 40.18 appliances, machinery, or any apparatus a process where the application of water
 40.19 constitutes a serious life or fire hazard.

40.20 Subp. 2. [Repealed, 32 SR 7]

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

40.22 Subp. 2b. **IBC [F] section 903.3.1.1.1.** IBC [F] section 903.3.1.1.1 is amended by
 40.23 adding a new item 7 to the list of exempt locations to read as follows:

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

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

41.5 Subp. 2c. IBC [F] section 903.3.1.2.1. IBC [F] section 903.3.1.2.1 is amended to
41.6 read:

41.7 **903.3.1.2.1 Protection of decks and balconies.** Decks and balconies greater
41.8 than six feet (1.8 m) above grade, greater than four feet (1.2 m) deep, with an
41.9 area greater than 40 square feet (3.72 m²), and attached to new Group R-1 or
41.10 R-2 occupancy buildings protected in accordance with Section 903.3.1.2 that
41.11 are three or more stories in height and with 30 or more units, shall be protected
41.12 with sprinklers under the balcony or deck framing and under attic eaves when
41.13 both of the following two conditions exist:

- 41.14 1. the building has an unsprinklered attic; and
- 41.15 2. the building has combustible siding.

41.16 Subp. 3. [Repealed, 32 SR 7]

41.17 Subp. 3a. **IBC [F] section 903.3.1.3.** IBC [F] section 903.3.1.3 is amended to read as
41.18 follows:

41.19 **903.3.1.3 NFPA 13D sprinkler systems.** Automatic sprinkler systems installed
41.20 in Group R-3 and R-4 Condition 1 occupancies shall be permitted to be installed
41.21 throughout in accordance with NFPA 13D.

41.22 *[For text of subparts 4 and 5, see Minnesota Rules]*

41.23 Subp. 5a. **IBC [F] section 903.3.1.6.** IBC [F] section 903.3.1 is amended by adding
41.24 a subsection to read as follows:

42.1 **903.3.1.6 Modifications to sprinkler standards.** The sprinkler installation
 42.2 standards as referenced in Sections 903.3.1.1, 903.3.1.2, and 903.3.1.3 are modified
 42.3 as follows:

42.4 **903.3.1.6.1 Hose stream requirements.** When, in the opinion of the fire
 42.5 chief, an adequate alternate water supply for hose stream requirements is
 42.6 provided or available, the water supply requirements for the sprinkler system
 42.7 hose stream demands may be modified.

42.8 **903.3.1.6.2 Elevator shafts and equipment.** Sprinkler protection shall not
 42.9 be installed in elevator shafts, elevator pits, or elevator machine rooms.

42.10 **Exception:** Health care occupancies that (1) are required to have NFPA
 42.11 13 systems, (2) are licensed by the Department of Health, and (3)
 42.12 participate in Title XVIII (Medicare) or Title XIX (Medicaid) of the
 42.13 Social Security Act.

42.14 **903.3.1.6.3 Swimming pools.** Sprinkler protection need not be provided on
 42.15 the ceiling of rooms containing swimming pools when the pool area is used
 42.16 exclusively for swimming purposes and when sprinklers are provided around
 42.17 the perimeter of the pool area.

42.18 **903.3.1.6.4 NFPA 13 modifications.** Sections 8.15.8.2 and 8.17.2.5,
 42.19 and 23.2.1.1 of NFPA 13 are revised to read:

42.20 **8.15.8.2 Linen closets and pantries.** Sprinklers are not required in linen closets
 42.21 and pantries within dwelling units that meet the following conditions:

- 42.22 1. the area of the space does not exceed 12 square feet (1.1 m²);
- 42.23 2. the least dimension does not exceed 3 feet (0.9 m);

- 43.1 3. the walls and materials are surfaced with noncombustible or limited
43.2 combustible materials; and
- 43.3 4. the closet or pantry contains no mechanical equipment, electrical equipment,
43.4 or electrical appliances.

43.5 **8.17.2.5 Valves.**

43.6 **8.17.2.5.1 Fire department connection.** A listed check valve shall be installed
43.7 in each fire department connection.

43.8 **8.17.2.5.1.1 Maximum pipe length.** There shall be a maximum of 25
43.9 feet (7.6 m) of pipe between the check valve and the fire department
43.10 connection inlet.

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

43.13 **8.17.2.5.1.2 Check valve location.** The check valve shall be located to
43.14 minimize freezing potential.

43.15 **23.2.1.1 Water supply capacity information.** Where a waterflow test is used for
43.16 the purposes of system design, the test shall be conducted no more than 36 months
43.17 before the working plan submittal.

43.18 **903.3.1.6.5 Vestibules.** Sprinkler protection is not required in vestibules that
43.19 meet all of the following conditions:

- 43.20 1. the vestibule is 225 square feet or less in floor area;
- 43.21 2. the vestibule is of noncombustible or limited combustible construction;
- 43.22 3. the vestibule has glazing allowing vision into vestibule;
- 43.23 4. the vestibule's only purpose is ingress and egress; and

44.1 5. the vestibule contains no fueled equipment, flammable or combustible
44.2 liquids, or furniture. Incidental combustible storage in the vestibule is
44.3 limited to ~~5 feet³~~ five cubic feet of material.

44.4 Subp. 6. [Repealed, 32 SR 7]

44.5 Subp. 6a. **IBC [F] section ~~903.3.7~~ 903.3.9**. IBC [F] section 903.3 is amended by
44.6 adding a subsection to read as follows:

44.7 **903.3.7 903.3.9 Sprinkler system design pressure safety margin**. For new sprinkler
44.8 systems or additions to existing sprinkler systems, the available water supply shall
44.9 exceed the sprinkler system demand, including hose stream requirements, by 5 psi
44.10 (0.34 bars) or more.

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

44.12 *[For text of subpart 7, see Minnesota Rules]*

44.13 Subp. 7a. **IBC [F] section 903.4.2**. IBC [F] section 903.4.2 is amended to read as
44.14 follows:

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

44.24 *[For text of subpart 8, see Minnesota Rules]*

45.1 **1305.0904 SECTION 904, ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING**
45.2 **SYSTEMS.**

45.3 IBC section 904.13, item 3, is amended to read as follows:

45.4 3. In Group R-2 congregate living facilities where domestic cooking facilities are
45.5 installed in accordance with Section 420.10.

45.6 **1305.0905 SECTION 905, STANDPIPE SYSTEMS.**

45.7 Subpart 1. **IBC [F] section 905.2.1.** IBC [F] section 905.2 is amended by adding
45.8 subsections to read as follows:

45.9 **905.2.1 Modification to standards.** In buildings other than high rise that are ~~protected~~
45.10 ~~equipped~~ throughout ~~by~~ with an automatic sprinkler system installed in accordance
45.11 with Sections 903.3.1.1 ~~and or~~ 903.3.1.2, and a Class I ~~or III~~ standpipe system ~~need~~
45.12 ~~only,~~ the pipe shall be sized to meet the pressure and flow requirements for the sprinkler
45.13 system ~~when.~~ Such systems shall comply with Sections 905.2.1.1 through ~~905.2.1.5~~
45.14 905.2.1.4:

45.15 **~~905.2.1.1 Municipal water supply.~~** ~~A municipal water supply capable of supplying~~
45.16 ~~the required standpipe flow rate with a residual pressure not less than 20 psi (1.4~~
45.17 ~~bars) through a fire hydrant shall be provided. A fire hydrant shall be located within~~
45.18 ~~300 feet (91 m) of the building's fire department connection.~~

45.19 **~~905.2.1.2~~ 905.2.1.1 System testing and pipe size.** ~~The standpipe system shall be~~
45.20 ~~able to provide the pressure and flow rate required by NFPA 14 when the standpipe~~
45.21 ~~system is supported by local fire department apparatus through the fire department~~
45.22 ~~connection as verified with hydraulic calculations. The hydraulic calculations are~~
45.23 ~~to be performed between the hydraulically most demanding standpipe hose~~
45.24 ~~connection and the fire department connection. Pipe sizes for combined portions~~
45.25 ~~of the sprinkler and standpipe systems shall not be less than ~~the minimum~~~~
45.26 ~~requirements in NFPA 14 four inches (101.6 mm).~~

46.1 **905.2.1.2 System design flow and pressure.** The standpipe shall provide a
46.2 minimum pressure of 100 psi (6.9 bar) at the uppermost outlet and a minimum
46.3 flow rate of 250 gpm (946 L/min) at the two hydraulically most remote hose
46.4 connections on the standpipe when the standpipe system is supported through the
46.5 fire department connection. The hydraulic calculations shall be performed between
46.6 the hydraulically most demanding standpipe hose connection and the fire
46.7 department connection.

46.8 **905.2.1.3 Design pressure.** A maximum design pressure of 150 psi (10.3 bars) is
46.9 permitted at the fire department connection when the standpipe is supported by
46.10 local fire department apparatus.

46.11 ~~**905.2.1.4 Hose connection.** At least one 2-1/2 inch (64 mm) hose connection shall~~
46.12 ~~be provided on the exterior of the building at the fire department connection for~~
46.13 ~~each 250 gpm (980 L/min) of required standpipe flow.~~

46.14 ~~**905.2.1.5**~~ **905.2.1.4 Automatic sprinkler system demand.** The automatic sprinkler
46.15 system demand, including the inside and outside hose stream ~~demand~~ demands
46.16 from NFPA 13, is to be provided by the municipal water supply system without
46.17 requiring fire department pumping into the system.

46.18 Subp. 1a. **IBC [F] section 905.3.** IBC [F] section 905.3 is amended to read as follows:

46.19 **905.3 Required installations.** Standpipe systems shall be installed where required by
46.20 Sections 905.3.1 through 905.3.10. Standpipe systems are allowed to be combined with
46.21 automatic sprinkler systems.

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

46.23 Subp. 1b. **IBC [F] section 905.3.1.** IBC [F] section 905.3.1 is amended to read as
46.24 follows:

47.1 **905.3.1 Height.** Class I wet standpipe systems shall be installed throughout buildings
47.2 where any of the following conditions exist:

47.3 1. Four or more stories are above or below grade plane.

47.4 2. The floor level of the highest story is located more than 30 feet (9144 mm)
47.5 above the lowest level of the fire department vehicle access.

47.6 3. The floor level of the lowest story is located more than 30 feet (9144 mm) below
47.7 the highest level of fire department vehicle access.

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

47.12 **905.3.1.1 Lowest level.** In determining the lowest level of fire department vehicle
47.13 access, the following areas should not be considered:

47.14 1. recessed loading docks for four vehicles or less; and

47.15 2. areas where topography makes access from the fire department vehicle to
47.16 the building impractical or impossible.

47.17 Subp. 2. **IBC [F] section 905.3.2.1.** IBC [F] section 905.3.2 is amended by adding a
47.18 subsection to read as follows:

47.19 **905.3.2.1 Group A exhibition.** Class ~~III~~I automatic standpipes shall be provided
47.20 in Group A-3 Occupancies where the floor area used for exhibition exceeds 12,000
47.21 square feet (1115 m²).

47.22 Subp. 3. **IBC [F] ~~section~~ sections 905.3.4 and 905.3.4.1.** IBC [F] sections 905.3.4
47.23 and 905.3.4.1 are ~~amended by deleting the sections in their entirety.~~ deleted and replaced
47.24 with the following:

48.1 **905.3.4 Stages.** Stages are not required to be equipped with standpipe systems.

48.2 Subp. 4. [Repealed, 32 SR 7]

48.3 Subp. 4a. **IBC [F] section 905.3.6.** IBC [F] section 905.3.6 is amended to read as
48.4 follows:

48.5 **905.3.6 Helistops and heliports.** Each building with a rooftop helistop or heliport shall
48.6 be equipped with a Class I standpipe system extended to the roof level on which the
48.7 helistop or heliport is located in accordance with Section 2007.5 of the International
48.8 Fire Code.

48.9 Subp. 5. [Repealed, 32 SR 7]

48.10 Subp. 6. **IBC [F] section 905.3.9.** IBC [F] section 905.3 is amended by adding a
48.11 subsection to read as follows:

48.12 **905.3.9 Detention and correctional facilities.** Regardless of the height of the building
48.13 or number of stories, every building in a Group I-3 detention and correctional facility,
48.14 where 50 or more persons are under restraint or security under Occupancy Condition
48.15 3, 4 or 5, shall be provided with a Class ~~III~~I automatic wet or semiautomatic dry
48.16 standpipe system.

48.17 **Exception:** Combined systems meeting the provisions of Section 905.2 may be
48.18 used.

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

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

49.1 Subp. 6a. **IBC [F] section 905.3.10.** IBC [F] section 905.3 is amended by adding a
49.2 subsection to read as follows:

49.3 **905.3.10 Group R-2 occupancies small hose connections.** Small hose connections
49.4 shall be installed in Group R-2 occupancies three or more stories in height where any
49.5 portion of the building's interior area is more than 200 feet (60,960 mm) of travel,
49.6 vertically or horizontally, from the nearest point of fire department vehicle access.
49.7 Small hose connections required by this section shall comply with the following:

- 49.8 1. Supply one 1-1/2-inch (38-mm) fire hose valve at each floor level or intermediate
49.9 stair landing in each required and enclosed stairway.
- 49.10 2. The water for the small hose connections shall be supplied separately from the
49.11 sprinkler system protecting that area so that the small hose connections are still
49.12 functional if the water supply to the sprinkler system is shut down following fire
49.13 extinguishment.
- 49.14 3. The piping shall be a minimum of 1-1/2 inch (38 mm).
- 49.15 4. The water shall be supplied from a wet-pipe sprinkler system only.
- 49.16 5. The piping shall be comprised of metallic piping and hose valve connections.

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

49.20 Subp. 7. **IBC [F] section 905.5.1.** IBC [F] section 905.5.1 is deleted.

49.21 Subp. 8. **IBC [F] section 905.6.** IBC [F] section 905.6 and all subsections are deleted
49.22 in their entirety.

49.23 **1305.0907 SECTION 907, FIRE ALARM AND DETECTION SYSTEMS.**

49.24 Subpart 1. [Repealed, 39 SR 1605]

50.1 Subp. 1a. **IBC section 907.1.2.** IBC [F] section 907.1.2 is amended to read as follows:

50.2 **907.1.2 Fire alarm shop drawings.** Shop drawings for fire alarm systems shall be
50.3 submitted for review and approval before system installation, and shall include all of
50.4 the following where applicable to the system being installed:

50.5 1. A floor plan that indicates the use of all rooms.

50.6 2. Locations of alarm-initiating devices.

50.7 3. Locations of alarm notification appliances, including candela ratings for visible
50.8 alarm notification appliances.

50.9 4. Design minimum audibility level for occupant notification.

50.10 5. Maximum sound pressure.

50.11 6. Location of fire alarm control unit, transponders, and notification power supplies.

50.12 7. Annunciators.

50.13 8. Power connection.

50.14 9. Battery calculations.

50.15 10. Conductor type and sizes.

50.16 11. Voltage drop calculations.

50.17 12. Manufacturers' data sheets indicating model numbers and listing information
50.18 for equipment, devices, and materials.

50.19 13. Details of ceiling height and construction.

50.20 14. The interface of fire safety control functions.

50.21 15. Classification of the supervising station.

51.1 Subp. ~~1a~~ 1b. **IBC [F] section 907.2.** IBC [F] section 907.2 is amended to read as
51.2 follows:

51.3 **907.2 Where required in new buildings and structures occupancies.** An approved manual,
51.4 automatic, or manual and automatic fire alarm system shall be provided in new buildings
51.5 and occupancies in accordance with Sections 907.2.1 through ~~907.2.24~~ 907.2.24.2 and
51.6 NFPA 72. For the purposes of Sections 907.2.1 through ~~907.2.24~~ 907.2.24.2, fire barrier
51.7 walls or fire walls shall not define separate buildings. In buildings containing mixed
51.8 occupancies that are designed as separated uses in accordance with Section 508.4, fire alarm
51.9 and detection systems need only be installed in those occupancies where required by this
51.10 section.

51.11 **Exception:** In areas protected by an approved, supervised automatic sprinkler system
51.12 installed in accordance with Section 903.3.1.1 or 903.3.1.2, automatic fire detectors
51.13 required by Section 907.2 need not be provided. Where Section 907.2 requires smoke
51.14 detectors, such protection shall be installed.

51.15 Subp. 2. [Repealed, 32 SR 7]

51.16 Subp. 2a. **IBC [F] section 907.2.1.** IBC [F] section 907.2.1 is amended to read as
51.17 follows:

51.18 **907.2.1 Group A, general.** A fire alarm system shall be installed in accordance with
51.19 Sections 907.2.1 through 907.2.1.3 in Group A occupancies having an occupant load
51.20 of 300 or more.

51.21 **Exceptions:**

51.22 1. Assembly areas used solely for worship purposes.

51.23 2. A fire alarm system is not required in buildings with an occupant load of less
51.24 than 1,000 when an approved automatic fire-extinguishing system is installed
51.25 throughout the building.

52.1 3. Assembly uses within Group E occupancies shall have alarms as required for
52.2 the Group E occupancy.

52.3 4. Group A-5 occupancies. ~~See also Section 907.2.11.~~

52.4 *[For text of subparts 3 to 10, see Minnesota Rules]*

52.5 Subp. 11. **IBC [F] section 907.2.3.1.** IBC [F] section 907.2.3 is amended by adding
52.6 a section to read as follows:

52.7 **907.2.3.1 Initiation.** Initiation of the fire alarm system shall be by manual and
52.8 automatic means. Approved automatic fire detectors shall be provided in laundry
52.9 rooms, boiler and furnace rooms, mechanical and electrical rooms, shops,
52.10 laboratories, kitchens, locker rooms, ~~janitors'~~ custodial closets, trash collection
52.11 rooms, storage rooms, lounges, and similar areas.

52.12 ~~Exceptions~~ Exception:

52.13 ~~1. In buildings protected throughout by an approved fire automatic sprinkler~~
52.14 ~~system or having an approved fire alarm system equipped with corridor smoke~~
52.15 ~~detection, manual fire alarm boxes are only required in the any main office~~
52.16 ~~and in a any custodial area.~~

52.17 ~~2. Where all corridors are protected by an approved automatic fire alarm~~
52.18 ~~system having smoke detection with alarm verification, manual fire alarm~~
52.19 ~~boxes are only required near exits serving shops, chemistry and physics~~
52.20 ~~laboratories, boiler rooms, industrial technology and industrial arts rooms,~~
52.21 ~~kitchens, custodian's offices, and main offices.~~

52.22 *[For text of subpart 12, see Minnesota Rules]*

52.23 Subp. 13. **IBC [F] section 907.2.3.3.** IBC [F] section 907.2.3 is amended by adding
52.24 a ~~section~~ subsection to read as follows:

53.1 **907.2.3.3 Notification.** Activation of the fire alarm system or automatic sprinkler
53.2 system shall initiate ~~a general evacuation signal~~ an emergency voice/alarm
53.3 communication system meeting the requirements of Section 907.5.2.2 and installed
53.4 in accordance with Section 907.6.

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

53.9 *[For text of subparts 14 to 16, see Minnesota Rules]*

53.10 Subp. 17. **IBC [F] section 907.2.5.** IBC [F] section 907.2.5 is amended to read as
53.11 follows:

53.12 **907.2.5 Group H, general.** A fire alarm system shall be installed in accordance with
53.13 Sections 907.2.5 through 907.2.5.2 in Group H-5 occupancies, occupancies used for
53.14 the manufacture of organic coatings, and, when required by chapters 60, 62, and 63 of
53.15 the ~~IFC~~ Minnesota State Fire Code at the following locations:

- 53.16 1. rooms or areas where highly toxic compressed gases are stored or used;
- 53.17 2. rooms or areas where Class I, II₂ or III organic peroxides are stored; and
- 53.18 3. liquid and solid oxidizer storage areas.

53.19 Subp. 18. **IBC [F] section 907.2.5.1.** IBC [F] section 907.2.5 is amended by adding
53.20 a section to read as follows:

53.21 **907.2.5.1 Initiation.** Initiation of the fire alarm system in Group H-5 Occupancies
53.22 and in occupancies used for the manufacture of organic coatings shall be by manual
53.23 means. Initiation of fire alarm systems installed for highly toxic gases, organic

54.1 peroxides and oxidizers shall be by automatic means, as specified in chapters 60,
54.2 62, and 63 of the ~~2012 IFC~~ Minnesota State Fire Code.

54.3 *[For text of subparts 19 to 21, see Minnesota Rules]*

54.4 Subp. 22. **IBC [F] section 907.2.6.** IBC [F] section 907.2.6 and all subsections are
54.5 deleted in their entirety and replaced with the following:

54.6 **907.2.6 Group I, general.** A fire alarm system shall be installed in accordance with
54.7 Sections ~~907.2.6~~ 907.2.6.1 through 907.2.6.4.2 in Group I occupancies.

54.8 **907.2.6.1 Group I-1 occupancies-general.** A manual and automatic fire alarm
54.9 system shall be installed in Group I-1 occupancies in accordance with Sections
54.10 ~~907.2.6.1~~ 907.2.6.1.1 through 907.2.6.1.3.

54.11 **907.2.6.1.1 Initiation.** Initiation of the fire alarm system shall be by manual
54.12 and automatic means. Approved automatic fire detectors shall be installed in
54.13 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and
54.14 electrical rooms, shops, laboratories, kitchens, locker rooms, ~~janitors'~~ custodial
54.15 closets, trash-collection rooms, storage rooms, lounges, gift shops, and similar
54.16 areas. Automatic smoke detectors shall be provided in corridors and areas
54.17 that are open to corridors.

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

54.23 **907.2.6.1.2 Notification.** Activation of the fire alarm system or automatic
54.24 sprinkler system shall initiate a general evacuation signal. In addition,

55.1 activation of the fire alarm system shall immediately transmit an alarm to an
55.2 approved central station or remote station service.

55.3 **Exceptions:**

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

55.6 2. Where occupants are incapable of evacuating themselves because of
55.7 age, physical/mental disabilities, or physical restraint, only the attendants
55.8 or other personnel required to evacuate occupants from a zone, area,
55.9 floor, or building shall be required to be notified. This notification shall
55.10 include means to readily identify the zone, area, floor, or building in need
55.11 of evacuation.

55.12 **907.2.6.1.3 Sleeping room smoke alarms.** Smoke alarms shall be installed
55.13 in resident sleeping rooms in accordance with Section ~~907.2.11.4~~ 907.2.10.2.

55.14 **907.2.6.2 Group I-2 occupancies-general.** A manual and automatic fire alarm
55.15 system shall be installed in Group I-2 occupancies in accordance with Sections
55.16 ~~907.2.6.2~~ 907.2.6.2.1 through 907.2.6.2.4.

55.17 **907.2.6.2.1 Initiation.** Initiation of the fire alarm system shall be by manual
55.18 and automatic means. Approved automatic fire detectors shall be installed in
55.19 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and
55.20 electrical rooms, shops, laboratories, kitchens, locker rooms, ~~janitors'~~ custodial
55.21 closets, trash-collection rooms, storage rooms, lounges, gift shops, and similar
55.22 areas. Hospitals, nursing homes (both intermediate care and skilled nursing
55.23 facilities), board and care homes, and detoxification facilities shall be provided
55.24 with smoke detection throughout the corridor and areas open to the corridors,
55.25 other than nurses' stations.

56.1 **Exceptions:**

56.2 1. Corridor smoke detection shall not be required where the sleeping
56.3 room smoke detectors required in Section ~~907.2.6.3~~ 907.2.6.2.3 are
56.4 connected to an approved fire alarm system and activate a general
56.5 evacuation signal.

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

56.11 **907.2.6.2.2 Notification.** Activation of the fire alarm system or automatic
56.12 sprinkler system shall initiate a signal that is distinctive from audible signals
56.13 used for other purposes in the same building. Such signal is intended to notify
56.14 staff and need not meet the minimum sound pressure levels required for general
56.15 evacuation fire alarm notification. In addition, activation of the fire alarm
56.16 system shall immediately transmit an alarm to an approved central station or
56.17 remote station service.

56.18 **Exceptions:**

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

56.21 2. Where occupants are incapable of evacuating themselves because of
56.22 age, physical/mental disabilities, or physical restraint, only the attendants
56.23 or other personnel required to evacuate occupants from a zone, area,
56.24 floor, or building shall be required to be notified. This notification shall

57.1 include means to readily identify the zone, area, floor, or building in need
57.2 of evacuation.

57.3 3. Where total evacuation of occupants is impractical due to building
57.4 configuration, only the occupants in the affected zones shall be initially
57.5 notified. Provisions shall be made to selectively notify occupants in other
57.6 zones to afford orderly evacuation of the entire building.

57.7 **907.2.6.2.3 Patient room smoke detectors.** Smoke detectors shall be installed
57.8 in patient sleeping rooms of hospitals and nursing homes. Such detectors'
57.9 primary power shall be other than battery power. Actuation of such detectors
57.10 shall cause a visual display on the corridor side of the room where the detector
57.11 is located and shall cause a distinct audible and visual alarm at the nurses'
57.12 station attending the room. Such detectors may be part of the facility's fire
57.13 alarm system, nurses' call system, or a standalone system.

57.14 **907.2.6.2.3.1 Integral smoke detectors for automatic door-closing devices.**
57.15 Integral smoke detectors for automatic door-closing devices on sleeping room
57.16 doors can be installed only if they also meet all of the requirements in Section
57.17 907.2.6.2.3.

57.18 **907.2.6.2.4 Sleeping room smoke alarms.** For Group I-2 facilities other than
57.19 hospitals and nursing homes, single station smoke alarms shall be installed
57.20 in resident sleeping rooms.

57.21 **907.2.6.3 Group I-3 occupancies-general.** A manual and automatic fire alarm
57.22 system shall be installed in Group I-3 occupancies in accordance with Sections
57.23 ~~907.2.6.3~~ 907.2.6.3.1 through 907.2.6.3.4.

57.24 **907.2.6.3.1 Initiation.** Initiation of the fire alarm system shall be by manual
57.25 and automatic means. Approved automatic fire detectors shall be installed in

58.1 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and
58.2 electrical rooms, shops, laboratories, kitchens, locker rooms, ~~janitors'~~ custodial
58.3 closets, trash-collection rooms, storage rooms, lounges, gift shops,
58.4 commissaries, and similar areas. Actuation of an automatic fire-extinguishing
58.5 system, a manual fire alarm box, or a fire detector shall initiate an approved
58.6 fire alarm signal, which automatically notifies staff. Presignal systems shall
58.7 not be used.

58.8 **907.2.6.3.2 Manual fire alarm boxes.** Manual fire alarm boxes are not
58.9 required to be located in accordance with Section 907.4 where the fire alarm
58.10 boxes are provided at staff-attended locations having direct supervision over
58.11 areas where manual fire alarm boxes have been omitted.

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

58.15 **907.2.6.3.3 Smoke detectors.** An approved automatic smoke-detection system
58.16 shall be installed throughout resident housing areas, including sleeping areas
58.17 and contiguous day rooms, group activity spaces, and other common spaces
58.18 normally accessible to residents.

58.19 **Exceptions:**

58.20 1. Other approved smoke-detection arrangements providing equivalent
58.21 protection, such as placing detectors in exhaust ducts from cells or behind
58.22 protective grills, are allowed when necessary to prevent damage or
58.23 tampering.

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

59.4 **907.2.6.3.4 Notification.** Activation of the fire alarm system or automatic
59.5 sprinkler system shall initiate a signal that is distinctive from audible signals
59.6 used for other purposes in the same building. Such signal is intended to notify
59.7 staff and need not meet the minimum sound pressure levels required for general
59.8 evacuation fire alarm notification. In addition, activation of the fire alarm
59.9 system shall immediately transmit an alarm to an approved central station or
59.10 remote station service.

59.11 **907.2.6.4 Group I-4 occupancies-general.** A manual and automatic fire alarm
59.12 system shall be installed in Group I-4 occupancies in accordance with Sections
59.13 907.2.6.4.1 through 907.2.6.4.2.

59.14 **907.2.6.4.1 Initiation.** Initiation of the fire alarm system shall be by manual
59.15 and automatic means. Approved automatic fire detectors shall be installed in
59.16 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and
59.17 electrical rooms, shops, laboratories, kitchens, locker rooms, ~~janitors'~~ custodial
59.18 closets, trash-collection rooms, storage rooms, lounges, gift shops, and similar
59.19 areas. Automatic smoke detectors shall be provided in corridors and areas
59.20 that are open to corridors.

59.21 **907.2.6.4.2 Notification.** Activation of the fire alarm system or automatic
59.22 sprinkler system shall initiate a general evacuation signal. In addition,
59.23 activation of the fire alarm system shall immediately transmit an alarm signal
59.24 to an approved central station or remote station service.

59.25 Subp. 23. **IBC [F] section 907.2.7.** IBC [F] section 907.2.7 is deleted in its entirety.

60.1 Subp. 24. **IBC [F] section 907.2.7.1.** IBC [F] section 907.2.7.1 is deleted in its entirety.

60.2 Subp. 25. **IBC [F] section 907.2.8.** IBC [F] section 907.2.8 is amended to read as
60.3 follows:

60.4 **907.2.8 Group R-1, general.** A fire alarm system shall be installed in accordance with
60.5 Sections ~~907.2.8~~ 907.2.8.1 through 907.2.8.3 in Group R-1 occupancies.

60.6 **Exceptions:**

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

60.12 2. Buildings containing five or fewer sleeping units shall be allowed to be equipped
60.13 with approved multiple-station smoke ~~detectors~~ alarms installed as required for
60.14 Group R-3 Occupancies. Installation shall be in accordance with Section ~~907.2.11~~
60.15 907.2.10.

60.16 **907.2.8.1 Initiation.** Initiation of the fire alarm system shall be by automatic
60.17 means. Approved automatic fire detectors shall be provided in boiler and furnace
60.18 rooms, shops, laundry and soiled linen rooms, mechanical and electrical rooms,
60.19 trash collection rooms, storage rooms, gift shops, kitchens, locker rooms, custodial
60.20 closets, lounges, and similar areas. Automatic smoke detectors shall be provided
60.21 in all common areas and interior corridors serving as required means of egress.

60.22 **Exception:** System fire and smoke detectors are not required when an
60.23 approved automatic fire extinguishing system is installed in accordance with
60.24 Section 903.3.1.1 or 903.3.1.2 and a manual fire alarm box is provided at a

61.1 constantly attended location. When a constantly attended location is not
61.2 provided, the manual fire alarm box shall be provided at the main exit.

61.3 **907.2.8.2 Notification.** Activation of the fire alarm system or automatic sprinkler
61.4 system shall initiate a general evacuation signal.

61.5 **907.2.8.3 Sleeping unit smoke alarms.** Sleeping unit smoke alarms required by
61.6 Section ~~907.2.11~~ 907.2.10 shall not be connected to a fire alarm system.

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

61.8 Subp. 26. **IBC [F] section 907.2.9.** IBC [F] section 907.2.9 is amended, and sections
61.9 added, to read as follows and all subsections are deleted in their entirety and replaced with
61.10 the following:

61.11 **907.2.9 Groups R-2 and R-4 , general.** Fire alarm systems and smoke alarms shall
61.12 be installed in Group R-2 and Group R-4 occupancies. Group R-2 occupancies shall
61.13 comply with Sections 907.2.9.1 through 907.2.9.1.3. Group R-4 occupancies shall
61.14 comply with Sections 907.2.9.2 through 907.2.9.2.3.

61.15 **907.2.9 907.2.9.1 Group R-2, general.** A fire alarm system shall be installed in
61.16 accordance with Sections ~~907.2.9~~ 907.2.9.1 through ~~907.2.9.2~~ 907.2.9.1.2 in Group
61.17 R-2 occupancies where:

61.18 1. any sleeping unit or dwelling unit is located ~~three~~ two or more stories above
61.19 the story containing the lowest level of exit discharge;

61.20 2. any sleeping unit or dwelling unit is located more than one story below the
61.21 highest level of exit discharge of exits serving the dwelling unit;

61.22 3. the building contains more than 16 dwelling units or sleeping units; or

62.1 4. the building is used as a congregate living facility, dormitory, convent,
62.2 monastery, fraternity, sorority, group home, or shelter and has an occupant
62.3 load of 20 or more.

62.4 **Exception:** A fire alarm system is not required in buildings not over two
62.5 stories in height where all dwelling units and contiguous attic and crawl
62.6 spaces are separated from each other and public or common areas by at
62.7 least one-hour fire partitions and each dwelling unit has an exit directly
62.8 to a public way, exit court, or yard.

62.9 ~~907.2.9.1~~ 907.2.9.1.1 **Initiation.** Initiation of the fire alarm system shall be
62.10 by automatic means. Automatic fire detectors shall be provided in boiler and
62.11 furnace rooms, trash-collection rooms, shops, laundry rooms, common
62.12 kitchens, locker rooms, lounges, mechanical and electrical rooms, storage
62.13 rooms, and similar areas. Automatic smoke detectors shall be provided in all
62.14 common areas and interior corridors serving as required means of egress.

62.15 **Exception:** System fire and smoke detectors are not required when an
62.16 approved automatic fire extinguishing system is installed throughout the
62.17 building.

62.18 ~~907.2.9.2~~ 907.2.9.1.2 **Notification.** Activation of the fire alarm system or
62.19 automatic sprinkler system shall initiate a general evacuation signal.

62.20 ~~907.2.9.3~~ 907.2.9.1.3 **Dwelling unit smoke alarms.** Dwelling unit smoke
62.21 alarms required by Section ~~907.2.11~~ 907.2.10 shall not be connected to the
62.22 building fire alarm system.

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

62.24 907.2.9.2 Group R-4, general. A fire alarm system shall be installed in accordance
62.25 with Sections 907.2.9.2.1 through 907.2.9.2.3 in Group R-4 occupancies.

63.1 **Exceptions:**
63.2 1. A fire alarm system is not required in buildings two stories or less in height
63.3 where all individual sleeping units, attics, and crawl spaces contiguous to
63.4 those units are separated from each other and public or common areas by at
63.5 least one-hour fire partitions and each sleeping unit room has an exit directly
63.6 to a public way, exit court, or yard.

63.7 2. Buildings containing five or fewer sleeping units are permitted to be
63.8 equipped with approved multiple-station smoke alarms installed as required
63.9 for Group R-3 occupancies. Installation shall be in accordance with Section
63.10 907.2.10.

63.11 **907.2.9.2.1 Initiation.** Initiation of the fire alarm system shall be by automatic
63.12 means. Approved automatic fire detectors shall be provided in boiler and
63.13 furnace rooms, shops, laundry and soiled linen rooms, mechanical and
63.14 electrical rooms, common kitchens, lounges, trash collection rooms, storage
63.15 rooms, gift shops, locker rooms, and similar areas. Automatic smoke detectors
63.16 shall be provided in all common areas and interior corridors serving as required
63.17 means of egress.

63.18 **Exception:** System fire and smoke detectors are not required when an
63.19 approved automatic fire-extinguishing system is installed in accordance
63.20 with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3.

63.21 **907.2.9.2.2 Notification.** Activation of the fire alarm system or automatic
63.22 sprinkler system shall initiate a general evacuation signal.

63.23 **907.2.9.2.3 Smoke alarms.** Single and multiple-station smoke alarms shall
63.24 be installed in accordance with Section 907.2.10.

63.25 Subp. 26a. [Repealed, 39 SR 1605]

64.1 Subp. 26b. [See repealer.]

64.2 Subp. 27. [See repealer.]

64.3 Subp. 27a. [Repealed, 39 SR 1605]

64.4 Subp. 27b. **IBC [F] section 907.2.22.** IBC [F] section 907.2.22 is amended to read
 64.5 as follows:

64.6 **907.2.22 Battery rooms.** An automatic smoke detection system shall be installed in
 64.7 areas containing stationary storage battery systems where the battery capacity exceeds
 64.8 that listed in Table 907.2.22. Battery systems exceeding the quantities listed in Table
 64.9 907.2.22 shall comply with Minnesota Rules, chapter 7511, the Minnesota State Fire
 64.10 Code.

64.11 Subp. 27c. **IBC [F] section 907.2.22.** IBC [F] section 907.2.22 is amended to add
 64.12 Table 907.2.22 as follows:

64.13 **TABLE 907.2.22**

64.14 **BATTERY STORAGE SYSTEM THRESHOLD QUANTITIES**

64.15	<u>Battery Technology</u>	<u>Capacity^a</u>
64.16	<u>Flow batteries^b</u>	<u>20 kWh</u>
64.17	<u>Lead acid, all types</u>	<u>70 kWh</u>
64.18	<u>Lithium, all types</u>	<u>20 kWh</u>
64.19	<u>Nickel cadmium (Ni-Cd)</u>	<u>70 kWh</u>
64.20	<u>Sodium, all types</u>	<u>20 kWh^c</u>
64.21	<u>Other battery technologies</u>	<u>10 kWh</u>

64.22 For SI: 1 kilowatt hour = 3.6 megajoules.

64.23 ^a For batteries rated in amp-hours, kWh shall equal rated voltage times amp-hour rating
 64.24 divided by 1000.

65.1 ^b Shall include vanadium, zinc-bromine, polysulfide-bromide, and other flowing
65.2 electrolyte-type technologies.

65.3 ^c 70 kWh for sodium-ion technologies.

65.4 Subp. 27d. **IBC [F] section 907.2.23.** IBC [F] section 907.2.23 is amended to read
65.5 as follows:

65.6 **907.2.23 Capacitor energy storage systems.** An automatic smoke detection system
65.7 shall be installed in areas containing capacitor energy storage systems where the storage
65.8 capacity exceeds 3 kWh (10.8 megajoules). Systems exceeding 3 kWh (10.8 megajoules)
65.9 shall comply with Minnesota Rules, chapter 7511, the Minnesota State Fire Code.

65.10 Subp. 28. **IBC [F] section 907.2.24.** IBC [F] section 907.2 is amended by adding
65.11 sections to read as follows:

65.12 **907.2.24 Residential hospices.** A fire alarm system shall be installed in accordance
65.13 with ~~Section 907.2.24~~ Sections 907.2.24.1 and 907.2.24.2 in residential hospices. When
65.14 automatic sprinkler systems or automatic fire detectors are installed, such systems or
65.15 detectors shall be connected to the building fire alarm system.

65.16 **907.2.24.1 Initiation.** Initiation of the fire alarm system shall be by manual and
65.17 automatic means. Approved automatic fire detectors shall be provided in boiler
65.18 and furnace rooms, kitchens, laboratories, shops, gift shops, commissaries, laundry
65.19 and soiled linen rooms, mechanical and electrical rooms, locker rooms, storage
65.20 rooms, ~~janitors'~~ custodial closets, trash collection rooms, lounges, and similar
65.21 areas. Automatic smoke detectors shall be provided in sleeping rooms, corridors,
65.22 and spaces open to the corridors.

65.23 **Exception:** Manual fire alarm boxes are not required at exits if manual fire
65.24 alarm boxes are located at all nurses' stations or other continuously attended
65.25 staff locations, provided such fire alarm boxes are visible and continuously

66.1 accessible and that travel distances required by Section ~~907.4.1~~ 907.4.2 are
66.2 not exceeded.

66.3 **907.2.24.2 Notification.** Activation of the fire alarm system or automatic
66.4 sprinkler system shall initiate a general evacuation signal. In addition, the fire
66.5 alarm system shall be monitored by an approved central station service in
66.6 accordance with Section 903.4.1.

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

66.9 Subp. 29. [Repealed, 32 SR 7]

66.10 Subp. 30. [Repealed, 39 SR 1605]

66.11 Subp. 31. **IBC [F] section 907.3.** IBC [F] section 907.3 is amended, and subsections
66.12 added, to read as follows:

66.13 **907.3 Fire safety functions.** Automatic fire detectors required by Section 907.2 of this code
66.14 ~~and IFC Chapter 11~~ of the Minnesota State Fire Code are to activate notification appliances
66.15 in accordance with those sections. When automatic fire detectors are installed for other fire
66.16 safety functions, they shall perform the intended function upon activation. When automatic
66.17 detectors are installed for fire safety functions and the building has a fire alarm system, the
66.18 detectors shall activate supervisory signals at the fire alarm control panel or at a constantly
66.19 attended location. When the building does not have a fire alarm system, the detectors shall
66.20 activate a visual and audible supervisory signal at an approved location, which shall indicate
66.21 the source of the signal.

66.22 **907.3.1 Air distribution and air-handling systems.** Smoke detectors installed to shut
66.23 down the air distribution or air-handling system shall, upon activation, perform the
66.24 intended function. Air distribution or air-handling equipment that is part of a
66.25 smoke-control system shall switch to smoke-control mode upon activation of a detector.

67.1 **907.3.1.1 Fire alarm system interface.** Smoke detectors that are installed in air
67.2 distribution or air-handling systems for shutdown purposes and that are connected
67.3 to a fire alarm system shall not sound a general evacuation signal.

67.4 **907.3.2 Elevator control functions.** Smoke detectors that are installed to control or
67.5 recall elevators or to control doors for elevators, elevator lobbies, or elevator shafts
67.6 and that are connected to a fire alarm system shall not sound a general evacuation
67.7 signal. Elevator recall and firefighter's emergency operation for elevators shall only be
67.8 controlled by elevator smoke detectors and shall not initiate upon other building fire
67.9 detectors or evacuation signals.

67.10 **907.3.3 Door hold-open functions.** Smoke detectors that are installed to hold open
67.11 fire doors under nonemergency conditions and that are connected to a fire alarm system
67.12 shall sound a general evacuation signal when the doors being held open are part of the
67.13 means of egress corridor or stair system. Door hold-open smoke detectors are not
67.14 required to activate a visual or audible signal.

67.15 (Subsection 907.3.4 remains unchanged.)

67.16 Subp. 31a. [See repealer.]

67.17 Subp. 31b. IBC [F] section 907.5.2.1.2. IBC [F] section 907.5.2.1.2 is amended to
67.18 read as follows:

67.19 **907.5.2.1.2 Maximum sound pressure.** Fire alarm system audibility levels
67.20 shall not exceed 35 dB above the average ambient sound level described in
67.21 Section 907.5.2.1.1 or 35 dB above the peak ambient sound level. The
67.22 maximum sound pressure level for audible alarm notification appliances shall
67.23 be 110 dBA at the minimum hearing distance from the audible appliance.
67.24 Where the average ambient noise is greater than 95 dBA, visible alarm

68.1 notification appliances shall be provided in accordance with NFPA 72 and
68.2 audible alarm notification appliances shall not be required.

68.3 Subp. 32. [Repealed, 39 SR 1605]

68.4 Subp. 32a. IBC [F] section 907.6.6. IBC [F] section 907.6.6 is amended to read as
68.5 follows:

68.6 **907.6.6 Monitoring.** Where provided, monitoring of fire alarm systems shall comply
68.7 with Sections 907.6.6.1 and 907.6.6.2.

68.8 (The exceptions are removed.)

68.9 (Subsections 907.6.6.1 and 907.6.6.2 remain unchanged.)

68.10 Subp. 33. [Repealed, 39 SR 1605]

68.11 **1305.0909 SECTION 909, SMOKE CONTROL SYSTEMS.**

68.12 Subpart 1. [Repealed, 39 SR 1605]

68.13 *[For text of subparts 1a and 1b, see Minnesota Rules]*

68.14 Subp. 1c. IBC [F] section ~~909.4.7~~ **909.4.8.** IBC [F] section 909.4 is amended by
68.15 adding a section to read:

68.16 **909.4.7 ~~909.4.8~~ Door opening force.** With any of the design methods allowed by
68.17 Section 909, the door opening force, latch release, and set-in-motion force shall comply
68.18 with Section ~~1008.1.3~~ 1010.1.3 requirements when the system is in smoke control
68.19 mode.

68.20 Subp. 1d. **IBC [F] section 909.22.** IBC [F] section 909 is amended by adding a section
68.21 to read as follows:

68.22 **909.22 High-rise and covered mall smoke-exhaust systems.** High-rise buildings, not
68.23 provided with a smoke control or a post-fire smoke exhaust system, shall be equipped with

69.1 a smoke removal system installed in accordance with this code. Covered mall buildings
69.2 exceeding 50,000 square feet (4,645 m²) in floor area, excluding anchor stores, and not
69.3 provided with a smoke control system, shall be equipped with a post-fire smoke exhaust
69.4 system installed in accordance with this code.

69.5 Subp. 2. [Repealed, 39 SR 1605]

69.6 **1305.0910 SECTION 910, SMOKE AND HEAT REMOVAL.**

69.7 ~~IBC [F] section 910 is amended to read as follows:~~

69.8 ~~[F] SECTION 910~~

69.9 ~~SMOKE AND HEAT REMOVAL~~

69.10 Subpart 1. **IBC [F] section 910.1.** IBC [F] section 910.1 is amended by adding sections
69.11 to read as follows:

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 ~~nonsprinklered~~ non-sprinklered buildings, smoke and heat vents as specified
69.18 in Section 910.3 shall be permitted.

69.19 3. Where approved by the building 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.

70.1 **910.1.3 Curtain boards.** When mechanical smoke exhaust is provided in accordance
70.2 with Section 910.4 or 910.5, curtain boards are only required at the separation between
70.3 areas protected with early suppression fast response (ESFR) sprinklers and conventional
70.4 sprinkler systems.

70.5 Subp. 2. **IBC [F] section 910.4.** IBC [F] section 910.4 is amended to read as follows:

70.6 **910.4 Mechanical smoke exhaust.** Mechanical smoke exhaust shall be in accordance with
70.7 Sections 910.4.1 through ~~910.4.6~~ 910.4.7.

70.8 (Subsections 910.4.1 through 910.4.7 remain unchanged except as amended in subparts
70.9 2a and 3.)

70.10 Subp. 2a. **IBC [F] section 910.4.3.1.** IBC [F] section 910.4.3.1 is amended to read as
70.11 follows:

70.12 ~~910.4.5~~ 910.4.3.1 **Supply air.** Supply air for exhaust fans shall be sized to provide
70.13 a minimum of 50 percent of the required exhaust. Air velocity at each supply air
70.14 opening shall not exceed an average of 200 feet per minute when measured 4 feet
70.15 (1219 mm) in front of the opening. Openings for supply air shall be uniformly
70.16 distributed around the periphery of the area served and be located or ducted to a
70.17 position not more than one-half the storage height above the floor. Supply air
70.18 openings shall open automatically upon operation of the smoke exhaust system
70.19 and shall not require a manual action at each supply opening for operation. Supply
70.20 air openings shall be kept clear of storage or obstructions to airflow for at least 4
70.21 feet (1219 mm) in front of the opening. Supply air openings shall be separated
70.22 from exhaust fans and exterior combustibles to prevent introduction of smoke into
70.23 the building.

70.24 Subp. 3. **IBC [F] section ~~910.4.3~~ 910.4.4.** IBC [F] section ~~910.4.3~~ 910.4.4 is amended
70.25 to read as follows:

71.1 ~~910.4.3~~ **910.4.4 Operation.** Mechanical smoke exhaust fans shall be manually activated.
71.2 ~~In addition,~~ Individual manual controls of each fan unit shall also be provided.

71.3 Subp. 4. [Renumbered subp 2a]

71.4 Subp. 5. **IBC [F] section 910.5.** IBC [F] section ~~910~~ 910.5 is amended ~~by adding~~
71.5 ~~sections,~~ and subsections added, to read as follows:

71.6 **910.5 Calculated engineering design of mechanical smoke exhaust.** Calculated engineering
71.7 design of mechanical smoke exhaust shall be in accordance with Sections 910.5.1 through
71.8 910.5.5.

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

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

71.18 **910.5.3 Operation.** Mechanical smoke exhaust fans shall be manually activated. In
71.19 addition, individual manual controls of each fan unit shall also be provided.

71.20 **910.5.4 Supply air.** Supply air for exhaust fans shall be sized to provide a minimum
71.21 of 50 percent of the required exhaust. Air velocity at each supply air opening shall not
71.22 exceed an average of 200 feet per minute when measured 4 feet (1219 mm) in front of
71.23 the opening. Openings for supply air shall be uniformly distributed around the periphery
71.24 of the area served and be located or ducted to a position not more than one-half the
71.25 storage height above the floor. Supply air openings shall open automatically upon

72.1 operation of the smoke exhaust system and shall not require a manual action at each
72.2 supply opening for operation. Supply air openings shall be kept clear of storage or
72.3 obstructions to airflow for at least 4 feet (1219 mm) in front of the opening. Supply air
72.4 openings shall be separated from exhaust fans and exterior combustibles to prevent
72.5 introduction of smoke into the building.

72.6 **910.5.5 Equipment.** Wiring and controls shall be as required in ~~section 910.4.4.~~
72.7 ~~Interlocks~~ Sections 910.4.5 and 910.4.6. Interlock controls shall be as required in
72.8 Section ~~910.4.6~~ 910.4.7. Exhaust fans shall be uniformly spaced and each fan shall
72.9 have a maximum individual capacity of 30,000 cfm (850 m³/min).

72.10 Subp. 6. **IBC [F] section 910.6.** ~~IBC [F] section 910~~ is amended by adding a subsection
72.11 to read as follows:

72.12 **910.6 Testing and maintenance.** Mechanical smoke exhaust systems shall be tested and
72.13 maintained as required by Sections 910.6.1 through 910.6.4.

72.14 **910.6.1 Acceptance testing.** Mechanical smoke exhaust systems shall be acceptance
72.15 tested as required by Sections ~~909.18.1 through 909.18.7~~ 909.18 and 909.19.

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

72.21 **910.6.2 Special inspections.** Special inspections for mechanical smoke exhaust shall
72.22 be conducted according to Section 909.18.8.

72.23 **910.6.3 Maintenance.** Mechanical smoke exhaust systems, including exhaust fans,
72.24 supply air openings and controls, shall be maintained and unobstructed.

73.1 **910.6.4 Operational testing.** Operational testing of the smoke exhaust system shall
73.2 include all equipment such as initiating devices, fans, dampers, controls, and supply
73.3 air openings. Mechanical smoke exhaust systems shall be operated and tested under
73.4 each control sequence at least annually.

73.5 **1305.0915 IBC [F] SECTION 915, CARBON MONOXIDE DETECTION.**

73.6 Subpart 1. IBC [F] section 915.1. IBC [F] section 915.1 and subsection 915.1.1 are
73.7 amended to read as follows:

73.8 **915.1 General.** Carbon monoxide detection shall be installed in new buildings in accordance
73.9 with Sections 915.1.1 through 915.6.

73.10 **915.1.1 Where required.** Carbon monoxide detection shall be provided in Group I-1,
73.11 I-2, I-4, and R occupancies and in classrooms in Group E occupancies in the locations
73.12 specified in Section 915.2 where any of the conditions in Sections 915.1.2 through
73.13 915.1.6 exist.

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

73.18 (Sections 915.1.2 through 915.1.6 remain unchanged.)

73.19 Subp. 2. IBC [F] section 915.2. IBC [F] section 915.2 and subsections 915.2.1 and
73.20 915.2.2 are amended to read as follows:

73.21 **915.2 Locations.** Where required by Section 915.1.1, carbon monoxide detection shall be
73.22 installed in the locations specified in Sections 915.2.1 through 915.2.3.

73.23 **915.2.1 Dwelling units.** Carbon monoxide detection shall be installed in dwelling units
73.24 outside of each separate sleeping area within ten feet of the bedrooms. Where a

74.1 fuel-burning appliance is located in a bedroom or its attached bathroom, carbon
74.2 monoxide detection shall be installed within the bedroom.

74.3 **915.2.2 Sleeping units.** Carbon monoxide detection shall be installed in sleeping units.

74.4 **Exception:** Carbon monoxide detection shall be allowed to be installed outside
74.5 of each separate sleeping area within ten feet of the sleeping unit where the sleeping
74.6 unit or its attached bathroom does not contain a fuel-burning appliance and is not
74.7 served by a forced air furnace.

74.8 (Section 915.2.3 remains unchanged.)

74.9 **1305.0916 SECTION 916, GAS DETECTION SYSTEMS.**

74.10 IBC section 916.2 and its subsections are amended to read as follows:

74.11 **916.2 Documentation.** The installation or modification of gas detection systems shall be
74.12 documented in accordance with Sections 916.2.1 and 916.2.2.

74.13 **916.2.1 Construction documents.** Documentation of the gas detection system design
74.14 and equipment to be used that demonstrates compliance with the requirements of this
74.15 code shall be provided with the application for permit.

74.16 **916.2.2 Fire authority notification.** On each occasion when a gas detection system
74.17 is either installed or modified, the licensed design professional shall notify the fire
74.18 authority having jurisdiction.

74.19 **1305.0917 SECTION 917, MASS NOTIFICATION SYSTEMS.**

74.20 IBC section 917.1 is deleted in its entirety.

74.21 **1305.0918 SECTION 918, EMERGENCY RESPONDER RADIO COVERAGE.**

74.22 IBC section 918 is deleted in its entirety.

75.1 ~~1305.0916~~ 1305.0919 **SECTION 916 919, POST-FIRE EXHAUST SYSTEM.**

75.2 IBC chapter 9 is amended by adding a section to read as follows:

75.3 SECTION ~~916~~ 919

75.4 POST-FIRE SMOKE EXHAUST SYSTEM

75.5 **916.1 919.1 Scope and purpose.** This section applies to post-fire smoke exhaust systems
75.6 when they are required by other provisions of this code. The purpose of this section is to
75.7 establish minimum requirements for the design and installation of smoke exhaust systems
75.8 that are intended for the timely restoration of operations and overhaul activities once a fire
75.9 is extinguished.

75.10 **916.2 919.2 General design requirements.** Post-fire smoke exhaust systems are not intended
75.11 or designed as life safety systems and are not required to meet the provisions of Section
75.12 909. These systems are permitted to use dedicated equipment, the normal building HVAC
75.13 system or other openings and shall have the capability to exhaust smoke from occupied
75.14 spaces. Smoke removal may be by either mechanical or natural ventilation, but shall be
75.15 capable of removing cold smoke. Smoke exhaust shall be permitted through elevator shafts.
75.16 Smoke removed from a space shall be discharged to a safe location outside the building and
75.17 may not be recirculated into the building in accordance with the Minnesota Mechanical
75.18 Code.

75.19 **916.3 919.3 Exhaust capability.** The system shall have an air supply and smoke exhaust
75.20 capability that will provide a minimum of three air changes per hour or remove smoke to
75.21 less than a 5 percent concentration within one hour of operation. The system does not need
75.22 to exhaust from all areas at the same time, but is permitted to be zoned based on the largest
75.23 fire area served. For the purpose of calculating system size, the height of a compartment
75.24 shall be considered to run from slab to slab and include the volume above suspended ceilings.

76.1 **916.4 919.4 Operation.** The smoke exhaust system shall be operated by manual controls
 76.2 that are readily accessible to the fire department at an approved location and shall incorporate
 76.3 an approved control diagram. When a system is zoned into areas of operation less than the
 76.4 entire building, each zone shall have an individual control. Fire department manual controls
 76.5 of post-fire smoke exhaust systems shall have the highest priority of any control point within
 76.6 the building. Smoke exhaust shall not be permitted through any exit enclosure as defined
 76.7 in Section 1002.

76.8 **916.5 919.5 Inspection and testing.** Post-fire smoke exhaust systems shall be inspected
 76.9 and tested annually.

76.10 **1305.1006 SECTION 1006, NUMBER OF EXITS AND EXIT ACCESS DOORWAYS.**

76.11 Subpart 1. IBC Table 1006.2.1. IBC Table 1006.2.1 is amended to read as follows:

TABLE 1006.2.1				
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY				
Occupancy	Maximum Occupant Load of Space	Maximum Common Path of Egress Travel Distance (feet)		
		Without Sprinkler System (feet)		With Sprinkler System (feet)
		Occupant Load		
		OL ≤ 30	OL > 30	
A ^c , E, M	49	75	75	75 ^a
B	49	100	75	100 ^a
F	49	75	75	100 ^a
H-1, H-2, H-3	3	NP	NP	25 ^b
H-4, H-5	10	NP	NP	75 ^b
I-1, I-2 ^d	10	NP	NP	75 ^a
I-3	10	NP	NP	100 ^a
I-4	10	75	75	75 ^a
R-1	10	75	75	75 ^a
R-2	20	75	75	125 ^a

77.1	<u>R-3</u>	<u>20</u>	<u>75</u>	<u>75</u>	<u>125^{a,f}</u>
77.2	<u>R-4</u>	<u>20</u>	<u>75</u>	<u>75</u>	<u>125^{a,f}</u>
77.3	<u>S^e</u>	<u>29</u>	<u>100</u>	<u>75</u>	<u>100^a</u>
77.4	<u>U</u>	<u>49</u>	<u>100</u>	<u>75</u>	<u>75^a</u>

77.5 NP = Not Permitted

77.6 ^a Buildings equipped throughout with an automatic sprinkler system in accordance with
 77.7 Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler
 77.8 systems are permitted in accordance with Section 903.3.1.2.

77.9 ^b Group H occupancies equipped throughout with an automatic sprinkler system in
 77.10 accordance with Section 903.2.5.

77.11 ^c For a room or space used for assembly purposes having fixed seating, see Section
 77.12 1029.8.

77.13 ^d For the travel distance limitations in Group I-2, see Section 407.4.

77.14 ^e The common path of egress travel distance in a Group S-2 open parking garage shall
 77.15 not be more than 100 feet.

77.16 ^f For the travel distance limitations in Groups R-3 and R-4 equipped throughout with
 77.17 an automatic sprinkler system in accordance with Section 903.3.1.3, see Section 1006.2.2.6.

77.18 Subp. 2. **IBC section 1006.2.2.1.** IBC section 1006.2.2.1 is amended to read as follows:

77.19 **1006.2.2.1 Boiler, incinerator, and furnace rooms.** Two exit access doorways
 77.20 are required in boiler, incinerator, and furnace rooms where the area is over 500
 77.21 square feet (46 m²) and any fuel-fired equipment exceeds 400,000 British thermal
 77.22 units (Btu) (422,000 kJ) input capacity. Where two exit access doorways are
 77.23 required, one is permitted to be a fixed ladder or an alternating tread device. Exit
 77.24 access doorways shall be separated by a horizontal distance not less than one-half

78.1 the length of the maximum overall diagonal dimension of the room. The exit access
78.2 path of travel shall not converge to a separation distance less than one-third the
78.3 length of the maximum overall diagonal dimension of the room.

78.4 Subp. 3. **IBC section 1006.2.2.4.** IBC section 1006.2.2.4 is amended to read as follows:

78.5 **1006.2.2.4 Group E and I-4 means of egress.** Group E and I-4 facilities, rooms,
78.6 or spaces where care is provided for more than ten children that are 2-1/2 years of
78.7 age or less, shall have access to not less than two exits or exit access doorways.

78.8 Subp. 4. **IBC section 1006.2.2.7.** IBC section 1006.2.2 is amended by adding a
78.9 subsection to read as follows:

78.10 **1006.2.2.7 Educational occupancy laboratories and prep areas.** Laboratories
78.11 and prep areas containing hazardous materials shall be provided with not less than
78.12 two means of egress when located in an E occupancy and the space is greater than
78.13 500 square feet.

78.14 Subp. 5. **IBC section 1006.3.3.** IBC section 1006.3.3 is amended to read as follows:

78.15 **1006.3.3 Single exits.** A single exit or access to a single exit shall be permitted from
78.16 any story or occupied roof where one of the following conditions exists:

78.17 1. The occupant load, number of dwelling units or sleeping units, and common
78.18 path of egress travel distance do not exceed the values in Table 1006.3.3(1) or
78.19 1006.3.3(2).

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

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

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

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

79.6 5.1. Each dwelling unit and sleeping unit complies with Section 1006.2.1 as
 79.7 a space with one means of egress.

79.8 5.2. Each sleeping unit and dwelling unit either:

79.9 (a) has an exit that discharges directly to the exterior at the level of exit
 79.10 discharge; or

79.11 (b) has an exit access outside the entrance door that provides access to
 79.12 at least two approved independent exits.

79.13 (Subsection 1006.3.3.1 remains unchanged.)

79.14 **1305.1009 [Renumbered 1305.1011]**

79.15 **1305.1009 SECTION 1009, ACCESSIBLE MEANS OF EGRESS.**

79.16 IBC section 1009.1 is amended by adding a new exception to read as follows:

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

79.18 **~~1305.1008~~ 1305.1010 SECTION ~~1008~~ 1010, DOORS, GATES, AND TURNSTILES.**

79.19 Subpart 1. [Repealed, 32 SR 7]

79.20 Subp. 2. [Repealed, 32 SR 7]

79.21 Subp. 3. [Repealed, 32 SR 7]

79.22 Subp. 4. [Repealed, 39 SR 1605]

80.1 Subp. 5. **IBC section ~~1008.1.5~~ 1010.1.5**. IBC section ~~1008.1.5~~ 1010.1.5 is amended
80.2 by modifying exception 5 to read as follows:

80.3 **Exceptions:**

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

80.7 Subp. 5a. **IBC section 1010.1.9.2**. The exception to IBC section 1010.1.9.2 is amended
80.8 to read as follows:

80.9 **Exception:** The ingress side of access doors or gates in barrier walls and
80.10 fences protecting pools, spas, and hot tubs shall be permitted to have operable
80.11 parts of the latch release on self-latching devices at 54 inches (1370 mm)
80.12 maximum above the finished floor or ground, provided that the self-latching
80.13 devices are not also self-locking devices operated by means of a key, electronic
80.14 opener, or integral combination lock. All hardware shall comply with Section
80.15 1010.1.9.6.

80.16 Subp. 6. **IBC section ~~1008.1.9.3~~ 1010.1.9.4**. IBC section ~~1008.1.9.3~~ 1010.1.9.4 is
80.17 amended to read as follows:

80.18 **~~1008.1.9.3~~ 1010.1.9.4 Locks and latches**. Locks and latches shall be permitted to
80.19 prevent operation of doors where any of the following exists:

- 80.20 1. Places of detention or restraint.
- 80.21 2. In buildings in occupancy Group A having an occupant load of 300 or less,
80.22 in buildings in occupancy Groups B, F, M, and S, and in places of religious
80.23 worship, the main exterior door or doors are permitted to be equipped with
80.24 key-operated locking devices from the egress side provided:

- 81.1 2.1. The locking device is readily distinguishable as locked.
- 81.2 2.2. A readily visible durable sign is posted on the egress side on or
81.3 adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED
81.4 WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch
81.5 (25 mm) high on a contrasting background.
- 81.6 2.3. The use of the key-operated locking device is ~~revokable~~ revocable
81.7 by the building official for due cause.
- 81.8 3. Where egress doors are used in pairs, approved automatic flush bolts shall
81.9 be permitted to be used, provided that the door leaf having the automatic flush
81.10 bolts has no doorknob or surface-mounted hardware.
- 81.11 4. Doors from individual dwelling or sleeping units of Group R occupancies
81.12 having an occupant load of 10 or less are permitted to be equipped with a
81.13 night latch, dead bolt, or security chain, provided such devices are openable
81.14 from the inside without the use of a key or tool.
- 81.15 5. Fire doors, after the minimum elevated ~~temperatures have~~ temperature has
81.16 disabled the unlatching mechanism, in accordance with listed fire door test
81.17 procedures.
- 81.18 6. Doors serving roofs not intended to be occupied shall be permitted to be
81.19 locked preventing entry to the building from the roof.
- 81.20 ~~6~~ 7. Delayed egress locks, installed and maintained in conformance with
81.21 Section ~~1008.1.9.7~~ 1010.1.9.8.
- 81.22 ~~7~~ 8. ~~Special locking arrangements~~ Controlled egress doors installed and
81.23 maintained in accordance with Section ~~1008.1.9.6~~ 1010.1.9.7.

82.1 ~~8 9. Electromagnetically~~ Electrically locked egress doors, installed and
 82.2 maintained in conformance with Section ~~1008.1.9.9~~ 1010.1.9.9 or 1010.1.9.10.

82.3 ~~9 10.~~ In rooms, other than detention cells, where occupants are being restrained
 82.4 for safety or security reasons, special detention arrangements that comply
 82.5 with the requirements of Section ~~1008.1.11~~ 1010.1.11 are permitted.

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

82.8 Subp. 6a. **IBC section ~~1008.1.9.6~~ 1010.1.9.7.** IBC section ~~1008.1.9.6~~ 1010.1.9.7 is
 82.9 amended to read as follows:

82.10 ~~**1008.1.9.6 Special door locking arrangements**~~ **1010.1.9.7 Controlled egress**
 82.11 **doors in Group I-1, I-2, R-3, ~~or~~ and R-4 occupancies.** ~~Approved special door~~
 82.12 ~~locking arrangements~~ Controlled egress door locking systems, including
 82.13 electromechanical locking systems and electromagnetic locking systems, shall be
 82.14 permitted in a Group I-1 Condition 2, I-2, R-3, ~~or~~ and R-4 ~~occupancy~~ Condition
 82.15 2 occupancies when a person's clinical needs require ~~such locking~~ their containment.
 82.16 ~~Special locking devices~~ Controlled egress doors shall be permitted ~~on doors~~ in
 82.17 these occupancies when the building is equipped throughout with an approved
 82.18 automatic sprinkler system in accordance with ~~IBC~~ Section 903.3.1.1 and an
 82.19 approved automatic smoke ~~or~~ heat detection system is installed in accordance with
 82.20 Section 907. ~~The special locking arrangements and devices are permitted if they~~
 82.21 ~~are installed and~~ Electric locking systems and controlled egress doors shall comply
 82.22 with the requirements in items 1 through ~~10~~ 11 below. ~~Items 1 through 4 shall not~~
 82.23 ~~apply to special locking arrangements in areas where persons who, because of~~
 82.24 ~~clinical needs, require restraint or containment as part of the function of a~~
 82.25 ~~psychiatric treatment area.~~

- 83.1 1. The ~~special locking devices~~ egress control locks shall unlock upon actuation
83.2 of either the automatic sprinkler system or the automatic ~~fire-detection~~
83.3 smoke-detection system within the means of egress served by the locked area.
- 83.4 2. The ~~special locking devices~~ egress control locks shall unlock upon loss of
83.5 power controlling the lock or lock mechanism.
- 83.6 3. The ~~special locking devices~~ egress control locking system shall have the
83.7 capability of being unlocked by a signal or switch from the fire-command
83.8 center, a nursing station, or other approved location. The signal or switch shall
83.9 directly break power to the lock.
- 83.10 4. A building occupant shall not be required to pass through more than one
83.11 door equipped with a ~~special~~ controlled egress lock before entering an exit.
- 83.12 5. The procedures for the operations of the unlocking system shall be described
83.13 and approved as part of the emergency planning and preparedness required
83.14 by ~~IFC Chapter 4~~ Minnesota Rules, chapter 7511, the Minnesota State Fire
83.15 Code.
- 83.16 6. All clinical staff shall have the keys, codes, or other means necessary to
83.17 operate the controlled egress locking devices or systems.
- 83.18 7. Emergency lighting shall be provided at both sides of a door ~~containing~~
83.19 equipped with a special controlled egress locking device.
- 83.20 8. 24-hour resident or patient supervision is provided within the secured area.
- 83.21 9. The ~~special~~ controlled egress locking devices are designed to fail in the
83.22 open position.
- 83.23 10. Floor levels within the building or portion of the building with ~~special~~
83.24 controlled egress locking ~~arrangements~~ devices shall be divided into at least

84.1 two compartments by smoke barriers meeting the requirements of Section
84.2 709.

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

84.5 ~~**Exception to item #10:** In existing Group R-3 occupancies where~~
84.6 ~~the construction of smoke barrier compartmentation is not practical,~~
84.7 ~~an existing sleeping room provided with smoke-tight construction~~
84.8 ~~and having an escape window complying with Section 1029 is~~
84.9 ~~allowed.~~

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

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

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

84.17 3. Item 10 shall not apply to existing Group R-3 or R-4, Condition 1
84.18 occupancies where all of the following conditions apply: (i) the
84.19 construction of smoke barrier compartmentation is not practical; (ii)
84.20 existing sleeping rooms are provided with smoke-tight construction; and
84.21 (iii) existing sleeping rooms have an emergency escape and rescue
84.22 opening complying with Section 1030.

84.23 Subp. 7. ~~IBC section 1008.1.9.7~~ sections 1010.1.9.8 and 1010.1.9.8.1. IBC section
84.24 ~~1008.1.9.7~~ is sections 1010.1.9.8 and 1010.1.9.8.1 are amended to read as follows:

85.1 ~~1008.1.9.7~~ **1010.1.9.8 Delayed egress door locks.** ~~Approved, listed, delayed egress~~
85.2 ~~locks shall be permitted to be installed on doors serving any occupancy except~~
85.3 ~~Assembly Group A occupancies and High Hazard Group H occupancies, and~~
85.4 ~~assembly uses within Educational Group E occupancies. Delayed egress locks~~
85.5 locking systems shall be permitted to be installed only on doors serving the
85.6 following occupancies in buildings that are equipped throughout with an automatic
85.7 sprinkler system in accordance with Section 903.3.1.1 or an approved smoke
85.8 detection system installed in a means of egress system serving the locked area,
85.9 ~~provided that the doors unlock~~ throughout the means of egress in accordance with
85.10 ~~items 1 through 4 below. A building occupant shall not be required to pass through~~
85.11 ~~more than one door equipped with a delayed egress lock before entering an exit~~
85.12 Section 907.

85.13 1. Group B, F, I, M, R, S, and U occupancies.

85.14 2. Group E in locations where the means of egress does not serve an assembly
85.15 use area.

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

85.20 **1010.1.9.8.1 Delayed egress locking system.** The delayed egress locking
85.21 system shall be installed and operated in accordance with all of the following:

85.22 1. The doors unlock delay electronics of the delayed egress locking system
85.23 shall deactivate upon actuation of the automatic sprinkler system or
85.24 automatic fire detection system, allowing immediate free egress.

86.1 2. ~~The doors unlock~~ delay electronics of the delayed egress locking system
86.2 shall deactivate upon loss of power controlling the lock or lock
86.3 mechanism, allowing immediate egress.

86.4 3. ~~The door locks~~ delayed egress locking system shall have the capability
86.5 of being ~~unlocked by a signal from~~ deactivated at the fire command center
86.6 and other approved locations.

86.7 4. ~~The door locks shall include~~ An attempt to egress shall initiate an
86.8 irreversible process that will release the latch shall allow such egress in
86.9 not more than 15 seconds when a force physical effort to exit of not more
86.10 than 15 pounds (67 N) is applied to the egress side door hardware for not
86.11 more than one second ~~to the release device~~. Initiation of the irreversible
86.12 process shall activate an audible signal in the vicinity of the door. Once
86.13 the door lock has been released by the application of force to the releasing
86.14 ~~device~~ delay electronics have been deactivated from an approved location,
86.15 relocking the delay electronics shall be by manual means only.

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

86.18 ~~Doors that have been equipped with delayed egress locks shall also comply~~
86.19 ~~with items 1 to 3 below.~~

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

86.22 **Exceptions to item 5:**

86.23 1. In Group I-2 or I-3 occupancies, the egress path from any point
86.24 in the building shall pass through not more than two delayed egress

87.1 locking systems provided that the combined delay does not exceed
87.2 30 seconds.

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

87.8 ± 6. A sign shall be provided on the door and shall be located above and
87.9 within 12 inches (305 mm) of the ~~release device reading~~ door exit
87.10 hardware:

87.11 6.1. For doors that swing in the direction of egress, the sign shall
87.12 read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED
87.13 IN 15 [30] SECONDS.

87.14 6.2. For doors that swing in the opposite direction of egress, the sign
87.15 shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE
87.16 OPENED IN 15 [30] SECONDS.

87.17 6.3. The sign shall comply with the visual character requirements in
87.18 ICC A117.1.

87.19 **Exception to item 6:** Where approved, in Group I occupancies, the
87.20 installation of a sign is not required where care recipients who
87.21 because of clinical needs require restraint or containment as part of
87.22 the function of the treatment area.

87.23 ± 7. Emergency lighting shall be provided at on the egress side of the
87.24 door.

88.1 ~~3~~ 8. The delayed egress locks locking system units shall be maintained
88.2 ~~and tested in accordance with the Minnesota State Fire Code listed in~~
88.3 ~~accordance with UL 294.~~

88.4 Subp. 7a. **IBC section ~~1008.1.9.11~~ 1010.1.9.12.** IBC section ~~1008.1.9.11~~ 1010.1.9.12
88.5 is amended by revising exception 3 to read as follows:

88.6 3. In stairways serving not more than four stories, doors are permitted to be
88.7 locked from the side opposite the egress side. The exit door is permitted to
88.8 be locked but shall be operable from the egress side.

88.9 Subp. 8. **IBC section ~~1008.1~~ 1010.1.** IBC section ~~1008.1~~ 1010.1 is amended by adding
88.10 subsections as follows:

88.11 **~~1008.1.11~~ 1010.1.11 Special detention arrangements.** Special detention arrangements
88.12 meeting the requirements of Sections ~~1008.1.11~~ 1010.1.11.1 through ~~1008.1.11.4~~
88.13 1010.1.11.4 are permitted for rooms, other than cells, where the occupants are being
88.14 restrained for safety or security reasons. The use of Sections ~~1008.1.11~~ 1010.1.11.1
88.15 through ~~1008.1.11.5~~ 1010.1.11.4 may be revoked by the fire code official or building
88.16 official for due cause.

88.17 **~~1008.1.11.1~~ 1010.1.11.1 Locking hardware.** Locking devices shall release upon
88.18 any of the following conditions:

- 88.19 1. Activation of the automatic sprinkler system.
- 88.20 2. Activation of any automatic fire detection device.
- 88.21 3. Activation of any automatic fire alarm system.
- 88.22 4. Loss of electrical power to the locking device or the fire alarm system.
- 88.23 5. Activation of the fire alarm trouble signal.
- 88.24 6. Operation of a manual switch located in an approved location.

89.1 All locking devices shall be designed to fail in the open position. Following the
89.2 release of the locking devices for any of the conditions specified in Items 1 through
89.3 6 above, relocking of the devices shall be by manual means only at the door.

89.4 **~~1008.1.11.2~~ 1010.1.11.2 Fire-extinguishing system.** When special detention
89.5 arrangements are used, the room or area being secured shall be protected with
89.6 quick-response sprinklers.

89.7 **~~1008.1.11.3~~ 1010.1.11.3 Fire alarm and detection.** When special detention
89.8 arrangements are used, the room or area and spaces between the room or area and
89.9 an exterior exit door shall be protected with automatic smoke detection connected
89.10 to the building's fire alarm system. If the walls of the room or area do not extend
89.11 to the ceiling, automatic smoke detection can be provided in the adjacent room or
89.12 area, provided that there are no substantial obstructions to delay activation of the
89.13 smoke detection.

89.14 **~~1008.1.11.4~~ 1010.1.11.4 Door swing.** Doors separating detention rooms from
89.15 other spaces must swing in the direction of egress travel from the detention room.

89.16 **~~1305.1009~~ 1305.1011 SECTION ~~1009~~ 1011, STAIRWAYS AND HANDRAILS.**

89.17 Subpart 1. **IBC section ~~1009.13~~ 1011.14.** IBC section ~~1009.13~~ 1011.14 is amended
89.18 to read as follows:

89.19 **~~1009.13~~ 1011.14 Alternating tread devices.** Alternating tread devices are limited to an
89.20 element of a means of egress in buildings of Groups F, H, and S from a mezzanine not more
89.21 than 250 square feet (23 m²) in area and which serves not more than five occupants; and in
89.22 buildings of Group I-3 from a guard tower, observation station, or control room not more
89.23 than 250 square feet (23 m²) in area and for access to unoccupied roofs. Access to mechanical
89.24 equipment or appliances on a roof shall be in accordance with Section ~~1209.3.1~~ 1208.3.1
89.25 and the Minnesota Mechanical Code.

90.1 (IBC Sections ~~1009.13.1, 1009.13.2~~ 1011.14.1, 1011.14.2, and the exception still apply.)

90.2 Subp. 2. **IBC section ~~1009.14~~ 1011.15**. IBC section ~~1009.14~~ is amended to read as
90.3 follows 1011.15 and all subsections are deleted in their entirety and replaced with the
90.4 following:

90.5 **~~1009.14~~ 1011.15 Ships ladders**. Ships ladders constructed as required for permanent stairs
90.6 in accordance with the Minnesota Rules, part ~~1305.1209~~ Minnesota
90.7 Rules, part 1346.0306, subpart 1, amending IMC Section 306.5, shall be permitted to be
90.8 used as a means of egress component at the following locations:

90.9 1. Ships ladders are permitted to be used in Group I-3 occupancies for means of egress
90.10 at control rooms or elevated facility observation stations not more than 250 square feet
90.11 (23 m²) in floor area.

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

90.15 (a) 2.1 access to the area served is limited to building facilities staff, maintenance
90.16 staff, employees, or other authorized personnel;

90.17 (b) 2.2 required access to the area served is limited and periodic;

90.18 (c) 2.3 the area served is used for building maintenance service functions, or for
90.19 equipment access or monitoring;

90.20 (d) 2.4 the area served is not required to have a second means of egress by other
90.21 provisions of this code; and

90.22 (e) 2.5 the area served is not classified as a Group H occupancy.

90.23 3. Ships ladders are permitted to be used for access to unoccupied spaces in accordance
90.24 with Minnesota Rules, part ~~1305.1209~~ the Minnesota Mechanical Code.

91.1 ~~1305.1013~~ 1305.1015 SECTION ~~1013~~ 1015, GUARDS.

91.2 Subpart 1. **IBC section ~~1013.2~~ 1015.2, Where required.** IBC section ~~1013.2~~ 1015.2
91.3 is amended by adding ~~an~~ item 8 to the exception as follows:

91.4 **Exception:**

91.5 8. ~~In accordance with the Minnesota Bleacher Safety Act, Minnesota Statutes, section~~
91.6 ~~326B.112, guards are not required~~ On bleachers 55 inches or less in height, in accordance
91.7 with the Minnesota Bleacher Safety Act, Minnesota Statutes, section 326B.112.

91.8 Subp. 2. **IBC section ~~1013.3~~ 1015.3, Height.** IBC section ~~1013.3~~ 1015.3 is amended
91.9 by modifying exception 4 to read as follows:

91.10 4. The guard height in assembly seating areas shall be in accordance with Section
91.11 ~~1028.14~~ 1029.17 and the Minnesota Bleacher Safety Act, Minnesota Statutes, section
91.12 326B.112.

91.13 Subp. 2a. **IBC section 1015.6, Mechanical equipment, systems, and devices.** IBC
91.14 section 1015.6 is amended to read as follows:

91.15 **1015.6 Mechanical equipment, systems and devices.** Guards shall be designed and installed
91.16 in accordance with the Minnesota Mechanical Code, Minnesota Rules, chapter 1346.

91.17 Subp. 3. **IBC section ~~1013.8~~ 1015.8.** IBC section ~~1013.8~~ 1015.8 is amended to read
91.18 as follows:

91.19 **1013.8 1015.8 Window sills openings.** In occupancy groups R-1, R-2, and R-3 where the
91.20 lowest part of the opening of an operable window is located more than 72 inches (1829
91.21 mm) above the finished grade or other surface below, the lowest part of the window opening
91.22 shall be at a height not less than 36 inches (914 mm) above the finished floor surface of the
91.23 room in which the window is located. Operable sections of windows shall not permit openings
91.24 that allow passage of a 4-inch-diameter (102 mm) sphere where such openings are located
91.25 within 36 inches (914 mm) of the finished floor.

92.1 **Exceptions:**

92.2 1. Operable windows where the lowest part of the opening is located more than 75 feet
92.3 (22,860 mm) above the finished grade or other surface below and that are provided
92.4 with window fall-prevention devices that comply with ASTM F 2006.

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

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

92.9 4. Windows that are provided with window opening control devices that comply with
92.10 Section ~~1013.8.1~~ 1015.8.1.

92.11 ~~5. Replacement windows for occupancy groups R-1, R-2, and R-3 located on or below~~
92.12 ~~the third story above grade plane.~~

92.13 (Subsection 1015.8.1 remains unchanged.)

92.14 ~~**1013.8.1 Window opening control devices.** Window opening control devices~~
92.15 ~~shall comply with ASTM F 2090. The window opening control device, after~~
92.16 ~~operation to release the control device allowing the window to fully open, shall~~
92.17 ~~not reduce the minimum net clear opening area of the window unit to less than the~~
92.18 ~~area required by Section 1029.2.~~

92.19 **1305.1017 [Renumbered 1305.1018]**

92.20 ~~**1305.1017**~~ **1305.1018 SECTION ~~1017~~ 1018, AISLES.**

92.21 IBC section ~~1017~~ 1018 and all subsections are deleted in their entirety and replaced
92.22 with the following:

92.23 SECTION 1018

92.24 AISLES

93.1 ~~1017.1~~ **1018.1 Aisles and aisle accessways.** Aisles and aisle accessways serving as a portion
93.2 of the exit access in the means of egress system shall comply with the requirements of this
93.3 section. Aisles and aisle accessways shall be provided from all occupied portions of the exit
93.4 access. Aisles and aisle accessways serving assembly areas, other than seating at tables,
93.5 shall comply with Section ~~1028~~ 1029. Aisles and aisle accessways serving reviewing stands,
93.6 grandstands, and bleachers shall comply with Section ~~1028~~ 1029.

93.7 ~~1017.2~~ **1018.2 Width determination.** Where tables or counters are served by fixed seats,
93.8 the width of the aisle or aisle accessway shall be measured from the back of the seat. Where
93.9 seating is located at a table or counter and is adjacent to an aisle or aisle accessway, the
93.10 measurement of required clear width of the aisle or aisle accessway shall be made to a line
93.11 19 inches (483 mm) ~~measured perpendicular to and away from and running parallel to the~~
93.12 edge of the table or counter. The 19-inch (483 mm) distance shall be measured perpendicular
93.13 to the side of the table or counter. In the case of other side boundaries for aisle or aisle
93.14 accessways, the clear width shall be measured to walls, tread edges, or other obstructions.
93.15 The required width of the aisles and aisle accessways shall be unobstructed.

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

93.21 ~~1017.2.1~~ **1018.2.1 Minimum aisle accessway width.** Aisle accessways not required
93.22 to be accessible by ~~IBC Chapter 11~~ Minnesota Rules, chapter 1341, the Minnesota
93.23 Accessibility Code, shall provide a minimum of 12 inches (305 mm) of width, plus 0.5
93.24 inches (12.7 mm) of width for each additional one foot (305 mm), or fraction thereof,
93.25 beyond 12 feet (3658 mm) of aisle accessway length.

94.1 **Exception:** Portions of an aisle accessway having a length not exceeding six feet
94.2 and used by a total of not more than four persons.

94.3 ~~1017.2.2~~ 1018.2.2 **Minimum aisle width.** The minimum clear width shall be determined
94.4 by Section 1005.1 for the occupant load served, but shall not be less than 36 inches
94.5 (914 mm).

94.6 **Exception:** Nonpublic aisles serving fewer than 50 people, and that are not required
94.7 to be accessible by ~~IBC Chapter 11~~ Minnesota Rules, chapter 1341, need not
94.8 exceed 28 inches (711 mm) in width.

94.9 ~~1017.3~~ 1018.3 **Length.**

94.10 ~~1017.3.1~~ 1018.3.1 **Aisle accessway.** The length of travel along the aisle accessway
94.11 shall not exceed 30 feet (9144 mm) to an aisle or exit access doorway.

94.12 ~~1017.3.2~~ 1018.3.2 **Aisle.** The length of travel along an aisle or combination aisle
94.13 accessway and aisle to a point where a person has a choice of two or more paths of
94.14 egress travel to separate exits or exit access doorways shall not exceed that permitted
94.15 by Section ~~1014.3~~ 1006.2.1 for common path of egress travel.

94.16 **1305.1018 [Renumbered 1305.1020]**

94.17 ~~1305.1018~~ 1305.1020 **SECTION ~~1018~~ 1020, CORRIDORS.**

94.18 Subpart 1. **IBC Table ~~1018.1~~ 1020.1.** IBC Table ~~1018.1~~ 1020.1 is amended as follows:

94.19 **TABLE 1020.1**

94.20 **CORRIDOR FIRE-RESISTANCE RATING**

94.21 REQUIRED FIRE-RESISTANCE RATING
94.22 (hours)

94.23 OCCUPANT
94.24 LOAD SERVED

94.25 OCCUPANCY BY CORRIDOR Without sprinkler system With sprinkler
94.26 system^c

95.1	H-1, H-2, H-3	All	Not permitted	1
95.2	H-4, H-5	Greater than 30	Not permitted	1
95.3	A, B, E, F, M, S,			
95.4	U	Greater than 30	1	0
95.5	R	Greater than 10	1	$0.5^c/1^d$
95.6	I-2 ^a , I-4	All	Not permitted	0
95.7	I-1, I-3	All	Not permitted	1 ^b
95.8	<u>I-4</u>	<u>All</u>	<u>1</u>	<u>0</u>

95.9 ^a: For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.

95.10 ^b: For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section
95.11 408.8.

95.12 ^c: Buildings equipped throughout with an automatic sprinkler system in accordance with
95.13 Section 903.3.1.1 or 903.3.1.2, where allowed.

95.14 ^d Group R-3 and R-4 buildings equipped throughout with an automatic sprinkler system in
95.15 accordance with Section 903.3.1.3. See Section 903.2.8 for occupancies where automatic
95.16 sprinkler systems are permitted in accordance with Section 903.3.1.3.

95.17 Subp. 2. **IBC section ~~1018.6~~ 1020.6.** IBC section ~~1018.6~~ 1020.6 is amended by
95.18 modifying the exceptions to read as follows:

95.19 **Exceptions:**

95.20 1. Foyers, lobbies, or reception rooms constructed as required for corridors shall not
95.21 be construed as intervening rooms if the aggregate area of these spaces does not exceed
95.22 1,000 square feet per floor.

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

96.1 shall not be construed as intervening rooms when the rooms or spaces meet the
96.2 following:

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

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

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

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

96.12 3. Enclosed elevator lobbies as permitted by Section 1016.2 item 1 shall not be construed
96.13 as intervening rooms.

96.14 ~~1305.1022~~ 1305.1023 **SECTION ~~1022~~ 1023, INTERIOR EXIT STAIRWAYS AND**
96.15 **RAMPS.**

96.16 IBC section ~~1022.5~~ 1023.5 is amended to read as follows:

96.17 ~~1022.5~~ 1023.5 **Penetrations.** Penetrations into and openings or through interior exit stairways
96.18 and ramps are prohibited except for ~~required exit doors,~~ the following:

96.19 1. Equipment, and ductwork necessary for independent ventilation or pressurization,
96.20 sprinkler piping, standpipes,

96.21 2. Fire protection systems.

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

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

- 97.1 5. Two-way communication systems that serve the exit stairway or ramp.
- 97.2 6. Electrical raceway for fire department ~~communications~~ communication systems and.
- 97.3 7. Electrical raceway serving the interior exit stairway or ramp and terminating at in a
- 97.4 steel box not exceeding 16 square inches (0.010 m²).

97.5 Such penetrations shall be protected in accordance with Section 714. There shall not be ~~no~~

97.6 penetrations or ~~communicating~~ communication openings, whether protected or not, between

97.7 ~~any other adjacent~~ interior exit stairways and ramps or exit passageways.

97.8 (The exception to Section 1023.5 is deleted.)

97.9 **1305.1023 [Renumbered 1305.1024]**

97.10 **~~1305.1023~~ 1305.1024 SECTION ~~1023~~ 1024, EXIT PASSAGEWAYS.**

97.11 IBC section ~~1023.6~~ 1024.6 is amended to read as follows:

97.12 **~~1023.6~~ 1024.6 Penetrations.** Penetrations into and ~~openings~~ or through an interior exit

97.13 passageway are prohibited except for ~~required exit doors, equipment, and ductwork necessary~~

97.14 ~~for independent pressurization, sprinkler piping, standpipes, electrical raceway for fire~~

97.15 ~~department communication, and electrical raceway serving the exit passageway and~~

97.16 ~~terminating at a steel box not exceeding 16 square inches (0.010 m²).~~ the following:

- 97.17 1. Equipment and ductwork necessary for independent ventilation or pressurization.
- 97.18 2. Fire protection systems.
- 97.19 3. Security systems that serve the exit passageway.
- 97.20 4. Wiring that serves the exit passageway.
- 97.21 5. Two-way communication systems that serve the exit passageway.
- 97.22 6. Electrical raceway for fire department communication systems.

98.1 7. Electrical raceway serving the exit passageway and terminating in a steel box not
 98.2 exceeding 16 square inches (0.010 m²).

98.3 Such penetrations shall be protected in accordance with Section 714. There shall not be ~~no~~
 98.4 penetrations or ~~communicating~~ openings, whether protected or not, between ~~any other exit~~
 98.5 passageway adjacent interior exit stairways and ramps or adjacent exit passageways.

98.6 (The exception to Section 1024.6 is deleted.)

98.7 **1305.1028 [Renumbered 1305.1029]**

98.8 ~~1305.1028~~ 1305.1029 **SECTION ~~1028~~ 1029, ASSEMBLY.**

98.9 Subpart 1. IBC section 1029.1.1. IBC section ~~1028.1.1~~ 1029.1.1 is amended to read
 98.10 as follows:

98.11 ~~1028.1.1~~ 1029.1.1 **Bleachers.** Bleachers, grandstands, and folding and telescopic
 98.12 seating, that are not building elements, shall comply with International Code Council
 98.13 (ICC) 300, with the following amendments to ICC 300:

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

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

98.17 1. the seating area served by such aisles is composed entirely of bleachers;

98.18 2. the row-to-row dimension is 28 inches (71 cm) or less; and

98.19 3. front egress is not limited.

98.20 b. ICC 300 section 405.1 is amended to read as follows:

98.21 **405.1 Aisles.** The minimum width of aisles shall be in accordance with Section 404.5, but
 98.22 not less than that required by this section. An aisle is not required in seating facilities where
 98.23 all of the following conditions exist:

- 99.1 1. Seats are without backrest.
- 99.2 2. The rise from row to row does not exceed 6 inches (152 mm) per row.
- 99.3 **Exception:** Bleachers 55 inches or less in height.
- 99.4 3. The row to row spacing does not exceed 28 inches (711 mm) unless the seat boards
99.5 and footboards are at the same elevation.
- 99.6 4. The number of rows does not exceed 16 rows in height.
- 99.7 5. The first seat board is not more than 12 inches (305 mm) above the ground floor or
99.8 a cross aisle.

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

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

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

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

99.15 d. ICC 300 Section 408.1, item 1, is amended by modifying the exceptions to read as
99.16 follows:

99.17 **Exceptions:**

- 99.18 1. Tiered seating ~~that~~ is not required to have a guard if: (a) the tiered seating is
99.19 located adjacent to a wall; and (b) the space between the wall and the tiered seating
99.20 is less than 4 inches (102 mm) is not required to have a guard.
- 99.21 2. In accordance with the Minnesota Bleacher Safety Act, Minnesota Statutes,
99.22 section 326B.112:

100.1 (a) bleachers must have vertical perimeter guards or other approved guards
100.2 that address climbability and are designed to prevent accidents; and

100.3 (b) guards are not required on bleachers 55 inches (1397 mm) and less in
100.4 height.

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

100.6 **408.3 Guard design.** Guards and their attachment shall be designed to resist the loads
100.7 indicated in Section 303. Bleachers must have vertical perimeter guards or other approved
100.8 guards that address climbability and are designed to prevent accidents, in accordance with
100.9 the Minnesota Bleacher Safety Act, Minnesota Statutes, section 326B.112.

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

100.11 All bleachers or bleacher open spaces over 55 inches (1397 mm) above grade or the
100.12 floor below, and all bleacher guardrails, if any part of the guardrail is over 30 inches
100.13 (762 mm) above grade or the floor below, must be certified to conform with the safety
100.14 requirements contained in Minnesota Statutes, section 326B.112.

100.15 (IBC Section ~~1028.1.1.1~~ 1029.1.1.1 still applies.)

100.16 Subp. 2. **IBC section 1029.6.** IBC section 1029.6 is amended by adding a section to
100.17 read:

100.18 **1029.6.4 Width of means of egress for bleacher facilities.** Aisles for bleachers shall
100.19 not be required to be more than 66 inches (167 cm) in width when calculated in
100.20 accordance with Section 1029.6.1 or 1029.6.3 when the following conditions are
100.21 satisfied:

100.22 1. the seating area served by such aisles is composed entirely of bleachers;

100.23 2. the row-to-row dimension is 28 inches (71 cm) or less; and

100.24 3. front egress is not limited.

101.1 Subp. 3. **IBC section 1029.9.5.** IBC section 1029.9.5 is amended by adding an
 101.2 exception to read:

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

101.4 Subp. 4. **IBC section 1029.17.** IBC section 1029.17 is amended by adding an exception
 101.5 to read:

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

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

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

101.11 (Subsections 1029.17.1 through 1029.17.4 remain unchanged.)

101.12 ~~1305.1029~~ 1305.1030 **SECTION ~~1029~~ 1030, EMERGENCY ESCAPE AND RESCUE.**

101.13 Subpart 1. **IBC section ~~1029.1~~ 1030.1.** IBC section ~~1029.1~~ 1030.1 is amended to read
 101.14 as follows:

101.15 ~~1029.1~~ 1030.1 **General.** In addition to the means of egress required by this chapter,
 101.16 ~~provisions shall be made for emergency escape and rescue openings~~ emergency escape and
 101.17 rescue openings shall be provided in Group R occupancies as follows. Basements and
 101.18 sleeping rooms below the fourth story above grade plane shall have at least one exterior
 101.19 emergency escape and rescue opening in accordance with this section. Where basements
 101.20 contain one or more sleeping rooms, emergency ~~egress~~ escape and rescue openings shall
 101.21 be required in each sleeping room, but shall not be required in adjoining areas of the
 101.22 basement. Such openings shall open directly into a public way, ~~public alley,~~ or to a yard or
 101.23 court that opens to a public way.

101.24 **Exceptions:**

102.1 1. Basements with a ceiling height of less than 80 inches (2032 mm) and not used for
102.2 purposes other than mechanical equipment or storage shall not be required to have
102.3 emergency escape and rescue openings.

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

102.7 3. Basements without habitable spaces and having not more than 200 square feet (18.6
102.8 m²) in floor area shall not be required to have emergency escape and rescue openings.

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

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

102.13 B. the means of egress system complies without utilizing the single exit provisions
102.14 under Section 1006.3.3.

102.15 ~~1. In other than Group R-2 occupancies in accordance with Table 1021.2(1), stories~~
102.16 ~~with one exit or access to one exit for R-2 occupancies, and Table 1021.2(2), stories~~
102.17 ~~with one exit or access to one exit for other occupancies, and Group R-3 occupancies,~~
102.18 ~~buildings equipped throughout with an approved automatic sprinkler system in~~
102.19 ~~accordance with Section 903.3.1.1 or 903.3.1.2.~~

102.20 2.5. In other than Group R-3 occupancies, sleeping rooms provided with a door to a
102.21 fire-resistance-rated corridor having access to two remote exits in opposite directions.

102.22 3.6. The emergency escape and rescue opening is permitted to open onto a balcony
102.23 within an atrium in accordance with the requirements of Section 404, provided the
102.24 balcony provides access to an exit and the dwelling unit or sleeping unit has a means
102.25 of egress that is not open to the atrium.

- 103.1 ~~4~~ 7. High-rise buildings in accordance with Section 403.
- 103.2 ~~5~~. Emergency escape and rescue openings are not required from basements or sleeping
- 103.3 rooms which have an exit door or exit access door that opens directly into a public way,
- 103.4 or to a yard, court, or exterior exit balcony that opens to a public way.
- 103.5 ~~6~~. Basements without habitable spaces and having no more than 200 square feet (18.6
- 103.6 m²) in floor area shall not be required to have emergency escape windows.
- 103.7 ~~7~~. Basements or basement bedrooms in Group R-3 occupancies, when the building is
- 103.8 protected by an automatic sprinkler system installed in accordance with Section 903.3.
- 103.9 8. Basements in Group R-3 occupancies used only to house mechanical equipment that
- 103.10 do not exceed a total floor area of 200 square feet (18.58 m²).
- 103.11 ~~9~~. Basements or basement bedrooms in Group R-3 occupancies that comply with all
- 103.12 of the following conditions:
- 103.13 A. ~~constructed prior to August 1, 2008;~~
- 103.14 B. ~~undergoing an alteration or repair; and~~
- 103.15 C. ~~the entire basement area is protected with an automatic sprinkler system in~~
- 103.16 ~~accordance with section 903.3 and all portions of the means of egress to the level~~
- 103.17 ~~of exit discharge, and all areas on the level of exit discharge that are open to the~~
- 103.18 ~~means of egress, are protected with an automatic sprinkler system in accordance~~
- 103.19 ~~with Section 903.3.~~
- 103.20 Subp. 2. [See repealer.]
- 103.21 Subp. 3. [See repealer.]

103.22 ~~1305.1203~~ 1305.1202 SECTION ~~1203~~ 1202, VENTILATION.

103.23 IBC section ~~1203.4~~ 1202.1 is amended to read as follows:

104.1 ~~1203.1~~ **1202.1 General.** Buildings shall be provided with natural ventilation in accordance
104.2 with Section ~~1203.4~~ 1202.5 or mechanical ventilation in accordance with Minnesota Rules,
104.3 chapter 1346. For additional ventilation requirements, see Minnesota Rules, chapters 1322
104.4 and 1323, as applicable.

104.5 **Exceptions:**

104.6 1. Buildings or portions thereof that are not intended for normal human occupancy, or
104.7 where the primary purpose is not associated with human comfort.

104.8 2. Group U occupancies.

104.9 ~~1305.1210~~ **1305.1209 SECTION ~~1210~~ 1209, SURROUNDING MATERIALS TOILET**
104.10 **AND BATHROOM REQUIREMENTS.**

104.11 IBC section ~~1210.2.1~~ 1209.2.1 is amended to read as follows:

104.12 ~~1210.2.1~~ **1209.2.1 Floors and wall bases.** In other than dwelling units, toilet, bathing
104.13 and shower room floor finish material shall have a smooth, hard, nonabsorbent surface,
104.14 such as Portland cement, concrete, ceramic tile, sheet vinyl, or other approved floor
104.15 covering material. The intersections of such floors with walls shall have a smooth,
104.16 hard, nonabsorbent vertical base that extends upward onto the walls at least 4 inches
104.17 (101 mm).

104.18 ~~1305.1403~~ **1305.1402 SECTION 1402, PERFORMANCE REQUIREMENTS.**

104.19 IBC section ~~1403.5~~ 1402.5 is deleted in its entirety.

104.20 ~~1305.1405~~ **1305.1404 SECTION 1405 1404, INSTALLATION OF WALL**
104.21 **COVERINGS.**

104.22 Subpart 1. IBC section ~~1405.4.2~~ 1404.4.2. IBC section ~~1405.4.2~~ 1404.4.2 is amended
104.23 to read as follows:

104.24 ~~1405.4.2~~ **1404.4.2 Masonry.** Flashing and weepholes in anchored veneer shall be
104.25 located above finished ground level above the foundation wall or slab, and other points

105.1 of support, including structural floors, shelf angles and lintels where anchored veneers
 105.2 are designed in accordance with Section ~~1405.4.6~~ 1404.4.2.

105.3 Subp. 2. [Repealed, 32 SR 7]

105.4 Subp. 3. [Repealed, 39 SR 1605]

105.5 ~~1305.1503~~ 1305.1502 **SECTION ~~1503~~ 1502, WEATHER PROTECTION ROOF**
 105.6 **DRAINAGE**.

105.7 Subpart 1. **IBC section ~~1503.4~~ 1502.1**. IBC section ~~1503.4~~ 1502.1 is amended and
 105.8 subsections are added to read as follows:

105.9 **~~1503.4~~ 1502.1 Roof drainage**. Design and installation of roof drainage systems shall comply
 105.10 with Minnesota Rules, chapter 4714, Minnesota Plumbing Code, and the following
 105.11 provisions:

105.12 **~~1.~~ 1502.1.1 Where required**. All roofs shall drain into a separate storm sewer system
 105.13 or to an approved place of disposal. ~~For one- and two-family dwellings, and where~~
 105.14 ~~approved, storm water is permitted to discharge onto flat areas, such as streets or lawns,~~
 105.15 ~~provided that the storm water flows away from the building.~~

105.16 **~~2.~~ 1502.1.2 Roof design**. Roofs shall be structurally designed for the maximum possible
 105.17 depth of water that will pond thereon as determined by the relative levels of roof deck
 105.18 and overflow weirs, scuppers, edges, or serviceable drains in combination with the
 105.19 deflected structural elements. In determining the maximum possible depth of water,
 105.20 all primary roof drainage means shall be assumed to be blocked.

105.21 Subp. 1a. IBC section 1502.2. IBC section 1502.2 is amended and subsections and
 105.22 Table 1502.2.3 are added to read as follows:

105.23 **~~3.~~ 1502.2 Secondary drainage required**. Secondary (emergency) roof drains or scuppers
 105.24 shall be provided where the roof perimeter construction extends above the roof in such a
 105.25 manner that water will be entrapped if the primary drains allow buildup for any reason.

106.1 **4. 1502.2.1 Separate systems required.** Secondary (emergency) roof drain systems
 106.2 shall have piping and point of discharge separate from the primary system. Discharge
 106.3 shall be above grade in a location which would normally be observed by the building
 106.4 occupants or maintenance personnel.

106.5 **5. 1502.2.2 Sizing of secondary drains.** Secondary (emergency) roof drain systems
 106.6 shall be sized ~~in accordance with~~ to the same capacity as the primary roof drain areas
 106.7 in accordance with Minnesota Rules, chapter 4714, the Minnesota State Plumbing
 106.8 Code.

106.9 **1502.2.3 Sizing of scuppers.** Scuppers shall be sized to prevent the depth of ponding
 106.10 water from exceeding that for which the roof was designed as determined by this code.
 106.11 Scuppers shall not have an opening weir length dimension of less than 4 inches (102
 106.12 mm) and shall be sized in accordance with Table 1502.2.3. The flow through the primary
 106.13 system shall not be considered when sizing the secondary roof drainage system.

TABLE 1502.2.3 SCUPPER SIZING^a							
<u>Square feet of Roof Area</u>							
<u>Head Height in Inches^b</u>	<u>Length of Weir in inches</u>						
	<u>4</u>	<u>6</u>	<u>8</u>	<u>12</u>	<u>16</u>	<u>20</u>	<u>24</u>
<u>1</u>	<u>273</u>	<u>418</u>	<u>562</u>	<u>851</u>	<u>1139</u>	<u>1427</u>	<u>1715</u>
<u>2</u>	<u>734</u>	<u>1141</u>	<u>1549</u>	<u>2365</u>	<u>3180</u>	<u>3996</u>	<u>4813</u>
<u>3</u>	<u>1274</u>	<u>2023</u>	<u>2772</u>	<u>4270</u>	<u>5768</u>	<u>7267</u>	<u>8766</u>
<u>4</u>	<u>1845</u>	<u>2999</u>	<u>4152</u>	<u>6460</u>	<u>8766</u>	<u>11073</u>	<u>13381</u>
<u>6</u>	<u>2966</u>	<u>5087</u>	<u>7204</u>	<u>11442</u>	<u>15860</u>	<u>19918</u>	<u>24160</u>

106.24 ^a Table based upon 4-inch per hour rainfall.

106.25 ^b Minimum 1-inch vertical free space above Head (H) is required.

106.26 Subp. 2. **IBC section ~~1503.4.1~~ 1502.3.** IBC section ~~1503.4.1~~ 1502.3 is deleted in its
 106.27 entirety.

107.1 ~~1305.1509~~ 1305.1510 SECTION ~~1509~~ 1510, ROOFTOP STRUCTURES.

107.2 IBC section ~~1509.2.3~~ 1510.2.2 is amended to read as follows:

107.3 ~~1509.2.3~~ 1510.2.2 **Use limitations.** Penthouses shall not be used for purposes other
107.4 than shelter of mechanical or electrical equipment, tanks, or vertical shaft openings in
107.5 the roof assembly.

107.6 **Exception:** Accessory uses necessary for the maintenance of building systems
107.7 shall be permitted when the penthouse is sprinkled in accordance with Section
107.8 903.1.1.

107.9 ~~1305.1510~~ 1305.1511 SECTION ~~1510~~ 1511, REROOFING.

107.10 Subpart 1. **IBC section 1511.1.** IBC section ~~1510.5~~ 1511.1 is amended to read as
107.11 follows:

107.12 **1511.1 General.** Materials and methods of application used for recovering or replacing an
107.13 existing roof covering shall comply with the requirements of chapter 15.

107.14 **Exception:** Reroofing shall not be required to meet the minimum design slope
107.15 requirement of one-quarter unit vertical in 12 units horizontal (two percent slope) in
107.16 Section 1507 for roofs that provide positive drainage if all the following conditions are
107.17 met:

107.18 1. The minimum required roof slope is technically infeasible due to existing parapet
107.19 heights, existing unalterable flashing that requires positive drainage, or other obstacle.

107.20 2. The existing structure is demonstrated through structural analysis to be capable of
107.21 supporting ponding to the level of the secondary emergency drainage system or point
107.22 of overflow.

107.23 3. A secondary (emergency) drainage system is installed in compliance with Section
107.24 1502.

108.1 Subp. 2. **IBC section 1511.5.** IBC section 1511.5 is amended to read as follows:

108.2 ~~1510.5~~ **1511.5 Reinstallation of materials.** Existing slate, clay, or cement tile shall be
108.3 permitted for reinstallation, except that damaged, cracked, or broken slate or tile shall not
108.4 be reinstalled. Existing vent flashing, metal edging, drain outlets, collars, and metal
108.5 counterflashings shall not be reinstalled where rusted, damaged, or deteriorated. Aggregate
108.6 surfacing materials shall not be reinstalled unless such aggregate complies with the gradation
108.7 requirements of ASTM C-33 Standard Specification for Concrete Aggregate.

108.8 Subp. 3. **IBC section 1511.7.** IBC section 1511 is amended by adding section 1511.7
108.9 to read as follows:

108.10 **1511.7 Drainage.** Existing roofs where the roof perimeter construction extends above the
108.11 roof in such a manner that water will be entrapped if the primary drains allow buildup for
108.12 any reason shall be equipped with a secondary (emergency) drainage system.

108.13 **Exception:** Existing roofs that are demonstrated to have the structural capacity to
108.14 support the depth of ponding water where the water will discharge over an exterior
108.15 building edge if the primary drainage system fails.

108.16 **1305.1904 SECTION 1904, DURABILITY REQUIREMENTS.**

108.17 IBC section 1904.3 is amended to read as follows:

108.18 **1904.3 Corrosion protection.** Where bonded reinforcing and pre-stressing steel is located
108.19 in concrete assigned to Exposure Class F3 or Exposure Class C2, the steel shall be protected
108.20 from corrosion by one of the following methods:

108.21 1. impermeable barrier;

108.22 2. epoxy coating in accordance with ACI 318; or

108.23 3. hot dipped galvanizing in accordance with ACI 318.

109.1 **1305.2308 SECTION 2308, CONVENTIONAL LIGHT-FRAME CONSTRUCTION.**

109.2 Subpart 1. [See repealer.]

109.3 Subp. 2. ~~IBC Table 2308.9.3(1)~~ **2308.6.1.** IBC Table ~~2308.9.3(1)~~ 2308.6.1, ~~Braced~~

109.4 ~~Wall Panels~~ Wall Bracing Requirements, is amended to read as follows:

109.5 ~~TABLE 2308.9.3(1)~~

109.6 ~~BRACED WALL PANELS^a~~

109.7 109.8 109.9	WIND SPEED	CONDITION	CONSTRUCTION METHODS ^{b,c}								BRACED PANEL LOCATION AND LENGTH ^d	
			1	2	3	4	5	6	7	8		
109.10												
109.11		One-story, top of	X	X	X	X	X	X	X	X	X	Located in accordance with section 2308.9.3 and not more than 25 feet on center
109.12		two or three story										
109.13	90 mph											
109.14												
109.15												
109.16												
109.17		First story of two	X	X	X	X	X	X	X	X	X	
109.18		story or second										
109.19		story of three										
109.20		story										
109.21		First story of	--	X	X	X	X ^c	X	X	X	X	
109.22		three story										

109.23 TABLE 2308.6.1^a

109.24 WALL BRACING REQUIREMENTS

109.25 109.26 109.27 109.28 109.29	Design Category (Wind Speed)	Story Condition (see Section 2308.2)	Maximum Spacing of Braced Wall Lines	Braced Panel Location, Spacing (o.c.) and Minimum Percentage (x)	Maximum Distance of Braced Wall Panels from
109.30				Bracing Method ^b	

110.1						<u>SFB, PBS,</u> <u>PCP, HPS,</u> <u>GB^{c,d}</u>	<u>Each End of</u> <u>Braced Wall</u> <u>Line</u>	
110.2				<u>LIB</u>	<u>DWB, WSP</u>			
110.3								
110.4	<u>See</u> <u>Section</u> <u>1609.3</u>	■	■	35'-0"	<u>Each end and</u> <u>< 25'-0" o.c.</u>	<u>Each end and</u> <u>< 25'-0" o.c.</u>	<u>Each end and</u> <u>< 25'-0" o.c.</u>	12'-6"
110.5		□	□					
110.6		■	□					
110.7		□		35'-0"	<u>Each end and</u> <u>< 25'-0" o.c.</u>	<u>Each end and</u> <u>< 25'-0" o.c.</u>	<u>Each end and</u> <u>< 25'-0" o.c.</u>	12'-6"
110.8		□	■					
110.9		■	□					
110.10		□		35'-0"	<u>NP</u>	<u>Each end and</u> <u>< 25'-0" o.c.</u>	<u>Each end and</u> <u>< 25'-0" o.c.</u>	12'-6"
110.11		□						
110.12		■						

110.13 For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm

110.14 NP= Not permitted

110.15 ^a This table specifies minimum requirements for braced wall panels that form along interior
110.16 or exterior braced wall lines.

110.17 ^b See section ~~2308.9.3~~ 2308.6.3 for full description of bracing methods.

110.18 ^c See Sections 2308.9.3.1 and 2308.9.3.2 for alternative braced panel requirements.

110.19 ^d ~~Building length is the dimension parallel to the braced wall length.~~

110.20 ^c For method GB, gypsum wallboard applied to framing supports that are spaced at 16 inches
110.21 on center.

110.22 ^d The required lengths shall be doubled for gypsum board applied to only one face of a
110.23 braced wall panel.

110.24 **1305.2510 SECTION 2510, LATHING AND FURRING FOR CEMENT PLASTER**
110.25 **(STUCCO).**

110.26 IBC section 2510.6 is amended to read as follows:

110.27 **2510.6 Water-resistive barriers.** Water-resistive barriers shall be installed as required in
110.28 ~~Section 1404.2~~ 1403.2 and, where applied over wood-based sheathing, shall include a
110.29 water-resistive, vapor-permeable barrier with a performance at least equivalent to two layers
110.30 of Grade D paper.

111.1 **Exception:** Where the water-resistive barrier that is applied over wood-based sheathing
111.2 has a water resistance equal or greater than that of 60-minute Grade D paper and is
111.3 separated from the stucco by an intervening, substantially non-water-absorbing layer
111.4 or drainage space.

111.5 **1305.2702 SECTION 2702, EMERGENCY AND STANDBY POWER SYSTEMS.**

111.6 IBC section ~~2702.1~~ 2702.1.3 is amended to read as follows:

111.7 ~~2702.1~~ 2702.1.3 **Installation.** Emergency and standby power systems shall be installed
111.8 in accordance with Minnesota Rules, chapter 1315.

111.9 **1305.2902 SECTION 2902, MINIMUM PLUMBING FACILITIES.**

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

111.11 Subp. 1a. [See repealer.]

111.12 Subp. 2. **IBC Table 2902.1, Minimum number of required plumbing fixtures.**

111.13 A. The body of IBC Table 2902.1 is amended as follows:

111.14 1. Add footnote "h" "i" to the ~~A-5 Use Group~~ No. 1, Assembly Classification, "Stadiums,
111.15 amusement parks, bleachers, and grandstands for outdoor sporting events and activities"
111.16 description of the table.

111.17 2. Add footnotes "f," "g," "h," "i," and "j" to the "Drinking Fountains" heading in the
111.18 table.

111.19 3. Add footnote "k" to the "Water Closets" heading in the table.

111.20 4. In No. 5, Institutional Classification, delete the requirement for a bathtub or shower
111.21 fixture from adult day care and child day care.

111.22 B. The footnotes to IBC Table 2902.1 are amended to read as follows:

112.1 a. The fixtures shown are based on one fixture being the minimum required for the
112.2 number of persons indicated or any fraction of the number of persons indicated. The number
112.3 of occupants shall be determined by this code.

112.4 b. Toilet facilities for employees shall be separate from facilities for inmates or care
112.5 recipients.

112.6 c. A single-occupant toilet room with one water closet and one lavatory serving not
112.7 more than two adjacent patient rooms shall be permitted where the room is provided with
112.8 direct access from each patient room and with provisions for privacy.

112.9 d. The occupant load for seasonal outdoor seating and entertainment areas shall be
112.10 included when determining the minimum number of facilities required.

112.11 e. ~~The minimum number of required drinking fountains shall comply with Table 2902.1~~
112.12 ~~and IBC chapter 11~~ For business and mercantile classifications with an occupant load of
112.13 50 or fewer, a service sink shall not be required.

112.14 f. ~~A drinking fountain shall not be required in buildings or tenant spaces having an~~
112.15 ~~occupant load less than 50~~ The required number and type of plumbing fixtures for swimming
112.16 pools shall be in accordance with Minnesota Rules, part 4717.3650.

112.17 g. ~~For business and mercantile occupancies with an occupant load of 15 or fewer, service~~
112.18 ~~sinks shall not be required~~ The minimum number of required drinking fountains shall comply
112.19 with Table 2902.1 and Minnesota Rules, chapter 1341.

112.20 h. ~~Permanent facilities located either on site or available in an adjacent building or~~
112.21 ~~portable temporary facilities available on site during times when the stadium or grandstand~~
112.22 ~~is in use may be used~~ A drinking fountain shall not be required in buildings or tenant spaces
112.23 having an occupant load of less than 50.

112.24 i. Where water is served in restaurants, drinking fountains shall not be required.

113.1 j. Water or other beverages available through free or fee-based serving or dispensers
113.2 may be substituted for up to 50 percent of the required number of drinking fountains.

113.3 k. In each bathroom or toilet room, urinals shall not be substituted for more than 67
113.4 percent of the required water closets.

113.5 l. Permanent facilities located either on site or available in an adjacent building or
113.6 portable temporary facilities available on site during times when the stadium or grandstand
113.7 is in use may be used.

113.8 Subp. 3. **IBC section 2902.2.** IBC section 2902.2 is amended to read as follows:

113.9 **2902.2 Separate facilities.** Where plumbing fixtures are required, separate facilities shall
113.10 be provided for each sex.

113.11 **Exceptions:**

113.12 1. Separate facilities shall not be required for dwelling units and sleeping units.

113.13 2. Separate facilities shall not be required in structures or tenant spaces with a total
113.14 occupant load, including both employees and customers, of ~~20~~ 25 or less.

113.15 3. Separate facilities shall not be required in mercantile occupancies in which the
113.16 maximum occupant load is 100 or less.

113.17 Subp. 4. **IBC section 2902.6.** IBC section 2902 is amended by adding a subsection
113.18 to read as follows:

113.19 **2902.6 Controlled access to required facilities.** Sanitation facilities required by this chapter
113.20 may have controlled access, but in all cases shall be maintained available for utilization by
113.21 those employees, customers, or patrons used to calculate the minimum required facilities.

113.22 **1305.3001 SECTION 3001, GENERAL.**

113.23 Subpart 1. **IBC section 3001.2.** IBC section 3001.2 is deleted in its entirety.

114.1 Subp. 2. **IBC section 3001.3.** IBC section 3001.3 is amended to read as follows:

114.2 **3001.3 Referenced standards.** Except as otherwise provided for in this code, the design,
114.3 construction, installation, alteration, repair, and maintenance of elevators and conveying
114.4 systems and their components shall conform to the applicable standard specified in Table
114.5 3001.3; Minnesota Rules, chapter 1307, Elevators and Related Devices; and Minnesota
114.6 Rules, chapter 1335, Floodproofing Regulations.

114.7 (Table 3001.3 remains unchanged.)

114.8 Subp. 3. **IBC section 3001.4.** IBC section 3001.4 is amended to read as follows:

114.9 **3001.4 Accessibility.** Passenger elevators required to be accessible or to serve as part of an
114.10 accessible means of egress shall comply with Section 1009 and Minnesota Rules, chapter
114.11 1341.

114.12 Subp. 4. **IBC section 3001.5.** IBC section 3001.5 is amended as follows:

114.13 **3001.5 Change in use.** A change in use of an elevator from freight to passenger, passenger
114.14 to freight, or from one freight class to another freight class shall comply with Minnesota
114.15 Rules, chapter 1307.

114.16 **1305.3002 SECTION 3002, HOISTWAY ENCLOSURES.**

114.17 Subpart 1. **IBC section 3002.3.** IBC section 3002.3 is amended as follows:

114.18 **3002.3 Emergency signs.** An approved pictorial sign of a standardized design shall be
114.19 posted adjacent to each elevator call station on all floors instructing occupants to use the
114.20 exit stairways and not to use the elevators in case of fire. The sign shall be as illustrated in
114.21 ASME A17.1, Figure 2.27.9.

114.22 (The exceptions remain unchanged.)

114.23 Subp. 2. **IBC section 3002.4.** IBC section 3002.4 is amended to read as follows:

115.1 **3002.4 Elevator car to accommodate ambulance stretcher.** Where elevators are provided
115.2 in buildings four or more stories above grade plane or four or more stories below grade
115.3 plane, at least one elevator shall be provided for fire department emergency access to all
115.4 floors. The elevator car shall be of such a size and arrangement to accommodate an
115.5 ambulance stretcher 24 inches by 84 inches (610 mm by 2133.5 mm) with not less than
115.6 5-inch (127 mm) radius corners, in the horizontal, open position. The emergency access
115.7 elevator shall be identified by the international symbol for emergency medical services (star
115.8 of life). The symbol shall be not less than three inches (76 mm) high and shall be placed
115.9 inside on both sides of the hoistway door frame at each floor level.

115.10 **Exception:** When approved by the authority having jurisdiction, in passenger elevators
115.11 to be installed in existing buildings where existing hoistway configuration or technical
115.12 infeasibility prohibits strict compliance with the minimum inside car size, the minimum
115.13 inside car area may be reduced to not less than 48 inches by 48 inches.

115.14 Subp. 3. **IBC section 3002.6.** IBC section 3002.6 is amended to read as follows:

115.15 **3002.6 Prohibited doors.** Doors, other than hoistway doors, elevator car doors, and smoke
115.16 control doors, when required, shall be prohibited at the point of access to an elevator car.
115.17 Smoke control doors shall be:

115.18 1. held open during normal operation by a "hold-open" device that is activated for
115.19 closure by fire or smoke sensing devices located in the elevator lobby or its immediate
115.20 vicinity; and

115.21 2. readily openable from inside the car without a key, tool, special knowledge, or effort
115.22 when closed.

115.23 Subp. 4. **IBC section 3002.9.** IBC section 3002.9 is amended to read as follows:

115.24 **3002.9 Plumbing and mechanical systems.** Plumbing and mechanical systems installed
115.25 within elevator hoistways shall be provided in accordance with the following:

116.1 **3002.9.1 Plumbing systems.** Plumbing systems in hoistways shall be limited to and
116.2 provided in accordance with Minnesota Rules, chapter 1307.

116.3 **3002.9.2 Mechanical systems.** Mechanical systems and mechanical components in
116.4 hoistways shall be limited to those serving the hoistway. Mechanical systems serving
116.5 the hoistway shall not serve other portions of the building.

116.6 (The exception is deleted.)

116.7 **1305.3003 SECTION 3003, EMERGENCY OPERATIONS.**

116.8 Subpart 1. **IBC section 3003.1.1.** IBC section 3003.1.1 is modified to read:

116.9 **3003.1.1 Manual transfer.** At elevator locations where standby power is required, standby
116.10 power shall be manually transferable to all elevators in each bank. Standby power shall not
116.11 be transferred from elevator banks where standby power is required to elevator banks where
116.12 standby power is not required.

116.13 Subp. 2. **IBC section 3003.1.3.** IBC section 3003.1.3 is modified to read:

116.14 **3003.1.3 Two or more elevators.** Where two or more elevators are controlled by a common
116.15 operating system, where standby power is required, all elevators controlled by that common
116.16 operating system shall automatically transfer to standby power within 60 seconds after
116.17 failure of normal power where the standby power source is of sufficient capacity to operate
116.18 all elevators at the same time. Where the standby power source is not of sufficient capacity
116.19 to operate all elevators at the same time, the elevators shall operate according to ASME
116.20 A17.1/CSA B44-2016 2.27.2.

116.21 **1305.3111 SECTION 3111, SOLAR PHOTOVOLTAIC PANELS/MODULES**
116.22 **ENERGY SYSTEMS.**

116.23 Subpart 1. **IBC section 3111.1.** IBC section 3111.1 is and its subsections are amended
116.24 to read as follows:

117.1 **3111.1 General.** Solar ~~photovoltaic panels/modules~~ energy systems shall comply with the
117.2 requirements of this ~~code~~ section.

117.3 **Exception:** Buildings regulated by Minnesota Rules, chapter 1309, the Minnesota
117.4 Residential Code.

117.5 **3111.1.1 Wind resistance.** Rooftop mounted photovoltaic panels and modules and
117.6 solar thermal collectors shall be designed in accordance with Section 1609.

117.7 **3111.1.2 Roof live load.** Roof structures that provide support for solar energy systems
117.8 shall be designed in accordance with Section 1607.13.5.

117.9 **3111.1.3 Roof access points.** Roof access points shall meet all the following criteria:

117.10 1. Roof access points shall be located where fire departments have ground access.

117.11 2. Roof access points shall be located in areas that do not require the placement
117.12 of fire department ground ladders over openings such as windows or doors.

117.13 3. Roof access points shall be located at strong points of building construction.

117.14 4. Roof access points shall be in locations where the access point does not conflict
117.15 with overhead obstructions such as tree limbs, wires, or signs.

117.16 5. Each roof access point shall be provided with a landing on the roof side not less
117.17 than six feet in each direction. The landing shall be free and clear of obstructions
117.18 such as vent pipes, conduit, and mechanical and electrical equipment.

117.19 6. Roof access point landings on roofs with slopes greater than two units vertical
117.20 in 12 units horizontal (2:12) shall be positioned with direct access to a pathway to
117.21 ridge.

117.22 7. Each solar array or grouping of arrays shall have not less than two roof access
117.23 points spaced not closer than 1/3 the diagonal dimension of the array or arrays
117.24 served.

118.1 **3111.1.4.** When solar photovoltaic panels are installed on any building or site, the
118.2 licensed design professional shall notify the fire code official.

118.3 Subp. 2. **IBC section 3111.3.** IBC section 3111.3 is amended to read as follows:

118.4 **3111.3 Photovoltaic solar energy systems.** Solar photovoltaic energy systems shall be
118.5 designed and installed in accordance with this section, the Minnesota State Fire Code, the
118.6 Minnesota Electrical Code, and the manufacturer's instructions.

118.7 **Exception:** Solar photovoltaic power systems installed on detached, nonhabitable
118.8 Group U structures including parking shade structures, carports, solar trellises, and
118.9 similar structures need only comply with the Minnesota Fire Code, the Minnesota
118.10 Electrical Code, and the manufacturer's instructions.

118.11 (Subsections 3111.3.1, 3111.3.2, and 3111.3.3 remain unchanged.)

118.12 Subp. 3. **IBC section 3111.3.4.** IBC section 3113.3.4 and its subsections are amended
118.13 to read as follows:

118.14 **3111.3.4 Access and pathways.** Roof access, pathways, and spacing requirements
118.15 shall be provided in accordance with Sections 3111.3.4.1 through 3111.3.4.2.3. Pathways
118.16 shall be over areas capable of supporting fire fighters accessing the roof. Pathways
118.17 shall be located in areas without obstructions such as vent pipes, conduit, and mechanical
118.18 and electrical equipment.

118.19 **Exceptions:**

118.20 1. Detached, nonhabitable Group U structures including but not limited to detached
118.21 garages serving Group R-3 buildings, parking shade structures, carports, solar
118.22 trellises, and similar structures.

118.23 2. Roof access, pathways, and spacing requirements need not be provided where
118.24 the fire code official has determined that rooftop operations will not be employed.

119.1 **3111.3.4.1 Solar photovoltaic systems for roof slopes greater than two units**
119.2 **vertical in 12 units horizontal (2:12).** Solar photovoltaic systems for buildings
119.3 **with roof slopes greater than two units vertical in 12 units horizontal (2:12) shall**
119.4 **comply with Sections 3111.3.4.1.1 through 3111.3.4.1.3.**

119.5 **3111.3.4.1.1 Pathways to ridge.** Not fewer than two 36-inch-wide pathways
119.6 **on separate roof planes, from the lowest roof edge to ridge, shall be provided**
119.7 **on all buildings. Pathways shall be provided at intervals not greater than 150**
119.8 **feet throughout the length and width of the roof. Not fewer than one pathway**
119.9 **shall be provided on the street or driveway side, or fire-department-access**
119.10 **side of the roof. For each roof plane with a photovoltaic array, not fewer than**
119.11 **one 36-inch-wide pathway from lowest roof edge to ridge shall be provided**
119.12 **on the same roof plane as the photovoltaic array, on an adjacent roof plane,**
119.13 **or straddling the same and adjacent roof planes.**

119.14 **3111.3.4.1.2 Setbacks at ridge.** For photovoltaic arrays occupying 33 percent
119.15 **or less of the plan view total roof area, a setback of not less than 18 inches**
119.16 **(457 mm) wide is required on both sides of a horizontal ridge. For photovoltaic**
119.17 **arrays occupying more than 33 percent of the plan view total roof area, a**
119.18 **setback of not less than 36 inches (914 mm) wide is required on both sides**
119.19 **of a horizontal ridge.**

119.20 **3111.3.4.1.3 Alternative setbacks at ridge.** Where an automatic sprinkler
119.21 **system is installed within the building, setbacks at the ridge shall conform to**
119.22 **one of the following criteria:**

119.23 **1. For photovoltaic arrays occupying 66 percent or less of the plan view**
119.24 **total roof area, a setback of not less than 18 inches (457 mm) wide is**
119.25 **required on both sides of a horizontal ridge.**

120.1 2. For photovoltaic arrays occupying more than 66 percent of the plan
120.2 view total roof area, a setback of not less than 36 inches (914 mm) wide
120.3 is required on both sides of a horizontal ridge.

120.4 **3111.3.4.1.4 Emergency escape and rescue openings.** Panels and modules
120.5 installed on Group R buildings shall not be placed on the portion of a roof
120.6 that is below an emergency escape and rescue opening. A pathway of not less
120.7 than 36 inches (914 mm) wide shall be provided from the roof edge to the
120.8 emergency escape and rescue opening.

120.9 **3111.3.4.2 Solar photovoltaic systems for roofs with slopes of two units vertical**
120.10 **in 12 units horizontal or less.** Access to systems for buildings with roofs with
120.11 slopes of two units vertical in 12 units horizontal (2:12) or less, shall be provided
120.12 in accordance with Sections 3111.3.4.2.1 through 3111.3.4.2.3.

120.13 **3111.3.4.2.1 Perimeter pathways.** There shall be a minimum six-foot-wide
120.14 (1,829 mm) clear perimeter around the edges of the roof.

120.15 **Exception:** Where either axis of the building is 250 feet (76,200 mm) or
120.16 less, the clear perimeter around the edges of the roof shall be permitted
120.17 to be reduced to a minimum width of four feet (1,219 mm).

120.18 **3111.3.4.2.2 Interior pathways.** Interior pathways shall be provided between
120.19 array sections to meet the following requirements:

120.20 1. Pathways shall be provided at intervals not greater than 150 feet (45,720
120.21 mm) throughout the length and width of the roof.

120.22 2. A pathway of not less than four feet (1,219 mm) wide in a straight line
120.23 to roof standpipes or ventilation hatches.

120.24 3. A pathway not less than four feet (1,219 mm) wide around roof access
120.25 hatches, with not fewer than one such pathway to a parapet or roof edge.

121.1 4. A pathway not less than four feet (1,219 mm) wide from the perimeter
121.2 pathway to an emergency escape and rescue opening located above the
121.3 roof.

121.4 **3111.3.4.2.3 Smoke ventilation.** The solar installation shall be designed to
121.5 meet the following requirements:

121.6 1. Where non-gravity-operated smoke and heat vents occur, a pathway
121.7 not less than four feet (1,219 mm) wide shall be provided bordering all
121.8 sides.

121.9 2. Smoke ventilation options between array sections shall be one of the
121.10 following:

121.11 2.1 A pathway not less than eight feet (2,438 mm) wide.

121.12 2.2 Where gravity-operated dropout smoke and heat vents occur, a
121.13 pathway not less than four feet (1,219 mm) wide on at least one side.

121.14 2.3 A pathway not less than four feet (1,219 mm) wide bordering
121.15 four-foot by eight-foot (1,219 mm by 2,438 mm) venting cutouts
121.16 every 20 feet (6,096 mm) on alternating sides of the pathway.

121.17 Subp. 4. **IBC section 3111.3.5.** IBC section 3111.3.5 is amended to read as follows:

121.18 **3111.3.5 Ground-mounted photovoltaic panel systems.** Ground-mounted photovoltaic
121.19 panel systems shall comply with this section and Section 3111.1. Setback requirements
121.20 shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free
121.21 area of ten feet (3048 mm) shall be required for ground-mounted photovoltaic arrays.

121.22 Subp. 5. **IBC section 3111.3.6.** IBC section 3111.3 is amended by adding subsection
121.23 3111.3.6 with subsections, and Figures 3111.3.6.1(1) and 3111.3.6.1(2), to read as follows:

122.1 **3111.3.6 Buildings with rapid shutdown.** Buildings with rapid shutdown solar
122.2 photovoltaic systems shall have permanent labels in accordance with Sections
122.3 3111.3.6.1 through 3111.3.6.3.

122.4 **3111.3.6.1 Rapid shutdown type.** The type of solar photovoltaic system rapid
122.5 shutdown shall be labeled with one of the following:

122.6 1. For solar photovoltaic systems that shut down the array and the conductors
122.7 leaving the array, a label shall be provided. The first two lines of the label
122.8 shall be uppercase characters with a minimum height of 3/8-inch (ten mm) in
122.9 black on a yellow background. The remaining characters shall be uppercase
122.10 with a minimum height of 3/16-inch (five mm) in black on a white background.
122.11 The label shall be in accordance with Figure 3111.3.6.1(1) and state the
122.12 following:

122.13 SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN. TURN RAPID
122.14 SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM
122.15 AND REDUCE SHOCK HAZARD IN ARRAY.

122.16 2. For photovoltaic systems that only shut down conductors leaving the array,
122.17 a label shall be provided. The first two lines of the label shall be uppercase
122.18 characters with a minimum height of 3/8-inch (ten mm) in white on a red
122.19 background. The remaining characters shall be capitalized with a minimum
122.20 height of 3/16-inch (five mm) in black on a white background. The label shall
122.21 be in accordance with Figure 3111.3.6.1(2) and state the following:

122.22 THIS SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN. TURN RAPID
122.23 SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN CONDUCTORS
122.24 OUTSIDE THE ARRAY. CONDUCTORS WITHIN ARRAY REMAIN ENERGIZED IN
122.25 SUNLIGHT

123.1 Figure 1204.5.1(1) of the 2018 IFC is incorporated by reference and renumbered Figure
123.2 3111.3.6.1(1).

123.3 Figure 1204.5.1(2) of the 2018 IFC is incorporated by reference and renumbered Figure
123.4 3111.3.6.1(2).

123.5 **3111.3.6.1.1 Diagram.** The labels in Section 3111.3.6.1 shall include a simple
123.6 diagram of a building with a roof. Diagram sections in red signify sections of
123.7 the solar photovoltaic system that are not shut down when the rapid shutdown
123.8 switch is turned off.

123.9 **3111.3.6.1.2 Location.** The rapid shutdown label in Section 3111.3.6.1 shall
123.10 be located not greater than three feet (914 mm) from the service disconnecting
123.11 means to which the photovoltaic systems are connected, and shall indicate
123.12 the location of all identified rapid shutdown switches if not at the same
123.13 location.

123.14 **3111.3.6.2 Buildings with more than one rapid shutdown type.** Solar
123.15 photovoltaic systems that contain rapid shutdown in accordance with Section
123.16 3111.3.6.1, items 1 and 2, or solar photovoltaic systems where only portions of
123.17 the systems on the building contain rapid shutdown, shall provide a detailed plan
123.18 view diagram of the roof showing each different photovoltaic system and a dotted
123.19 line around areas that remain energized after the rapid shutdown switch is operated.

123.20 **3111.3.6.3 Rapid shutdown switch.** A rapid shutdown switch shall have a label
123.21 located not greater than three feet (914 mm) from the switch that states the
123.22 following:

123.23 **RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM**

124.1 **1305.3113 SECTION 3113, SOLAR PHOTOVOLTAIC POWER SYSTEMS**
124.2 **RELOCATABLE BUILDINGS.**

124.3 IBC chapter 31 is amended to add a section to read as follows:

124.4 **3113. Solar photovoltaic power systems; general.** Solar photovoltaic power systems shall
124.5 be installed in accordance with this part and Minnesota Rules, chapter 1315.

124.6 **Exception:** Detached, nonhabitable Group U structures including parking shade
124.7 structures, carports, solar trellises, and similar structures shall not be subject to the
124.8 requirements of this part. Minnesota Rules, chapter 1315, applies.

124.9 **3113.1 Access and pathways.** Roof access, pathways, and spacing requirements shall
124.10 be provided in accordance with Sections 3113.1 through 3113.3.

124.11 **Exceptions:**

124.12 1. Residential structures shall be designed so that each photovoltaic array is no
124.13 greater than 150 feet (45,720 mm) by 150 feet (45,720 mm) in either axis.

124.14 2. Panels/modules shall be permitted to be located up to the roof ridge where an
124.15 alternative ventilation method approved by the fire department has been provided
124.16 or where the fire department has determined vertical ventilation techniques will
124.17 not be employed.

124.18 **3113.1.1 Roof access points.** Roof access points shall be located in areas that do
124.19 not require the placement of fire department ground ladders over openings such
124.20 as windows or doors, and located at strong points of building construction in
124.21 locations where the access point does not conflict with overhead obstructions such
124.22 as tree limbs, wires, or signs.

124.23 **3113.1.2 Residential systems for dwelling units.** Access to residential systems
124.24 for dwelling units shall be provided in accordance with Sections 3113.1.2.1 through
124.25 3113.1.2.4.

125.1 ~~**3113.1.2.1 Residential buildings with hip roof layouts.** Panels or modules~~
125.2 ~~installed on residential buildings with hip roof layouts shall be located in a~~
125.3 ~~manner that provides a 3-foot-wide (914 mm) clear access pathway from the~~
125.4 ~~eave to the ridge on each roof slope where panels/modules are located. The~~
125.5 ~~access pathway shall be located at a location on the building capable of~~
125.6 ~~supporting the live load of firefighters accessing the roof.~~

125.7 ~~**Exception:** These requirements shall not apply to roofs with slopes of~~
125.8 ~~two units vertical in 12 units horizontal (2:12) or less.~~

125.9 ~~**3113.1.2.2 Residential buildings with a single ridge.** Panels or modules~~
125.10 ~~installed on residential buildings with a single ridge shall be located in a~~
125.11 ~~manner that provides two 3-foot-wide (914 mm) clear access pathways from~~
125.12 ~~the eave to the ridge on each roof slope where panels/modules are located.~~

125.13 ~~**Exception:** This requirement shall not apply to roofs with slopes of two~~
125.14 ~~units vertical in 12 units horizontal (2:12) or less.~~

125.15 ~~**3113.1.2.3 Residential buildings with roof hips and valleys.** Panels or~~
125.16 ~~modules installed on residential buildings with roof hips and valleys shall be~~
125.17 ~~located no closer than 18 inches (457 mm) to a hip or valley where~~
125.18 ~~panels/modules are to be placed on both sides of a hip or valley. Where panels~~
125.19 ~~are to be located on only one side of a hip or valley that is of equal length,~~
125.20 ~~the panels shall be permitted to be placed directly adjacent to the hip or valley.~~

125.21 ~~**Exception:** These requirements shall not apply to roofs with slopes of~~
125.22 ~~two units vertical in 12 units horizontal (2:12) or less.~~

125.23 ~~**3113.1.2.4 Residential building smoke ventilation.** Panels or modules~~
125.24 ~~installed on residential buildings shall be located no higher than 3 feet (914~~

126.1 mm) below the ridge in order to allow for fire department smoke ventilation
126.2 operations.

126.3 ~~**3113.2 Other than residential buildings.** Access to systems for occupancies other
126.4 than dwelling units shall be provided in accordance with Sections 3113.2.1 through
126.5 3113.2.1.2.~~

126.6 ~~**Exception:** Where it is determined by the fire department that the roof configuration
126.7 is similar to that of dwelling units, the residential access and ventilation
126.8 requirements in Sections 3113.1.2 through 3113.1.2.4 shall be permitted.~~

126.9 ~~**3113.2.1 Access.** There shall be a minimum 6-foot-wide (1829 mm) clear perimeter
126.10 around the edges of the roof.~~

126.11 ~~**Exception:** Where either access of the building is 250 feet (76,200 mm) or
126.12 less, there shall be a minimum 4-foot-wide (1290 mm) clear perimeter around
126.13 the edges of the roof.~~

126.14 ~~**3113.2.1.2 Pathways.** The solar installation shall be designed to provide
126.15 designated pathways. The pathways shall meet the following requirements:~~

126.16 1. The pathway shall be over areas capable of supporting the live load of
126.17 firefighters accessing the roof.

126.18 2. The centerline access pathways shall be provided in both axes of the
126.19 roof. Centerline access pathways shall run where the roof structure is
126.20 capable of supporting the live load of firefighters accessing the roof.

126.21 3. The pathway shall be a straight line not less than 4 feet (1290 mm)
126.22 clear to skylights or ventilation hatches.

126.23 4. The pathway shall be a straight line not less than 4 feet (1290 mm)
126.24 clear to roof standpipes.

127.1 ~~5. The pathway shall provide not less than 4 feet (1290 mm) clear around~~
127.2 ~~roof access hatch with at least one not less than 4 feet (1290 mm) clear~~
127.3 ~~pathway to parapet or roof edge.~~

127.4 **3113.3 Smoke ventilation.** ~~The solar installation shall be designed to meet the following~~
127.5 ~~requirements:~~

127.6 ~~1. Arrays shall be no greater than 150 feet (45,720 mm) by 150 feet (45,720 mm)~~
127.7 ~~in distance in either axis in order to create opportunities for fire department smoke~~
127.8 ~~ventilation operations.~~

127.9 ~~2. Smoke ventilation options between array sections shall be one of the following:~~

127.10 ~~2.1 A pathway 8 feet (2438 mm) or greater in width.~~

127.11 ~~2.2 A 4-foot (1290 mm) or greater in width pathway and bordering roof~~
127.12 ~~skylights or smoke and heat vents.~~

127.13 ~~2.3 A 4-foot (1290 mm) or greater in width pathway and bordering 4-foot by~~
127.14 ~~8-foot (1290 mm by 2438 mm) "venting cutouts" every 20 feet (6096 mm)~~
127.15 ~~on alternating sides of the pathway.~~

127.16 **3113.4 Ground-mounted photovoltaic arrays.** ~~Ground-mounted photovoltaic arrays~~
127.17 ~~shall comply with this part and Minnesota Rules, chapter 1315. Setback requirements~~
127.18 ~~shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free~~
127.19 ~~area of 10 feet (3048 mm) shall be required for ground-mounted photovoltaic arrays.~~

127.20 IBC sections 3113.1 through 3113.4 are deleted in their entirety and replaced with the
127.21 following:

127.22 **3113.1 Relocatable buildings.** Relocatable buildings shall comply with Minnesota Rules,
127.23 chapter 1361.

128.1 ~~1305.3112~~ 1305.3114 **SECTION 3112 3114, WINDOW CLEANING ANCHORS.**

128.2 IBC chapter 31 is amended by adding a new section to the chapter:

128.3 SECTION 3114

128.4 WINDOW CLEANING ANCHORS

128.5 ~~3112. 3114.1~~ **Window cleaning anchors.** Building anchors for window cleaning safety
128.6 shall be provided for buildings four or more stories above grade plane. Building anchors
128.7 for window cleaning safety shall be designed, installed, and located in accordance with the
128.8 design criteria of ANSI/IWCA I-14.1-2001.

128.9 **Exceptions:**

128.10 1. Buildings without windows.

128.11 2. Existing buildings undergoing reconstruction, alteration, or repair that does not
128.12 include the exposure of primary structural roof components.

128.13 3. In accordance with Minnesota Statutes, section 326B.106, subdivision 4, paragraph
128.14 (m), the commissioner of the Minnesota Department of Labor and Industry may waive
128.15 all or a portion of the requirements for existing buildings if the installation of the
128.16 dedicated anchorages would not result in significant safety improvements due to limits
128.17 on the size of the project, or other factors as determined by the commissioner.

128.18 **1305.3500 CHAPTER 35, REFERENCED STANDARDS.**

128.19 Subpart 1. [Repealed, 39 SR 1605]

128.20 Subp. 1a. ANSI MH29.1-2012. ANSI MH29.1-2012 Safety Requirements for Industrial
128.21 Scissor Lifts shall replace ANSI MH29.1-2008 on the list of referenced documents in IBC
128.22 chapter 35.

129.1 Subp. 1b. **ASME A18.1-2017.** ASME A18.1-2017 Safety Standard for Platform Lifts
129.2 and Stairway Chairlifts shall replace ASME A18.1-2014 on the list of referenced documents
129.3 in IBC chapter 35.

129.4 Subp. 2. **Supplemental standards.** The standards listed in this subpart shall supplement
129.5 the list of referenced documents in IBC chapter 35 ~~of the IBC~~. The standards referenced in
129.6 this subpart shall be considered part of the requirements of this part to the extent prescribed
129.7 in each part or reference.

129.8 ~~NFPA 45 – 2011 Standard on Fire Protection for Laboratories Using Chemicals~~

129.9 NFPA 99 - 2012 Health Care Facilities Code

129.10 NFPA 101 - 2012 Life Safety Code

129.11 ANSI/IWCA I-14.1-2001 - Standard for Window Cleaning

129.12 **REPEALER.** Minnesota Rules, parts 1305.0011, subpart 3; 1305.0308, subpart 4;
129.13 1305.0402, subpart 1; 1305.0507; 1305.0509; 1305.0907, subparts 26b, 27, and 31a;
129.14 1305.0908; 1305.1015; 1305.1029, subparts 2 and 3; 1305.1209; 1305.1511; 1305.1607,
129.15 subparts 2 and 3; 1305.2308, subpart 1; 1305.2603; 1305.2902, subpart 1a; 1305.3030; and
129.16 1305.3401, are repealed.

129.17 **EFFECTIVE DATE.** The amendments to this chapter are effective March 31, 2020, or
129.18 five business days after publication of the notice of adoption in the State Register, whichever
129.19 is later.