

1.1 **Department of Labor and Industry**

1.2 **Adopted 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 2018 edition of
1.6 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 2018 IBC, International Code Council, Inc., Washington, D.C., copyright
1.11 2017, reproduced with permission, all rights reserved. The IBC is not subject to frequent
1.12 change and a copy of the IBC, with amendments for use in Minnesota, is available in the
1.13 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 35 must be administered by
1.16 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 chapter 11 are incorporated by reference in this chapter, but
1.19 the actual amendments for IBC chapter 11 are located in Minnesota Rules, chapter 1341,
1.20 the Minnesota Accessibility Code. Referenced documents cited in IBC chapter 11, and
1.21 Minnesota Rules, chapter 1341, apply, unless otherwise stated or deleted. For the complete
1.22 application and mandatory requirements relating to IBC chapter 11, see Minnesota Rules,
1.23 chapter 1341.

1.24 Subp. 3. [See repealer.]

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

2.1 **1305.0021 REFERENCES TO OTHER INTERNATIONAL CODE COUNCIL**
2.2 **CODES.**

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

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

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

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

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

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

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

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

2.22 **1305.0201 SECTION 201, GENERAL.**

2.23 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 code, the Merriam-Webster Collegiate Dictionary, available at www.merriam-
3.3 webster.com, shall be considered as providing ordinarily accepted meanings. The dictionary
3.4 is incorporated by reference, is subject to frequent change, and is available through the
3.5 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 1346.0306, subpart 1, shall be considered equivalent to an alternating tread
3.18 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 code, federally certified end-stage renal
3.23 disease facilities (kidney dialysis facilities) located on the level of exit discharge shall not
3.24 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.** "The code" or "this code" means Minnesota Rules, chapter 1305, Adoption of the
5.10 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 Care	Occupancy
6.7		Recipients	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 ≤ 2.5	E
6.13	< 24 hours per day	years of age and each room	
6.14		at, and with, an exit at the	
6.15		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 and not	
6.20		classified as E	
6.21	Adult Day Care Family Adult Day Services	≤ 8 care recipients age 13	R-3
6.22	(Day Services) (located in care giver's	and older	dwelling unit
6.23	primary residence)		
6.24	Adult Day Services Center	6 or more care recipients, age	I-4 unless
6.25	< 24 hours per day	13 and older, all may or may	meet criteria
6.26		not be capable of	for E below
6.27		self-preservation without	
6.28		assistance	
6.29	Adult Day Services Center	6 or more care recipients, age	E
6.30	< 24 hours per day	13 and older, all capable of	
6.31		self-preservation without	
6.32		assistance	
6.33	Adult Day Services Center	6 or more care recipients, age	I-4
6.34	< 24 hours per day	13 and older, where at least	E if compliant
6.35		one care recipient but no	with all of

7.1			more than 50 percent of the	Section
7.2			care recipients require	308.5.1.2
7.3			assistance for	
7.4			self-preservation	
7.5		Day Training and	Program participants age 13	Classified by
7.6		Habilitation	and older	primary
7.7				use/training
7.8				function
7.9	Supervised Living Facilities	Class A-1	6 or fewer residents; all of	R-3
7.10			whom are capable of	dwelling unit
7.11			self-preservation without	
7.12			assistance	
7.13		Class A-2	7 to 16 residents; all of	R-4 Condition
7.14			whom are capable of	1
7.15			self-preservation without	
7.16			assistance	
7.17		Class A-2	More than 16 residents; all	I-1 Condition
7.18			of whom are capable of	1
7.19			self-preservation without	
7.20			assistance	
7.21		Class B-1	6 or fewer residents; all of	R-3
7.22			whom may not be capable of	
7.23			self-preservation without	
7.24			assistance	
7.25		Class B-2	7 to 16 residents; of which	R-4 Condition
7.26			some may require limited	2
7.27			assistance for	
7.28			self-preservation	
7.29		Class B-3	More than 16 residents; all	I-2 Condition
7.30			of whom may not be capable	1
7.31			of self-preservation without	
7.32			assistance	
7.33	Hospice	Residential Hospice Facility	1-5 terminally ill persons	R-3
7.34		Residential Hospice Facility	6-12 terminally ill persons	R-4 Condition
7.35				2
7.36	Adult Foster Care	Adult Foster Care Home	1-5 impaired adults	R-3
7.37				dwelling unit

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

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

10.1	Ambulatory	Nursing and medical care for	Includes: skilled medical	B
10.2	Care Facility	< 24 hours	care, emergency care,	
10.3			surgery, obstetrics, or patient	
10.4			stabilization for psychiatric	
10.5			or detox	
10.6	Nursing Home	Nursing and medical care for	Does not include: emergency	I-2 Condition
10.7		> 24 hours	care, surgery, obstetrics, or	1
10.8			in-patient stabilization for	
10.9			psychiatric or detox	
10.10	Hospital	Nursing and medical care for	Includes skilled medical care,	I-2 Condition
10.11		> 24 hours	emergency care, surgery,	2
10.12			obstetrics, or in-patient	
10.13			stabilization for psychiatric	
10.14			or detox	

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

10.17 **1305.0308 INSTITUTIONAL GROUP I.**

10.18 Subpart 1. **IBC section 308.2.** IBC section 308.2 and its subsections are amended to
 10.19 read as follows:

10.20 **308.2 Institutional Group I-1.** This occupancy shall include buildings, structures, or
 10.21 portions thereof for more than 16 persons who reside on a 24-hour basis in a supervised
 10.22 environment and receive custodial care services. Examples of this group include the
 10.23 following:

10.24 Alcohol and drug centers

10.25 Assisted living

10.26 Boarding care homes

10.27 Congregate care facilities

10.28 Convalescent facilities

11.1 Group homes

11.2 Halfway houses

11.3 Housing with services establishment

11.4 Residential board and care facilities

11.5 Social rehabilitation facilities

11.6 Supervised living facilities Class A-2

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

11.8 **308.2.4 Five or fewer persons receiving custodial care.** A facility with five or fewer
11.9 persons receiving custodial care shall be classified as Group R-3.

11.10 Subp. 2. **IBC section 308.3.** IBC section 308.3 and subsection 308.3.2 are amended
11.11 to read as follows:

11.12 **308.3 Institutional Group I-2.** This occupancy shall include buildings and structures used
11.13 for medical care on a 24-hour basis for more than five persons who are incapable of
11.14 self-preservation. Examples of this group include the following:

11.15 Detoxification facilities

11.16 Foster care facilities

11.17 Hospitals

11.18 Nursing homes

11.19 Psychiatric hospitals

11.20 Supervised living facilities Class B-3

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

12.1 **308.3.2 Five or fewer persons receiving care.** A facility with five or fewer persons
12.2 receiving care consistent with Group I-2 occupancies shall be classified as Group R-3.

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

12.4 Subp. 4. **IBC section 308.5.** IBC section 308.5 and its subsections are amended to
12.5 read as follows:

12.6 **308.5 Group I-4, day care and day services facilities.** This group includes buildings and
12.7 structures occupied by more than five persons of any age who receive custodial care for
12.8 fewer than 24 hours per day by persons other than parents or guardians, relatives by blood,
12.9 marriage, or adoption, and in a place other than the home of the person receiving care. This
12.10 group shall include but not be limited to the following:

12.11 Adult day services

12.12 Child day care

12.13 **308.5.1 Classification as Group E.** Day care and day services uses shall be classified
12.14 as Group E occupancies subject to sections 308.5.1.1 through 308.5.1.3.

12.15 **308.5.1.1 Adult day services centers serving only persons capable of**
12.16 **self-preservation.** Adult day services centers serving only persons who, without
12.17 assistance, are capable of self-preservation under emergency conditions shall be
12.18 classified as Group E.

12.19 **308.5.1.2 Adult day services centers serving both persons capable and persons**
12.20 **not capable of self-preservation.** Adult day services centers shall be classified
12.21 as Group E where all of the following conditions apply:

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

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

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

13.11 **308.5.1.3 Child day care.** A child day care facility shall be classified as Group E
13.12 where all of the following conditions apply:

13.13 a. The facility provides care for more than five but not more than 100 children
13.14 2-½ years or less of age.

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

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

13.18 (Subsections 308.5.2 and 308.5.3 remain unchanged.)

13.19 **308.5.4 Five or fewer persons receiving care in a dwelling unit.** Adult day services
13.20 or child day care within a dwelling unit and having five or fewer persons receiving
13.21 custodial care shall be classified as a Group R-3 occupancy. Where the adult day services
13.22 or child day care is located in a one- or two-family dwelling or townhouse, the dwelling:
13.23 (1) shall be constructed in accordance with either this chapter or Minnesota Rules,
13.24 chapter 1309, the Minnesota Residential Code; and (2) shall be equipped with an
13.25 automatic sprinkler system when required by Section 903.2.8.

14.1 **1305.0310 SECTION 310, RESIDENTIAL GROUP R.**

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

14.3 **310.1 Residential Group R.** Residential Group R includes, among others, the use of a
14.4 building or structure, or a portion thereof, for sleeping purposes when not classified as an
14.5 Institutional Group I. This group shall not include buildings regulated by Minnesota Rules,
14.6 chapter 1309, the Minnesota Residential Code.

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

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

14.13 **310.2 Residential Group R-1.** R-1 Residential occupancies containing sleeping units where
14.14 the occupants are primarily transient in nature, including:

14.15 Boarding houses (transient) with more than ten occupants

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

14.17 Hotels (transient)

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

14.19 Motels (transient)

14.20 **310.3 Residential Group R-2.** R-2 Residential occupancies containing sleeping units or
14.21 more than two dwelling units where the occupants are primarily permanent in nature,
14.22 including:

14.23 Apartment houses

- 15.1 Congregate living facilities (nontransient) with more than 16 occupants
- 15.2 Boarding houses
- 15.3 Convents
- 15.4 Dormitories
- 15.5 Fraternities and sororities
- 15.6 Monasteries
- 15.7 Hotels (nontransient)
- 15.8 Motels (nontransient)
- 15.9 Vacation time-share properties
- 15.10 **310.4 Residential Group R-3.** R-3 Residential occupancies where the occupants are
- 15.11 primarily permanent in nature and not classified as R-1, R-2, R-4, or I including:
- 15.12 Assisted living
- 15.13 Boarding care homes
- 15.14 Buildings that do not contain more than two dwelling units
- 15.15 Care facilities that provide accommodations for five or fewer persons receiving care
- 15.16 Congregate living facilities (nontransient) with 16 or fewer occupants
- 15.17 Boarding houses (nontransient)
- 15.18 Dormitories
- 15.19 Fraternities and sororities
- 15.20 Convents
- 15.21 Monasteries

- 16.1 Congregate living facilities (transient) with ten or fewer occupants
- 16.2 Boarding houses (transient)
- 16.3 Dwelling units (two or fewer) in mixed occupancy buildings
- 16.4 Family adult foster homes
- 16.5 Foster care
- 16.6 Housing with services establishment
- 16.7 Lodging houses (transient) with five or fewer guest rooms and ten or fewer occupants
- 16.8 Residential hospice with five or fewer occupants
- 16.9 **310.4.1 Care facilities within a dwelling.** Section 310.4.1 is deleted in its entirety.
- 16.10 (Subsection 310.4.2 remains unchanged.)
- 16.11 **310.5 Residential Group R-4.** This occupancy shall include buildings, structures, or portions
- 16.12 thereof for more than five but not more than 16 persons, excluding staff, who reside on a
- 16.13 24-hour basis in a supervised residential environment and receive custodial care. This group
- 16.14 shall include the following:
- 16.15 Alcohol and drug centers
- 16.16 Assisted living
- 16.17 Boarding care homes
- 16.18 Congregate care facilities
- 16.19 Group homes
- 16.20 Halfway houses
- 16.21 Housing with services establishment (including those that provide assisted living
- 16.22 services)

17.1 Residential board and care facilities

17.2 Residential hospice with 12 or fewer occupants

17.3 Social rehabilitation facilities

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

17.6 **Occupancy conditions.** Buildings of Group R-4 shall be classified as either condition 1
17.7 under section 310.5.1 or condition 2 under section 310.5.2.

17.8 (Sections 310.5.1 and 310.5.2 remain unchanged.)

17.9 **1305.0402 SECTION 402, COVERED MALL AND OPEN MALL BUILDINGS.**

17.10 Subpart 1. [See repealer.]

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

17.12 Subp. 3. **IBC section 402.7.2.** IBC section 402.7.2 is amended to read as follows:

17.13 **402.7.2 Smoke control.** Where a covered mall building contains an atrium, a smoke
17.14 control system shall be provided in accordance with Section 404.5.

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

17.17 Covered mall buildings exceeding 50,000 square feet (4645 m²) in floor area, excluding
17.18 anchor buildings, not provided with an approved smoke control system, shall be provided
17.19 with a post-fire smoke exhaust system in accordance with Minnesota Rules, part
17.20 1305.0919.

17.21 **1305.0403 SECTION 403, HIGH-RISE BUILDINGS.**

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

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

18.1 Subp. 3. **IBC section 403.4.8.3.** IBC section 403.4.8.3 is amended to read as follows:

18.2 **403.4.8.3 Standby power loads.** The following are classified as standby power
18.3 loads:

18.4 1. power and lighting for the fire command center required by Section 403.4.6;

18.5 2. ventilation and automatic fire detection equipment for smokeproof
18.6 enclosures; and

18.7 3. passenger elevators serving occupied floors more than 75 feet (22, 860
18.8 mm) above the lowest level of fire department vehicle access.

18.9 **1305.0406 SECTION 406, MOTOR VEHICLE-RELATED OCCUPANCIES.**

18.10 Subpart 1. **IBC section 406.2.4.** IBC section 406.2.4 is amended by adding a new
18.11 exception to read as follows:

18.12 4. Unoccupied portions of nonpublic parking garages shall not be required to be
18.13 nonabsorbent.

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

18.15 **1305.0407 SECTION 407, GROUP I-2.**

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

18.17 **407.2.1 Spaces open to the corridor.** Spaces constructed as required for corridors
18.18 shall be permitted to be open to a corridor, only when all the following criteria are met:

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

18.21 2. the open space is protected by an automatic smoke detection system installed
18.22 in accordance with Section 907;

- 19.1 3. the corridors onto which the spaces open, in the same smoke compartment, are
19.2 protected by an automatic smoke detection system installed in accordance with
19.3 Section 907, or the smoke compartment in which the spaces are located is equipped
19.4 throughout with quick response sprinklers in accordance with Section 903.3.2;
19.5 and
19.6 4. the space is arranged so as not to obstruct access to the required exits.

19.7 Subp. 2. **IBC section 407.4.4.5.1.** IBC section 407.4.4.5.1 is amended to read as
19.8 follows:

19.9 **407.4.4.5.1 Area.** Care suites containing sleeping rooms shall be not greater
19.10 than 7,500 square feet (696 m²) in area.

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

- 19.14 1. an automatic smoke detection system is provided throughout the care
19.15 suite and is installed in accordance with NFPA 72; and
19.16 2. the arrangement of sleeping rooms within the care suite allows for
19.17 continuous visual supervision by care providers. Glass walls and cubical
19.18 curtains shall be permitted for visual supervision.

19.19 Subp. 3. **IBC section 407.4.4.5.2.** IBC section 407.4.4.5.2 is amended to read as
19.20 follows:

19.21 **407.4.4.5.2 Exit access.** Any sleeping room, or any care suite that contains
19.22 sleeping rooms, of more than 1,000 square feet (929 m²) shall have not
19.23 fewer than two exit access doors from the care suite located in accordance
19.24 with Section 1007.

20.1 **407.4.4.5.2.1 Two means of egress.** For suites requiring two means
20.2 of egress, one means of egress from the suite shall be directly into
20.3 a corridor or exit.

20.4 **407.4.4.5.2.2 Travel distance.** Travel distance within a sleeping
20.5 suite to an exit access door shall not exceed 100 feet. Travel distance
20.6 within a sleeping suite to an exit shall not exceed 200 feet.

20.7 Subp. 4. **IBC section 407.4.4.6.1.** IBC section 407.4.4.6.1 is amended to read as
20.8 follows:

20.9 **407.4.4.6.1 Area.** Care suites of rooms, other than sleeping rooms, shall have
20.10 an area not greater than 10,000 square feet.

20.11 Subp. 5. **IBC section 407.4.4.6.2.** IBC section 407.4.4.6.2 is amended to read as
20.12 follows:

20.13 **407.4.4.6.2 Exit access.** Care suites, other than sleeping rooms, with an area
20.14 of more than 2,500 square feet (232 m²) shall have not fewer than two exit
20.15 access doors from the care suite located in accordance with Section 1007. At
20.16 least one exit access shall be directly to a corridor or exit.

20.17 **407.4.4.6.2.1 Travel distance.** Travel distance within a non-sleeping
20.18 suite to an exit access door shall not exceed 100 feet. Travel distance
20.19 shall not exceed 200 feet from any point in a non-sleeping suite to an
20.20 exit.

20.21 Subp. 6. **IBC section 407.5.1.** IBC section 407.5.1 is amended by deleting both
20.22 exceptions.

20.23 **1305.0408 SECTION 408, GROUP I-3.**

20.24 Subpart 1. [Repealed, 39 SR 1605]

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

21.2 Subp. 3. **IBC section 408.9.** IBC section 408.9 is amended to read as follows:

21.3 **408.9 Windowless buildings.** For the purposes of this section, a windowless building or
21.4 portion of a windowless building is one with non-openable or readily breakable windows
21.5 or with skylights or exterior doors provided in all resident areas of the exit access with an
21.6 occupant load greater than 50. Windowless buildings shall be provided with an engineered
21.7 smoke control system to provide a tenable environment for exiting from the smoke
21.8 compartment in the area of fire origin in accordance with Section 909 for each windowless
21.9 smoke compartment.

21.10 **1305.0410 SECTION 410, STAGES, PLATFORMS AND TECHNICAL**
21.11 **PRODUCTION AREAS.**

21.12 IBC section 410.7 is amended to read as follows:

21.13 **410.7 Standpipes.** Standpipes are not required.

21.14 **1305.0413 SECTION 413, COMBUSTIBLE STORAGE.**

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

21.16 **413.3 Fire protection of floors.** In addition to the requirements of this section, the fire
21.17 protection of floors in Groups I-1, R-1, R-2, R-3, and R-4 occupancies shall comply with
21.18 the requirements of Section 420.12.

21.19 **1305.0420 SECTION 420, GROUPS I-1, R-1, R-2, R-3 and R-4.**

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

21.21 **420.1 General.** Occupancies in Groups I-1, R-1, R-2, R-3, and R-4 shall comply with the
21.22 provisions of Sections 420.1 through 420.12 and other applicable provisions of this code.

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

22.1 **420.7 Group I-1 assisted living housing units.** In Group I-1 occupancies, where a
22.2 fire-resistance rated corridor is provided in areas where assisted living residents are housed,
22.3 shared living spaces, group meeting spaces, and multipurpose therapeutic spaces open to
22.4 the corridor shall be in accordance with all of the following criteria:

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

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

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

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

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

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

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

22.21 **420.10 Group R-2 congregate living cooking facilities.** Domestic cooking appliances for
22.22 use by residents of Group R-2 congregate living facilities shall be in accordance with Sections
22.23 420.10.1 and 420.10.2.

23.1 **420.10.1 Cooking appliances.** Where located in Group R-2 congregate living facilities,
23.2 installed domestic cooking appliances for use by residents shall be in compliance with
23.3 all of the following:

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

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

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

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

23.10 **420.10.2 Cooking appliances in sleeping rooms.** Cooktops, ranges, and ovens shall
23.11 not be installed or used in sleeping rooms.

23.12 Subp. 2. **IBC section 420.** IBC section 420 is amended by adding two subsections to
23.13 read as follows:

23.14 **420.11 Group R-3 and R-4 durability.** Group R-3 and R-4 occupancies shall meet the
23.15 requirements for building durability of Minnesota Rules, chapter 1309, the Minnesota
23.16 Residential Code, parts 1309.0402; 1309.0406, subpart 2; 1309.0702, subpart 2; 1309.0703,
23.17 subpart 2a; 1309.0703, subpart 9; and 1309.0903.

23.18 **420.12 Fire protection of floors.** Floor assemblies, not required elsewhere in this code to
23.19 be fire-resistance rated, shall be provided with 1/2-inch (12.7 mm) gypsum wallboard
23.20 membrane, 5/8-inch (16 mm) wood structural panel membrane, or equivalent on the underside
23.21 of the floor framing member.

23.22 **Exceptions:**

23.23 1. Floor assemblies located directly over a space protected by an automatic sprinkler
23.24 system in accordance with NFPA 13D, or other approved equivalent sprinkler system.

- 24.1 2. Floor assemblies located directly over a crawl space not intended for storage or
24.2 fuel-fired appliances.
- 24.3 3. Portions of the floor assemblies in Group R-3 can be unprotected when complying
24.4 with the following:
- 24.5 a. the aggregate area of the unprotected portions shall not exceed 80 square feet
24.6 per story; and
- 24.7 b. fire blocking in accordance with Section 717.2 shall be installed along the
24.8 perimeter of the unprotected portion to separate the unprotected portion from the
24.9 remainder of the floor assembly.
- 24.10 4. Wood floor assemblies in Group R-3 occupancies using dimension lumber or
24.11 structural composite lumber equal to or greater than 2-inch by 10-inch (50.8 mm by
24.12 254 mm) nominal dimension, or other approved floor assemblies demonstrating
24.13 equivalent fire performance.

24.14 **1305.0423 SECTION 423, STORM SHELTERS.**

24.15 Subpart 1. **IBC section 423.3.** IBC section 423.3 is amended as follows:

24.16 **423.3 Critical emergency operations.** 911 call stations, emergency operation centers, and
24.17 fire, rescue, ambulance, and police stations shall comply with Sections 423.3.1 and 423.3.2
24.18 if located in any of the following counties: Anoka, Benton, Blue Earth, Brown, Carver,
24.19 Chippewa, Chisago, Cottonwood, Dakota, Dodge, Faribault, Fillmore, Freeborn, Goodhue,
24.20 Hennepin, Houston, Isanti, Jackson, Kandiyohi, Lac qui Parle, LeSueur, Lincoln, Lyon,
24.21 Martin, McLeod, Meeker, Mower, Murray, Nicollet, Nobles, Olmsted, Pipestone, Ramsey,
24.22 Redwood, Renville, Rice, Rock, Scott, Sherburne, Sibley, Steele, Stearns, Swift, Wabasha,
24.23 Waseca, Washington, Watonwan, Winona, Wright, or Yellow Medicine.

24.24 **423.3.1.** 911 call stations, emergency operation centers, and fire, rescue, ambulance,
24.25 and police stations shall comply with Table 1604.5 as a Risk Category IV structure.

25.1 **423.3.2.** 911 call stations, emergency operation centers, and fire, rescue, ambulance,
25.2 and police stations shall be provided with a storm shelter constructed in accordance
25.3 with ICC 500.

25.4 Subp. 2. **IBC section 423.4.** IBC section 423.4 is amended as follows:

25.5 **423.4 Group E occupancies.** All Group E occupancies with an occupant load of 50 or more
25.6 shall have a storm shelter constructed in accordance with ICC 500 in the following counties:
25.7 Anoka, Benton, Blue Earth, Brown, Carver, Chippewa, Chisago, Cottonwood, Dakota,
25.8 Dodge, Faribault, Fillmore, Freeborn, Goodhue, Hennepin, Houston, Isanti, Jackson,
25.9 Kandiyohi, Lac qui Parle, LeSueur, Lincoln, Lyon, Martin, McLeod, Meeker, Mower,
25.10 Murray, Nicollet, Nobles, Olmsted, Pipestone, Ramsey, Redwood, Renville, Rice, Rock,
25.11 Scott, Sherburne, Sibley, Steele, Stearns, Swift, Wabasha, Waseca, Washington, Watonwan,
25.12 Winona, Wright, and Yellow Medicine.

25.13 **Exceptions:**

- 25.14 1. Group E day care facilities.
- 25.15 2. Group E occupancies accessory to places of religious worship.
- 25.16 3. Buildings meeting the requirements for shelter design in ICC 500.
- 25.17 (IBC sections 423.4.1 and 423.4.2 remain unchanged.)

25.18 **1305.0429 SECTION 429, GROUP E OCCUPANCIES.**

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

25.20 SECTION 429

25.21 GROUP E OCCUPANCIES

25.22 **429.1 Applicability.** This section applies to Group E school buildings containing uses
25.23 described in this section. School buildings shall comply with this section and all other

26.1 applicable provisions of this code, as provided by Minnesota Statutes, section 123B.51,
26.2 subdivision 7.

26.3 **429.2 Use of school buildings by lower grades.** In addition to the occupancy and
26.4 construction requirements in this code, this section applies to those special uses and
26.5 occupancies described in this section.

26.6 **429.2.1 School buildings equipped with approved automatic fire sprinkler and**
26.7 **fire alarm systems.** Rooms used by preschool, kindergarten, and first and second grade
26.8 students for classrooms, latchkey, day care, early childhood family education, teen
26.9 parent, or other programs conducted in the building may be located on any floor level
26.10 below the fourth story if the following conditions exist:

26.11 1. the building is protected throughout with an approved automatic fire sprinkler
26.12 system; and

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

26.17 **429.2.2 School buildings equipped with either an approved automatic fire sprinkler**
26.18 **system or a fire alarm system.** Rooms shall be located on the story of exit discharge
26.19 when used for the purposes of classroom, latchkey, day care, early childhood education,
26.20 teen parent, or other programs conducted in the building by preschool, kindergarten,
26.21 or first grade students. Rooms shall be located on the story of exit discharge or one
26.22 story above when used for any purpose by second grade students.

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

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

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

27.11 For the purposes of this section, pupils from the second grade down are considered one
27.12 grade level.

27.13 **429.2.3 Accessory spaces.** Accessory spaces, including spaces used for gymnasiums,
27.14 cafeterias, media centers, auditoriums, libraries, and band and choir rooms, used on a
27.15 temporary basis by preschool, kindergarten, first, and second grade students are
27.16 permitted to be located one level above or one level below the story of exit discharge,
27.17 if the building is protected throughout by an approved automatic sprinkler system or
27.18 an approved corridor smoke detection system.

27.19 **1305.0503 SECTION 503, GENERAL HEIGHT AND BUILDING AREA**
27.20 **LIMITATIONS.**

27.21 IBC section 503.1.4.1 is modified to read as follows:

27.22 **503.1.4.1 Enclosures over occupied roof areas.** Elements or structures enclosing
27.23 the occupied roof areas shall not extend more than 48 inches (1220 mm) above
27.24 the surface of the occupied roof.

27.25 **Exceptions:**

- 28.1 1. Penthouses constructed in accordance with Section 1510.2.
- 28.2 2. Towers, domes, spires, and cupolas constructed in accordance with Section
- 28.3 1510.5.
- 28.4 3. Where the occupied roof is considered a story and complies with the
- 28.5 requirements of Sections 504 and 506.
- 28.6 4. Enclosing walls shall not be limited in height where the occupied roof has
- 28.7 access to a standpipe.

28.8 **1305.0504 SECTION 504, BUILDING HEIGHT AND NUMBER OF STORIES.**

28.9 Subpart 1. **IBC Table 504.3.** IBC Table 504.3 is amended as follows:

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

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

28.12 d. Not used.

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

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

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

28.16 d. Not used.

28.17 **1305.0506 SECTION 506, BUILDING AREA.**

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

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

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

28.21 d. Not used.

29.1 **1305.0603 SECTION 603, COMBUSTIBLE MATERIALS IN TYPE I AND TYPE**
29.2 **II CONSTRUCTION.**

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

29.4 27. When not exceeding 48 inches above the roof deck, wood is permitted to be used
29.5 in roof construction for equipment support, building or roof system joints, skylight or
29.6 mechanical equipment, curbs, cants, blocking and backing, and for parapet or roof edge
29.7 construction.

29.8 **1305.0707 SECTION 707, FIRE BARRIERS.**

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

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

29.15 **1305.0709 SECTION 709, SMOKE BARRIERS.**

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

29.17 **709.1 General.** Vertical and horizontal smoke barriers shall comply with this section. Smoke
29.18 barrier openings shall comply with Section 909.5.3.

29.19 Subp. 2. **IBC section 709.5.** IBC section 709.5 is amended by adding a new exception
29.20 to read as follows:

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

29.22 **1305.0714 SECTION 714, PENETRATIONS.**

29.23 Subpart 1. **IBC section 714.5.1.** IBC section 714.5.1, exception 1, is amended to read
29.24 as follows:

30.1 1. Penetrations by steel, ferrous or copper conduits, pipes, tubes or vents, not
30.2 utilized as ducts for conveying air; or concrete or masonry items through a single
30.3 fire-resistance rated floor assembly where the annular space is protected with
30.4 materials that prevent the passage of flame and hot gases sufficient to ignite cotton
30.5 waste when subjected to ASTM E119 or UL 263 time-temperature fire conditions
30.6 under a minimum positive pressure differential of 0.01 inch (2.49 Pa) of water at
30.7 the location of the penetration for the time period equivalent to the fire-resistance
30.8 rating of the construction penetrated. Penetrating items with a maximum six-inch
30.9 (152 mm) nominal diameter shall not be limited to the penetration of a single
30.10 fire-resistance-rated floor assembly, provided that the aggregate area of the openings
30.11 through the assembly does not exceed 144 square inches (92,900 mm²) in any 100
30.12 square feet (9.3 m²) of floor area.

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

30.15 1. Membrane penetrations by steel, ferrous or copper conduits, pipes, tubes, or
30.16 vents, not utilized as ducts for conveying air; or concrete or masonry items where
30.17 the annular space is protected either in accordance with Section 714.5.1 or to
30.18 prevent the free passage of flame and the products of combustion. The aggregate
30.19 area of the openings through the membrane shall not exceed 100 square inches
30.20 (64,500 mm²) in any 100 square feet (9.3 m²) of ceiling area in assemblies tested
30.21 without penetrations.

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

30.24 7. The ceiling membrane of one- and two-hour fire-resistance-rated horizontal
30.25 assemblies is permitted to be interrupted with the double wood top plate of a wall

31.1 assembly, provided that all penetrating items through the double top plates are
31.2 protected in accordance with Section 714.5.1.1 or 714.5.1.2.

31.3 **1305.0717 SECTION 717, DUCTS AND AIR TRANSFER OPENINGS.**

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

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

31.6 **717.6.1 Through penetrations.** In occupancies other than Groups I-2 and I-3, a duct
31.7 constructed of approved materials in accordance with the International Mechanical
31.8 Code that penetrates a fire-resistance-rated floor or floor/ceiling assembly that connects
31.9 not more than two stories is permitted without shaft enclosure protection, provided a
31.10 listed fire damper is installed at the floor line or the duct is protected in accordance
31.11 with Section 714.5. For air transfer openings, see Section 712.1.9.

31.12 **Exceptions:**

31.13 1. A duct is permitted to penetrate three floors or less without a fire damper at each
31.14 floor, provided the duct complies with paragraphs a through e:

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

31.16 i. the duct shall be contained and located within the cavity of a wall above
31.17 and below the horizontal assembly, the duct shall be constructed of steel
31.18 having a minimum wall thickness of 0.0187 inches (0.4712 mm) (No.
31.19 26 gage), and the annular space around the duct shall be protected with
31.20 an approved noncombustible material that resists the passage of flame
31.21 and products of combustion; or

31.22 ii. the annular space around the duct shall be protected by an approved
31.23 through-penetration firestop system that: (1) is installed and tested in
31.24 accordance with ASTM E 814 or UL 1479; and (2) has an F rating and

32.1 T rating equivalent to the required rating of the horizontal assembly being
32.2 penetrated.

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

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

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

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

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

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

32.23 **717.6.3 Non-fire-resistance-rated floor assemblies.** Duct systems constructed of
32.24 approved materials in accordance with the Minnesota Mechanical Code, Minnesota

33.1 Rules, chapter 1346, that penetrate non-fire-resistance-rated floor assemblies shall be
33.2 protected by any of the following methods:

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

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

33.7 3. The duct connects not more than three stories, the annular space around the
33.8 penetrating duct is protected with an approved noncombustible material that resists
33.9 the free passage of flame and the products of combustion, and a fire damper is
33.10 installed at each floor line.

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

33.13 **1305.0803 SECTION 803, WALL AND CEILING FINISHES.**

33.14 IBC section 803.3 is amended to read as follows:

33.15 **803.3 Heavy timber exemption.** Exposed portions of building elements complying with
33.16 the requirements for buildings of heavy timber construction in Section 602.4 or 2304.11
33.17 shall not be subject to interior finish requirements.

33.18 **1305.0806 SECTION 806, DECORATIVE MATERIALS AND TRIM.**

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

33.20 **806.2 Combustible decorative materials.** In Groups A, B, E, I, M, and R-1 and in
33.21 dormitories in Group R-2, curtains, draperies, fabric hangings, and similar combustible
33.22 decorative materials suspended from walls or ceilings shall comply with Section 806.4 and
33.23 shall not exceed 20 percent of the specific wall or ceiling area to which such materials are
33.24 attached.

34.1 **Exceptions:**

34.2 1. In auditoriums in Group A, the permissible amount of curtains, draperies, fabric
34.3 hangings, and similar combustible decorative materials suspended from walls or ceilings
34.4 shall not exceed 75 percent of the aggregate wall area where the building is equipped
34.5 throughout with an approved automatic sprinkler system in accordance with Section
34.6 903.3.1.1, and where the material is installed in accordance with Section 803.15.

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

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

34.15 4. In Group A, E, B, and M occupancies, the amount of combustible fabric partitions
34.16 suspended from the ceiling and not supported by the floor shall comply with Section
34.17 806.4 and shall not be limited.

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

34.20 **806.2.1 Fixed or movable walls and partitions, paneling, wall pads, and crash pads.**

34.21 Fixed or movable walls and partitions, paneling, wall pads, and crash pads applied
34.22 structurally or for decoration, acoustical correction, surface insulation, or other purposes
34.23 covering more than ten percent of the wall or ceiling area shall be considered to be
34.24 interior finish, shall comply with Section 803, and shall not be considered to be
34.25 decorative materials or furnishings.

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

35.7 **1305.0901 SECTION 901, GENERAL.**

35.8 IBC section 901.6.3 is amended by deleting the section in its entirety.

35.9 **1305.0903 SECTION 903, AUTOMATIC SPRINKLER SYSTEMS.**

35.10 Subpart 1. [Repealed, 39 SR 1605]

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

35.13 **903.2.3 Group E.** An automatic sprinkler system shall be provided for Group E
35.14 occupancies as follows:

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

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

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

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

35.23 Subp. 1b. **IBC [F] section 903.2.8.** IBC [F] section 903.2.8 and its subsections are
35.24 amended to read as follows:

36.1 **903.2.8 Group R.** An automatic sprinkler system shall be installed throughout all
36.2 buildings with a Group R fire area in accordance with Section 903.3.

36.3 **Exceptions:**

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

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

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

36.15 4. Group R-1 multiunit resort buildings, as defined in Minnesota Statutes, section
36.16 157.15, and licensed by the Department of Health, with less than 9,250 square feet
36.17 of building area.

36.18 **903.2.8.1 Group R-3.** Where required by Section 903.2.8, Group R-3 occupancies
36.19 shall be provided with an automatic sprinkler system that complies with Section
36.20 903.3.1.1, 903.3.1.2, or 903.3.1.3.

36.21 **903.2.8.2 Group R-4.** Where required by Section 903.2.8, Group R-4 occupancies
36.22 shall be provided with an automatic sprinkler system that complies with Section
36.23 903.3.1.1 or 903.3.1.2.

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

37.1 **903.2.8.3 State licensed facilities.** Group R-3 or R-4 occupancies containing
37.2 facilities licensed by the state of Minnesota shall be provided with an automatic
37.3 sprinkler system as required by applicable licensing provisions or this section,
37.4 whichever is more restrictive.

37.5 **903.2.8.4 Residential hospice facilities.** An automatic sprinkler system installed
37.6 in accordance with NFPA 13 shall be provided throughout all buildings with a
37.7 Group R-3 or R-4 fire area containing a residential hospice facility.

37.8 **Exception:** An automatic sprinkler system installed in accordance with Section
37.9 903.3.1.2 or 903.3.1.3 is permitted if all habitable spaces and closets are
37.10 protected by an automatic sprinkler system.

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

37.13 **903.2.9 Group S-1.** An automatic sprinkler system shall be provided throughout all
37.14 buildings containing a Group S-1 occupancy where one of the following conditions
37.15 exists:

- 37.16 1. A Group S-1 fire area exceeds 12,000 square feet (1115 m²).
- 37.17 2. A Group S-1 fire area is located more than three stories above grade plane.
- 37.18 3. The combined area of all Group S-1 fire areas on all floors, including any
37.19 mezzanines, exceeds 24,000 square feet (2230 m²).
- 37.20 4. A Group S-1 fire area is used for the storage of commercial motor vehicles
37.21 where the fire area exceeds 5,000 square feet (464 m²).

37.22 (Subsections 903.2.9.1 and 903.2.9.2 remain unchanged.)

37.23 **903.2.9.3 Group S-1 upholstered furniture and mattresses.** An automatic
37.24 sprinkler system shall be provided throughout a Group S-1 fire area used for the

38.1 storage of upholstered furniture or mattresses that exceeds 2,500 square feet (232
38.2 m²).

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

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

38.8 **903.2.11.4 Fire protection for exhaust systems.** Where required by Minnesota
38.9 Rules, chapter 1346, the Minnesota Mechanical Code, automatic sprinklers shall
38.10 be provided in ducts having a cross-sectional area of 75 square inches (480 cm²)
38.11 or more and that: (1) convey flammable or combustible components; or (2) have
38.12 the potential for combustible residue buildup on the inside. When sprinkler
38.13 protection is installed, means shall be provided to prevent water accumulation in
38.14 the duct and to prevent the flow of water back to a process where the application
38.15 of water constitutes a serious life or fire hazard.

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

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

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

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

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

39.1 Subp. 2c. **IBC [F] section 903.3.1.2.1.** IBC [F] section 903.3.1.2.1 is amended to
39.2 read:

39.3 **903.3.1.2.1 Protection of decks and balconies.** Decks and balconies greater
39.4 than six feet (1.8 m) above grade, greater than four feet (1.2 m) deep, with an
39.5 area greater than 40 square feet (3.72 m²), and attached to new Group R-1 or
39.6 R-2 occupancy buildings protected in accordance with Section 903.3.1.2 that
39.7 are three or more stories in height and with 30 or more units, shall be protected
39.8 with sprinklers under the balcony or deck framing and under attic eaves when
39.9 both of the following two conditions exist:

39.10 1. the building has an unsprinklered attic; and

39.11 2. the building has combustible siding.

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

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

39.15 **903.3.1.3 NFPA 13D sprinkler systems.** Automatic sprinkler systems installed
39.16 in Group R-3 and R-4 Condition 1 occupancies shall be permitted to be installed
39.17 throughout in accordance with NFPA 13D.

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

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

39.21 **903.3.1.6 Modifications to sprinkler standards.** The sprinkler installation
39.22 standards as referenced in Sections 903.3.1.1, 903.3.1.2, and 903.3.1.3 are modified
39.23 as follows:

40.1 **903.3.1.6.1 Hose stream requirements.** When, in the opinion of the fire
40.2 chief, an adequate alternate water supply for hose stream requirements is
40.3 provided or available, the water supply requirements for the sprinkler system
40.4 hose stream demands may be modified.

40.5 **903.3.1.6.2 Elevator shafts and equipment.** Sprinkler protection shall not
40.6 be installed in elevator shafts, elevator pits, or elevator machine rooms.

40.7 **Exception:** Health care occupancies that (1) are required to have NFPA
40.8 13 systems, (2) are licensed by the Department of Health, and (3)
40.9 participate in Title XVIII (Medicare) or Title XIX (Medicaid) of the
40.10 Social Security Act.

40.11 **903.3.1.6.3 Swimming pools.** Sprinkler protection need not be provided on
40.12 the ceiling of rooms containing swimming pools when the pool area is used
40.13 exclusively for swimming purposes and when sprinklers are provided around
40.14 the perimeter of the pool area.

40.15 **903.3.1.6.4 NFPA 13 modifications.** Sections 8.15.8.2, 8.17.2.5, and
40.16 23.2.1.1 of NFPA 13 are revised to read:

40.17 **8.15.8.2 Linen closets and pantries.** Sprinklers are not required in linen closets
40.18 and pantries within dwelling units that meet the following conditions:

- 40.19 1. the area of the space does not exceed 12 square feet (1.1 m²);
- 40.20 2. the least dimension does not exceed 3 feet (0.9 m);
- 40.21 3. the walls and materials are surfaced with noncombustible or limited
40.22 combustible materials; and
- 40.23 4. the closet or pantry contains no mechanical equipment, electrical equipment,
40.24 or electrical appliances.

41.1 **8.17.2.5 Valves.**

41.2 **8.17.2.5.1 Fire department connection.** A listed check valve shall be installed
41.3 in each fire department connection.

41.4 **8.17.2.5.1.1 Maximum pipe length.** There shall be a maximum of 25
41.5 feet (7.6 m) of pipe between the check valve and the fire department
41.6 connection inlet.

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

41.9 **8.17.2.5.1.2 Check valve location.** The check valve shall be located to
41.10 minimize freezing potential.

41.11 **23.2.1.1 Water supply capacity information.** Where a waterflow test is used for
41.12 the purposes of system design, the test shall be conducted no more than 36 months
41.13 before the working plan submittal.

41.14 **903.3.1.6.5 Vestibules.** Sprinkler protection is not required in vestibules that
41.15 meet all of the following conditions:

- 41.16 1. the vestibule is 225 square feet or less in floor area;
- 41.17 2. the vestibule is of noncombustible or limited combustible construction;
- 41.18 3. the vestibule has glazing allowing vision into vestibule;
- 41.19 4. the vestibule's only purpose is ingress and egress; and
- 41.20 5. the vestibule contains no fueled equipment, flammable or combustible
41.21 liquids, or furniture. Incidental combustible storage in the vestibule is
41.22 limited to five cubic feet of material.

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

42.1 Subp. 6a. **IBC [F] section 903.3.9.** IBC [F] section 903.3 is amended by adding a
42.2 subsection to read as follows:

42.3 **903.3.9 Sprinkler system design pressure safety margin.** For new sprinkler systems
42.4 or additions to existing sprinkler systems, the available water supply shall exceed the
42.5 sprinkler system demand, including hose stream requirements, by 5 psi (0.34 bars) or
42.6 more.

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

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

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

42.11 **903.4.2 Alarms.** An approved audible alarm and an approved visible alarm are required
42.12 on the exterior of the building in an approved location. These alarms can be part of the
42.13 same device or separate devices. The alarms shall be connected to each automatic
42.14 sprinkler system. The alarms shall be located above the fire department connection and
42.15 visible from the street or nearest point of fire department vehicle access, or as otherwise
42.16 approved by the fire code official. Such sprinkler water-flow alarms shall be activated
42.17 by water flow equivalent to the flow of a single sprinkler of the smallest orifice size
42.18 installed in the system. Where a fire alarm system is installed, actuation of the automatic
42.19 sprinkler system shall actuate the building fire alarm system.

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

42.21 **1305.0904 SECTION 904, ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING**
42.22 **SYSTEMS.**

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

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

43.1 **1305.0905 SECTION 905, STANDPIPE SYSTEMS.**

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

43.4 **905.2.1 Modification to standards.** In buildings other than high rise that are equipped
43.5 throughout with an automatic sprinkler system installed in accordance with Sections
43.6 903.3.1.1 or 903.3.1.2, and a Class I standpipe system, the pipe shall be sized to meet
43.7 the pressure and flow requirements for the sprinkler system. Such systems shall comply
43.8 with Sections 905.2.1.1 through 905.2.1.4:

43.9 **905.2.1.1 System pipe size.** Pipe sizes for combined portions of the sprinkler and
43.10 standpipe systems shall not be less than four inches (101.6 mm).

43.11 **905.2.1.2 System design flow and pressure.** The standpipe shall provide a
43.12 minimum pressure of 100 psi (6.9 bar) at the uppermost outlet and a minimum
43.13 flow rate of 250 gpm (946 L/min) at the two hydraulically most remote hose
43.14 connections on the standpipe when the standpipe system is supported through the
43.15 fire department connection. The hydraulic calculations shall be performed between
43.16 the hydraulically most demanding standpipe hose connection and the fire
43.17 department connection.

43.18 **905.2.1.3 Design pressure.** A maximum design pressure of 150 psi (10.3 bars) is
43.19 permitted at the fire department connection when the standpipe is supported by
43.20 local fire department apparatus.

43.21 **905.2.1.4 Automatic sprinkler system demand.** The automatic sprinkler system
43.22 demand, including the inside and outside hose stream demands from NFPA 13, is
43.23 to be provided by the municipal water supply system without requiring fire
43.24 department pumping into the system.

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

44.1 **905.3 Required installations.** Standpipe systems shall be installed where required by
44.2 Sections 905.3.1 through 905.3.10. Standpipe systems are allowed to be combined with
44.3 automatic sprinkler systems.

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

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

44.7 **905.3.1 Height.** Class I wet standpipe systems shall be installed throughout buildings
44.8 where any of the following conditions exist:

- 44.9 1. Four or more stories are above or below grade plane.
- 44.10 2. The floor level of the highest story is located more than 30 feet (9144 mm)
44.11 above the lowest level of the fire department vehicle access.
- 44.12 3. The floor level of the lowest story is located more than 30 feet (9144 mm) below
44.13 the highest level of fire department vehicle access.

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

44.18 **905.3.1.1 Lowest level.** In determining the lowest level of fire department vehicle
44.19 access, the following areas should not be considered:

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

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

45.1 **905.3.2.1 Group A exhibition.** Class I automatic standpipes shall be provided in
45.2 Group A-3 Occupancies where the floor area used for exhibition exceeds 12,000
45.3 square feet (1115 m²).

45.4 Subp. 3. **IBC [F] sections 905.3.4 and 905.3.4.1.** IBC [F] sections 905.3.4 and
45.5 905.3.4.1 are deleted and replaced with the following:

45.6 **905.3.4 Stages.** Stages are not required to be equipped with standpipe systems.

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

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

45.10 **905.3.6 Helistops and heliports.** Each building with a rooftop helistop or heliport shall
45.11 be equipped with a Class I standpipe system extended to the roof level on which the
45.12 helistop or heliport is located in accordance with Section 2007.5 of the International
45.13 Fire Code.

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

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

45.17 **905.3.9 Detention and correctional facilities.** Regardless of the height of the building
45.18 or number of stories, every building in a Group I-3 detention and correctional facility,
45.19 where 50 or more persons are under restraint or security under Occupancy Condition
45.20 3, 4 or 5, shall be provided with a Class I automatic wet or semiautomatic dry standpipe
45.21 system.

45.22 **Exception:** Combined systems meeting the provisions of Section 905.2 may be
45.23 used.

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

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

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

46.9 **905.3.10 Group R-2 occupancies small hose connections.** Small hose connections
46.10 shall be installed in Group R-2 occupancies three or more stories in height where any
46.11 portion of the building's interior area is more than 200 feet (60,960 mm) of travel,
46.12 vertically or horizontally, from the nearest point of fire department vehicle access.
46.13 Small hose connections required by this section shall comply with the following:

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

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

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

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

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

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

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

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

47.7 **1305.0907 SECTION 907, FIRE ALARM AND DETECTION SYSTEMS.**

47.8 Subpart 1. [Repealed, 39 SR 1605]

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

47.10 **907.1.2 Fire alarm shop drawings.** Shop drawings for fire alarm systems shall be
47.11 submitted for review and approval before system installation, and shall include all of
47.12 the following where applicable to the system being installed:

- 47.13 1. A floor plan that indicates the use of all rooms.
- 47.14 2. Locations of alarm-initiating devices.
- 47.15 3. Locations of alarm notification appliances, including candela ratings for visible
47.16 alarm notification appliances.
- 47.17 4. Design minimum audibility level for occupant notification.
- 47.18 5. Maximum sound pressure.
- 47.19 6. Location of fire alarm control unit, transponders, and notification power supplies.
- 47.20 7. Annunciators.
- 47.21 8. Power connection.
- 47.22 9. Battery calculations.

48.1 10. Conductor type and sizes.

48.2 11. Voltage drop calculations.

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

48.5 13. Details of ceiling height and construction.

48.6 14. The interface of fire safety control functions.

48.7 15. Classification of the supervising station.

48.8 Subp. 1b. **IBC [F] section 907.2.** IBC [F] section 907.2 is amended to read as follows:

48.9 **907.2 Where required in new buildings and occupancies.** An approved manual, automatic,
48.10 or manual and automatic fire alarm system shall be provided in new buildings and
48.11 occupancies in accordance with Sections 907.2.1 through 907.2.24.2 and NFPA 72. For the
48.12 purposes of Sections 907.2.1 through 907.2.24.2, fire barrier walls or fire walls shall not
48.13 define separate buildings. In buildings containing mixed occupancies that are designed as
48.14 separated uses in accordance with Section 508.4, fire alarm and detection systems need only
48.15 be installed in those occupancies where required by this section.

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

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

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

49.1 **907.2.1 Group A, general.** A fire alarm system shall be installed in accordance with
49.2 Sections 907.2.1 through 907.2.1.3 in Group A occupancies having an occupant load
49.3 of 300 or more.

49.4 **Exceptions:**

49.5 1. Assembly areas used solely for worship purposes.

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

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

49.11 4. Group A-5 occupancies.

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

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

49.15 **907.2.3.1 Initiation.** Initiation of the fire alarm system shall be by manual and
49.16 automatic means. Approved automatic fire detectors shall be provided in laundry
49.17 rooms, boiler and furnace rooms, mechanical and electrical rooms, shops,
49.18 laboratories, kitchens, locker rooms, custodial closets, trash collection rooms,
49.19 storage rooms, lounges, and similar areas.

49.20 **Exception:**

49.21 In buildings protected throughout by an approved automatic sprinkler system
49.22 or having an approved fire alarm system equipped with corridor smoke
49.23 detection, manual fire alarm boxes are only required in any main office and
49.24 in any custodial area.

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

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

50.4 **907.2.3.3 Notification.** Activation of the fire alarm system or automatic sprinkler
50.5 system shall initiate an emergency voice/alarm communication system meeting
50.6 the requirements of Section 907.5.2.2 and installed in accordance with Section
50.7 907.6.

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

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

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

50.15 **907.2.5 Group H, general.** A fire alarm system shall be installed in accordance with
50.16 Sections 907.2.5 through 907.2.5.2 in Group H-5 occupancies, occupancies used for
50.17 the manufacture of organic coatings, and, when required by chapters 60, 62, and 63 of
50.18 the Minnesota State Fire Code at the following locations:

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

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

51.1 **907.2.5.1 Initiation.** Initiation of the fire alarm system in Group H-5 Occupancies
51.2 and in occupancies used for the manufacture of organic coatings shall be by manual
51.3 means. Initiation of fire alarm systems installed for highly toxic gases, organic
51.4 peroxides and oxidizers shall be by automatic means, as specified in chapters 60,
51.5 62, and 63 of the Minnesota State Fire Code.

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

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

51.9 **907.2.6 Group I, general.** A fire alarm system shall be installed in accordance with
51.10 Sections 907.2.6.1 through 907.2.6.4.2 in Group I occupancies.

51.11 **907.2.6.1 Group I-1 occupancies-general.** A manual and automatic fire alarm
51.12 system shall be installed in Group I-1 occupancies in accordance with Sections
51.13 907.2.6.1.1 through 907.2.6.1.3.

51.14 **907.2.6.1.1 Initiation.** Initiation of the fire alarm system shall be by manual
51.15 and automatic means. Approved automatic fire detectors shall be installed in
51.16 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and
51.17 electrical rooms, shops, laboratories, kitchens, locker rooms, custodial closets,
51.18 trash-collection rooms, storage rooms, lounges, gift shops, and similar areas.
51.19 Automatic smoke detectors shall be provided in corridors and areas that are
51.20 open to corridors.

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

52.1 **907.2.6.1.2 Notification.** Activation of the fire alarm system or automatic
52.2 sprinkler system shall initiate a general evacuation signal. In addition,
52.3 activation of the fire alarm system shall immediately transmit an alarm to an
52.4 approved central station or remote station service.

52.5 **Exceptions:**

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

52.8 2. Where occupants are incapable of evacuating themselves because of
52.9 age, physical/mental disabilities, or physical restraint, only the attendants
52.10 or other personnel required to evacuate occupants from a zone, area,
52.11 floor, or building shall be required to be notified. This notification shall
52.12 include means to readily identify the zone, area, floor, or building in need
52.13 of evacuation.

52.14 **907.2.6.1.3 Sleeping room smoke alarms.** Smoke alarms shall be installed
52.15 in resident sleeping rooms in accordance with Section 907.2.10.2.

52.16 **907.2.6.2 Group I-2 occupancies-general.** A manual and automatic fire alarm
52.17 system shall be installed in Group I-2 occupancies in accordance with Sections
52.18 907.2.6.2.1 through 907.2.6.2.4.

52.19 **907.2.6.2.1 Initiation.** Initiation of the fire alarm system shall be by manual
52.20 and automatic means. Approved automatic fire detectors shall be installed in
52.21 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and
52.22 electrical rooms, shops, laboratories, kitchens, locker rooms, custodial closets,
52.23 trash-collection rooms, storage rooms, lounges, gift shops, and similar areas.
52.24 Hospitals, nursing homes (both intermediate care and skilled nursing facilities),
52.25 board and care homes, and detoxification facilities shall be provided with

53.1 smoke detection throughout the corridor and areas open to the corridors, other
53.2 than nurses' stations.

53.3 **Exceptions:**

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

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

53.12 **907.2.6.2.2 Notification.** Activation of the fire alarm system or automatic
53.13 sprinkler system shall initiate a signal that is distinctive from audible signals
53.14 used for other purposes in the same building. Such signal is intended to notify
53.15 staff and need not meet the minimum sound pressure levels required for general
53.16 evacuation fire alarm notification. In addition, activation of the fire alarm
53.17 system shall immediately transmit an alarm to an approved central station or
53.18 remote station service.

53.19 **Exceptions:**

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

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

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

54.3 3. Where total evacuation of occupants is impractical due to building
54.4 configuration, only the occupants in the affected zones shall be initially
54.5 notified. Provisions shall be made to selectively notify occupants in other
54.6 zones to afford orderly evacuation of the entire building.

54.7 **907.2.6.2.3 Patient room smoke detectors.** Smoke detectors shall be installed
54.8 in patient sleeping rooms of hospitals and nursing homes. Such detectors'
54.9 primary power shall be other than battery power. Actuation of such detectors
54.10 shall cause a visual display on the corridor side of the room where the detector
54.11 is located and shall cause a distinct audible and visual alarm at the nurses'
54.12 station attending the room. Such detectors may be part of the facility's fire
54.13 alarm system, nurses' call system, or a standalone system.

54.14 **907.2.6.2.3.1 Integral smoke detectors for automatic door-closing devices.**
54.15 Integral smoke detectors for automatic door-closing devices on sleeping room
54.16 doors can be installed only if they also meet all of the requirements in Section
54.17 907.2.6.2.3.

54.18 **907.2.6.2.4 Sleeping room smoke alarms.** For Group I-2 facilities other than
54.19 hospitals and nursing homes, single station smoke alarms shall be installed
54.20 in resident sleeping rooms.

54.21 **907.2.6.3 Group I-3 occupancies-general.** A manual and automatic fire alarm
54.22 system shall be installed in Group I-3 occupancies in accordance with Sections
54.23 907.2.6.3.1 through 907.2.6.3.4.

54.24 **907.2.6.3.1 Initiation.** Initiation of the fire alarm system shall be by manual
54.25 and automatic means. Approved automatic fire detectors shall be installed in

55.1 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and
55.2 electrical rooms, shops, laboratories, kitchens, locker rooms, custodial closets,
55.3 trash-collection rooms, storage rooms, lounges, gift shops, commissaries, and
55.4 similar areas. Actuation of an automatic fire-extinguishing system, a manual
55.5 fire alarm box, or a fire detector shall initiate an approved fire alarm signal,
55.6 which automatically notifies staff. Presignal systems shall not be used.

55.7 **907.2.6.3.2 Manual fire alarm boxes.** Manual fire alarm boxes are not
55.8 required to be located in accordance with Section 907.4 where the fire alarm
55.9 boxes are provided at staff-attended locations having direct supervision over
55.10 areas where manual fire alarm boxes have been omitted.

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

55.14 **907.2.6.3.3 Smoke detectors.** An approved automatic smoke-detection system
55.15 shall be installed throughout resident housing areas, including sleeping areas
55.16 and contiguous day rooms, group activity spaces, and other common spaces
55.17 normally accessible to residents.

55.18 **Exceptions:**

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

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

56.1 **907.2.6.3.4 Notification.** Activation of the fire alarm system or automatic
56.2 sprinkler system shall initiate a signal that is distinctive from audible signals
56.3 used for other purposes in the same building. Such signal is intended to notify
56.4 staff and need not meet the minimum sound pressure levels required for general
56.5 evacuation fire alarm notification. In addition, activation of the fire alarm
56.6 system shall immediately transmit an alarm to an approved central station or
56.7 remote station service.

56.8 **907.2.6.4 Group I-4 occupancies-general.** A manual and automatic fire alarm
56.9 system shall be installed in Group I-4 occupancies in accordance with Sections
56.10 907.2.6.4.1 through 907.2.6.4.2.

56.11 **907.2.6.4.1 Initiation.** Initiation of the fire alarm system shall be by manual
56.12 and automatic means. Approved automatic fire detectors shall be installed in
56.13 laundry and soiled linen rooms, boiler and furnace rooms, mechanical and
56.14 electrical rooms, shops, laboratories, kitchens, locker rooms, custodial closets,
56.15 trash-collection rooms, storage rooms, lounges, gift shops, and similar areas.
56.16 Automatic smoke detectors shall be provided in corridors and areas that are
56.17 open to corridors.

56.18 **907.2.6.4.2 Notification.** Activation of the fire alarm system or automatic
56.19 sprinkler system shall initiate a general evacuation signal. In addition,
56.20 activation of the fire alarm system shall immediately transmit an alarm signal
56.21 to an approved central station or remote station service.

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

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

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

57.1 **907.2.8 Group R-1, general.** A fire alarm system shall be installed in accordance with
57.2 Sections 907.2.8.1 through 907.2.8.3 in Group R-1 occupancies.

57.3 **Exceptions:**

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

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

57.12 **907.2.8.1 Initiation.** Initiation of the fire alarm system shall be by automatic
57.13 means. Approved automatic fire detectors shall be provided in boiler and furnace
57.14 rooms, shops, laundry and soiled linen rooms, mechanical and electrical rooms,
57.15 trash collection rooms, storage rooms, gift shops, kitchens, locker rooms, custodial
57.16 closets, lounges, and similar areas. Automatic smoke detectors shall be provided
57.17 in all common areas and interior corridors serving as required means of egress.

57.18 **Exception:** System fire and smoke detectors are not required when an
57.19 approved automatic fire extinguishing system is installed in accordance with
57.20 Section 903.3.1.1 or 903.3.1.2 and a manual fire alarm box is provided at a
57.21 constantly attended location. When a constantly attended location is not
57.22 provided, the manual fire alarm box shall be provided at the main exit.

57.23 **907.2.8.2 Notification.** Activation of the fire alarm system or automatic sprinkler
57.24 system shall initiate a general evacuation signal.

58.1 **907.2.8.3 Sleeping unit smoke alarms.** Sleeping unit smoke alarms required by
58.2 Section 907.2.10 shall not be connected to a fire alarm system.

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

58.4 Subp. 26. **IBC [F] section 907.2.9.** IBC [F] section 907.2.9 and all subsections are
58.5 deleted in their entirety and replaced with the following:

58.6 **907.2.9 Groups R-2 and R-4 , general.** Fire alarm systems and smoke alarms shall
58.7 be installed in Group R-2 and Group R-4 occupancies. Group R-2 occupancies shall
58.8 comply with Sections 907.2.9.1 through 907.2.9.1.3. Group R-4 occupancies shall
58.9 comply with Sections 907.2.9.2 through 907.2.9.2.3.

58.10 **907.2.9.1 Group R-2, general.** A fire alarm system shall be installed in accordance
58.11 with Sections 907.2.9.1 through 907.2.9.1.2 in Group R-2 occupancies where:

- 58.12 1. any sleeping unit or dwelling unit is located two or more stories above the
58.13 story containing the lowest level of exit discharge;
- 58.14 2. any sleeping unit or dwelling unit is located more than one story below the
58.15 highest level of exit discharge of exits serving the dwelling unit;
- 58.16 3. the building contains more than 16 dwelling units or sleeping units; or
- 58.17 4. the building is used as a congregate living facility, dormitory, convent,
58.18 monastery, fraternity, sorority, group home, or shelter and has an occupant
58.19 load of 20 or more.

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

59.1 **907.2.9.1.1 Initiation.** Initiation of the fire alarm system shall be by automatic
59.2 means. Automatic fire detectors shall be provided in boiler and furnace rooms,
59.3 trash-collection rooms, shops, laundry rooms, common kitchens, locker rooms,
59.4 lounges, mechanical and electrical rooms, storage rooms, and similar areas.
59.5 Automatic smoke detectors shall be provided in all common areas and interior
59.6 corridors serving as required means of egress.

59.7 **Exception:** System fire and smoke detectors are not required when an
59.8 approved automatic fire extinguishing system is installed throughout the
59.9 building.

59.10 **907.2.9.1.2 Notification.** Activation of the fire alarm system or automatic
59.11 sprinkler system shall initiate a general evacuation signal.

59.12 **907.2.9.1.3 Dwelling unit smoke alarms.** Dwelling unit smoke alarms
59.13 required by Section 907.2.10 shall not be connected to the building fire alarm
59.14 system.

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

59.16 **907.2.9.2 Group R-4, general.** A fire alarm system shall be installed in accordance
59.17 with Sections 907.2.9.2.1 through 907.2.9.2.3 in Group R-4 occupancies.

59.18 **Exceptions:**

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

59.24 2. Buildings containing five or fewer sleeping units are permitted to be
59.25 equipped with approved multiple-station smoke alarms installed as required

60.1 for Group R-3 occupancies. Installation shall be in accordance with Section
60.2 907.2.10.

60.3 **907.2.9.2.1 Initiation.** Initiation of the fire alarm system shall be by automatic
60.4 means. Approved automatic fire detectors shall be provided in boiler and
60.5 furnace rooms, shops, laundry and soiled linen rooms, mechanical and
60.6 electrical rooms, common kitchens, lounges, trash collection rooms, storage
60.7 rooms, gift shops, locker rooms, and similar areas. Automatic smoke detectors
60.8 shall be provided in all common areas and interior corridors serving as required
60.9 means of egress.

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

60.13 **907.2.9.2.2 Notification.** Activation of the fire alarm system or automatic
60.14 sprinkler system shall initiate a general evacuation signal.

60.15 **907.2.9.2.3 Smoke alarms.** Single and multiple-station smoke alarms shall
60.16 be installed in accordance with Section 907.2.10.

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

60.18 Subp. 26b. [See repealer.]

60.19 Subp. 27. [See repealer.]

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

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

60.23 **907.2.22 Battery rooms.** An automatic smoke detection system shall be installed in
60.24 areas containing stationary storage battery systems where the battery capacity exceeds

61.1 that listed in Table 907.2.22. Battery systems exceeding the quantities listed in Table
 61.2 907.2.22 shall comply with Minnesota Rules, chapter 7511, the Minnesota State Fire
 61.3 Code.

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

61.6 **TABLE 907.2.22**

61.7 **BATTERY STORAGE SYSTEM THRESHOLD QUANTITIES**

61.8	Battery Technology	Capacity^a
61.9	Flow batteries ^b	20 kWh
61.10	Lead acid, all types	70 kWh
61.11	Lithium, all types	20 kWh
61.12	Nickel cadmium (Ni-Cd)	70 kWh
61.13	Sodium, all types	20 kWh ^c
61.14	Other battery technologies	10 kWh

61.15 For SI: 1 kilowatt hour = 3.6 megajoules.

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

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

61.20 ^c 70 kWh for sodium-ion technologies.

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

61.23 **907.2.23 Capacitor energy storage systems.** An automatic smoke detection system
 61.24 shall be installed in areas containing capacitor energy storage systems where the storage

62.1 capacity exceeds 3 kWh (10.8 megajoules). Systems exceeding 3 kWh (10.8 megajoules)
62.2 shall comply with Minnesota Rules, chapter 7511, the Minnesota State Fire Code.

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

62.5 **907.2.24 Residential hospices.** A fire alarm system shall be installed in accordance
62.6 with Sections 907.2.24.1 and 907.2.24.2 in residential hospices. When automatic
62.7 sprinkler systems or automatic fire detectors are installed, such systems or detectors
62.8 shall be connected to the building fire alarm system.

62.9 **907.2.24.1 Initiation.** Initiation of the fire alarm system shall be by manual and
62.10 automatic means. Approved automatic fire detectors shall be provided in boiler
62.11 and furnace rooms, kitchens, laboratories, shops, gift shops, commissaries, laundry
62.12 and soiled linen rooms, mechanical and electrical rooms, locker rooms, storage
62.13 rooms, custodial closets, trash collection rooms, lounges, and similar areas.
62.14 Automatic smoke detectors shall be provided in sleeping rooms, corridors, and
62.15 spaces open to the corridors.

62.16 **Exception:** Manual fire alarm boxes are not required at exits if manual fire
62.17 alarm boxes are located at all nurses' stations or other continuously attended
62.18 staff locations, provided such fire alarm boxes are visible and continuously
62.19 accessible and that travel distances required by Section 907.4.2 are not
62.20 exceeded.

62.21 **907.2.24.2 Notification.** Activation of the fire alarm system or automatic
62.22 sprinkler system shall initiate a general evacuation signal. In addition, the fire
62.23 alarm system shall be monitored by an approved central station service in
62.24 accordance with Section 903.4.1.

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

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

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

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

63.7 **907.3 Fire safety functions.** Automatic fire detectors required by Section 907.2 of this code
63.8 and Chapter 11 of the Minnesota State Fire Code are to activate notification appliances in
63.9 accordance with those sections. When automatic fire detectors are installed for other fire
63.10 safety functions, they shall perform the intended function upon activation. When automatic
63.11 detectors are installed for fire safety functions and the building has a fire alarm system, the
63.12 detectors shall activate supervisory signals at the fire alarm control panel or at a constantly
63.13 attended location. When the building does not have a fire alarm system, the detectors shall
63.14 activate a visual and audible supervisory signal at an approved location, which shall indicate
63.15 the source of the signal.

63.16 **907.3.1 Air distribution and air-handling systems.** Smoke detectors installed to shut
63.17 down the air distribution or air-handling system shall, upon activation, perform the
63.18 intended function. Air distribution or air-handling equipment that is part of a
63.19 smoke-control system shall switch to smoke-control mode upon activation of a detector.

63.20 **907.3.1.1 Fire alarm system interface.** Smoke detectors that are installed in air
63.21 distribution or air-handling systems for shutdown purposes and that are connected
63.22 to a fire alarm system shall not sound a general evacuation signal.

63.23 **907.3.2 Elevator control functions.** Smoke detectors that are installed to control or
63.24 recall elevators or to control doors for elevators, elevator lobbies, or elevator shafts
63.25 and that are connected to a fire alarm system shall not sound a general evacuation

64.1 signal. Elevator recall and firefighter's emergency operation for elevators shall only be
64.2 controlled by elevator smoke detectors and shall not initiate upon other building fire
64.3 detectors or evacuation signals.

64.4 **907.3.3 Door hold-open functions.** Smoke detectors that are installed to hold open
64.5 fire doors under nonemergency conditions and that are connected to a fire alarm system
64.6 shall sound a general evacuation signal when the doors being held open are part of the
64.7 means of egress corridor or stair system. Door hold-open smoke detectors are not
64.8 required to activate a visual or audible signal.

64.9 (Subsection 907.3.4 remains unchanged.)

64.10 Subp. 31a. [See repealer.]

64.11 Subp. 31b. **IBC [F] section 907.5.2.1.2.** IBC [F] section 907.5.2.1.2 is amended to
64.12 read as follows:

64.13 **907.5.2.1.2 Maximum sound pressure.** Fire alarm system audibility levels
64.14 shall not exceed 35 dB above the average ambient sound level described in
64.15 Section 907.5.2.1.1 or 35 dB above the peak ambient sound level. The
64.16 maximum sound pressure level for audible alarm notification appliances shall
64.17 be 110 dBA at the minimum hearing distance from the audible appliance.
64.18 Where the average ambient noise is greater than 95 dBA, visible alarm
64.19 notification appliances shall be provided in accordance with NFPA 72 and
64.20 audible alarm notification appliances shall not be required.

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

64.22 Subp. 32a. **IBC [F] section 907.6.6.** IBC [F] section 907.6.6 is amended to read as
64.23 follows:

64.24 **907.6.6 Monitoring.** Where provided, monitoring of fire alarm systems shall comply
64.25 with Sections 907.6.6.1 and 907.6.6.2.

65.1 (The exceptions are removed.)

65.2 (Subsections 907.6.6.1 and 907.6.6.2 remain unchanged.)

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

65.4 **1305.0909 SECTION 909, SMOKE CONTROL SYSTEMS.**

65.5 Subpart 1. [Repealed, 39 SR 1605]

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

65.7 Subp. 1c. **IBC [F] section 909.4.8.** IBC [F] section 909.4 is amended by adding a
65.8 section to read:

65.9 **909.4.8 Door opening force.** With any of the design methods allowed by Section 909,
65.10 the door opening force, latch release, and set-in-motion force shall comply with Section
65.11 1010.1.3 requirements when the system is in smoke control mode.

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

65.14 **909.22 High-rise and covered mall smoke-exhaust systems.** High-rise buildings, not
65.15 provided with a smoke control or a post-fire smoke exhaust system, shall be equipped with
65.16 a smoke removal system installed in accordance with this code. Covered mall buildings
65.17 exceeding 50,000 square feet (4,645 m²) in floor area, excluding anchor stores, and not
65.18 provided with a smoke control system, shall be equipped with a post-fire smoke exhaust
65.19 system installed in accordance with this code.

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

65.21 **1305.0910 SECTION 910, SMOKE AND HEAT REMOVAL.**

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

66.1 **910.1.1 Required venting method.** Required smoke and heat venting shall be
66.2 accomplished with mechanical smoke exhaust according to Section 910.4.

66.3 **Exceptions:**

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

66.6 2. For non-sprinklered buildings, smoke and heat vents as specified in Section
66.7 910.3 shall be permitted.

66.8 3. Where approved by the building official, smoke and heat vents as specified in
66.9 Section 910.3 shall be permitted in sprinklered buildings.

66.10 **910.1.2 Listing.** Smoke and heat vents and mechanical smoke exhaust fans shall be
66.11 listed for the intended purpose.

66.12 **910.1.3 Curtain boards.** When mechanical smoke exhaust is provided in accordance
66.13 with Section 910.4 or 910.5, curtain boards are only required at the separation between
66.14 areas protected with early suppression fast response (ESFR) sprinklers and conventional
66.15 sprinkler systems.

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

66.17 **910.4 Mechanical smoke exhaust.** Mechanical smoke exhaust shall be in accordance with
66.18 Sections 910.4.1 through 910.4.7.

66.19 (Subsections 910.4.1 through 910.4.7 remain unchanged except as amended in subparts
66.20 2a and 3.)

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

66.23 **910.4.3.1 Supply air.** Supply air for exhaust fans shall be sized to provide a
66.24 minimum of 50 percent of the required exhaust. Air velocity at each supply air

67.1 opening shall not exceed an average of 200 feet per minute when measured 4 feet
67.2 (1219 mm) in front of the opening. Openings for supply air shall be uniformly
67.3 distributed around the periphery of the area served and be located or ducted to a
67.4 position not more than one-half the storage height above the floor. Supply air
67.5 openings shall open automatically upon operation of the smoke exhaust system
67.6 and shall not require a manual action at each supply opening for operation. Supply
67.7 air openings shall be kept clear of storage or obstructions to airflow for at least 4
67.8 feet (1219 mm) in front of the opening. Supply air openings shall be separated
67.9 from exhaust fans and exterior combustibles to prevent introduction of smoke into
67.10 the building.

67.11 Subp. 3. **IBC [F] section 910.4.4.** IBC [F] section 910.4.4 is amended to read as
67.12 follows:

67.13 **910.4.4 Operation.** Mechanical smoke exhaust fans shall be manually activated.
67.14 Individual manual controls of each fan unit shall also be provided.

67.15 Subp. 4. [Renumbered subp 2a]

67.16 Subp. 5. **IBC [F] section 910.5.** IBC [F] section 910.5 is amended, and subsections
67.17 added, to read as follows:

67.18 **910.5 Calculated engineering design of mechanical smoke exhaust.** Calculated engineering
67.19 design of mechanical smoke exhaust shall be in accordance with Sections 910.5.1 through
67.20 910.5.5.

67.21 **910.5.1 Methodology.** Mechanical smoke exhaust systems shall be designed to remove
67.22 smoke after a fire is extinguished and to assist the fire department during suppression
67.23 operations or during marginal sprinkler control situations. They are not considered life
67.24 safety systems and are not designed for occupant safety.

68.1 **910.5.2 Calculation method.** Volumetric flow rate calculations shall demonstrate that
68.2 the system will provide at least three air changes per hour for the space required to be
68.3 provided with smoke exhaust. When only a portion of a space is used for high-piled
68.4 storage requiring smoke exhaust, the volume to be extracted shall be based on the
68.5 ceiling height multiplied by the actual gross floor area for storage.

68.6 **910.5.3 Operation.** Mechanical smoke exhaust fans shall be manually activated. In
68.7 addition, individual manual controls of each fan unit shall also be provided.

68.8 **910.5.4 Supply air.** Supply air for exhaust fans shall be sized to provide a minimum
68.9 of 50 percent of the required exhaust. Air velocity at each supply air opening shall not
68.10 exceed an average of 200 feet per minute when measured 4 feet (1219 mm) in front of
68.11 the opening. Openings for supply air shall be uniformly distributed around the periphery
68.12 of the area served and be located or ducted to a position not more than one-half the
68.13 storage height above the floor. Supply air openings shall open automatically upon
68.14 operation of the smoke exhaust system and shall not require a manual action at each
68.15 supply opening for operation. Supply air openings shall be kept clear of storage or
68.16 obstructions to airflow for at least 4 feet (1219 mm) in front of the opening. Supply air
68.17 openings shall be separated from exhaust fans and exterior combustibles to prevent
68.18 introduction of smoke into the building.

68.19 **910.5.5 Equipment.** Wiring and controls shall be as required in Sections 910.4.5 and
68.20 910.4.6. Interlock controls shall be as required in Section 910.4.7. Exhaust fans shall
68.21 be uniformly spaced and each fan shall have a maximum individual capacity of 30,000
68.22 cfm (850 m³/min).

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

68.25 **910.6 Testing and maintenance.** Mechanical smoke exhaust systems shall be tested and
68.26 maintained as required by Sections 910.6.1 through 910.6.4.

69.1 **910.6.1 Acceptance testing.** Mechanical smoke exhaust systems shall be acceptance
69.2 tested as required by Sections 909.18 and 909.19.

69.3 **910.6.1.1 Controls.** For testing purposes, each smoke exhaust system equipped
69.4 for automatic activation shall be put into operation by the actuation of the automatic
69.5 initiating device. Control sequences shall be verified throughout the system,
69.6 including verification of override from the firefighter's control panel when systems
69.7 are equipped for automatic activation.

69.8 **910.6.2 Special inspections.** Special inspections for mechanical smoke exhaust shall
69.9 be conducted according to Section 909.18.8.

69.10 **910.6.3 Maintenance.** Mechanical smoke exhaust systems, including exhaust fans,
69.11 supply air openings and controls, shall be maintained and unobstructed.

69.12 **910.6.4 Operational testing.** Operational testing of the smoke exhaust system shall
69.13 include all equipment such as initiating devices, fans, dampers, controls, and supply
69.14 air openings. Mechanical smoke exhaust systems shall be operated and tested under
69.15 each control sequence at least annually.

69.16 **1305.0915 IBC [F] SECTION 915, CARBON MONOXIDE DETECTION.**

69.17 Subpart 1. **IBC [F] section 915.1.** IBC [F] section 915.1 and subsection 915.1.1 are
69.18 amended to read as follows:

69.19 **915.1 General.** Carbon monoxide detection shall be installed in new buildings in accordance
69.20 with Sections 915.1.1 through 915.6.

69.21 **915.1.1 Where required.** Carbon monoxide detection shall be provided in Group I-1,
69.22 I-2, I-4, and R occupancies and in classrooms in Group E occupancies in the locations
69.23 specified in Section 915.2 where any of the conditions in Sections 915.1.2 through
69.24 915.1.6 exist.

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

70.5 (Sections 915.1.2 through 915.1.6 remain unchanged.)

70.6 Subp. 2. **IBC [F] section 915.2.** IBC [F] section 915.2 and subsections 915.2.1 and
70.7 915.2.2 are amended to read as follows:

70.8 **915.2 Locations.** Where required by Section 915.1.1, carbon monoxide detection shall be
70.9 installed in the locations specified in Sections 915.2.1 through 915.2.3.

70.10 **915.2.1 Dwelling units.** Carbon monoxide detection shall be installed in dwelling units
70.11 outside of each separate sleeping area within ten feet of the bedrooms. Where a
70.12 fuel-burning appliance is located in a bedroom or its attached bathroom, carbon
70.13 monoxide detection shall be installed within the bedroom.

70.14 **915.2.2 Sleeping units.** Carbon monoxide detection shall be installed in sleeping units.

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

70.19 (Section 915.2.3 remains unchanged.)

70.20 **1305.0916 SECTION 916, GAS DETECTION SYSTEMS.**

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

70.22 **916.2 Documentation.** The installation or modification of gas detection systems shall be
70.23 documented in accordance with Sections 916.2.1 and 916.2.2.

71.1 **916.2.1 Construction documents.** Documentation of the gas detection system design
71.2 and equipment to be used that demonstrates compliance with the requirements of this
71.3 code shall be provided with the application for permit.

71.4 **916.2.2 Fire authority notification.** On each occasion when a gas detection system
71.5 is either installed or modified, the licensed design professional shall notify the fire
71.6 authority having jurisdiction.

71.7 **1305.0917 SECTION 917, MASS NOTIFICATION SYSTEMS.**

71.8 IBC section 917.1 is deleted in its entirety.

71.9 **1305.0918 SECTION 918, EMERGENCY RESPONDER RADIO COVERAGE.**

71.10 IBC section 918 is deleted in its entirety.

71.11 **1305.0919 SECTION 919, POST-FIRE EXHAUST SYSTEM.**

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

71.13 SECTION 919

71.14 POST-FIRE SMOKE EXHAUST SYSTEM

71.15 **919.1 Scope and purpose.** This section applies to post-fire smoke exhaust systems when
71.16 they are required by other provisions of this code. The purpose of this section is to establish
71.17 minimum requirements for the design and installation of smoke exhaust systems that are
71.18 intended for the timely restoration of operations and overhaul activities once a fire is
71.19 extinguished.

71.20 **919.2 General design requirements.** Post-fire smoke exhaust systems are not intended or
71.21 designed as life safety systems and are not required to meet the provisions of Section 909.
71.22 These systems are permitted to use dedicated equipment, the normal building HVAC system
71.23 or other openings and shall have the capability to exhaust smoke from occupied spaces.
71.24 Smoke removal may be by either mechanical or natural ventilation, but shall be capable of

72.1 removing cold smoke. Smoke exhaust shall be permitted through elevator shafts. Smoke
 72.2 removed from a space shall be discharged to a safe location outside the building and may
 72.3 not be recirculated into the building in accordance with the Minnesota Mechanical Code.

72.4 **919.3 Exhaust capability.** The system shall have an air supply and smoke exhaust capability
 72.5 that will provide a minimum of three air changes per hour or remove smoke to less than a
 72.6 5 percent concentration within one hour of operation. The system does not need to exhaust
 72.7 from all areas at the same time, but is permitted to be zoned based on the largest fire area
 72.8 served. For the purpose of calculating system size, the height of a compartment shall be
 72.9 considered to run from slab to slab and include the volume above suspended ceilings.

72.10 **919.4 Operation.** The smoke exhaust system shall be operated by manual controls that are
 72.11 readily accessible to the fire department at an approved location and shall incorporate an
 72.12 approved control diagram. When a system is zoned into areas of operation less than the
 72.13 entire building, each zone shall have an individual control. Fire department manual controls
 72.14 of post-fire smoke exhaust systems shall have the highest priority of any control point within
 72.15 the building. Smoke exhaust shall not be permitted through any exit enclosure as defined
 72.16 in Section 1002.

72.17 **919.5 Inspection and testing.** Post-fire smoke exhaust systems shall be inspected and tested
 72.18 annually.

72.19 **1305.1006 SECTION 1006, NUMBER OF EXITS AND EXIT ACCESS DOORWAYS.**

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

72.21

72.22

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	

72.23

72.24

72.25

72.26

72.27

72.28

72.29

73.1	A ^c , E, M	49	75	75	75 ^a
73.2	B	49	100	75	100 ^a
73.3	F	49	75	75	100 ^a
73.4	H-1, H-2, H-3	3	NP	NP	25 ^b
73.5	H-4, H-5	10	NP	NP	75 ^b
73.6	I-1, I-2 ^d	10	NP	NP	75 ^a
73.7	I-3	10	NP	NP	100 ^a
73.8	I-4	10	75	75	75 ^a
73.9	R-1	10	75	75	75 ^a
73.10	R-2	20	75	75	125 ^a
73.11	R-3	20	75	75	125 ^{a,f}
73.12	R-4	20	75	75	125 ^{a,f}
73.13	S ^c	29	100	75	100 ^a
73.14	U	49	100	75	75 ^a

73.15 NP = Not Permitted

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

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

73.21 ^c For a room or space used for assembly purposes having fixed seating, see Section
73.22 1029.8.

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

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

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

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

74.4 **1006.2.2.1 Boiler, incinerator, and furnace rooms.** Two exit access doorways
74.5 are required in boiler, incinerator, and furnace rooms where the area is over 500
74.6 square feet (46 m²) and any fuel-fired equipment exceeds 400,000 British thermal
74.7 units (Btu) (422,000 kJ) input capacity. Where two exit access doorways are
74.8 required, one is permitted to be a fixed ladder or an alternating tread device. Exit
74.9 access doorways shall be separated by a horizontal distance not less than one-half
74.10 the length of the maximum overall diagonal dimension of the room. The exit access
74.11 path of travel shall not converge to a separation distance less than one-third the
74.12 length of the maximum overall diagonal dimension of the room.

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

74.14 **1006.2.2.4 Group E and I-4 means of egress.** Group E and I-4 facilities, rooms,
74.15 or spaces where care is provided for more than ten children that are 2-1/2 years of
74.16 age or less, shall have access to not less than two exits or exit access doorways.

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

74.19 **1006.2.2.7 Educational occupancy laboratories and prep areas.** Laboratories
74.20 and prep areas containing hazardous materials shall be provided with not less than
74.21 two means of egress when located in an E occupancy and the space is greater than
74.22 500 square feet.

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

74.24 **1006.3.3 Single exits.** A single exit or access to a single exit shall be permitted from
74.25 any story or occupied roof where one of the following conditions exists:

- 75.1 1. The occupant load, number of dwelling units or sleeping units, and common
75.2 path of egress travel distance do not exceed the values in Table 1006.3.3(1) or
75.3 1006.3.3(2).
- 75.4 2. Rooms, areas, and spaces complying with Section 1006.2.1 with exits that
75.5 discharge directly to the exterior at the level of exit discharge are permitted to have
75.6 one exit or access to a single exit.
- 75.7 3. Parking garages where the vehicles are mechanically parked shall be permitted
75.8 to have one exit or access to a single exit.
- 75.9 4. Group R-3 and R-4 occupancies shall be permitted to have one exit or access
75.10 to a single exit.
- 75.11 5. Individual single-story or multi-story dwelling units and sleeping units shall be
75.12 permitted to have a single exit or access to a single exit from each dwelling unit
75.13 or sleeping unit, provided that both of the following criteria are met:
- 75.14 5.1. Each dwelling unit and sleeping unit complies with Section 1006.2.1 as
75.15 a space with one means of egress.
- 75.16 5.2. Each sleeping unit and dwelling unit either:
- 75.17 (a) has an exit that discharges directly to the exterior at the level of exit
75.18 discharge; or
- 75.19 (b) has an exit access outside the entrance door that provides access to
75.20 at least two approved independent exits.

75.21 (Subsection 1006.3.3.1 remains unchanged.)

75.22 **1305.1009 [Renumbered 1305.1011]**

75.23 **1305.1009 SECTION 1009, ACCESSIBLE MEANS OF EGRESS.**

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

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

76.2 **1305.1010 SECTION 1010, DOORS, GATES, AND TURNSTILES.**

76.3 Subpart 1. [Repealed, 32 SR 7]

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

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

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

76.7 Subp. 5. **IBC section 1010.1.5.** IBC section 1010.1.5 is amended by modifying
76.8 exception 5 to read as follows:

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

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

76.14 **Exception:** The ingress side of access doors or gates in barrier walls and
76.15 fences protecting pools, spas, and hot tubs shall be permitted to have operable
76.16 parts of the latch release on self-latching devices at 54 inches (1370 mm)
76.17 maximum above the finished floor or ground, provided that the self-latching
76.18 devices are not also self-locking devices operated by means of a key, electronic
76.19 opener, or integral combination lock. All hardware shall comply with Section
76.20 1010.1.9.6.

76.21 Subp. 6. **IBC section 1010.1.9.4.** IBC section 1010.1.9.4 is amended to read as follows:

76.22 **1010.1.9.4 Locks and latches.** Locks and latches shall be permitted to prevent
76.23 operation of doors where any of the following exists:

- 77.1 1. Places of detention or restraint.
- 77.2 2. In buildings in occupancy Group A having an occupant load of 300 or less,
77.3 in buildings in occupancy Groups B, F, M, and S, and in places of religious
77.4 worship, the main exterior door or doors are permitted to be equipped with
77.5 key-operated locking devices from the egress side provided:
- 77.6 2.1. The locking device is readily distinguishable as locked.
- 77.7 2.2. A readily visible durable sign is posted on the egress side on or
77.8 adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED
77.9 WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch
77.10 (25 mm) high on a contrasting background.
- 77.11 2.3. The use of the key-operated locking device is revocable by the
77.12 building official for due cause.
- 77.13 3. Where egress doors are used in pairs, approved automatic flush bolts shall
77.14 be permitted to be used, provided that the door leaf having the automatic flush
77.15 bolts has no doorknob or surface-mounted hardware.
- 77.16 4. Doors from individual dwelling or sleeping units of Group R occupancies
77.17 having an occupant load of 10 or less are permitted to be equipped with a
77.18 night latch, dead bolt, or security chain, provided such devices are openable
77.19 from the inside without the use of a key or tool.
- 77.20 5. Fire doors, after the minimum elevated temperature has disabled the
77.21 unlatching mechanism, in accordance with listed fire door test procedures.
- 77.22 6. Doors serving roofs not intended to be occupied shall be permitted to be
77.23 locked preventing entry to the building from the roof.

78.1 7. Delayed egress locks, installed and maintained in conformance with Section
78.2 1010.1.9.8.

78.3 8. Controlled egress doors installed and maintained in accordance with Section
78.4 1010.1.9.7.

78.5 9. Electrically locked egress doors, installed and maintained in conformance
78.6 with Section 1010.1.9.9 or 1010.1.9.10.

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

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

78.12 Subp. 6a. **IBC section 1010.1.9.7.** IBC section 1010.1.9.7 is amended to read as
78.13 follows:

78.14 **1010.1.9.7 Controlled egress doors in Group I-1, I-2, R-3, and R-4 occupancies.**
78.15 Controlled egress door locking systems, including electromechanical locking
78.16 systems and electromagnetic locking systems, shall be permitted in Group I-1
78.17 Condition 2, I-2, R-3, and R-4 Condition 2 occupancies when a person's clinical
78.18 needs require their containment. Controlled egress doors shall be permitted in
78.19 these occupancies when the building is equipped throughout with an approved
78.20 automatic sprinkler system in accordance with Section 903.3.1.1 and an approved
78.21 automatic smoke detection system installed in accordance with Section 907. Electric
78.22 locking systems and controlled egress doors shall comply with the requirements
78.23 in items 1 through 11 below.

- 79.1 1. The egress control locks shall unlock upon actuation of either the automatic
79.2 sprinkler system or the automatic smoke-detection system within the means
79.3 of egress served by the locked area.
- 79.4 2. The egress control locks shall unlock upon loss of power controlling the
79.5 lock or lock mechanism.
- 79.6 3. The egress control locking system shall have the capability of being
79.7 unlocked by a signal or switch from the fire-command center, a nursing station,
79.8 or other approved location. The signal or switch shall directly break power
79.9 to the lock.
- 79.10 4. A building occupant shall not be required to pass through more than one
79.11 door equipped with a controlled egress lock before entering an exit.
- 79.12 5. The procedures for the operations of the unlocking system shall be described
79.13 and approved as part of the emergency planning and preparedness required
79.14 by Minnesota Rules, chapter 7511, the Minnesota State Fire Code.
- 79.15 6. All clinical staff shall have the keys, codes, or other means necessary to
79.16 operate the controlled egress locking devices or systems.
- 79.17 7. Emergency lighting shall be provided at both sides of a door equipped with
79.18 a controlled egress locking device.
- 79.19 8. 24-hour resident or patient supervision is provided within the secured area.
- 79.20 9. The controlled egress locking devices are designed to fail in the open
79.21 position.
- 79.22 10. Floor levels within the building or portion of the building with controlled
79.23 egress locking devices shall be divided into at least two compartments by
79.24 smoke barriers meeting the requirements of Section 709.

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

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

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

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

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

80.16 Subp. 7. **IBC sections 1010.1.9.8 and 1010.1.9.8.1.** IBC sections 1010.1.9.8 and
80.17 1010.1.9.8.1 are amended to read as follows:

80.18 **1010.1.9.8 Delayed egress door locks.** Delayed egress locking systems shall be
80.19 permitted to be installed on doors serving the following occupancies in buildings
80.20 that are equipped throughout with an automatic sprinkler system in accordance
80.21 with Section 903.3.1.1 or an approved smoke detection system installed throughout
80.22 the means of egress in accordance with Section 907.

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

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

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

81.5 **1010.1.9.8.1 Delayed egress locking system.** The delayed egress locking
81.6 system shall be installed and operated in accordance with all of the following:

81.7 1. The delay electronics of the delayed egress locking system shall
81.8 deactivate upon actuation of the automatic sprinkler system or automatic
81.9 fire detection system, allowing immediate free egress.

81.10 2. The delay electronics of the delayed egress locking system shall
81.11 deactivate upon loss of power controlling the lock or lock mechanism,
81.12 allowing immediate egress.

81.13 3. The delayed egress locking system shall have the capability of being
81.14 deactivated at the fire command center and other approved locations.

81.15 4. An attempt to egress shall initiate an irreversible process that shall
81.16 allow such egress in not more than 15 seconds when a physical effort to
81.17 exit of not more than 15 pounds (67 N) is applied to the egress side door
81.18 hardware for not more than one second. Initiation of the irreversible
81.19 process shall activate an audible signal in the vicinity of the door. Once
81.20 the delay electronics have been deactivated from an approved location,
81.21 relocking the delay electronics shall be by manual means only.

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

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

82.1 **Exceptions to item 5:**

82.2 1. In Group I-2 or I-3 occupancies, the egress path from any point
82.3 in the building shall pass through not more than two delayed egress
82.4 locking systems provided that the combined delay does not exceed
82.5 30 seconds.

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

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

82.13 6.1. For doors that swing in the direction of egress, the sign shall
82.14 read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED
82.15 IN 15 [30] SECONDS.

82.16 6.2. For doors that swing in the opposite direction of egress, the sign
82.17 shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE
82.18 OPENED IN 15 [30] SECONDS.

82.19 6.3. The sign shall comply with the visual character requirements in
82.20 ICC A117.1.

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

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

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

83.3 Subp. 7a. **IBC section 1010.1.9.12.** IBC section 1010.1.9.12 is amended by revising
83.4 exception 3 to read as follows:

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

83.8 Subp. 8. **IBC section 1010.1.** IBC section 1010.1 is amended by adding subsections
83.9 as follows:

83.10 **1010.1.11 Special detention arrangements.** Special detention arrangements meeting
83.11 the requirements of Sections 1010.1.11.1 through 1010.1.11.4 are permitted for rooms,
83.12 other than cells, where the occupants are being restrained for safety or security reasons.
83.13 The use of Sections 1010.1.11.1 through 1010.1.11.4 may be revoked by the fire code
83.14 official or building official for due cause.

83.15 **1010.1.11.1 Locking hardware.** Locking devices shall release upon any of the
83.16 following conditions:

- 83.17 1. Activation of the automatic sprinkler system.
- 83.18 2. Activation of any automatic fire detection device.
- 83.19 3. Activation of any automatic fire alarm system.
- 83.20 4. Loss of electrical power to the locking device or the fire alarm system.
- 83.21 5. Activation of the fire alarm trouble signal.
- 83.22 6. Operation of a manual switch located in an approved location.

84.1 All locking devices shall be designed to fail in the open position. Following the
84.2 release of the locking devices for any of the conditions specified in Items 1 through
84.3 6 above, relocking of the devices shall be by manual means only at the door.

84.4 **1010.1.11.2 Fire-extinguishing system.** When special detention arrangements
84.5 are used, the room or area being secured shall be protected with quick-response
84.6 sprinklers.

84.7 **1010.1.11.3 Fire alarm and detection.** When special detention arrangements are
84.8 used, the room or area and spaces between the room or area and an exterior exit
84.9 door shall be protected with automatic smoke detection connected to the building's
84.10 fire alarm system. If the walls of the room or area do not extend to the ceiling,
84.11 automatic smoke detection can be provided in the adjacent room or area, provided
84.12 that there are no substantial obstructions to delay activation of the smoke detection.

84.13 **1010.1.11.4 Door swing.** Doors separating detention rooms from other spaces
84.14 must swing in the direction of egress travel from the detention room.

84.15 **1305.1011 SECTION 1011, STAIRWAYS.**

84.16 Subpart 1. **IBC section 1011.14.** IBC section 1011.14 is amended to read as follows:

84.17 **1011.14 Alternating tread devices.** Alternating tread devices are limited to an element of
84.18 a means of egress in buildings of Groups F, H, and S from a mezzanine not more than 250
84.19 square feet (23 m²) in area and which serves not more than five occupants; and in buildings
84.20 of Group I-3 from a guard tower, observation station, or control room not more than 250
84.21 square feet (23 m²) in area and for access to unoccupied roofs. Access to mechanical
84.22 equipment or appliances on a roof shall be in accordance with Section 1208.3.1 and the
84.23 Minnesota Mechanical Code.

84.24 (IBC Sections 1011.14.1, 1011.14.2, and the exception still apply.)

85.1 Subp. 2. **IBC section 1011.15.** IBC section 1011.15 and all subsections are deleted
85.2 in their entirety and replaced with the following:

85.3 **1011.15 Ships ladders.** Ships ladders constructed as required for permanent stairs in
85.4 accordance with the Minnesota Mechanical Code, Minnesota Rules, part 1346.0306, subpart
85.5 1, amending IMC Section 306.5, shall be permitted to be used as a means of egress
85.6 component at the following locations:

85.7 1. Ships ladders are permitted to be used in Group I-3 occupancies for means of egress
85.8 at control rooms or elevated facility observation stations not more than 250 square feet
85.9 (23 m²) in floor area.

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

85.13 2.1 access to the area served is limited to building facilities staff, maintenance
85.14 staff, employees, or other authorized personnel;

85.15 2.2 required access to the area served is limited and periodic;

85.16 2.3 the area served is used for building maintenance service functions, or for
85.17 equipment access or monitoring;

85.18 2.4 the area served is not required to have a second means of egress by other
85.19 provisions of this code; and

85.20 2.5 the area served is not classified as a Group H occupancy.

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

86.1 **1305.1015 SECTION 1015, GUARDS.**

86.2 Subpart 1. **IBC section 1015.2, Where required.** IBC section 1015.2 is amended by
86.3 adding item 8 to the exception as follows:

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

86.6 Subp. 2. **IBC section 1015.3, Height.** IBC section 1015.3 is amended by modifying
86.7 exception 4 to read as follows:

86.8 4. The guard height in assembly seating areas shall be in accordance with Section
86.9 1029.17 and the Minnesota Bleacher Safety Act, Minnesota Statutes, section 326B.112.

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

86.12 **1015.6 Mechanical equipment, systems and devices.** Guards shall be designed and installed
86.13 in accordance with the Minnesota Mechanical Code, Minnesota Rules, chapter 1346.

86.14 Subp. 3. **IBC section 1015.8.** IBC section 1015.8 is amended to read as follows:

86.15 **1015.8 Window openings.** In occupancy groups R-1, R-2, and R-3 where the lowest part
86.16 of the opening of an operable window is located more than 72 inches (1829 mm) above the
86.17 finished grade or other surface below, the lowest part of the window opening shall be at a
86.18 height not less than 36 inches (914 mm) above the finished floor surface of the room in
86.19 which the window is located. Operable sections of windows shall not permit openings that
86.20 allow passage of a 4-inch-diameter (102 mm) sphere where such openings are located within
86.21 36 inches (914 mm) of the finished floor.

86.22 **Exceptions:**

87.1 1. Operable windows where the lowest part of the opening is located more than 75 feet
87.2 (22, 860 mm) above the finished grade or other surface below and that are provided
87.3 with window fall-prevention devices that comply with ASTM F 2006.

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

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

87.8 4. Windows that are provided with window opening control devices that comply with
87.9 Section 1015.8.1.

87.10 (Subsection 1015.8.1 remains unchanged.)

87.11 **1305.1017 [Renumbered 1305.1018]**

87.12 **1305.1018 SECTION 1018, AISLES.**

87.13 IBC section 1018 and all subsections are deleted in their entirety and replaced with the
87.14 following:

87.15 SECTION 1018

87.16 AISLES

87.17 **1018.1 Aisles and aisle accessways.** Aisles and aisle accessways serving as a portion of
87.18 the exit access in the means of egress system shall comply with the requirements of this
87.19 section. Aisles and aisle accessways shall be provided from all occupied portions of the exit
87.20 access. Aisles and aisle accessways serving assembly areas, other than seating at tables,
87.21 shall comply with Section 1029. Aisles and aisle accessways serving reviewing stands,
87.22 grandstands, and bleachers shall comply with Section 1029.

87.23 **1018.2 Width determination.** Where tables or counters are served by fixed seats, the width
87.24 of the aisle or aisle accessway shall be measured from the back of the seat. Where seating

88.1 is located at a table or counter and is adjacent to an aisle or aisle accessway, the measurement
88.2 of required clear width of the aisle or aisle accessway shall be made to a line 19 inches (483
88.3 mm) away from and parallel to the edge of the table or counter. The 19-inch (483 mm)
88.4 distance shall be measured perpendicular to the side of the table or counter. In the case of
88.5 other side boundaries for aisle or aisle accessways, the clear width shall be measured to
88.6 walls, tread edges, or other obstructions.

88.7 The required width of aisles and aisle accessways shall be unobstructed.

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

88.13 **1018.2.1 Minimum aisle accessway width.** Aisle accessways not required to be
88.14 accessible by Minnesota Rules, chapter 1341, the Minnesota Accessibility Code, shall
88.15 provide a minimum of 12 inches (305 mm) of width, plus 0.5 inches (12.7 mm) of
88.16 width for each additional one foot (305 mm), or fraction thereof, beyond 12 feet (3658
88.17 mm) of aisle accessway length.

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

88.20 **1018.2.2 Minimum aisle width.** The minimum clear width shall be determined by
88.21 Section 1005.1 for the occupant load served, but shall not be less than 36 inches (914
88.22 mm).

88.23 **Exception:** Nonpublic aisles serving fewer than 50 people, and that are not required
88.24 to be accessible by Minnesota Rules, chapter 1341, need not exceed 28 inches
88.25 (711 mm) in width.

89.1 **1018.3 Length.**

89.2 **1018.3.1 Aisle accessway.** The length of travel along the aisle accessway shall not
 89.3 exceed 30 feet (9144 mm) to an aisle or exit access doorway.

89.4 **1018.3.2 Aisle.** The length of travel along an aisle or combination aisle accessway and
 89.5 aisle to a point where a person has a choice of two or more paths of egress travel to
 89.6 separate exits or exit access doorways shall not exceed that permitted by Section
 89.7 1006.2.1 for common path of egress travel.

89.8 **1305.1018 [Renumbered 1305.1020]**89.9 **1305.1020 SECTION 1020, CORRIDORS.**

89.10 Subpart 1. **IBC Table 1020.1.** IBC Table 1020.1 is amended as follows:

89.11 TABLE 1020.1				
89.12 CORRIDOR FIRE-RESISTANCE RATING				
89.13 REQUIRED FIRE-RESISTANCE RATING				
89.14 (hours)				
89.15	89.16	89.17	89.18	89.19
89.20	89.21	89.22	89.23	89.24
89.25	89.26	89.27	89.28	89.29
OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	Without sprinkler system	With sprinkler system ^c	
H-1, H-2, H-3	All	Not permitted	1	
H-4, H-5	Greater than 30	Not permitted	1	
A, B, E, F, M, S, U	Greater than 30	1	0	
R	Greater than 10	1	0.5 ^c /1 ^d	
I-2 ^a	All	Not permitted	0	
I-1, I-3	All	Not permitted	1 ^b	
I-4	All	1	0	

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

90.1 ^b For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section
90.2 408.8.

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

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

90.8 Subp. 2. **IBC section 1020.6.** IBC section 1020.6 is amended by modifying the
90.9 exceptions to read as follows:

90.10 **Exceptions:**

90.11 1. Foyers, lobbies, or reception rooms constructed as required for corridors shall not
90.12 be construed as intervening rooms if the aggregate area of these spaces does not exceed
90.13 1,000 square feet per floor.

90.14 2. Foyers, lobbies, or reception rooms that are more than 1,000 square feet per floor in
90.15 aggregate area and other rooms or spaces that are constructed as required for corridors
90.16 shall not be construed as intervening rooms when the rooms or spaces meet the
90.17 following:

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

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

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

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

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

91.5 **1305.1023 SECTION 1023, INTERIOR EXIT STAIRWAYS AND RAMPS.**

91.6 IBC section 1023.5 is amended to read as follows:

91.7 **1023.5 Penetrations.** Penetrations into or through interior exit stairways and ramps are
91.8 prohibited except for the following:

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

91.10 2. Fire protection systems.

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

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

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

91.14 6. Electrical raceway for fire department communication systems.

91.15 7. Electrical raceway serving the interior exit stairway or ramp and terminating in a
91.16 steel box not exceeding 16 square inches (0.010 m²).

91.17 Such penetrations shall be protected in accordance with Section 714. There shall not be
91.18 penetrations or communication openings, whether protected or not, between adjacent interior
91.19 exit stairways and ramps or exit passageways.

91.20 (The exception to Section 1023.5 is deleted.)

92.1 **1305.1023 [Renumbered 1305.1024]**

92.2 **1305.1024 SECTION 1024, EXIT PASSAGEWAYS.**

92.3 IBC section 1024.6 is amended to read as follows:

92.4 **1024.6 Penetrations.** Penetrations into or through an interior exit passageway are prohibited
92.5 except for the following:

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

92.7 2. Fire protection systems.

92.8 3. Security systems that serve the exit passageway.

92.9 4. Wiring that serves the exit passageway.

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

92.11 6. Electrical raceway for fire department communication systems.

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

92.14 Such penetrations shall be protected in accordance with Section 714. There shall not be
92.15 penetrations or openings, whether protected or not, between adjacent interior exit stairways
92.16 and ramps or adjacent exit passageways.

92.17 (The exception to Section 1024.6 is deleted.)

92.18 **1305.1028 [Renumbered 1305.1029]**

92.19 **1305.1029 SECTION 1029, ASSEMBLY.**

92.20 Subpart 1. **IBC section 1029.1.1.** IBC section 1029.1.1 is amended to read as follows:

92.21 **1029.1.1 Bleachers.** Bleachers, grandstands, and folding and telescopic seating, that
92.22 are not building elements, shall comply with International Code Council (ICC) 300,
92.23 with the following amendments to ICC 300:

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

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

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

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

93.6 3. front egress is not limited.

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

93.8 **405.1 Aisles.** The minimum width of aisles shall be in accordance with Section 404.5, but
93.9 not less than that required by this section. An aisle is not required in seating facilities where
93.10 all of the following conditions exist:

93.11 1. Seats are without backrest.

93.12 2. The rise from row to row does not exceed 6 inches (152 mm) per row.

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

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

93.16 4. The number of rows does not exceed 16 rows in height.

93.17 5. The first seat board is not more than 12 inches (305 mm) above the ground floor or
93.18 a cross aisle.

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

93.20 6. Seat boards have a continuous flat surface.

93.21 7. Seat boards provide a walking surface with a minimum width of 11 inches (279 mm).

93.22 8. Egress from seating is not restricted by rails, guards, or other obstructions.

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

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

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

94.5 **Exceptions:**

94.6 1. Tiered seating is not required to have a guard if: (a) the tiered seating is located
94.7 adjacent to a wall; and (b) the space between the wall and the tiered seating is less
94.8 than 4 inches (102 mm).

94.9 2. In accordance with the Minnesota Bleacher Safety Act, Minnesota Statutes,
94.10 section 326B.112:

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

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

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

94.16 **408.3 Guard design.** Guards and their attachment shall be designed to resist the loads
94.17 indicated in Section 303. Bleachers must have vertical perimeter guards or other approved
94.18 guards that address climbability and are designed to prevent accidents, in accordance with
94.19 the Minnesota Bleacher Safety Act, Minnesota Statutes, section 326B.112.

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

94.21 All bleachers or bleacher open spaces over 55 inches (1397 mm) above grade or the
94.22 floor below, and all bleacher guardrails, if any part of the guardrail is over 30 inches
94.23 (762 mm) above grade or the floor below, must be certified to conform with the safety
94.24 requirements contained in Minnesota Statutes, section 326B.112.

95.1 (IBC Section 1029.1.1.1 still applies.)

95.2 Subp. 2. **IBC section 1029.6.** IBC section 1029.6 is amended by adding a section to
95.3 read:

95.4 **1029.6.4 Width of means of egress for bleacher facilities.** Aisles for bleachers shall
95.5 not be required to be more than 66 inches (167 cm) in width when calculated in
95.6 accordance with Section 1029.6.1 or 1029.6.3 when the following conditions are
95.7 satisfied:

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

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

- 95.13 5. Aisles serving bleachers in compliance with Section 1029.6.4.

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

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

- 95.18 1. guards are not required on bleachers 55 inches and less in height; and
- 95.19 2. bleachers must have vertical perimeter guards or other approved guards that address
95.20 climbability and are designed to prevent accidents.

95.21 (Subsections 1029.17.1 through 1029.17.4 remain unchanged.)

95.22 **1305.1030 SECTION 1030, EMERGENCY ESCAPE AND RESCUE.**

95.23 Subpart 1. **IBC section 1030.1.** IBC section 1030.1 is amended to read as follows:

96.1 **1030.1 General.** In addition to the means of egress required by this chapter, emergency
96.2 escape and rescue openings shall be provided in Group R occupancies as follows. Basements
96.3 and sleeping rooms below the fourth story above grade plane shall have at least one exterior
96.4 emergency escape and rescue opening in accordance with this section. Where basements
96.5 contain one or more sleeping rooms, emergency escape and rescue openings shall be required
96.6 in each sleeping room, but shall not be required in adjoining areas of the basement. Such
96.7 openings shall open directly into a public way or to a yard or court that opens to a public
96.8 way.

96.9 **Exceptions:**

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

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

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

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

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

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

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

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

97.5 7. High-rise buildings in accordance with Section 403.

97.6 8. Basements in Group R-3 occupancies used only to house mechanical equipment that
97.7 do not exceed a total floor area of 200 square feet (18.58 m²).

97.8 Subp. 2. [See repealer.]

97.9 Subp. 3. [See repealer.]

97.10 **1305.1202 SECTION 1202, VENTILATION.**

97.11 IBC section 1202.1 is amended to read as follows:

97.12 **1202.1 General.** Buildings shall be provided with natural ventilation in accordance with
97.13 Section 1202.5 or mechanical ventilation in accordance with Minnesota Rules, chapter 1346.
97.14 For additional ventilation requirements, see Minnesota Rules, chapters 1322 and 1323, as
97.15 applicable.

97.16 **Exceptions:**

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

97.19 2. Group U occupancies.

97.20 **1305.1209 SECTION 1209, TOILET AND BATHROOM REQUIREMENTS.**

97.21 IBC section 1209.2.1 is amended to read as follows:

97.22 **1209.2.1 Floors and wall bases.** In other than dwelling units, toilet, bathing and shower
97.23 room floor finish material shall have a smooth, hard, nonabsorbent surface, such as

98.1 Portland cement, concrete, ceramic tile, sheet vinyl, or other approved floor covering
98.2 material. The intersections of such floors with walls shall have a smooth, hard,
98.3 nonabsorbent vertical base that extends upward onto the walls at least 4 inches (101
98.4 mm).

98.5 **1305.1402 SECTION 1402, PERFORMANCE REQUIREMENTS.**

98.6 IBC section 1402.5 is deleted in its entirety.

98.7 **1305.1404 SECTION 1404, INSTALLATION OF WALL COVERINGS.**

98.8 Subpart 1. **IBC section 1404.4.2.** IBC section 1404.4.2 is amended to read as follows:

98.9 **1404.4.2 Masonry.** Flashing and weepholes in anchored veneer shall be located above
98.10 finished ground level above the foundation wall or slab, and other points of support,
98.11 including structural floors, shelf angles and lintels where anchored veneers are designed
98.12 in accordance with Section 1404.4.2.

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

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

98.15 **1305.1502 SECTION 1502, ROOF DRAINAGE.**

98.16 Subpart 1. **IBC section 1502.1.** IBC section 1502.1 is amended and subsections are
98.17 added to read as follows:

98.18 **1502.1 Roof drainage.** Design and installation of roof drainage systems shall comply with
98.19 Minnesota Rules, chapter 4714, Minnesota Plumbing Code, and the following provisions:

98.20 **1502.1.1 Where required.** All roofs shall drain into a separate storm sewer system or
98.21 to an approved place of disposal.

98.22 **1502.1.2 Roof design.** Roofs shall be structurally designed for the maximum possible
98.23 depth of water that will pond thereon as determined by the relative levels of roof deck
98.24 and overflow weirs, scuppers, edges, or serviceable drains in combination with the

99.1 deflected structural elements. In determining the maximum possible depth of water,
 99.2 all primary roof drainage means shall be assumed to be blocked.

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

99.5 **1502.2 Secondary drainage required.** Secondary (emergency) roof drains or scuppers
 99.6 shall be provided where the roof perimeter construction extends above the roof in such a
 99.7 manner that water will be entrapped if the primary drains allow buildup for any reason.

99.8 **1502.2.1 Separate systems required.** Secondary (emergency) roof drain systems shall
 99.9 have piping and point of discharge separate from the primary system. Discharge shall
 99.10 be above grade in a location which would normally be observed by the building
 99.11 occupants or maintenance personnel.

99.12 **1502.2.2 Sizing of secondary drains.** Secondary (emergency) roof drain systems shall
 99.13 be sized to the same capacity as the primary roof drain areas in accordance with
 99.14 Minnesota Rules, chapter 4714, the Minnesota Plumbing Code.

99.15 **1502.2.3 Sizing of scuppers.** Scuppers shall be sized to prevent the depth of ponding
 99.16 water from exceeding that for which the roof was designed as determined by this code.
 99.17 Scuppers shall not have an opening weir length dimension of less than 4 inches (102
 99.18 mm) and shall be sized in accordance with Table 1502.2.3. The flow through the primary
 99.19 system shall not be considered when sizing the secondary roof drainage system.

99.20
 99.21

TABLE 1502.2.3 SCUPPER SIZING^a
 Square feet of Roof Area

99.22
 99.23
 99.24
 99.25
 99.26
 99.27

Head Height in Inches ^b	Length of Weir in inches						
	4	6	8	12	16	20	24
1	273	418	562	851	1139	1427	1715
2	734	1141	1549	2365	3180	3996	4813
3	1274	2023	2772	4270	5768	7267	8766

100.1	4	1845	2999	4152	6460	8766	11073	13381
100.2	6	2966	5087	7204	11442	15860	19918	24160

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

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

100.5 Subp. 2. **IBC section 1502.3.** IBC section 1502.3 is deleted in its entirety.

100.6 **1305.1510 SECTION 1510, ROOFTOP STRUCTURES.**

100.7 IBC section 1510.2.2 is amended to read as follows:

100.8 **1510.2.2 Use limitations.** Penthouses shall not be used for purposes other than shelter
100.9 of mechanical or electrical equipment, tanks, or vertical shaft openings in the roof
100.10 assembly.

100.11 **Exception:** Accessory uses necessary for the maintenance of building systems
100.12 shall be permitted when the penthouse is sprinkled in accordance with Section
100.13 903.1.1.

100.14 **1305.1511 SECTION 1511, REROOFING.**

100.15 Subpart 1. **IBC section 1511.1.** IBC section 1511.1 is amended to read as follows:

100.16 **1511.1 General.** Materials and methods of application used for recovering or replacing an
100.17 existing roof covering shall comply with the requirements of chapter 15.

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

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

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

101.4 3. A secondary (emergency) drainage system is installed in compliance with Section
101.5 1502.

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

101.7 **1511.5 Reinstallation of materials.** Existing slate, clay, or cement tile shall be permitted
101.8 for reinstallation, except that damaged, cracked, or broken slate or tile shall not be reinstalled.
101.9 Existing vent flashing, metal edging, drain outlets, collars, and metal counterflashings shall
101.10 not be reinstalled where rusted, damaged, or deteriorated. Aggregate surfacing materials
101.11 shall not be reinstalled unless such aggregate complies with the gradation requirements of
101.12 ASTM C-33 Standard Specification for Concrete Aggregate.

101.13 Subp. 3. **IBC section 1511.7.** IBC section 1511 is amended by adding section 1511.7
101.14 to read as follows:

101.15 **1511.7 Drainage.** Existing roofs where the roof perimeter construction extends above the
101.16 roof in such a manner that water will be entrapped if the primary drains allow buildup for
101.17 any reason shall be equipped with a secondary (emergency) drainage system.

101.18 **Exception:** Existing roofs that are demonstrated to have the structural capacity to
101.19 support the depth of ponding water where the water will discharge over an exterior
101.20 building edge if the primary drainage system fails.

101.21 **1305.1904 SECTION 1904, DURABILITY REQUIREMENTS.**

101.22 IBC section 1904.3 is amended to read as follows:

102.1 **1904.3 Corrosion protection.** Where bonded reinforcing and pre-stressing steel is located
 102.2 in concrete assigned to Exposure Class F3 or Exposure Class C2, the steel shall be protected
 102.3 from corrosion by one of the following methods:

- 102.4 1. impermeable barrier;
- 102.5 2. epoxy coating in accordance with ACI 318; or
- 102.6 3. hot dipped galvanizing in accordance with ACI 318.

102.7 **1305.2308 SECTION 2308, CONVENTIONAL LIGHT-FRAME CONSTRUCTION.**

102.8 Subpart 1. [See repealer.]

102.9 Subp. 2. **IBC Table 2308.6.1.** IBC Table 2308.6.1, Wall Bracing Requirements, is
 102.10 amended to read as follows:

102.11 **TABLE 2308.6.1^a**

102.12 **WALL BRACING REQUIREMENTS**

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 Each End of Braced Wall Line
					Bracing Method ^b			
					LIB	DWB, WSP	SFB, PBS, PCP, HPS, GB ^{c,d}	
See Section 1609.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35'-0"	Each end and < 25'-0" o.c.	Each end and < 25'-0" o.c.	Each end and < 25'-0" o.c.	12'-6"
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	35'-0"	Each end and < 25'-0" o.c.	Each end and < 25'-0" o.c.	Each end and < 25'-0" o.c.	12'-6"
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	35'-0"	NP	Each end and < 25'-0" o.c.	Each end and < 25'-0" o.c.	12'-6"

102.30 For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm

103.1 NP = Not permitted

103.2 ^a This table specifies minimum requirements for braced wall panels along interior or exterior
103.3 braced wall lines.

103.4 ^b See section 2308.6.3 for full description of bracing methods.

103.5 ^c For method GB, gypsum wallboard applied to framing supports that are spaced at 16 inches
103.6 on center.

103.7 ^d The required lengths shall be doubled for gypsum board applied to only one face of a
103.8 braced wall panel.

103.9 **1305.2510 SECTION 2510, LATHING AND FURRING FOR CEMENT PLASTER**
103.10 **(STUCCO).**

103.11 IBC section 2510.6 is amended to read as follows:

103.12 **2510.6 Water-resistive barriers.** Water-resistive barriers shall be installed as required in
103.13 Section 1403.2 and, where applied over wood-based sheathing, shall include a water-resistive,
103.14 vapor-permeable barrier with a performance at least equivalent to two layers of Grade D
103.15 paper.

103.16 **Exception:** Where the water-resistive barrier that is applied over wood-based sheathing
103.17 has a water resistance equal or greater than that of 60-minute Grade D paper and is
103.18 separated from the stucco by an intervening, substantially non-water-absorbing layer
103.19 or drainage space.

103.20 **1305.2702 SECTION 2702, EMERGENCY AND STANDBY POWER SYSTEMS.**

103.21 IBC section 2702.1.3 is amended to read as follows:

103.22 **2702.1.3 Installation.** Emergency and standby power systems shall be installed in
103.23 accordance with Minnesota Rules, chapter 1315.

103.24 **1305.2902 SECTION 2902, MINIMUM PLUMBING FACILITIES.**

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

103.26 Subp. 1a. [See repealer.]

104.1 Subp. 2. **IBC Table 2902.1, Minimum number of required plumbing fixtures.**

104.2 A. The body of IBC Table 2902.1 is amended as follows:

104.3 1. Add footnote "l" to the No. 1, Assembly Classification, "Stadiums, amusement parks,
104.4 bleachers, and grandstands for outdoor sporting events and activities" description of the
104.5 table.

104.6 2. Add footnotes "g," "h," "i," and "j" to the "Drinking Fountains" heading in the table.

104.7 3. Add footnote "k" to the "Water Closets" heading in the table.

104.8 4. In No. 5, Institutional Classification, delete the requirement for a bathtub or shower
104.9 fixture from adult day care and child day care.

104.10 B. The footnotes to IBC Table 2902.1 are amended to read as follows:

104.11 ^a The fixtures shown are based on one fixture being the minimum required for the
104.12 number of persons indicated or any fraction of the number of persons indicated. The number
104.13 of occupants shall be determined by this code.

104.14 ^b Toilet facilities for employees shall be separate from facilities for inmates or care
104.15 recipients.

104.16 ^c A single-occupant toilet room with one water closet and one lavatory serving not
104.17 more than two adjacent patient rooms shall be permitted where the room is provided with
104.18 direct access from each patient room and with provisions for privacy.

104.19 ^d The occupant load for seasonal outdoor seating and entertainment areas shall be
104.20 included when determining the minimum number of facilities required.

104.21 ^e For business and mercantile classifications with an occupant load of 50 or fewer, a
104.22 service sink shall not be required.

105.1 ^f The required number and type of plumbing fixtures for swimming pools shall be in
105.2 accordance with Minnesota Rules, part 4717.3650.

105.3 ^g The minimum number of required drinking fountains shall comply with Table 2902.1
105.4 and Minnesota Rules, chapter 1341.

105.5 ^h A drinking fountain shall not be required in buildings or tenant spaces having an
105.6 occupant load of less than 50.

105.7 ⁱ Where water is served in restaurants, drinking fountains shall not be required.

105.8 ^j Water or other beverages available through free or fee-based serving or dispensers
105.9 may be substituted for up to 50 percent of the required number of drinking fountains.

105.10 ^k In each bathroom or toilet room, urinals shall not be substituted for more than 67
105.11 percent of the required water closets.

105.12 ^l Permanent facilities located either on site or available in an adjacent building or
105.13 portable temporary facilities available on site during times when the stadium or grandstand
105.14 is in use may be used.

105.15 Subp. 3. **IBC section 2902.2.** IBC section 2902.2 is amended to read as follows:

105.16 **2902.2 Separate facilities.** Where plumbing fixtures are required, separate facilities shall
105.17 be provided for each sex.

105.18 **Exceptions:**

105.19 1. Separate facilities shall not be required for dwelling units and sleeping units.

105.20 2. Separate facilities shall not be required in structures or tenant spaces with a total
105.21 occupant load, including both employees and customers, of 25 or less.

105.22 3. Separate facilities shall not be required in mercantile occupancies in which the
105.23 maximum occupant load is 100 or less.

106.1 Subp. 4. **IBC section 2902.6.** IBC section 2902 is amended by adding a subsection
106.2 to read as follows:

106.3 **2902.6 Controlled access to required facilities.** Sanitation facilities required by this chapter
106.4 may have controlled access, but in all cases shall be maintained available for utilization by
106.5 those employees, customers, or patrons used to calculate the minimum required facilities.

106.6 **1305.3001 SECTION 3001, GENERAL.**

106.7 Subpart 1. **IBC section 3001.2.** IBC section 3001.2 is deleted in its entirety.

106.8 Subp. 2. **IBC section 3001.3.** IBC section 3001.3 is amended to read as follows:

106.9 **3001.3 Referenced standards.** Except as otherwise provided for in this code, the design,
106.10 construction, installation, alteration, repair, and maintenance of elevators and conveying
106.11 systems and their components shall conform to the applicable standard specified in Table
106.12 3001.3; Minnesota Rules, chapter 1307, Elevators and Related Devices; and Minnesota
106.13 Rules, chapter 1335, Floodproofing Regulations.

106.14 (Table 3001.3 remains unchanged.)

106.15 Subp. 3. **IBC section 3001.4.** IBC section 3001.4 is amended to read as follows:

106.16 **3001.4 Accessibility.** Passenger elevators required to be accessible or to serve as part of an
106.17 accessible means of egress shall comply with Section 1009 and Minnesota Rules, chapter
106.18 1341.

106.19 Subp. 4. **IBC section 3001.5.** IBC section 3001.5 is amended as follows:

106.20 **3001.5 Change in use.** A change in use of an elevator from freight to passenger, passenger
106.21 to freight, or from one freight class to another freight class shall comply with Minnesota
106.22 Rules, chapter 1307.

106.23 **1305.3002 SECTION 3002, HOISTWAY ENCLOSURES.**

106.24 Subpart 1. **IBC section 3002.3.** IBC section 3002.3 is amended as follows:

107.1 **3002.3 Emergency signs.** An approved pictorial sign of a standardized design shall be
107.2 posted adjacent to each elevator call station on all floors instructing occupants to use the
107.3 exit stairways and not to use the elevators in case of fire. The sign shall be as illustrated in
107.4 ASME A17.1, Figure 2.27.9.

107.5 (The exceptions remain unchanged.)

107.6 Subp. 2. **IBC section 3002.4.** IBC section 3002.4 is amended to read as follows:

107.7 **3002.4 Elevator car to accommodate ambulance stretcher.** Where elevators are provided
107.8 in buildings four or more stories above grade plane or four or more stories below grade
107.9 plane, at least one elevator shall be provided for fire department emergency access to all
107.10 floors. The elevator car shall be of such a size and arrangement to accommodate an
107.11 ambulance stretcher 24 inches by 84 inches (610 mm by 2133.5 mm) with not less than
107.12 5-inch (127 mm) radius corners, in the horizontal, open position. The emergency access
107.13 elevator shall be identified by the international symbol for emergency medical services (star
107.14 of life). The symbol shall be not less than three inches (76 mm) high and shall be placed
107.15 inside on both sides of the hoistway door frame at each floor level.

107.16 **Exception:** When approved by the authority having jurisdiction, in passenger elevators
107.17 to be installed in existing buildings where existing hoistway configuration or technical
107.18 infeasibility prohibits strict compliance with the minimum inside car size, the minimum
107.19 inside car area may be reduced to not less than 48 inches by 48 inches.

107.20 Subp. 3. **IBC section 3002.6.** IBC section 3002.6 is amended to read as follows:

107.21 **3002.6 Prohibited doors.** Doors, other than hoistway doors, elevator car doors, and smoke
107.22 control doors, when required, shall be prohibited at the point of access to an elevator car.
107.23 Smoke control doors shall be:

108.1 1. held open during normal operation by a "hold-open" device that is activated for
108.2 closure by fire or smoke sensing devices located in the elevator lobby or its immediate
108.3 vicinity; and

108.4 2. readily openable from inside the car without a key, tool, special knowledge, or effort
108.5 when closed.

108.6 Subp. 4. **IBC section 3002.9.** IBC section 3002.9 is amended to read as follows:

108.7 **3002.9 Plumbing and mechanical systems.** Plumbing and mechanical systems installed
108.8 within elevator hoistways shall be provided in accordance with the following:

108.9 **3002.9.1 Plumbing systems.** Plumbing systems in hoistways shall be limited to and
108.10 provided in accordance with Minnesota Rules, chapter 1307.

108.11 **3002.9.2 Mechanical systems.** Mechanical systems and mechanical components in
108.12 hoistways shall be limited to those serving the hoistway. Mechanical systems serving
108.13 the hoistway shall not serve other portions of the building.

108.14 (The exception is deleted.)

108.15 **1305.3003 SECTION 3003, EMERGENCY OPERATIONS.**

108.16 Subpart 1. **IBC section 3003.1.1.** IBC section 3003.1.1 is modified to read:

108.17 **3003.1.1 Manual transfer.** At elevator locations where standby power is required, standby
108.18 power shall be manually transferable to all elevators in each bank. Standby power shall not
108.19 be transferred from elevator banks where standby power is required to elevator banks where
108.20 standby power is not required.

108.21 Subp. 2. **IBC section 3003.1.3.** IBC section 3003.1.3 is modified to read:

108.22 **3003.1.3 Two or more elevators.** Where two or more elevators are controlled by a common
108.23 operating system, where standby power is required, all elevators controlled by that common
108.24 operating system shall automatically transfer to standby power within 60 seconds after

109.1 failure of normal power where the standby power source is of sufficient capacity to operate
109.2 all elevators at the same time. Where the standby power source is not of sufficient capacity
109.3 to operate all elevators at the same time, the elevators shall operate according to ASME
109.4 A17.1/CSA B44-2016 2.27.2.

109.5 **1305.3111 SECTION 3111, SOLAR ENERGY SYSTEMS.**

109.6 Subpart 1. **IBC section 3111.1.** IBC section 3111.1 and its subsections are amended
109.7 to read as follows:

109.8 **3111.1 General.** Solar energy systems shall comply with the requirements of this section.

109.9 **Exception:** Buildings regulated by Minnesota Rules, chapter 1309, the Minnesota
109.10 Residential Code.

109.11 **3111.1.1 Wind resistance.** Rooftop mounted photovoltaic panels and modules and
109.12 solar thermal collectors shall be designed in accordance with Section 1609.

109.13 **3111.1.2 Roof live load.** Roof structures that provide support for solar energy systems
109.14 shall be designed in accordance with Section 1607.13.5.

109.15 **3111.1.3 Roof access points.** Roof access points shall meet all the following criteria:

- 109.16 1. Roof access points shall be located where fire departments have ground access.
- 109.17 2. Roof access points shall be located in areas that do not require the placement
109.18 of fire department ground ladders over openings such as windows or doors.
- 109.19 3. Roof access points shall be located at strong points of building construction
109.20 capable of supporting emergency responders.
- 109.21 4. Roof access points shall be in locations where the access point does not conflict
109.22 with overhead obstructions such as tree limbs, wires, or signs.

110.1 5. Each roof access point shall be provided with a landing on the roof side not less
110.2 than six feet in each direction. The landing shall be free and clear of obstructions
110.3 such as vent pipes, conduit, and mechanical and electrical equipment.

110.4 6. Roof access point landings on roofs with slopes greater than two units vertical
110.5 in 12 units horizontal (2:12) shall be positioned with direct access to a pathway to
110.6 ridge.

110.7 7. Each solar array or grouping of arrays shall have not less than two roof access
110.8 points spaced not closer than 1/3 the diagonal dimension of the array or arrays
110.9 served.

110.10 **3111.1.4.** When solar photovoltaic panels are installed on any building or site, the
110.11 licensed design professional shall notify the fire code official.

110.12 Subp. 2. **IBC section 3111.3.** IBC section 3111.3 is amended to read as follows:

110.13 **3111.3 Photovoltaic solar energy systems.** Solar photovoltaic energy systems shall be
110.14 designed and installed in accordance with this section, the Minnesota State Fire Code, the
110.15 Minnesota Electrical Code, and the manufacturer's instructions.

110.16 **Exception:** Solar photovoltaic power systems installed on detached, nonhabitable
110.17 Group U structures including parking shade structures, carports, solar trellises, and
110.18 similar structures need only comply with the Minnesota Fire Code, the Minnesota
110.19 Electrical Code, and the manufacturer's instructions.

110.20 (Subsections 3111.3.1, 3111.3.2, and 3111.3.3 remain unchanged.)

110.21 Subp. 3. **IBC section 3111.3.4.** IBC section 3113.3.4 and its subsections are amended
110.22 to read as follows:

110.23 **3111.3.4 Access and pathways.** Roof access, pathways, and spacing requirements
110.24 shall be provided in accordance with Sections 3111.3.4.1 through 3111.3.4.2.3. Pathways

111.1 shall be over areas capable of supporting fire fighters accessing the roof. Pathways
111.2 shall be located in areas without obstructions such as vent pipes, conduit, and mechanical
111.3 and electrical equipment.

111.4 **Exceptions:**

111.5 1. Detached, nonhabitable Group U structures including but not limited to detached
111.6 garages serving Group R-3 buildings, parking shade structures, carports, solar
111.7 trellises, and similar structures.

111.8 2. Roof access, pathways, and spacing requirements need not be provided where
111.9 the fire code official has determined that rooftop operations will not be employed.

111.10 **3111.3.4.1 Solar photovoltaic systems for roof slopes greater than two units**
111.11 **vertical in 12 units horizontal (2:12).** Solar photovoltaic systems for buildings
111.12 with roof slopes greater than two units vertical in 12 units horizontal (2:12) shall
111.13 comply with Sections 3111.3.4.1.1 through 3111.3.4.1.3.

111.14 **3111.3.4.1.1 Pathways to ridge.** Not fewer than two 36-inch-wide pathways
111.15 on separate roof planes, from the lowest roof edge to ridge, shall be provided
111.16 on all buildings. Pathways shall be provided at intervals not greater than 150
111.17 feet throughout the length and width of the roof. Not fewer than one pathway
111.18 shall be provided on the street or driveway side, or fire-department-access
111.19 side of the roof. For each roof plane with a photovoltaic array, not fewer than
111.20 one 36-inch-wide pathway from lowest roof edge to ridge shall be provided
111.21 on the same roof plane as the photovoltaic array, on an adjacent roof plane,
111.22 or straddling the same and adjacent roof planes.

111.23 **3111.3.4.1.2 Setbacks at ridge.** For photovoltaic arrays occupying 33 percent
111.24 or less of the plan view total roof area, a setback of not less than 18 inches
111.25 (457 mm) wide is required on both sides of a horizontal ridge. For photovoltaic

112.1 arrays occupying more than 33 percent of the plan view total roof area, a
112.2 setback of not less than 36 inches (914 mm) wide is required on both sides
112.3 of a horizontal ridge.

112.4 **3111.3.4.1.3 Alternative setbacks at ridge.** Where an automatic sprinkler
112.5 system is installed within the building, setbacks at the ridge shall conform to
112.6 one of the following criteria:

112.7 1. For photovoltaic arrays occupying 66 percent or less of the plan view
112.8 total roof area, a setback of not less than 18 inches (457 mm) wide is
112.9 required on both sides of a horizontal ridge.

112.10 2. For photovoltaic arrays occupying more than 66 percent of the plan
112.11 view total roof area, a setback of not less than 36 inches (914 mm) wide
112.12 is required on both sides of a horizontal ridge.

112.13 **3111.3.4.1.4 Emergency escape and rescue openings.** Panels and modules
112.14 installed on Group R buildings shall not be placed on the portion of a roof
112.15 that is below an emergency escape and rescue opening. A pathway of not less
112.16 than 36 inches (914 mm) wide shall be provided from the roof edge to the
112.17 emergency escape and rescue opening.

112.18 **3111.3.4.2 Solar photovoltaic systems for roofs with slopes of two units vertical**
112.19 **in 12 units horizontal or less.** Access to systems for buildings with roofs with
112.20 slopes of two units vertical in 12 units horizontal (2:12) or less, shall be provided
112.21 in accordance with Sections 3111.3.4.2.1 through 3111.3.4.2.3.

112.22 **3111.3.4.2.1 Perimeter pathways.** There shall be a minimum six-foot-wide
112.23 (1,829 mm) clear perimeter around the edges of the roof.

113.1 **Exception:** Where either axis of the building is 250 feet (76,200 mm) or
113.2 less, the clear perimeter around the edges of the roof shall be permitted
113.3 to be reduced to a minimum width of four feet (1,219 mm).

113.4 **3111.3.4.2.2 Interior pathways.** Interior pathways shall be provided between
113.5 array sections to meet the following requirements:

113.6 1. Pathways shall be provided at intervals not greater than 150 feet (45,720
113.7 mm) throughout the length and width of the roof.

113.8 2. A pathway of not less than four feet (1,219 mm) wide in a straight line
113.9 to roof standpipes or ventilation hatches.

113.10 3. A pathway not less than four feet (1,219 mm) wide around roof access
113.11 hatches, with not fewer than one such pathway to a parapet or roof edge.

113.12 4. A pathway not less than four feet (1,219 mm) wide from the perimeter
113.13 pathway to an emergency escape and rescue opening located above the
113.14 roof.

113.15 **3111.3.4.2.3 Smoke ventilation.** The solar installation shall be designed to
113.16 meet the following requirements:

113.17 1. Where non-gravity-operated smoke and heat vents occur, a pathway
113.18 not less than four feet (1,219 mm) wide shall be provided bordering all
113.19 sides.

113.20 2. Smoke ventilation options between array sections shall be one of the
113.21 following:

113.22 2.1 A pathway not less than eight feet (2,438 mm) wide.

113.23 2.2 Where gravity-operated dropout smoke and heat vents occur, a
113.24 pathway not less than four feet (1,219 mm) wide on at least one side.

114.1 2.3 A pathway not less than four feet (1,219 mm) wide bordering
114.2 four-foot by eight-foot (1,219 mm by 2,438 mm) venting cutouts
114.3 every 20 feet (6,096 mm) on alternating sides of the pathway.

114.4 Subp. 4. **IBC section 3111.3.5.** IBC section 3111.3.5 is amended to read as follows:

114.5 **3111.3.5 Ground-mounted photovoltaic panel systems.** Ground-mounted photovoltaic
114.6 panel systems shall comply with this section and Section 3111.1. Setback requirements
114.7 shall not apply to ground-mounted, free-standing photovoltaic arrays. A clear, brush-free
114.8 area of ten feet (3048 mm) shall be required for ground-mounted photovoltaic arrays.

114.9 Subp. 5. **IBC section 3111.3.6.** IBC section 3111.3 is amended by adding subsection
114.10 3111.3.6 with subsections, and Figures 3111.3.6.1(1) and 3111.3.6.1(2), to read as follows:

114.11 **3111.3.6 Buildings with rapid shutdown.** Buildings with rapid shutdown solar
114.12 photovoltaic systems shall have permanent labels in accordance with Sections
114.13 3111.3.6.1 through 3111.3.6.3.

114.14 **3111.3.6.1 Rapid shutdown type.** The type of solar photovoltaic system rapid
114.15 shutdown shall be labeled with one of the following:

114.16 1. For solar photovoltaic systems that shut down the array and the conductors
114.17 leaving the array, a label shall be provided. The first two lines of the label
114.18 shall be uppercase characters with a minimum height of 3/8-inch (ten mm) in
114.19 black on a yellow background. The remaining characters shall be uppercase
114.20 with a minimum height of 3/16-inch (five mm) in black on a white background.
114.21 The label shall be in accordance with Figure 3111.3.6.1(1) and state the
114.22 following:

114.23 SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN. TURN RAPID
114.24 SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM
114.25 AND REDUCE SHOCK HAZARD IN ARRAY.

115.1 2. For photovoltaic systems that only shut down conductors leaving the array,
115.2 a label shall be provided. The first two lines of the label shall be uppercase
115.3 characters with a minimum height of 3/8-inch (ten mm) in white on a red
115.4 background. The remaining characters shall be capitalized with a minimum
115.5 height of 3/16-inch (five mm) in black on a white background. The label shall
115.6 be in accordance with Figure 3111.3.6.1(2) and state the following:

115.7 THIS SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN. TURN RAPID
115.8 SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN CONDUCTORS
115.9 OUTSIDE THE ARRAY. CONDUCTORS WITHIN ARRAY REMAIN ENERGIZED IN
115.10 SUNLIGHT

115.11 Figure 1204.5.1(1) of the 2018 IFC is incorporated by reference and renumbered Figure
115.12 3111.3.6.1(1).

115.13 Figure 1204.5.1(2) of the 2018 IFC is incorporated by reference and renumbered Figure
115.14 3111.3.6.1(2).

115.15 **3111.3.6.1.1 Diagram.** The labels in Section 3111.3.6.1 shall include a simple
115.16 diagram of a building with a roof. Diagram sections in red signify sections of
115.17 the solar photovoltaic system that are not shut down when the rapid shutdown
115.18 switch is turned off.

115.19 **3111.3.6.1.2 Location.** The rapid shutdown label in Section 3111.3.6.1 shall
115.20 be located not greater than three feet (914 mm) from the service disconnecting
115.21 means to which the photovoltaic systems are connected, and shall indicate
115.22 the location of all identified rapid shutdown switches if not at the same
115.23 location.

115.24 **3111.3.6.2 Buildings with more than one rapid shutdown type.** Solar
115.25 photovoltaic systems that contain rapid shutdown in accordance with Section

116.1 3111.3.6.1, items 1 and 2, or solar photovoltaic systems where only portions of
116.2 the systems on the building contain rapid shutdown, shall provide a detailed plan
116.3 view diagram of the roof showing each different photovoltaic system and a dotted
116.4 line around areas that remain energized after the rapid shutdown switch is operated.

116.5 **3111.3.6.3 Rapid shutdown switch.** A rapid shutdown switch shall have a label
116.6 located not greater than three feet (914 mm) from the switch that states the
116.7 following:

116.8 RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

116.9 **1305.3113 SECTION 3113, RELOCATABLE BUILDINGS.**

116.10 IBC sections 3113.1 through 3113.4 are deleted in their entirety and replaced with the
116.11 following:

116.12 **3113.1 Relocatable buildings.** Relocatable buildings shall comply with Minnesota Rules,
116.13 chapter 1361.

116.14 **1305.3114 SECTION 3114, WINDOW CLEANING ANCHORS.**

116.15 IBC chapter 31 is amended by adding a new section to the chapter:

116.16 SECTION 3114

116.17 WINDOW CLEANING ANCHORS

116.18 **3114.1 Window cleaning anchors.** Building anchors for window cleaning safety shall be
116.19 provided for buildings four or more stories above grade plane. Building anchors for window
116.20 cleaning safety shall be designed, installed, and located in accordance with the design criteria
116.21 of ANSI/IWCA I-14.1-2001.

116.22 **Exceptions:**

116.23 1. Buildings without windows.

117.1 2. Existing buildings undergoing reconstruction, alteration, or repair that does not
117.2 include the exposure of primary structural roof components.

117.3 3. In accordance with Minnesota Statutes, section 326B.106, subdivision 4, paragraph
117.4 (m), the commissioner of the Minnesota Department of Labor and Industry may waive
117.5 all or a portion of the requirements for existing buildings if the installation of the
117.6 dedicated anchorages would not result in significant safety improvements due to limits
117.7 on the size of the project, or other factors as determined by the commissioner.

117.8 **1305.3500 CHAPTER 35, REFERENCED STANDARDS.**

117.9 Subpart 1. [Repealed, 39 SR 1605]

117.10 Subp. 1a. **ANSI MH29.1-2012.** ANSI MH29.1-2012 Safety Requirements for Industrial
117.11 Scissor Lifts shall replace ANSI MH29.1-2008 on the list of referenced documents in IBC
117.12 chapter 35.

117.13 Subp. 1b. **ASME A18.1-2017.** ASME A18.1-2017 Safety Standard for Platform Lifts
117.14 and Stairway Chairlifts shall replace ASME A18.1-2014 on the list of referenced documents
117.15 in IBC chapter 35.

117.16 Subp. 2. **Supplemental standards.** The standards listed in this subpart shall supplement
117.17 the list of referenced documents in IBC chapter 35. The standards referenced in this subpart
117.18 shall be considered part of the requirements of this part to the extent prescribed in each part
117.19 or reference.

117.20 NFPA 99 - 2012 Health Care Facilities Code

117.21 NFPA 101 - 2012 Life Safety Code

117.22 ANSI/IWCA I-14.1-2001 - Standard for Window Cleaning

117.23 **REPEALER.** Minnesota Rules, parts 1305.0011, subpart 3; 1305.0308, subpart 4;
117.24 1305.0402, subpart 1; 1305.0507; 1305.0509; 1305.0907, subparts 26b, 27, and 31a;

118.1 1305.0908; 1305.1015; 1305.1029, subparts 2 and 3; 1305.1209; 1305.1511; 1305.1607,
118.2 subparts 2 and 3; 1305.2308, subpart 1; 1305.2603; 1305.2902, subpart 1a; 1305.3030; and
118.3 1305.3401, are repealed.

118.4 **EFFECTIVE DATE.** The amendments to this chapter are effective March 31, 2020, or
118.5 five business days after publication of the notice of adoption in the State Register, whichever
118.6 is later.