Email address: greg.metz@state.mn.us

Firm/Association affiliation, if any: DLI/CCLD

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/28/2022 updated 7/15/2024

IBC 423.5.1 Storm Shelter Required Occupant

Model Code: IBC 2024

	Capacity					
Code	e or rule section to be changed: MR 1305					
<u>Gener</u>	ral Information	<u>Yes</u>	<u>No</u>			
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?					
	sed Language The proposed code change is meant to:					
	change language contained the model code book? If so, list section(s).					
	☐ change language contained in an existing amendment in Minnesota Rule?	lf so, list	Rule part(s).			
	delete language contained in the model code book? If so, list section(s).					
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	esota Rule? If so, list Rule				
	□ add new language that is not found in the model code book or in Minnesota IBC 423.5.1 Required Occupant Capacity	ı Rule.				
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	vide the	citation.			

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

Option 1:

423.5.1 Design occupant capacity. The required design occupant capacity of the storm shelter shall include all of the buildings on the site and shall be the total occupant load of the classrooms, vocational rooms and offices in the Group E occupancy.

Exceptions:

- 1. Where approved by the building official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than that determined by occupant load calculation, shall be permitted to be used in the determination of the required design occupant capacity for the storm shelter.
- 2. Where a new building is being added on an existing Group E site, and where the new building is not of sufficient size to accommodate the required design occupant capacity of the *storm shelter* for all of the buildings on site, the *storm shelter* shall accommodate not less than the required occupant capacity for the new building new building shall be constructed as a storm shelter.
- 3. Where approved by the *building official*, the required design occupant capacity of the shelter shall be permitted to be reduced by the design occupant capacity of any existing *storm shelters on* the site.

Option 2:

423.5.1 Design occupant capacity. The required design occupant capacity of the storm shelter shall include all of the buildings on the site and shall be the total occupant load of the classrooms, vocational rooms and offices in the Group E occupancy.

Exceptions:

- Where approved by the building official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than that determined by occupant load calculation, shall be permitted to be used in the determination of the required design occupant capacity for the storm shelter.
- 2. Where a new building is being added on an existing Group E site, and where the new building is not of sufficient size to accommodate the required design occupant capacity of the *storm shelter* for all of the buildings on site, the *storm shelter* shall accommodate not less than the required occupant capacity for the new building number of occupants in the new building requiring storm sheltering.
- 3. Where approved by the *building official*, the required design occupant capacity of the shelter shall be permitted to be reduced by the design occupant capacity of any existing *storm shelters on* the site.
- Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

The model code lacks clear scoping for new buildings on existing school sites. The intent of the code is to provide storm sheltering for all site occupants. This will never happen if new construction only has to accommodate the occupant load of the new work. There is confusion when the new building is not large enough to construct a storm shelter for the entire site.

2. Why is the proposed code change a reasonable solution?

Option 1: The intent of the code is to provide storm sheltering for the entire site. The new building will not be required to be made larger merely to accommodate storm sheltering, but it shall maximize the storm sheltering within the new program spaces provided.

Option 2: Requiring an entire new structure to be constructed as a storm shelter causes undue financial hardship on projects. The new construction will need to only accommodate storm sheltering for the newly added occupants to the site. The existing conditions in other buildings are no worse than they were prior to the construction of the new building, and therefore will remain as "existing non-conforming."

3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain.

 The proposed change will not increase construction costs. DLI/CCLD has first jurisdiction over schools and has interpreted that new construction which cannot provide storm sheltering for the entire site must be constructed completely as storm shelter to its greatest capacity within the program requirements for primary use.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

No.

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, public and private schools in the southern half of the state.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
- Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued confusion and frustration over storm shelter capacity requirements resulting in compromised budgets for public school projects.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/27/2022

Model Code: IBC 2024

Firm Coa	rea Facto	or					
Gene	eral Information	Yes	<u>No</u>	_			
B C D E	 Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process? 						
	osed Language . The proposed code change is meant to:						
	change language contained the model code book? If so, list section(s).						
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s)	١.			
	delete language contained in the model code book? If so, list section(s).						
	delete language contained in an existing amendment in Minnesota Rule? If part(s).	nguage contained in an existing amendment in Minnesota Rule? If so, list Rule					
	☑ add new language that is not found in the model code book or in Minnesota MBC Table 506.2 Allowable Area Factor	a Rule.					
2	Is this proposed code change required by Minnesota Statute? If so, please provide the citation. No						

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

Осс	Sprink Type of Construction												
Class		Тур	oe I	Тур	Type II		Type III		Type IV			Type V	
		Α	В	Α	В	Α	В	Α	В	С	HT	Α	В
	NS												
	S13D			24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
R-3	S13R	UL	UL										
	S1			96,000	64,000	96,000	64,000	246,000	164,000	102,500	82.000	48,000	28,000
	SM			72,000	48,000	72,000	48,000	184,500	123,000	76,875	61,500	36,000	21,000

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Need and Reason

1. Why is the proposed code change needed?

Minnesota amends the model code to not require sprinkling in R-3 occupancies. The model code presupposes that all residential occupancies are sprinkled, so the unlimited area allowance for R-3 is reasonable. But, in Minnesota, because R-3 is not required to be sprinkled, limits need to be placed on building size so that the fire load does not exceed that which fire fighters can reasonable manage.

Also, IBC 706.1.1 Exception 2 allows for the elimination of firewalls between buildings even when lot-lines exist as long as the building meets the requirements for unlimited height and area. If an R-3 dwelling unit can exist on a single lot with multiple R-3 units behind and to each side, and the allowable area is unlimited, then this creates a condition for an infinite number of single-family attached homes open on one side with no sprinkler system and no fire wall separations.

- 2. Why is the proposed code change a reasonable solution?

 The proposal repeats the same allowable area limits for R-1, R-2, and R-4 occupancies for each construction type and sprinkler scenario.
- 3. What other considerations should the TAG consider?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain.
 - The proposed will increase construction costs for very large single-family and two-family dwellings that are not for private use. These uses may include supervised living facilities, assisted living, hospice and congregate residences among others.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

 The cost is readily offset by the increase in safety by the addition of sprinkler systems for very large structures.
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Mis-use of the R-3 occupancy classification in order to avoid sprinkling buildings that would otherwise be required to be sprinkled.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/18/2022

Model Code: IBC 2024

	le or rule section to be changed: MR 1305	ion			
Gene	eral Information	Yes	<u>No</u>		
B C D E	 Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process? 				
	osed Language . The proposed code change is meant to:				
	☐ change language contained the model code book? If so, list section(s).				
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s)		
	delete language contained in the model code book? If so, list section(s).				
	☐ delete language contained in an existing amendment in Minnesota Rule? It part(s).	? If so, list Rule			
	□ add new language that is not found in the model code book or in Minnesota □ IBC 602.3 Type III	a Rule.			
2	. Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.		

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **602.3 Type III.** Type III construction is that type of construction in which the exterior walls are of non-combustible materials and the interior building elements are of any material permitted by this code. Fire-retardant-treated wood framing and sheathing complying with Section 2303.2 shall be permitted within exterior wall assemblies of a 2-hour rating or less. Construction to the exterior side of exterior walls shall be non-combustible.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

Because Section 602.3 Type III construction requires the exterior walls to be non-combustible and allows the interior of the building to be constructed of any materials allowed by the code, exterior construction other than that specific to exterior walls themselves such as exterior decks, and exterior exit stairways is not addressed.

2. Why is the proposed code change a reasonable solution?

The exterior walls are intended to provide fire protection from building to building and to provide vertical integrity under fire conditions. If other exterior building components are contributing to a fire, it diminishes the protection afforded from building to building and also compromises the exterior wall by having fuel on both sides.

3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 No cost change. This is already a reasonable interpretation but has been cause for arguments between building officials and designers.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

 N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Non-uniform code enforcement and having some Type III buildings constructed with combustible exterior construction including decks and exterior stairways that compromise the building safety.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



Author/requestor: C. Scott Anderson

CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 5/10/24

Email a	address: c.scott.anderson@minneapolismn.gov	4 IBC				
Teleph	none number: 612-246-7303	ion: 705.2	2.1 705.2	.2,		
Firm/A	ssociation affiliation, if any: City of Minneapolis	Combust	ible			
Code d	or rule section to be changed: 705.2.1 705.2.2, 705.2.4, 705.2	2.5				
Intend	ed for Technical Advisory Group ("TAG"):					
Gener	al Information		Yes	<u>No</u>		
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions Will the proposed change encourage more uniform enforce Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapte Would this proposed change be appropriate through the IC development process?	of Minnesota? ement? er amendment?				
	sed Language The proposed code change is meant to:					
	☐ change language contained the model code book? If so	o, list section(s).				
	change language contained in an existing amendment	in Minnesota Rule?	If so, list l	Rule par	t(s).	
	delete language contained in the model code book? If s	so, list section(s).				
delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).						

☑ add new language that is not found in the model code book or in Minnesota Rule. 705.7.1

- 2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

705.2.1 Types I and II construction.

Projections from walls of Type I or II construction shall be of noncombustible materials or combustible materials as allowed by Sections 705.2.3.1 and 705.2.4 <u>and 705.2.5.</u>

705.2.2 Type III, IV or V construction.

Projections from walls of Type III, IV or V construction shall be of any *approved* material. <u>Balconies</u> and similar projections of combustible construction shall comply with section 705.2.4

705.2.3.1 705.2.4 Combustible Balconies and similar projections.

Balconies and similar projections of combustible construction other than *fire-retardant-treated* wood shall be *fire-resistance* rated where required by Table 601 for floor construction or shall be of heavy timber construction in accordance with Section 2304.11. <u>Wood structural elements not complying with Table 2301.11 shall not be permitted for balconies and similar projections on buildings of type IV-A, IV-B or IV-C construction. The aggregate length of the projections shall not exceed 50 percent of the *building*'s perimeter on each floor.</u>

Exceptions:

- 1. On *building* of Types I and II construction, three *stories* or less above *grade plane*, *fire-retardant-treated wood* shall be permitted for balconies, porches, decks and exterior *stairways* not used as required exits.
- 2. Untreated *wood and plastic composites* that comply with ASTM D7032 and Section 2612 are permitted for pickets, rails and similar *guard* components that are limited to 42 inches (1067 mm) in height.
- 3. Balconies and similar projections on *buildings* of Types III, IV<u>-HT</u> and V construction shall be permitted to be of Type V construction and shall not be required to have a *fire-resistance* rating where sprinkler protection is extended to these areas.
- 4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.
- 5. On buildings of Types IV-A or IV-B construction three stories or less above grade plane and type IV-C construction not classified as high rise, non-fire resistance rated heavy timber building elements shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.

705.2.4 705.2.5 Bay and oriel windows.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

YES The following sections need to revise references from 705.2.3.1 to 705.2.4

Section 603.1, items 13 and 19

Section 705.2.1

Section 705.2.3 Item 5

Chapter 35 (ASTM D7032)

Fire code section 903.3.1.2.1 and IBC code section 903.3.1.2.1

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

Based on hierarchal reading of the code sections, it could easily be interpreted that section 705.2.3.1 only applies when the FSD is 5 feet or less. Moving combustible projection to its own section removes this potential misinterpretation.

The text changes clarify requirements for where protected construction is required as well as in the new type IV construction types.

- 2. Why is the proposed code change a reasonable solution?

 Clarifies the code requirements for balconies of combustible construction
- 3. What other factors should the TAG consider?
 None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

Change is mostly editorial and should not effect the cost of construction

- If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.
 No cost change
- 3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

NA

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No

Regulatory Analysis

1.	What partie	s or segments	s of industry a	are affected by this	s proposed co	de change?	
	Architects,	Contractors,	Developers,	Building Owners ,	Contractors,	Building Officia	ls

Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.

No

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Not adopting this change could result in misapplication of code requirements for combustible projections
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. This change was adopted by the ICC egress committee at the April 2024 Code Action Hearings. Regardless of the ICC actions this is a significant improvement to the current code language.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/27/2022

Model Code: IBC 2024

Firm/Association affiliation, if any: DLI/CCLD IBC 705.6 Exterior Walls- Structural Stability Code or rule section to be changed: MR 1305							
Gene	ral Information	Yes	<u>No</u>				
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?						
	osed Language The proposed code change is meant to:						
	change language contained the model code book? If so, list section(s).						
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).				
	delete language contained in the model code book? If so, list section(s).						
	delete language contained in an existing amendment in Minnesota Rule? In part(s).	ule? If so, list Rule					
	□ add new language that is not found in the model code book or in Minnesota ■ MBC 705.6 Exterior Walls- Structural Stability	a Rule.					
2.							

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

705.6 Structural stability. Interior structural elements that brace the exterior wall but that are not located within the plane of the exterior wall shall have the minimum fire-resistance rating required by Table 601 for that structural element. Structural elements that brace the exterior wall but are located outside of the exterior wall or within the plane of the exterior wall shall have a minimum fire resistance rating required in Tables 601 and Table 705.5 for the exterior wall.

Exception: Interior structural elements that brace the exterior wall and penetrate the exterior wall shall have the minimum fire-resistance rating as required by Table 601 for that structural element if the bracing element is designed to collapse without compromising the vertical load-bearing capacity of the exterior wall.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
No.

Need and Reason

1. Why is the proposed code change needed?

There is non-uniform interpretation of this section with regards to the construction of Type III exterior bearing walls and the direct bearing of structural members on the exterior wall.

2. Why is the proposed code change a reasonable solution?

The most restrictive interpretation of the model code language will require that floors in Type III construction that bear directly on exterior walls (not through a ledger) must be rated not less than 2-hours. The Supporting Construction provisions of IBC 711.3 require the opposite supporting side of floor/ceiling assemblies that bear directly on and brace exterior walls to also be 2-hour fire resistance rated.

If the exterior wall serves as bearing for the roof but not for an intermediate floor, the intermediate floor may brace the wall but that intermediate floor would only be required to be fire-resistance rated to the level that Table 601 required it to be so. In Type III-A construction, that would only be one-hour and in Type III-B construction, no rating would be required at all for this bracing member.

It is therefore reasonable that if the interior bracing member (floor) fails, even if the floor bears on the wall, that if the vertical carrying capacity of the exterior wall can remain intact and elements included in the stability of that exterior wall are consistent with the construction materials and fire resistance rating of the exterior wall, that the intent of the code is satisfied and the condition is equivalent to the scenario immediately above.

3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

The proposed will decrease construction costs by allowing intermediate floor/ceiling assemblies to be rated per the interior elements requirements only and not match those of the exterior walls when the exterior walls have vertical stability should a floor collapse.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued widespread mis-interpretation of allowances for bearing walls where exterior walls are required to be fire-resistance rated.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

No



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/	requestor: C. Scott Anderson	Date: 5/9/24		
Email a	ddress: c.scott.anderson@minneapolismn.gov	IBC		
Telepho	one number: 612-246-7303	Code or Rule Section	າ: 705.7	7.1
Firm/As	ssociation affiliation, if any: City of Minneapolis	Topic of proposal: 7	05.7.1	
Code o	r rule section to be changed: 705.7.1			
Intende	ed for Technical Advisory Group ("TAG"):			
Genera	al Information		Yes	<u>No</u>
B. C. D. E. F.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions Will the proposed change encourage more uniform enforce Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapte Would this proposed change be appropriate through the IC development process?	ement? er amendment?		
	sed Language The proposed code change is meant to:			
	☐ change language contained the model code book? If so	o, list section(s).		
	☐ change language contained in an existing amendment i	n Minnesota Rule? If	so, list F	Rule part(s).
	☐ delete language contained in the model code book? If s	so, list section(s).		
	☐ delete language contained in an existing amendment in part(s).	Minnesota Rule? If so	ວ, list Rເ	ule
	igtimes add new language that is not found in the model code by 705.7.1	oook or in Minnesota F	₹ule.	
2.	Is this proposed code change required by Minnesota Statu	te? If so, please provi	de the c	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

In Type III, IV and V construction where a portion of a floor assembly within the plane of the exterior wall supports gravity loads from an exterior wall, the fire-resistance rating of provided by the portion of the floor assembly that supports the exterior wall shall be not less than the fire-resistance rating required for the exterior wall in Table 601. The fire-resistance rating provided by the portion of the floor assembly supporting and within the plane of the exterior wall shall be permitted to include the contribution of the ceiling membrane when considering exposure to fire from the inside. Where a floor assembly supports gravity loads from an exterior wall, the building elements of the floor construction within the plane of the exterior wall, including but not limited to rim joists, rim boards and blocking, shall be in accordance with the requirements for interior building elements of Type III the applicable type of construction.

705.7.2 Supporting Construction The supporting construction for an exterior wall shall have a fire-resistance rating as required by section 704.1.1.

 Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 NO

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

Section 705.7.1 was added to the 2024 code to address platform construction in type III construction. The same conditions will also be present in types IV and V construction so they should also be included in this code section. Section 705.7.2 is added to point to section 704.1.1 so that the supporting construction requirements are not missed. The supporting construction text has been removed from 705.7.1

- 2. Why is the proposed code change a reasonable solution?

 Clarifies the code requirements and includes a new pointer to ensure that supporting construction requirements are not missed.
- 3. What other factors should the TAG consider?
 None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

Change is editorial in nature and should not result in a cost increase.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.

 No cost change
- If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
 NA
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change?

 Architects, Contractors, Developers, Building Owners, Contractors, Building Officials
- Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.

No

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Not adopting this change could result in reduced protections for supporting construction related to exterior walls.
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. This change was adopted by the ICC egress committee at the April 2024 Code Action Hearings. Regardless of the ICC actions this is a significant improvement to the current code language.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Author/requestor: Jerry Norman



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/18/2024

Email address: gnorman@rochestermn.gov							
Telepl	n: 1305	.0707					
Firm/Association affiliation, if any: City of Rochester Topic of proposal:			: Fire Barrier continuity				
Code	or rule section to be changed: 1305.0707						
Intend	led for Technical Advisory Group ("TAG"):						
Gener	ral Information		<u>Yes</u>	<u>No</u>			
B. C. D. E.	 A. Is the proposed change unique to the State of Minnesota? B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? 						
	sed Language The proposed code change is meant to:						
	X change language contained the model code book? If so MN Rule 1305.0707 which amends IBC Section 707.5 Co	` ,					
	X change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). MN Rule 1305.0707						
	delete language contained in the model code book? If	so, list section(s).					
	delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).						
	add new language that is not found in the model code	book or in Minnesota	Rule.				
2.	Is this proposed code change required by Minnesota State	ute? If so, please prov	ide the	citation.			

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

MN 1305.0707

707.5 Continuity. *Fire barriers* shall extend from the top of the foundation, <u>floor</u> or floor/ceiling assembly below to the underneath side of the floor or roof sheathing, slab or deck above and shall be securely attached thereto. Such *fire barriers* shall be continuous through concealed space, such as the space above a suspended ceiling. Joints and voids at intersections shall comply with Sections 707.8 and 707.9

Exceptions:

- 4. <u>Fire barriers</u> Shaft enclosures shall be permitted to terminate at a top enclosure complying with Section 713.12.
- 2. Interior exit stairway and ramp enclosures required by Section 1023 and exit access stairway and ramp enclosures required by Section 1019 shall be permitted to terminate at a top enclosure complying with Section 713.12.
- 3. Other fire barriers shall be permitted to terminate at a top enclosure complying with 713.12. Such top enclosure must be continuous either to the underside of the roof sheathing, or to an exterior wall, fire wall, or other fire barrier providing equal or greater fire protection.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

The proposed revision to the current amendment is an attempt to simplify the amendment as all three exception are essentially allowing the exact same thing, therefore they can be combined into one exception. "Floor" was also added to the scoping paragraph as many times the fire barrier originates on a floor (concrete slab or fireproofed floor assembly) verses a floor/ceiling assembly. I believe the omission of "floor" was merely an oversight and not intentional.

2. Why is the proposed code change a reasonable solution?

The original amendment was necessary to allow an option for design professionals with the detailing of the termination of fire barriers used for something other than an exit enclosure or shaft. The proposed amendment builds on that by simplifying the amendment.

3. What other factors should the TAG consider?

Without the original amendment fire barriers would need to extend to the underneath side of the roof deck, which can be quite costly and create unintended consequences in buildings that have pitched roofs. If capping a fire barrier is permitted for arguably two of the most critical elements in a building (shaft and exit enclosure) then it should be permitted for all fire barriers.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

Like the original amendment the revision will lower the cost as less material and labor is necessary to comply.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible. NA
- If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.
 NA
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 NO
- 5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

 No.

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

Architects, engineers, code officials and the construction industry.

2. Can you think of other means or methods to achieve the purpose of the proposed code change? What might someone opposed to this code change suggest instead? Please explain what the alternatives are and why your proposed change is the preferred method or means to achieve the desired result.

The revision could have be done in the main body instead of an exception, but that became more cumbersome and deviated further from the national code.

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 - Without the original amendment architects would be required to extend all non-shaft and exit enclosure fire barriers to the deck above. The most frequent application is the trash/recycling access room on the top story of an apartment building along with storage rooms in health care facilities. The extension may require changes to the structural and mechanical system that would increase the cost with literally no gain in life safety.
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. No

***Note: The information you provide in this code change proposal form is considered Public Data and used by the TAG to consider your proposed modification to the code. Any code change proposal form submitted to DLI may be reviewed at public TAG meetings and used by department staff and the Office of Administrative Hearings to justify the need and reasonableness of any proposed rule draft subject to administrative review and is available to the public.

****Note: Incomplete forms will be returned to the submitter with instruction to complete the form. Only completed forms will be accepted and considered by the TAG. The submitter may be asked to provide additional information in support of the proposed code change.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/29/2022

Model Code: IBC 2024

Firm. Code	at Elevat	or Lobbies					
Gene	ral Information	Yes	<u>No</u>				
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?						
	The proposed code change is meant to: ☐ change language contained the model code book? If so, list section(s). ☐ IBC 709.4.2 Smoke Barrier walls enclosing areas of refuge or elevator lob	obies					
	change language contained in an existing amendment in Minnesota Rule?		Rule part(s).				
	delete language contained in the model code book? If so, list section(s).						
	☐ delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).						
	add new language that is not found in the model code book or in Minneson	ta Rule.					
2.	 Is this proposed code change required by Minnesota Statute? If so, please provide the citation. No 						

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **709.4.2** Smoke-barrier walls enclosing areas of refuge or elevator lobbies. Smoke-barrier walls used to enclose areas of refuge in accordance with Section 1009.6.4, or to enclose elevator lobbies in accordance with Section 405.4.3, 3007.6.2, or 3008.6.2, shall form an effective membrane enclosure that terminates at a fire barrier wall having a fire resistance rating not less than 1 hour, another smoke barrier wall, horizontal smoke barrier, underside of a roof deck or an outside exterior wall. A smoke and draft control door assembly as specified in Section 716.2.2.1.1 shall not be required at each elevator hoistway door where protected by an elevator lobby, at each exit door opening into a protected lobby opening. A smoke and draft control door assembly as specified in Section 716.2.2.1.1 shall not be required or at each exit doorways between an area of refuge and the exit enclosure. Areas of refuge shall be separated from the elevator hoistway by a smoke barrier.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

- 1. Why is the proposed code change needed?
 - A. Smoke barrier construction should not terminate at a fire barrier because a fire barrier is not required to be constructed to resist the passage of smoke. Terminating at a fire barrier potentially compromises the smoke compartment protection.
 - B. Horizontal smoke barriers, and roof decks are added as acceptable termination locations for smoke barrier walls and "outside walls" is changed to "exterior walls" which is a defined term.
 - C. The model code language in the last sentence is confusing and easily mis-interpreted.
 - D. The last sentence is added to clarify that an area of refuge, which is intended to be a safe place to wait for rescue, must be separated from the elevator hoistway by a smoke barrier to ensure that the area of refuge habitability is not compromised by smoke during a fire.
- 2. Why is the proposed code change a reasonable solution?
 - A. Fire barriers are deleted and multiple types of smoke and fire resistant construction are added as acceptable termination points for smoke barrier walls.
 - B. The last sentence is deconstructed for clarity without material change to the requirement. The first part of the sentence eliminates the requirement for smoke control at the elevator shaft door by allowing the elevator lobby to function as the smoke control protection for the building story from the elevator shaft. The second sentence is created from the second half of the model code last sentence to clarify that areas of refuge don't need to be separated from exit enclosures with smoke protection, largely because the exit enclosures provide a very high level of protection and are unlikely to be compromised by smoke. Note that the model code does not eliminate the requirement for fire protection between an area of refuge and an exit enclosure.
 - C. The last sentence is added for clarity. Then intent of an area of refuge is to provide a location that will protect the occupant from fire and smoke within the building while they wait for rescue. If there is not smoke separation between the elevator lobby and the hoistway, then the area of refuge is easily compromised with smoke from the elevator shaft.
- 3. What other considerations should the TAG consider?

Proposed changes to Section 716.2.6.6 Smoke-activated doors, and Section 3006.1, 3006.2 and 3006.3.

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain.

 The proposed would cause no change to construction costs.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Exterior walls in close proximity to property lines where the wall is required to be fireresistance rated will have breaches at penetrations that can compromise the integrity of the wall.

7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
No

8.	Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.	
	Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only mpleted forms can considered by the TAG.	

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/26/2022

Model Code: IBC 2018

Firm/Association affiliation, if any: DLI/CCLD IBC 713.13 Waste and Linen Chutes Code or rule section to be changed: MR 1305						
				=		
Gene	<u>eral Information</u>	<u>Yes</u>	<u>No</u>			
B C D E	 Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process? 					
	osed Language The proposed code change is meant to:					
1.	change language contained the model code book? If so, list section(s).					
	☐ change language contained in an existing amendment in Minnesota Rule?	lf so, list	Rule part(s)			
	delete language contained in the model code book? If so, list section(s).					
	☐ delete language contained in an existing amendment in Minnesota Rule? If part(s).	ota Rule? If so, list Rule				
	□ add new language that is not found in the model code book or in Minnesota ■ MBC 713.13 Waste and linen chutes and incinerator rooms, Exception					
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	vide the	citation.			

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

713.13 Waste and linen chutes and incinerator rooms. Waste and linen chutes shall comply with the provisions of NFPA 82, Chapter 6 and shall meet the requirements of Sections 712 and 713.13.1 through 713.13.6. Incinerator rooms shall meet the provisions of Sections 713.13.4 through 713.13.5.

Exceptions:

- 1. Chutes serving and contained within a single dwelling unit.
- 2. Linen chutes and trash chutes shall not be required to be open to the atmosphere as required by NFPA 82, section 5.2.2.4.3. Chutes shall be provided with vents having a free area not less than 3 1/2 % the size of the chute cross section with an absolute minimum size of 0.5 square feet of free area. Vents shall be provided with gravity dampers to allow air to enter the shaft from the building exterior. Chutes shall not be used for room exhaust.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

 No.

Need and Reason

- 1. Why is the proposed code change needed?
 - a. The 2012 Minnesota Mechanical Code had a similar exception eliminating the requirement for waste and linen chutes to be open to the atmosphere per NFPA 82. The exception was eliminated in the 2018 code cycle because it occurred in a section specific to ductwork. Chutes are not ductwork and the exception was mis-placed. The work at that time was not coordinated with the building code update and the exception was lost.
 - b. Minnesota's very cold climate causes significant problems with open atmosphere chutes. Fire sprinkler systems can freeze, cold air is introduced into the depths of the building in interior locations not designed to handle the condensation that will occur, resulting in moisture damage and microbial growth.
 - c. The previous amendment did not include any specific venting requirements. Venting is still required to ensure that the chutes do not become readily clogged. Items falling through the shaft cause negative air pressure above the falling items. If there is not ventilation relief, the falling items will slow in the shaft and can stop and cause blockages. Venting requirements introduced are based upon the same ventilation requirements for dumbwaiters which cause the same type of air pressure differential. Gravity dampers are required to ensure that when ventilation air is not needed, that chute is not open to the exterior air and potentially freezing sprinklers, etc.
- 2. Why is the proposed code change a reasonable solution?

 It allows for chute functioning while keeping chutes within the climate-controlled environment of the building so that they do not freeze or cause condensation damage in cold weather conditions.
- 3. What other considerations should the TAG consider? If there is an actual need for an open vent at the top of these chutes in the event of a fire. Open atmosphere chutes create a chimney effect and can contribute to the propagation of fire.

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 No cost change. The cost for the additional gravity damper is offset by costs to mitigate the affects of sub-zero air in the sprinkled shaft.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 - None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 - Continued need for building officials to approve code modifications to allow chutes that are not open to the atmosphere for their full size resulting in plan approval delays and increased permit fees. Mandatory installation of open-atmosphere chutes throughout the state where there is no building official to approve a code modification.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

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N	$\boldsymbol{\sim}$

8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/29/2022

Model Code: IBC 2024

Firm/Association affiliation, if any: DLI/CCLD IBC 714.4 Fire-resistance-rated walls Code or rule section to be changed: MR 1305					
Gene	ral Information	<u>Yes</u>	<u>No</u>	_	
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?				
	osed Language The proposed code change is meant to:				
	change language contained the model code book? If so, list section(s).				
	☐ change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s)				
	delete language contained in the model code book? If so, list section(s).				
	delete language contained in an existing amendment in Minnesota Rule? If so, list Rule art(s).				
	□ add new language that is not found in the model code book or in Minnesota Rule. ■ MBC 714.4 Fire-resistance-rated walls				
2.	Is this proposed code change required by Minnesota Statute? If so, please pr	ovide the	citation.		

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **714.4 Fire-resistance-rated walls.** Penetrations into or through <u>walls required to be rated by Table 602</u>, fire walls, fire barriers, smoke barrier walls, and fire partitions shall comply with Sections 714.4.1 through 714.4.3. Penetrations in smoke barrier walls shall also comply with Section 714.5.4.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

 No.

Need and Reason

- 1. Why is the proposed code change needed?
 - Walls required to be rated by Table 602 are for the same purpose as fire barriers but are not specifically called out in this section as requiring protection.
- 2. Why is the proposed code change a reasonable solution?

 Because the fire barrier function is similar, it is reasonable that the protection requirements for penetrations would also be similar.
- 3. What other considerations should the TAG consider?

 Opening requirements are different, duct and air transfer openings are different.

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. The proposed would cause no change to construction costs.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?

4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Exterior walls in close proximity to property lines where the wall is required to be fireresistance rated will have breaches at penetrations that can compromise the integrity of the wall.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

No



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Autho	r/requestor: C. Scott Anderson	Date: 5/8/24				
Email	address: c.scott.anderson@minneapolismn.gov	Model Code: 202	4 IBC			
Telepl	Telephone number: 612-246-7303 Code or Rule Section		ion: 714 .	5.2		
Firm/A	Association affiliation, if any: City of Minneapolis	Topic of proposal:	714.5.2			
Code	or rule section to be changed: 714.5.2					
Intena	led for Technical Advisory Group ("TAG"):					
Genei	ral Information		Yes	<u>No</u>		
B. C. D. E.	Is the proposed change unique to the State of Minneson Is the proposed change required due to climatic condition Will the proposed change encourage more uniform enfolding the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chowould this proposed change be appropriate through the development process?	ons of Minnesota? orcement? apter amendment?				
	sed Language The proposed code change is meant to:					
change language contained the model code book? If so, list section(s).						
☐ change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(
	delete language contained in the model code book? If so, list section(s).					
delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).						
	□ add new language that is not found in the model co- 14.5.2	de book or in Minnesota	a Rule.			
2.	Is this proposed code change required by Minnesota S	tatute? If so, please pro	ovide the	citation.		

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

714.5.2 Membrane penetrations.

Penetrations of membranes that are part of a horizontal assembly shall comply with Section 714.5.1.1 or 714.5.1.2. Where floor/ceiling assemblies are required to have a fire-resistance rating, recessed fixtures shall be installed such that the required fire resistance will not be reduced. Exceptions:

- Membrane penetrations by steel, ferrous or copper conduits, pipes, tubes or vents, or concrete or masonry items where the annular space is protected either in accordance with Section 714.5.1 or to prevent the free passage of flame and the products of combustion. The aggregate area of the openings through the membrane shall not exceed 100 square inches (64 500 mm²) in any 100 square feet (9.3 m²) of ceiling area in assemblies tested without penetrations.
- 2. Ceiling *membrane penetrations* of maximum 2-hour *horizontal assemblies* by steel electrical boxes that do not exceed 16 square inches (10 323 mm²) in area, provided that the aggregate area of such penetrations does not exceed 100 square inches (44 500 mm²) in any 100 square feet (9.29 m²) of ceiling area, and the *annular space* between the ceiling membrane and the box does not exceed ¹/₈ inch (3.2 mm).
- 3. *Membrane penetrations* by electrical boxes of any size or type, that have been *listed* as part of an opening protective material system for use in *horizontal assemblies* and are installed in accordance with the instructions included in the listing.
- 4. Membrane penetrations by listed electrical boxes of any material, provided that such boxes have been tested for use in fire- resistance-rated assemblies and are installed in accordance with the instructions included in the listing. The annular space between the ceiling membrane and the box shall not exceed ¹/g inch (3.2 mm) unless listed otherwise.
- 5. The *annular space* created by the penetration of a fire sprinkler, provided that it is covered by a metal escutcheon plate.
- 6. Noncombustible items that are cast into concrete building elements and that do not penetrate both top and bottom surfaces of the element.
- 7. The ceiling membrane of a maximum 2-hour fire-resistance-rated *horizontal assembly* is permitted to be interrupted with the double <u>2x</u> wood top plate of a wall assembly that is sheathed with *Type X gypsum wallboard*, provided that all penetrating items through the double top plates are protected in accordance with Section 714.5.1.1 or 714.5.1.2 and the ceiling membrane is tight to the top plates.
- 8. The ceiling membrane of a maximum 1-hour fire-resistance-rated horizontal assembly is permitted to be interrupted with a single 2xwood top plate of a wall assembly that is sheathed with Type X gypsum wallboard, provided that all penetrating items through the top plate are protected in accordance with Section 714.5.1.1 or 714.5.1.2 and the ceiling membrane is tight to the top plates.
- 8.9. Ceiling membrane penetrations by listed luminaires (light fixtures) or by luminaires protected with listed materials, which have been tested for use in fire-resistance-rated assemblies and are installed in accordance with the instructions included in the listing.

 Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

No

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

Current code language requires a double top plate but does not describe what the top plates are to be. Two 1x top plates could be acceptable. This change clarifies that they must be 2x in exception 7. Exception 8 is added to allow for single top plate wall construction that is often used to address the flex requirements in truss floor assemblies.

- 2. Why is the proposed code change a reasonable solution? Clarifies the code requirement for a 2x minimum materials.
- 3. What other factors should the TAG consider?
 None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

Change is editorial in nature and should not result in a cost increase

- If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.
 No cost change
- 3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

NA

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
No

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

Architects, Contractors, Developers, Building Owners, Contractors, Building Officials

2.	Can you think of other means or methods to achieve the purpose of the proposed code change?
	What might someone opposed to this code change suggest instead? Please explain what the
	alternatives are and why your proposed change is the preferred method or means to achieve the
	desired result.

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Not adopting this change could result in compromised integrity of the floor ceiling membrane and the addition exception allows for additional options for rated membrane penetrations.
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. This change was adopted by the ICC egress committee at the April 2024 Code Action Hearings. Regardless of the ICC actions this is a significant improvement to the current code language.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

No



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Autho	r/requestor: C. Scott Anderson	Date: 5/8/24		
Email	address: c.scott.anderson@minneapolismn.gov	Model Code: 2024	4 IBC	
Telepi	hone number: 612-246-7303	Code or Rule Secti	on: 714.	5.4
Firm/A	Association affiliation, if any: City of Minneapolis	Topic of proposal:	714.5.4	
Code	or rule section to be changed: 714.5.4			
Intena	ded for Technical Advisory Group ("TAG"):			
Genei	ral Information		Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions Will the proposed change encourage more uniform enforce Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapt Would this proposed change be appropriate through the ledevelopment process?	s of Minnesota? ement? er amendment?		
	osed Language The proposed code change is meant to:			
	☐ change language contained the model code book? If s	o, list section(s).		
	☐ change language contained in an existing amendment	in Minnesota Rule?	If so, list	Rule part(s).
	delete language contained in the model code book? If	so, list section(s).		
	delete language contained in an existing amendment in part(s).	n Minnesota Rule? If	so, list R	ule
	□ add new language that is not found in the model code 14.5.4	book or in Minnesota	a Rule.	
2.	Is this proposed code change required by Minnesota Stati	ute? If so, please pro	vide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

714.5.4 Penetrations in smoke barriers.

Penetrations in *smoke barriers* shall be protected by an *approved through-penetration firestop system* installed and tested in accordance with the requirements of UL 1479 for air leakage. The *L rating* of the system measured at 0.30 inch of water (74.7 Pa) in both the ambient temperature and elevated temperature tests shall <u>meet</u> one not exceed either of the following:

- 1. $\underline{\text{A maximum}}$ 5.0 cfm per square foot (0.025 m³/s×m²) of penetration opening for each *through-penetration firestop system*.
- 2. A <u>maximum total</u> cumulative leakage of 50 cfm (0.024 m ³/s) for <u>all through-penetration firestop</u> systems within any 100 square feet (9.3 m²) of wall area, or floor area.
- Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 NO

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

This change clarifies that only one of the two criteria need to be met. Also clarifies the extent of the leakage requirements for each of the criteria.

- 2. Why is the proposed code change a reasonable solution?

 This section can be confusing and could be interpreted as requiring compliance with both
- 3. What other factors should the TAG consider?
 None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

Change is editorial in nature and should not result in a cost increase

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.

 No cost change
- 3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

NA

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change?

 Architects, Contractors, Developers, Building Owners, Contractors, Building Officials
- Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Not adopting this change results in allowing louvers in these egress components.
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. This change was adopted by the ICC egress committee at the April 2024 Code Action Hearings. Regardless of the ICC actions this is a significant improvement to the current code language.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Authoi	r/requestor: C. Scott Anderson	Date: 5/8/24		
Email address: c.scott.anderson@minneapolismn.gov Model		Model Code: 202	4 IBC	
Teleph	none number: 612-246-7303	Code or Rule Sect Louvers	ion: 716.	2.2.3.2
Firm/A	ssociation affiliation, if any: City of Minneapolis	Topic of proposal:	716.2.2.	3.2 Louvers
Code	or rule section to be changed: 716.2.2.3.2 Louvers			
Intend	ed for Technical Advisory Group ("TAG"):			
Gener	al Information		Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions. Will the proposed change encourage more uniform enforce. Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapte. Would this proposed change be appropriate through the IC development process?	of Minnesota? ement? er amendment?		
	sed Language The proposed code change is meant to:			
	☐ change language contained the model code book? If so	o, list section(s).		
	☐ change language contained in an existing amendment	in Minnesota Rule?	If so, list	Rule part(s).
	delete language contained in the model code book? If	so, list section(s).		
	delete language contained in an existing amendment in part(s).	n Minnesota Rule? It	so, list R	ule
	□ add new language that is not found in the model code to the state of the	oook or in Minnesota	a Rule.	

- 2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

716.2.2.3.2 Louvers. Louvers are prohibited in fire door assemblies in interior exit stairways and ramps and exit passageways

 Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

No

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

The IBC currently requires many doors to interior exit stairways and ramps and exit passageways to comply with Section 716 Opening protectives. Section 716 requires opening protectives to comply with NFPA 80 Standard for Fire Doors and Opening Protectives. There are louvers listed and labeled to NFPA 80. Thus, louvers are currently permitted in fire door assemblies in interior exit stairways and ramps and exit passageways (except where Section 1023.12 refers to Sections 403.5.4, 405.7.2 or 412.2.2.1).

- 2. Why is the proposed code change a reasonable solution?

 Louvers, even if listed should not be allowed in these means of egress components.
- 3. What other factors should the TAG consider? None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

Depending on the design this could reduce the cost of construction.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.

No cost change

3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

NA

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change?

 Architects, Contractors, Developers, Building Owners, Contractors, Building Officials
- Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Not adopting this change results in allowing louvers in these egress components.
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. This change was adopted by the ICC egress committee at the April 2024 Code Action Hearings. Regardless of the ICC actions this is a significant improvement to the current code language.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Author/requestor: Greg Metz

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/11/2022

Model Code: IBC 2024

Code or Rule Section:

	/Association affiliation, if any: DLI/CCLD IBC 716.2.6 Fire door hardwe or rule section to be changed: MR 1305	are and c	losures
Gene	ral Information	<u>Yes</u>	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	The proposed code change is meant to: ☐ change language contained the model code book? If so, list section(s).		
	IBC 716.2.6.1 Door Closing ☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	delete language contained in an existing amendment in Minnesota Rule? I part(s).	f so, list R	Rule
	add new language that is not found in the model code book or in Minnesot	a Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pr	ovide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

IBC 716.2.6.1 Door Closing. Fire doors shall be latching and self- or automatic-closing in accordance with this section.

Exceptions:

- 1. Fire doors located in common walls separating dwelling units or sleeping units in Group R-1 shall be permitted without automatic- or self-closing devices.
- 2. The elevator car doors and the associated elevator hoistway doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I emergency recall operation, but shall be self-closing during non-emergency operations.
- 3. Fire doors not installed in a control area fire barrier or laboratory suite fire barrier may be automatic-closing in accordance with this section.
- 4. Fire doors installed in a control area fire barrier or laboratory suite fire barrier may be automatic-closing in accordance with this section when the automatic closing system is equipped to detect smoke, hazardous gases, toxic gasses, and corrosive gasses associated with the control area containment.
- 5. Fire doors required solely for compliance with ICC 500 shall not be required to be self-closing or automatic-closing.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

Doors in control area fire barrier separation walls and laboratory suite fire barrier separation walls are intended to protect against toxic, corrosive, and hazardous gasses which may not be detected by standard smoke detection.

2. Why is the proposed code change a reasonable solution?

It is reasonable that automatic-closing doors should have the capacity to detect all hazards, corrosives and toxins that could migrate through open doors intended to provide protection to other areas of the building.

3. What other considerations should the TAG consider?
None

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 The proposed would only increase construction costs for building uses containing hazardous, corrosive, or toxic gasses, and only to the extent of providing detection necessary to ensure safety if doors in the containment area perimeter are held open.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

 Yes, control area containment of hazardous, toxic, or corrosive gasses during an accidental leak will add greatly to the safety of occupants in adjacent spaces.
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Accidental releases of hazardous, corrosive, or toxic gasses will not be contained in control areas designed for their containment if automatic-closing doors are installed which are not able to detect the hazard.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Author/requestor: Greg Metz

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/11/2022

Model Code: IBC 2024

Code or Rule Section:

	Association affiliation, if any: DLI/CCLD IBC 716.2.6.6 Smoke-actival or rule section to be changed: MR 1305	ted doors	3
Gene	ral Information	Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	The proposed code change is meant to: ☐ change language contained the model code book? If so, list section(s). ☐ IBC 716.2.6.6 Smoke-activated doors.		
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	☐ delete language contained in an existing amendment in Minnesota Rule? If part(s).	so, list R	tule
	add new language that is not found in the model code book or in Minnesota	a Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

IBC 716.2.6.6 Smoke activated doors. Automatic-closing doors installed in the following locations, except where associated with Control Areas, Laboratory Suites, or Elevator Lobbies, shall be permitted to have hold-open devices. Doors shall automatically close by the actuation of smoke detector installed in accordance with Section 907.3 or by loss of power to the smoke detector or hold-open device. Doors that are automatic-closing by smoke detection shall not have more than a 10-second delay before the door starts to close after the smoke detector is actuated. Automatic-closing doors that protect openings installed in the following locations shall comply with this section:

- 1. In walls that separate incidental uses in accordance with Section 509.4.
- 2. In fire walls in accordance with Section 706.8
- 3. In fire barriers in accordance with Section 707.6
- 4. In fire partitions in accordance with Section 708.6
- 5. In smoke barriers in accordance with Section 709.5
- 6. In smoke partitions in accordance with Section 710.5.2.3
- 7. In shaft enclosures in accordance with Section 713.7
- 8. In waste and linen chutes, discharge openings and access and discharge rooms in accordance with Section 713.13. Loading doors installed in waste and linen chutes shall meet the requirements of Sections 716.2.6.1 and 716.2.6.3.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

Doors in control area fire barrier separation walls and laboratory suite fire barrier separation walls are intended to protect against toxic, corrosive, and hazardous gasses which may not be detected by standard smoke detection.

Doors at elevator lobbies will also mitigate stack effect pressurization of buildings. Stack effect pressurization is the major contributor to air infiltration in buildings four stories and taller in height. Air infiltration is detrimental to indoor air quality and heating energy conservation.

2. Why is the proposed code change a reasonable solution?

At Control Area and Laboratory Suite locations, it is reasonable that automatic-closing doors should have the capacity to detect all hazards, corrosives and toxins that could migrate through open doors intended to provide protection to other areas of the building. Detecting smoke is not enough, and hazards can change without the need for a new building permit.

Requiring that elevator lobby doors are normally closed effectively compartmentalizes tall buildings into the equivalent of multiple single-story buildings that are stacked. The pressurization due to stack effect is minimized, indoor air quality preserved, and energy efficiency optimized, just by making sure that doors are kept closed when not in use.

3. What other considerations should the TAG consider? None

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain.
 - The proposed would not increase construction costs. The proposed eliminates an option to allow a more expensive equipment installation for purposes of convenience. The proposed change would eliminate the option to include the added expense.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Where applied to Control Areas and Laboratory suites: Accidental releases of hazardous, corrosive, or toxic gasses will not be contained in control areas designed for their containment if automatic-closing doors are installed which are not able to detect the hazard.

Where applied to elevator lobbies: Suboptimization of energy conservation measures and continued indoor air quality issues.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement. No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



Author/requestor: C. Scott Anderson

CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 5/8/24

Email address: c.scott.anderson@minneapolismn.gov	Model Code: 2024	IBC	
Telephone number: 612-246-7303	Code or Rule Section	on: Table	e 722.1
Firm/Association affiliation, if any: City of Minneapolis	Topic of proposal:	Table 72	2.1
Code or rule section to be changed: Table 722.1			
Intended for Technical Advisory Group ("TAG"):			
General Information		Yes	<u>No</u>
 A. Is the proposed change unique to the State of Minnesota? B. Is the proposed change required due to climatic conditions C. Will the proposed change encourage more uniform enforce D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapt F. Would this proposed change be appropriate through the Idevelopment process? 	of Minnesota? ement? er amendment?		
Proposed Language 1. The proposed code change is meant to:			
☐ change language contained the model code book? If s	o, list section(s).		
change language contained in an existing amendment	in Minnesota Rule? I	f so, list l	Rule part(s).
delete language contained in the model code book? If	so, list section(s).		
delete language contained in an existing amendment in part(s).	n Minnesota Rule? If	so, list R	ule
□ add new language that is not found in the model code labele 722.1	book or in Minnesota	Rule.	

- 2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

722.1 General.

The provisions of this section contain procedures by which the *fire resistance* of specific materials or combinations of materials is established by calculations. These procedures apply only to the information contained in this section and shall not be otherwise used. The calculated *fire resistance* of specific materials or combinations of materials shall be established by one of the following:

- 1. *Concrete* ,concrete *masonry* and clay *masonry* assemblies shall be permitted in accordance with ACI 216.1/TMS 0216.
- 2. Precast and precast, prestressed concrete assemblies shall be permitted in accordance with PCI 124.
- 3. Steel assemblies shall be permitted in accordance with Chapter 5 of ASCE 29.
- 4. Exposed wood members and wood decking shall be permitted in accordance with Chapter 16 of ANSI/AWC NDS.
- 5. Wood members and assemblies shall be permitted in accordance with ANSI/AWC FDS.
- Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 No

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

Added to the ANSI/AWC Fire Design Specification (FDS) for Wood Construction, which includes provisions for fire design of wood members (both protected and unprotected), wood assemblies including calculation of structural fire resistance, thermal separation and burn-through prevention, and protection of connections that are not addressed in the AWC National Design Specification (NDS) for Wood Construction (ANSI/AWC NDS).

- 2. Why is the proposed code change a reasonable solution?

 Provides an additional approved resource for calculating fire resistance.
- 3. What other factors should the TAG consider? None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

This is an editorial change and should not impact the cost of construction.

 If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.
 No cost change 3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

NA

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
No

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change?

 Architects, Contractors, Developers, Building Owners, Contractors, Building Officials
- Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Not adopting this change restriction options unnecessarily
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. This change was adopted by the ICC egress committee at the April 2024 Code Action Hearings. Regardless of the ICC actions this is a significant improvement to the current code language.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: C. Scott Anderson	Date: 5/8/24
Email address: c.scott.anderson@minneapolismn.gov	Model Code: 2024 IBC
Telephone number: 612-246-7303	Code or Rule Section: Table 722.7.1 (1)
Firm/Association affiliation, if any: City of Minneapolis	Topic of proposal: Table 722.7.1 (1)
Code or rule section to be changed: Table 722.7.1 (1)	
Intended for Technical Advisory Group ("TAG"):	
General Information	<u>Yes</u> <u>No</u>
 A. Is the proposed change unique to the State of Minn B. Is the proposed change required due to climatic cor C. Will the proposed change encourage more uniform D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule F. Would this proposed change be appropriate throug development process? 	nditions of Minnesota?
Proposed Language 1. The proposed code change is meant to:	
change language contained the model code boo	ok? If so, list section(s).
☐ change language contained in an existing amen	dment in Minnesota Rule? If so, list Rule part(s).
delete language contained in the model code bo	ook? If so, list section(s).
delete language contained in an existing amend part(s).	ment in Minnesota Rule? If so, list Rule
□ add new language that is not found in the mode Table 722.7.1 (1)	I code book or in Minnesota Rule.

- 2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikethrough</u> words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

TABLE 722.7.1(1) PROTECTION REQUIRED FROM NONCOMBUSTIBLE COVERING MATERIAL

REQUIRED FIRE-RESISTANCE RATING OF BUILDING ELEMENT PER TABLE 601 AND TABLE 705.5 (hours)	MINIMUM PROTECTION REQUIRED FROM NONCOMBUSTIBLE PROTECTION (minutes)
1	40
<u>1-1/2</u>	<u>60</u>
2	80
3 or more	120

 Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 NO

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

Table 601 requires a 1-1/2 hour fire-resistance rating on roofs in Type IV-A buildings. However, that option was not originally provided in this table, nor was a footnote provided to the table permitting interpolation between rows. Because of that, there could be confusion as to how much non-combustible protection was required in these situations. The minimum non-combustible protection required in Table 722.7.1(1) is based on 2/3 of the required fire-resistance rating in Table 601 and Table 705.5.

- 2. Why is the proposed code change a reasonable solution? Clarifies the requirement of the code.
- 3. What other factors should the TAG consider? None

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

This is an editorial change and should not impact the cost of construction.

 If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.
 No cost change 3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

NA

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city (Minn. Stat. § 14.127)? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
No

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Contractors, Developers, Building Owners, Contractors, Building Officials
- Can you think of other means or methods to achieve the purpose of the proposed code change?
 What might someone opposed to this code change suggest instead? Please explain what the
 alternatives are and why your proposed change is the preferred method or means to achieve the
 desired result.

- 3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Not adopting this change could result in confusion as to what hourly rating and protection is required at type IV-A construction.
- 4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement. This change was adopted by the ICC egress committee at the April 2024 Code Action Hearings. Regardless of the ICC actions this is a significant improvement to the current code language.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Author/requestor: Greg Metz

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/18/2022

Model Code: IBC 2018

Code or Rule Section:

Code	Association affiliation, if any: DLI/CCLD IBC 202 Definitions: Assiste or rule section to be changed: MR 1305 ded for Technical Advisory Group ("TAG"): IBC and IBC/IFC Coordination	d Living	
Gene	ral Information	<u>Yes</u>	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	sed Language The proposed code change is meant to:		
	☐ change language contained the model code book? If so, list section(s).		
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	☐ delete language contained in an existing amendment in Minnesota Rule? I part(s).	f so, list R	dule
	□ add new language that is not found in the model code book or in Minnesot MBC 201 Definitions: Assisted Living	a Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

Assisted living. Facilities that provide custodial care to residents and some residents may require limited verbal or physical assistance while responding to an emergency situation to complete building evacuation.

Assisted living with dementia care. Facilities that provide custodial care to residents including residents with cognitive disorders. Some residents are incapable of self-preservation because they are incapable of responding to an emergency situation to complete building evacuation with only limited verbal or limited physical assistance.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Yes, MBC section 308.2 including subsections, section 308.3 including subsections, section 310.4 and 310.5.

Need and Reason

1. Why is the proposed code change needed?

There has been confusion regarding the interpretation of what the building code requires for assisted living and assisted living with dementia care. Since the last code cycle, MDH now licenses assisted living and assisted living with dementia care. There are multiple occupancies under which assisted living and assisted living with dementia care could be classified and classification is unclear because the parameters of assisted living are also unclear. Providing definitions will enhance clarity and appropriate applications of the code.

2. Why is the proposed code change a reasonable solution?

The proposed definitions support interpretations by the Minnesota Department of Health regarding the make-up of residents in these types of facilities. Adding these definitions into the building code will support uniformity across state requirements.

3. What other considerations should the TAG consider?

When fire suppression sprinkling should be required, and what the population threshold is for requiring a smoke barrier and refuge areas.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

No cost change. DLI/CCLD and MDH have been espousing that assisted living shall be classified as I-1 Condition 2 and assisted living with dementia care shall be classified as I-2 Condition 1 since the adoption of the 2020 Minnesota Building Code.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has

less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, long-term care providers, elderly citizens and their families.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued confusion over requirements specific to using Minnesota Residential Code scoped buildings verses using Minnesota Building Code requirements for use as an assisted living facility.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

No



Author/requestor: Britt McAdamis, Ryan Rehn

Email address: britt.mcadamis@state.mn.us

CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/15/2024

Model Code: IBC 2024

l elep	phone number: 651-284-5276 Co	ode or Rule Section: 302.2 Ca	re Facı	lities
Firm	Association affiliation, if any: DLI/CCLD			
Code	or rule section to be changed: MR 1305			
Inten	ded for Technical Advisory Group ("TAG"): IBC			
Gene	al Information		Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnels the proposed change required due to climatic con Will the proposed change encourage more uniform Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, Would this proposed change be appropriate through development process?	ditions of Minnesota? enforcement? chapter amendment?		
	The proposed code change is meant to: Change language contained the model code boo	k? If so, list section(s).		
	□ change language contained in an existing amend 1305.0302 □		o, list R	Rule part(s)
	☐ delete language contained in the model code bo	<i>、,</i>	, list Rι	ıle
	part(s). 1305.0302 ☑ add new language that is not found in the model	code book or in Minnesota R	ule.	
2.	Is this proposed code change required by Minnesot	a Statute? If so, please provid	e the c	itation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

	Housing with Services Establishment Housing with Services Establishment Providing Assisted Living Services	1 5 adult residents c 80 percent 55 years of age or older unless registered under MN Statutes, Section 144D.025	R-3 dwelling unit
Housing with Services Establishment	Housing with Services Establishment Housing with Services Establishment Providing Assisted Living Services	6—16 adult residents c 80 percent 55 years of age or older unless registered under MN Statutes, Section 144D.025	R-4 Condition 2
	Housing with Services Establishment Housing with Services Establishment Providing Assisted Living Services	> 16 adult residents € 80 percent 55 years of age or older unless registered under MN Statutes, Section 144D.025	I-1 Condition 2
	Assisted Living Facility	5 or fewer residents; some of whom may require limited verbal or physical assistance to respond to an emergency	R-3
Assisted Living Taylliting and	Assisted Living Facility	6 to 16 residents; some of whom may require limited verbal or physical assistance to respond to an emergency	R-4 Condition 2
Assisted Living Facilities and Assisted Living Facilities with Dementia Care	Assisted Living Facility	More than 16 residents; some of whom may require limited verbal or physical assistance to respond to an emergency	I-1 Condition 2
	Assisted Living Facility with Dementia Care	5 or fewer residents; some of whom are incapable of self preservation	R-3
	Assisted Living Facility with Dementia Care	More than 5 residents; some of whom are incapable of self preservation	I-2 Condition 1

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. 202, 308, 310

Need and Reason

1. Why is the proposed code change needed?

Since the last code cycle, MDH now licenses assisted living and assisted living with dementia care, Housing with services is no longer a type of licensed facility. There has been confusion regarding the interpretation of what the building code requires for assisted living and assisted living with dementia care. There are multiple occupancies under which assisted living and assisted living with dementia care could be classified and classification is unclear because the parameters of assisted living are also unclear. Updating the table will enhance clarity and appropriate applications of the code.

2. Why is the proposed code change a reasonable solution?

The proposed occupancy classifications support interpretations by the Minnesota Department of Health regarding the make-up of residents in these types of facilities and align with the application of the Life Safety Code by MDH. Updating the table in the building code will support uniformity across state requirements.

3. What other considerations should the TAG consider? None.

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 No cost change. DLI/CCLD and MDH have been espousing that assisted living shall be classified as I-1 Condition 2 and assisted living with dementia care shall be classified as I-2 Condition 1 since the adoption of the 2020 Minnesota Building Code.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, long-term care providers, care recipients and their families.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues? None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

7.	Are you aware of any federal regulation or federal requirement related to this proposed code
	change? If so, please list the federal regulation or requirement and your assessment of any
	differences between the proposed rule and the federal regulation or requirement.
	No

8.	Please include an assessment of the cumulative effect of the rule with other federal and state
	regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Minnesota Department of Public Safety **State Fire Marshal Division**

24CCP 117

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us) **Please complete all sections. Incomplete forms may be returned for additional information. Author/requestor: Forrest Williams, Supervisor (SFM) Date: 5/3/2024 Email address: forrest.williams@state.mn.us Telephone number: 651-769-7784 Organization/Association/Agency, if any: State Fire Marshal - Department of Public Safety Code or rule section to be changed (include code or rule title and edition year): MR 7511.0202, Table 202.1 and MR 1305.0302, Table 302.2 Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⋈ NO: □ UNKNOWN: □ **If yes, a building code change proposal must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division. **General Information** No A. Is the proposed change unique to the State of Minnesota? B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? **Proposed Language** 1. The proposed code change is meant to: ☐ Change language contained the model code book? If so, list section(s).



Minnesota Department of Public Safety State Fire Marshal Division

	Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). MR 7511.0202, Table 202.1 and MR 1305.0302, Table 302.2
	☐ Delete language contained in the model code book? If so, list section(s).
	\square Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
3.	Provide <i>specific</i> language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or

Revise Table 202.1, child care classified as Group E, to read as follows:

rule subpart that contains your proposed changes.

> 5 but \leq 100 children \leq 2.5 years of age and each room at, and with, an exit at the level of exit discharge with each care room on the LED and each care room having an exit directly to the exterior.

TABLE 202.1
CARE FACILITY CLASSIFICATIONS

TYPE OF LICENSED FACILITY		NUMBER OR TYPE OF RECIPIENTS	IBC OCCUPANCY CLASSIFICATION	
	Family child care home	10 occupants maximum with ≤ 6 below school age ¹	R-3 Dwelling unit	
	Group child care home < 24 hours per day	11–14 occupants maximum	R-3 Dwelling unit	
Child care (Day care)	Child care center < 24 hours per day	> 5 but ≤ 100 children ≤ 2.5 years of age and each room at, and with, an exit at the level of exit discharge	E	
	Child care center < 24 hours per day	More than 5 children > 2.5 years of age	E	
	Child care center < 24 hours per day	More than 5 children ≤ 2.5 years of age and not classified E	I-4	





Minnesota Department of Public Safety State Fire Marshal Division

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. MR 1305.0302, Table 302.2

Need and Reason

1. Why is the proposed code change needed?

This revision is needed to clarify the intent of the definitional summary. Without this change, it's not clear that that each care room is required to have a <u>direct</u> exit to the exterior. As currently written without the 'direct' qualifier, the language could be interpreted to mean that each room used for care only need to have access (direct or indirect) to an exterior exit on the level of exit discharge. This table only serves as a summary of the Group E and I-4 child care occupancy classification definitions, and this change more accurately reflects the definitions.

- Why is the proposed code change a reasonable solution?
 It's reasonable because it serves to clarify the criteria of the occupancy definitions. It doesn't create a change to the current provisions.
- 3. Is there additional data or information that should be considered?

 This proposal has been made because SFM did have to abate an issue where a local code official approved a non-conforming egress design for a Group E child care occupancy serving children under 2.5 years of age.

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No change in costs clarification only.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

N/A

- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 No change – clarification only.
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No





Minnesota Department of Public Safety State Fire Marshal Division

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Fire and building code officials, design professionals, child care center owners and operators.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule? N/A
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 None
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 By not adopting the proposed revision, code officials and design professionals may continue to misinterpret and misapply these provisions resulting in non-conforming egress systems for younger children who require assistance and additional time to evacuate during emergencies.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A

**Please complete all sections. Incomplete forms may be returned for additional information.





Minnesota Department of Public Safety State Fire Marshal Division



Author/requestor: Greg Metz

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/19/2022, revised 07/24/2024

Model Code: IBC 2018

Code or Rule Section:

Firm/Association affiliation, if any: DLI/CCLD IBC 308.2 Institutional group I-1 Code or rule section to be changed: MR 1305					
Gene	ral Information	Yes	s <u>No</u>)	
A. B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?			_	
	osed Language The proposed code change is meant to:				
	change language contained the model code book? If so, list section(s).				
	☐ change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s				
	delete language contained in the model code book? If so, list section(s).				
	delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).				
	□ add new language that is not found in the model code book or in Minnesota Rule. ■ MBC 308.2 Institutional Group I-1.				
2.	2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.				

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

308.2 Institutional Group I-1. This occupancy shall include buildings, structures, or portions thereof for more than 16 persons <u>capable of self-preservation</u> who reside on a 24-hour basis in a supervised environment and receive custodial care services. Examples of this include the following:

Alcohol and drug centers

Assisted living (Condition 2)

Boarding care homes

<u>Chemical dependency and Mental health treatment programs – Residential</u>

(Condition 2)

Congregate care facilities

Convalescent facilities

Group homes

Halfway houses

Housing with services establishment

Patient recovery facilities (transient)

Residential board and care facilities

Social rehabilitation facilities

Supervised living facilities Class A-2 (Condition 1)

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

- 1. Why is the proposed code change needed?
 - a. To clarify that all assisted living (not including dementia care) will be classified as Condition 2 because with a population of 16 or more care recipients needing at least custodial care it is highly likely that there will be some residents that require limited assistance.
 - b. "Chemical dependency and Mental health treatment programs" are added as they are included in the care facilities table 302.2.
 - c. "Housing with services" as a facility type has been eliminated from the Minnesota Department of Health licensing list and is no longer defined in Minnesota.
 - d. Transient patient recovery facilities is added for clarification because I-1 occupancies are not specific to transient or non-transient use, and the I-1 occupancy allows for some level of custodial care to be provided in the context of patient recovery, even if the care provider is a relative or guardian. The intent is to capture patient release from hospitals into adjacent "hotel-like" facilities where they are in close proximity to the hospital/outpatient surgical center for easy access to services and potential monitoring but not admitted as patients.
 - e. To clarify that Supervised living facilities Class A are by licensing requirements capable of self preservation and are appropriately classified as Condition 1.
- 2. Why is the proposed code change a reasonable solution?
 - It clarifies the existing code language for I-1 occupancies which are intended for some level of non-medical patient care from a non-specific source. The additional criteria for an I-1 occupancy is mandatory sprinkling which adds significantly to the safety of the facility. If some users may need limited assistance with self-preservation, then the Condition 2 is

appropriate. The I-1C2 designation initiates installation of a smoke barrier for greater defend-in-place strategies for those needing assistance with self-preservation.

3. What other considerations should the TAG consider?

The mixed occupancy separated or non-separated use of an existing hotel with separation by floor would allow I-1C1 up to four stories in a sprinkled wood building and I-1C2 up to 3 stories in a sprinkled wood building. R1 could be up to 4 stories.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

Minor increase in cost. The addition of a smoke barrier for I-1C2 occupancies in residential construction essentially adds the cost of cross-corridor doors with smoke detection. The cost is approximately \$1,500 per story. For a four story building, this amounts to a total added cost of approximately \$6,000.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

 The increased cost is offset by the added benefit of building compartmentalization for fire and smoke, increasing in defend-in-place fire survival strategies for the vulnerable.
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, medical care providers for surgical recovery and outpatient surgery, patients.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

None.

6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Surgical and hospital patients continuing to be released to nearby hotels for recovery with family members providing custodial care in buildings not designed for concentrated numbers of vulnerable people.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

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CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/19/2022

Model Code: IBC 2018

Code or Rule Section:

IBC 308.2.4 Institutional group I-1; Five or fewer

Cod	persons receiving custodial e	care		
Gene	ral Information	<u>Yes</u>	<u>No</u>	
B C D E	 Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process? 			
	osed Language The proposed code change is meant to: Change language contained the model code book? If so, list section(s).			
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule par	t(s).
	delete language contained in the model code book? If so, list section(s).			
	☐ delete language contained in an existing amendment in Minnesota Rule? I part(s).	f so, list R	ule	
	☑ add new language that is not found in the model code book or in Minnesot MBC 308.2.4 Institutional Group I-1; Five or fewer persons receiving c		are.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.	

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

308.2.4 Five or fewer persons receiving custodial care. A facility with five or fewer persons receiving custodial care within a single-family home, two-family home, or townhome shall be classified as Group R-3.

Exception: A community residential setting as defined by Minnesota Statute 245D.01, with five or fewer persons receiving custodial care within a dwelling unit may be classified as Group IRC-1 if the facility is a single-family home and provided with custodial care physically present within the dwelling unit twenty four hours each day.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

No.

Need and Reason

1. Why is the proposed code change needed?

To correct a potential code problem that could classify an R-2 apartment as an R-3 occupancy which only allows up to two dwelling units within a building if custodial care is provided within the facility.

2. Why is the proposed code change a reasonable solution?

It merely clarifies the existing code language to enhance uniformity. The interpretation that assisted living is Condition 2 is consistent with Minnesota Department of Health licensing criteria.

3. What other considerations should the TAG consider?

Minnesota Department of Health licensing criteria for assisted living and assisted living with dementia care.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain. No cost change.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

 N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, long-term care providers of assisted living services, elderly public.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued non-uniformity in building code enforcement. Significant conflicts between newly constructed work and licensing requirements for assisted living.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

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CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 7/26/2022, revised 07/24/2024

Model Code: IBC 2018

Code or Rule Section:

	/Association affiliation, if any: DLI/CCLD IBC 308.3 Institutional group e or rule section to be changed: MR 1305) I-2	
Gene	ral Information	Yes	<u>No</u>
B. C D E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	osed Language The proposed code change is meant to:		
	change language contained the model code book? If so, list section(s).		
	☐ change language contained in an existing amendment in Minnesota Rule?	' If so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	delete language contained in an existing amendment in Minnesota Rule? part(s).	f so, list R	Rule
	□ add new language that is not found in the model code book or in Minnesot MBC 308.3 Institutional Group I-2.	a Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pr	ovide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

308.3 Institutional Group I-2. This occupancy shall include buildings, structures, or portions thereof used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation. Examples of this include the following:

Assisted living with dementia care (Condition 1)

Foster care facilities

Detoxification facilities

Hospitals

Nursing Homes

Psychiatric hospitals

Supervised living facilities Class B-3 (Condition 1)

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

To clarify that all assisted living with dementia care will be classified as Condition 1 because the degenerative nature of dementia diseases ensures that there will be some residents that require more than just limited assistance with self-preservation and the additional safety measures afforded by the I-2 C1 classification provide that level of safety for similar people groups such as nursing homes and foster care facilities.

To clarify that supervised living facilities class B based on the licensing and the self preservation capabilities of the residents, they are to be classified as Condition 1.

2. Why is the proposed code change a reasonable solution?

It clarifies the existing code language regarding occupancy groups and self-preservation capacity to enhance uniformity. The interpretation that assisted living with dementia care is Occupancy Group I-2 Condition 1 is consistent with Minnesota Department of Health licensing criteria. This change to the building code will much more closely align the building code with existing MDH construction requirements for licensing assisted living with dementia care.

3. What other considerations should the TAG consider?

Minnesota Department of Health licensing criteria for assisted living with dementia care.

Cost/Benefit Analysis

Will the proposed code change increase or decrease costs? Please explain.
 No cost change. This interpretation is already being communicated and is essentially required for licensing by the Minnesota Department of Health.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain. No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, long-term care providers of assisted living services, frail elderly public.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
 No
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Continued non-uniformity in building code enforcement. Significant conflicts between newly constructed work and MDH licensing requirements for assisted living with dementia care.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

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CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/16/2022, revised 07/24/2024

IBC 310.4 Residential Group R-3

Model Code: IBC 2018

Code or Rule Section:

	or rule section to be changed: MR 1305 ded for Technical Advisory Group ("TAG"): IBC and IBC/IFC Coordination		
Gener	ral Information	Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	The proposed code change is meant to: Change language contained the model code book? If so, list section(s).		
	 ☐ change language contained in an existing amendment in Minnesota Rule? If IBC Section 310.4 Residential Group R-3 ☐ delete language contained in the model code book? If so, list section(s). 	so, list F	Rule part(s).
	delete language contained in an existing amendment in Minnesota Rule? If so part(s).	o, list Ri	ule
	add new language that is not found in the model code book or in Minnesota F	Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please provi	de the c	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

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

Assisted living (with up to five care recipients)

Assisted living with dementia care (with up to five care recipients)

Boarding care homes

Buildings that do not contain more than two dwelling units

Care facilities that provide accommodations to five or fewer persons receiving care

<u>Chemical dependency and Mental health treatment programs – Residential</u>

Congregate living facilities (non-transient) with 16 or fewer occupants

Boarding houses (non-transient)

Convents

Dormitories

Emergency services living quarters

Fraternities and sororities

Monasteries

Congregate living facilities (transient) with 10 or fewer occupants five or fewer sleeping rooms

Boarding houses (transient)

Dwelling units (two or fewer) in mixed occupancy buildings

Family a Adult foster care homes (with up to five care recipients)

Child Foster care (with up to six care recipients)

Housing with services establishment

Lodging houses with five or fewer quest rooms

Hotels (nontransient) with five or fewer guest rooms

Motels (nontransient) with five or fewer guest rooms

Residential hospice with five or fewer occupants

Supervised living facility Class A-1 (with up to six care recipients)

Supervised living facility Class B-1 (with up to six care recipients)

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No

Need and Reason

- 1. Why is the proposed code change needed?
 - a. Clarification of when assisted living can use the R-3 designation
 - b. Addition of chemical dependency can use the R-3 designation
 - c. Clarification of when adult foster care can use the R-3 designation, change the term family to adult to align with care facility table
 - d. Clarification of when foster care can use the R-3 designation, add the term child to align with care facility table
 - e. Deletion of Housing with services because that licensing type no longer exists.
 - f. Change Congregate Living Facilities (transient) limitations to a parameter of the built environment.
 - g. Addition of supervised living facilities with six or fewer

- 2. Why is the proposed code change a reasonable solution?

 The code change clarifies the parameters of the R-3 designation for many of the uses.
- 3. What other considerations should the TAG consider? None.

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 There should be no cost change because the additional wording clarifies the condition required for classification rather than introducing a material change.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain. No.

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, home owners with care facilities, foster care facilities.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 - The proposed change is the lowest impact option with the potential to produce desired results.
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 - Continued confusion over R-3 occupancy application.

7.	Are you aware of any federal regulation or federal requirement related to this proposed code
	change? If so, please list the federal regulation or requirement and your assessment of any
	differences between the proposed rule and the federal regulation or requirement.
	No

8.	Please include an assessment of the cumulative effect of the rule with other federal and state
	regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

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CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/16/2022, revised 07/24/2024

IBC 310.5 Residential Group R-4

Model Code: IBC 2018

Code or Rule Section:

	e or rule section to be changed: MR 1305 ded for Technical Advisory Group ("TAG"): IBC and IBC/IFC Coordination		
Gene	<u>ral Information</u>	<u>Yes</u>	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	The proposed code change is meant to: Change language contained the model code book? If so, list section(s).		
	 □ change language contained in an existing amendment in Minnesota Rule? If IBC Section 310.5 Residential Group R-4 □ delete language contained in the model code book? If so, list section(s). 	so, list F	Rule part(s).
	delete language contained in an existing amendment in Minnesota Rule? If so part(s).	o, list Ri	ule
	add new language that is not found in the model code book or in Minnesota F	Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please provi No	de the c	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

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

Alcohol and drug centers

Assisted living (Condition 2) (not assisted living with dementia care)

Boarding care homes

<u>Chemical dependency and Mental health treatment programs – Residential</u>

(Condition 2)

Congregate care facilities

Group homes

Halfway houses

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

Residential board and care facilities

Residential hospice with 12 or fewer occupants

Social rehabilitation facilities

Supervised living facilities Class A-2 (Condition 1)

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No

Need and Reason

- 1. Why is the proposed code change needed?
 - a. Clarification that assisted living with dementia care is not R-4
 - b. Addition of chemical dependency from care facilities table 302.2.
 - c. Deletion of Housing with services because that licensing type no longer exists.
 - d. Addition of supervised living facilities class A from care facilities table 302.2.
- 2. Why is the proposed code change a reasonable solution?

The code change clarifies the parameters of the R-4 designation. Some dementia care patients are not capable of self-preservation, even with limited assistance. Since dementia care is degenerative, most dementia care residents will become incapable of self-preservation. The R-4 occupancy requires some capacity for self-preservation.

Additional changes to incorporate the facilities listed in table 302.2.

3. What other considerations should the TAG consider?

Classification of Assisted Living with Dementia Care licensed facilities as Occupancy Classification I-2.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.

There should be no cost change because the additional wording clarifies the condition required for classification rather than introducing a material change.

- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain. No.

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change?

 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, home owners with care facilities, foster care facilities.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 - The proposed change is the lowest impact option with the potential to produce desired results.
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 - Continued confusion over R-3 occupancy application.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.



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CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/11/2022, revised 07/24/2024

Model Code: IBC 2024

Code or Rule Section:

	Association affiliation, if any: DLI/CCLD IBC 903.2.6 Group I e or rule section to be changed: MR 1305		
Gene	ral Information	Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	The proposed code change is meant to: ☐ change language contained the model code book? If so, list section(s). ☐ IBC 903.2.6 Group I		
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	delete language contained in an existing amendment in Minnesota Rule? It part(s).	f so, list R	ule
	add new language that is not found in the model code book or in Minnesota	a Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

IBC 903.2.6 Group I. An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

Exceptions:

- 1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1, Condition 1 facilities.
- 2. An automatic sprinkler system is not required where Group I-4 day care facilities that are at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door, and the means of egress shall not include stairs.
- 3. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge, and all floors below the level of exit discharge other than areas classified as an open parking garage.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 No.

Need and Reason

1. Why is the proposed code change needed?

Level of exit discharge is defined as a story where exits end and exit discharge begins. Requiring the day care to be located on the level of exit discharge does not guarantee that exit doors from care providing spaces discharge to grade where a walk-out basement condition exists. The intent of the section is that there is free and uninhibited egress from care providing spaces. If the means of egress is from the underground side of a walk-out basement condition, there may be stairs to negotiate with day care children, slowing egress.

- 2. Why is the proposed code change a reasonable solution? It meets the intent of the code section by ensuring uninhibited means of egress from day care providing spaces. It will have no effect on most
- 3. What other considerations should the TAG consider?
 - MBC 308.5.1.3 Group E Child Day Care.

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No cost change.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has

less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Day care could be provided in spaces below ground or significantly above ground where the building is not required to be sprinkled and the intended expedient means of egress is inhibited by stairs.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Firm/Association affiliation, if any: DLI/CCLD

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/15/2022

Model Code: IBC 2024

Code or Rule Section:

IBC 903.2.8 Group R Sprinkling Scoping -

Code	Exception 3 or rule section to be changed: MR 1305			
	To raio occion to so enangour mix 1000			
Gene	ral Information	Yes	<u>No</u>	
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?			
	esed Language The proposed code change is meant to:			
	☐ change language contained the model code book? If so, list section(s).			
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule par	t(s).
	delete language contained in the model code book? If so, list section(s).			
	 ☑ delete language contained in an existing amendment in Minnesota Rule? If part(s). MBC 903.2.8 Group R, Exception 3 ☐ add new language that is not found in the model code book or in Minnesota 		ule	
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	vide the	citation.	

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

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

Exceptions:

- 3. An automatic fire sprinkler system shall not be required if additions or alterations are made to existing Group R-3 or R-4 buildings or a portion thereof that do not have an automatic sprinkler system installed, unless required by a Minnesota license.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

The current language allows an infinite number of additions to an existing Group R-3 or R-4 building without sprinkling. There are no limits to the size of a Group R-3 building and no limits to the number of guest rooms/ bedrooms. Group R-4 are care facilities for residents receiving custodial care. The language in this section is more specific than the allowable area limits of Table 506.2 which would require sprinkling typically at 12,250 square feet (7000sf x 1.75 increase for frontage). Because the language of this section is more specific, it would allow buildings of any size in Group R4 if the overage is by addition.

2. Why is the proposed code change a reasonable solution?

Because an existing building is defined as one that has a legal building permit. An R-3 or R-4 building constructed last year could be added on to this year, exceed the allowable area requirements and not be required to be sprinkled. The Minnesota Conservation Code for Existing Buildings already creates conditions whereby sprinkling can be avoided with the equivalent of occupancy separations in many cases. It is reasonable to allow Minnesota Rule 1311 to govern these conditions rather than rely on a specific carve-out amendment for R-3 and R-4.

3. What other considerations should the TAG consider? None.

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 The proposed code will not increase construction costs because the inadvertent condition created by the current amendment has not been leveraged.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has

less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Any existing R-3 or R-4 building could be expanded to any size without requiring a sprinkler system.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/15/2022, revised 07/24/2024

Model Code: IBC 2024

Code or Rule Section:

	/Association affiliation, if any: DLI/CCLD IBC 903.2.8 Group R Sprink e or rule section to be changed: MR 1305	ling Scopi	ng	
Gene	ral Information	Yes	<u>No</u>	_
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?			
	osed Language The proposed code change is meant to:			
	change language contained the model code book? If so, list section(s).			
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s)).
	delete language contained in the model code book? If so, list section(s).			
	delete language contained in an existing amendment in Minnesota Rule? I part(s).	f so, list R	ule	
	□ add new language that is not found in the model code book or in Minnesot MBC 903.2.8 Group R	a Rule.		
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.	

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

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

Exceptions:

- 2. A Group R-3 dwelling unit with less than 4,500 square feet (418.1 m2) of building area, excluding garages, unless the Group R-3 dwelling unit-contains a state-licensed care facility that is required to be provided with an automatic sprinkler system as a condition of the license.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Need and Reason

1. Why is the proposed code change needed?

The term dwelling unit is removed for clarity so as to not imply this exception only applies to those R-3 occupancies identified with the 'dwelling unit' terminology in the care facilities table 302.2 and referenced in Section 310.1, but to be applicable all R-3 occupancies.

2. Why is the proposed code change a reasonable solution?

The intent of the current Minnesota amendment is to limit buildings containing an R-3 occupancy to 4,500 square feet without a sprinkler system. The proposed would clarify to apply to all R-3 occupancies.

3. What other considerations should the TAG consider?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

No.

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

Regulatory Analysis

What parties or segments of industry are affected by this proposed code change?
 Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

Email address: greg.metz@state.mn.us

Telephone number: 651-284-5884



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 8/15/2022

Model Code: IBC 2024

Code or Rule Section:

	/Association affiliation, if any: DLI/CCLD IBC 903.2.8.1 Group R-3 Spe or rule section to be changed: MR 1305	rinkling S	coping
Gene	ral Information	Yes	<u>No</u>
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Minnesota? Will the proposed change encourage more uniform enforcement? Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter amendment? Would this proposed change be appropriate through the ICC code development process?		
	osed Language The proposed code change is meant to:		
	change language contained the model code book? If so, list section(s).		
	☐ change language contained in an existing amendment in Minnesota Rule?	If so, list	Rule part(s).
	delete language contained in the model code book? If so, list section(s).		
	□ delete language contained in an existing amendment in Minnesota Rule? If part(s). ■ MBC 903.2.8.1 Group R-3	f so, list R	ule
	add new language that is not found in the model code book or in Minnesota	a Rule.	
2.	Is this proposed code change required by Minnesota Statute? If so, please pro	ovide the	citation.

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and <u>strikeout</u>-words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **903.2.8.1 Group R-3.** Where required by Section 903.2.8, Group R-3 occupancies shall be provided with an automatic sprinkler system that complies with Section 903.3.1.1, <u>or</u> 903.3.1.2 or 903.3.1.3.

Exception: An automatic fire sprinkler system that complies with IBC 903.3.1.3 may be provided throughout the R-3 occupancy where there is not more than two dwelling units within a contiguous structure, an occupancy separation is provided between the R-3 occupancy and any other occupancy group, and the overall building area complies with Section 506.2 without the installation of an automatic sprinkler system.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No.

Need and Reason

1. Why is the proposed code change needed?

The current language allows the lowest level of fire protection in R-3 occupancies even if they are constructed as multiple single-family attached dwellings with property lines between them.

- 2. Why is the proposed code change a reasonable solution?

 Where these types of buildings begin to emulate apartment buildings, the sprinkler systems should be like that of apartment buildings.
- 3. What other considerations should the TAG consider? None.

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 The proposed code will not increase construction costs because the inadvertent condition created by the current amendment has not been leveraged.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- 3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

No.

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

Architects, Engineers, Construction Contractors, Building Officials and Inspectors, Fire Officials, building owners.

- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.

The proposed change is the lowest impact option with the potential to produce desired results.

- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

Very large building structures with R-3 could be constructed with the most minimal sprinkler protection.

- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 No
- 8. Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

24CCP_82

Eine Code Change Droposel Eerm

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(Submit via email to: fire.code@state.mn.us)
**Please complete all sections. Incomplete forms may be returned for additional information.
Author/requestor: Tom Jenson, Code Specialist SFM Date:
Email address: Thomas.Jenson@state.mn.us
Telephone number: 651-201-7221 Organization/Association/Agency, if any: DPS – State Fire Marshal
Code or rule section to be changed (include code or rule title and edition year): MR 7511.0901
Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: \square NO: \boxtimes UNKNOWN: \square
**If yes, a <u>building code change proposal</u> must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division.
General Information Yes No
A. Is the proposed change unique to the State of Minnesota? □ □
B. Is the proposed change required due to climatic conditions of Minnesota?
C. Will the proposed change encourage more uniform enforcement? □
D. Will the proposed change remedy a problem? □
E. Does the proposal delete a current Minnesota Rule, chapter amendment? □ ⊠
F. Would this proposed change be appropriate through the ICC code development process? $\hfill \square$
Proposed Language 1. The proposed code change is meant to:
\square Change language contained the model code book? If so, list section(s).



	
	\square Delete language contained in the model code book? If so, list section(s).
	\Box Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation.

7511.0901 SECTION 901, GENERAL.

rule subpart that contains your proposed changes.

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

3. Provide specific language you would like to see changed. Indicate proposed new words

with underlining and words proposed to be deleted. Include the entire code (sub) section or

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

Section 901.6.1.1 Inspection, testing and maintenance of NFPA 13D systems in licensed care facilities. In licensed care facilities as defined in Table 202.1, NFPA 13D sprinkler systems shall be inspected, tested, and maintained annually per NFPA 25 Section 16.2. As part of the annual inspections, all weekly, monthly, quarterly, semiannual, and annual inspections, tests, and maintenance requirements in NFPA 13D Section 16.2 shall be conducted and any problems observed shall be noted.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No





Need and Reason

1. Why is the proposed code change needed?

Group I-1 and I-2 institutional occupancies are required to be protected with sprinklers installed per NFPA 13 or, where allowed by code, NFPA 13R system. Both types of systems require annual inspections per NFPA 25. Based on the number of residents and their ability to respond to an emergency, the building is allowed to meet the requirements for Group R-4 or Group R-3. In two situations for these groups, the code allows NFPA 13D system to be installed in buildings with vulnerable adults. Without this code change, NFPA 13D systems will never be inspected once installed for the life of the building.

- 2. Why is the proposed code change a reasonable solution? It ensures that this important life safety device is inspected once a year just as NFPA 13 and 13R systems require. The requirements in NFPA 25 that references NFPA 101 Life Safety Code are intended not to be onerous on the owner/operator of these facilities.
- Is there additional data or information that should be considered?
 The following is from the handbook for the 2023 edition of NFPA 25 Section 16.2 explaining the rationale to have what is termed per NFPA 101 "small residential board and care occupancies", inspected.

"Because there are very minimal maintenance requirements for sprinkler systems installed in accordance with NFPA 13D, and because the scope of NFPA 25 excludes NFPA 13D sprinkler systems, 33.2.3.5.8 of NFPA 101 specifies a series of testing and maintenance requirements for such systems where installed in small board and care occupancies. Where NFPA 13D is utilized outside its originally intended scope (one- and two-family dwellings and manufactured homes), NFPA 101 supplements the requirements of NFPA 13D to ensure a high level of reliability, because the system is either a mandatory system or it is being used to modify some other requirement.

The testing and maintenance requirements of 33.2.3.5.8 in NFPA 101 are not onerous. Several of the provisions, such as monthly visual inspection of control valves, can be accomplished by the facility's owner or operator. Such routine visual inspection will help to ensure a control valve is not inadvertently closed, which could lead to the system's failure in the event of a fire."

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. Increase. This is not currently required in the Minnesota State Fire Code.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.





It will increase the safety of the residents and employees working in these facilities. Sprinklers have proven over time to control fires, prevent flashover, and give occupants additional time to escape including those that may need assistance by staff.

- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain. Unknown
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain. It is unknown currently how many buildings have this type of sprinkler system, but typically these are installed in homes or small apartments with less than 17 residents. Estimated annual sprinkler inspection fee is \$500. Fast response sprinklers are required to be tested at 20 years and the cost for the testing is estimated at \$1,800.

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? Facility owners, fire code officials, sprinkler contractors.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? Estimated annual sprinkler inspection fee is \$500. Fast response sprinklers are required to be tested at 20 years and the cost for the testing is estimated at \$1,800.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals? Consequences are that this important life safety system required by code to protect the vulnerable residents would lack important annual maintenance to ensure it will function at the time of a fire.





- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A

**Please complete all sections. Incomplete forms may be returned for additional information.





24CCP 81

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us) **Please complete all sections. Incomplete forms may be returned for additional information. Author/requestor: Tom Jenson, Code Specialist SFM Date: Email address: Thomas.Jenson@state.mn.us Telephone number: 651-201-7221 Organization/Association/Agency, if any: DPS – State Fire Marshal Code or rule section to be changed (include code or rule title and edition year): MR 7511.0901 Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: □ NO: ⊠ UNKNOWN: □ **If yes, a <u>building code change proposal</u> must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division. **General Information** A. Is the proposed change unique to the State of Minnesota? B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? **Proposed Language** 1. The proposed code change is meant to:





	☐ Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	☐ Delete language contained in the model code book? If so, list section(s).
	\square Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

Section 901.6.1.1.1. NFPA 25 inspection, testing and maintenance requirements.

The following are the annual inspection requirements for NFPA 13D systems required by Section 901.6.1.1. Systems installed in accordance with NFPA 13D shall be inspected, tested, and maintained in accordance with items 1 through 15 where applicable which reference specific sections of NFPA 25. The frequency of the inspection, test, or maintenance shall be in accordance with this section, whereas the purpose and procedure shall be from NFPA 25.

- 1. Control valves shall be inspected annually in accordance with 13.3.2 of NFPA 25.
- **2.** Gauges shall be inspected annually in accordance with 13.2.7.1.1 of NFPA 25.
- 3. Alarm devices shall be inspected annually in accordance with 5.2.4 of NFPA 25.
- **4.** Alarm devices, if installed, shall be tested annually in accordance with 5.3.2 of NFPA 25.
- 5. Valve supervisory switches, if installed, shall be tested annually in accordance with 13.3.3.5 of NFPA 25.
- **6.** Visible sprinklers shall be inspected annually in accordance with 5.2.1 of NFPA 25.
- 7. Visible pipe shall be inspected annually in accordance with 5.2.2 of NFPA 25.
- **8.** Visible pipe hangers shall be inspected annually in accordance with 5.2.3 of NFPA 25.
- 9. Buildings shall be inspected annually prior to the onset of freezing weather to ensure that there is adequate heat wherever water-filled piping is run in accordance with 4.1.2 of NFPA 25.





citation.

- 10. A representative sample of fast-response sprinklers shall be tested once the sprinklers in the system are 20 years old in accordance with 5.3.1.1.1.3 of NFPA 25.
 - (A) If the sample fails the test, all of the sprinklers represented by that sample shall be replaced.
- (B) If the sprinklers pass the test, the test shall be repeated every 10 years thereafter.

 11. A representative sample of dry-pendent sprinklers shall be tested once the sprinklers in the system are 10 years old in accordance with 5.3.1.1.1.6 of NFPA 25.
 - (A) If the sample fails the test, all of the sprinklers represented by that sample shall be replaced.
 - **(B)** If the sprinklers pass the test, the test shall be repeated every 10 years thereafter.
- 12. Antifreeze solutions shall be tested annually in accordance with 5.3.3 of NFPA 25.
- 13. Control valves shall be operated through their full range and returned to normal annually in accordance with 13.3.3.1 of NFPA 25.
- 14. Operating stems of OS&Y valves, if installed, shall be lubricated annually in accordance with 13.3.4 of NFPA 25.
- 15. Dry-pipe systems that extend into the unheated portions of the building shall be inspected, tested, and maintained in accordance with 13.4.5 of NFPA 25.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
 No

Need and Reason

1. Why is the proposed code change needed?

This change is connected to the code change proposal adding Section 901.6.1.1 for NFPA 13D inspection requirements for licensed facilities located in Group R-3 or R-4 occupancies with vulnerable adults. NFPA 25 Section 16.2 requires inspection, testing and maintenance to be in accordance with NFPA 101 for small residential board and care occupancies. Sprinkler contractors and building owners may not have access to NFPA 101 requirements. This code change adds the language from 2024 edition NFPA 101 Sections 33.2.3.5.8 through 33.2.3.5.8.15 to the Minnesota State Fire Code.

- 2. Why is the proposed code change a reasonable solution?

 Places the inspection requirements from NFPA 25 and NFPA 101 into the MSFC for better access for sprinkler contractors that don't own a copy of NFPA 101.
- Is there additional data or information that should be considered?

Cost/Benefit Analysis





- 1. Will the proposed code change increase or decrease costs? Please explain. See code change proposal for 901.6.1.1
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

See code change proposal for 901.6.1.1

- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain. See code change proposal for 901.6.1.1

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? Facility owners, fire code officials, sprinkler contractors
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 See code change proposal for 901.6.1.1
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals? Consequences are that this important life safety system required by code to protect the vulnerable residents would lack important annual maintenance to ensure it will function at the time of a fire.





- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A





24CCP 75

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us) **Please complete all sections. Incomplete forms may be returned for additional information. Author/requestor: Forrest Williams, Supervisor (SFM) Date: 4-30-2024 Email address: forrest.williams@state.mn.us Telephone number: 651-769-7784 Organization/Association/Agency, if any: DPS – State Fire Marshal Code or rule section to be changed (include code or rule title and edition year): 2024 IFC/IBC Section 903.2.6 Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⊠ NO: □ UNKNOWN: □ **If yes, a building code change proposal must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division. **General Information** Yes No A. Is the proposed change unique to the State of Minnesota? B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? **Proposed Language** 1. The proposed code change is meant to:

Change language contained the model code book? If so, list section(s).



2024 IFC/IBC Section 903.2.6
\Box Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
☐ Delete language contained in the model code book? If so, list section(s).
\Box Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
\square Add new language that is not found in the model code book or in Minnesota Rule.
Is this proposed code change required by Minnesota Statute? If so, please provide the citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

903.2.6 Group I.

2.

An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

Exceptions:

- 1. An *automatic sprinkler system* installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1, Condition 1 facilities.
- An automatic sprinkler system is not required where Group I-4 day care facilities are at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door.
- 3. In buildings where Group I-4 day care is provided on levels other than the *level of exit discharge*, an *automatic sprinkler system* in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the *level of exit discharge*, *including the level of exit discharge*, and all floors below the *level of exit discharge* other than areas classified as an open parking garage.





4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No

Need and Reason

1. Why is the proposed code change needed?

This proposed change is a clarification due to an apparent oversight in the existing language. The obvious intent of this section is for the floor level containing the Group I-4 day care occupancy, and all floor levels below including the level of exit discharge (LED), to be sprinkler-protected. However, the paragraph as written can be interpreted to exclude the level of exit discharge from sprinkler protection, as the phrase "...all floors *between* the level of care and the level of exit discharge" appears to exclude the LED, as the LED is not a 'between' level in this context. However, it's illogical for all floor levels below the level containing the I-4 occupancy to be sprinklered except for the LED, as the LED is the story providing access to the building's exit discharges. A fire occurring on a non-sprinklered LED would then have the potential to obstruct egress from all upper floor levels.

- 2. Why is the proposed code change a reasonable solution?

 This change is reasonable because it simply clarifies intent, eliminates the potential for misapplication that could result in a life-safety hazard, and makes no substantive changes.
- 3. Is there additional data or information that should be considered?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No change in costs clarification only.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

N/A

- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 None
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No





Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Fire and building code officials, design professionals, construction industries, property owners and operators.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No. Seeking a change via the model code process is not practical as it would take at least 6 years before that change could be adopted under MN Rules.
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 The consequences of not adopting the proposes rule is the potential for misapplication and misinterpretation of this section by design professionals and code officials, which could allow for a design that poses a fire and life-safety hazard to building occupants.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A





24CCP_87

Fire Code Change Proposal Form

	ubmit via email to: fire.code@state.mn.us)	
**F	Please complete all sections. Incomplete forms may be returned for additional information.	
Da Em Tel	Author/requestor: Forrest Williams, Supervisor (SFM) Date: 4-26-2024 Email address: forrest.williams@state.mn.us Telephone number: 651-769-7784 Organization/Association/Agency, if any: DPS – State Fire Marshal	
	de or rule section to be changed (include code or rule title and edition year): MR 7511.903, bpart 6, Section 903.4	
	he subject matter of the proposed change also regulated by the Minnesota Building Code? S: \boxtimes NO: \square UNKNOWN: \square	
	yes, a <u>building code change proposal</u> must also be completed and submitted to the nnesota Department of Labor and Industry – Construction Codes and Licensing Division.	
	General Information Yes No	
A.	Is the proposed change unique to the State of Minnesota? \square	
B.	Is the proposed change required due to climatic conditions of Minnesota? \Box	
C.	Will the proposed change encourage more uniform enforcement? $\ \square$	
D.	Will the proposed change remedy a problem? □	
E.	Does the proposal delete a current Minnesota Rule, chapter amendment? \square	
F.	Would this proposed change be appropriate through the ICC code development process? $\hfill \square$	
1.	Proposed Language The proposed code change is meant to:	
	☐ Change language contained the model code book? If so, list section(s).	



	 ☐ Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). MR 7511.903, Subpart 6, Section 903.4
	☐ Delete language contained in the model code book? If so, list section(s).
	\Box Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation.

- 3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 - **903.4 Sprinkler system supervision and alarms.** Valves controlling the water supply for *automatic sprinkler systems*, pumps, tanks, water levels and temperatures, critical air pressures and waterflow switches on all sprinkler systems shall be electrically supervised by a *listed* fire alarm control unit.

Exceptions:

- 1. Automatic sprinkler systems protecting one- and two-family dwellings.
- 2. Limited area sprinkler systems in accordance with Section 903.3.8.
- 3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the *automatic sprinkler system*, and a separate shutoff valve for the *automatic sprinkler system* is not provided.
- 4. Jockey pump control valves that are sealed or locked in the open position.
- 5. Control valves to commercial kitchen hoods, paint spray booths or dip tanks that are sealed or locked in the open position.
- 6. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
- 7. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.
- 8. For existing sprinkler systems, monitoring is required in accordance with the code in effect at the time of installation or when the number of sprinklers is 100 or more, whichever is the most restrictive.





4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. MR 1305.0903, Section 903.4. However, as this amendment is specific to existing installations only, it's possible there's no need to maintain this current amendment in the state building code. This will be discussed with the 1305 TAG.

Need and Reason

1. Why is the proposed code change needed?

This change is necessary to clarify the intent regarding when existing sprinkler systems are required to be electrically supervised a fire alarm control unit. The intent for existing sprinkler systems having 100 or more sprinklers to be electrically supervised is to ensure existing systems installed under a former code that did not have a supervision requirement are monitored for water supply integrity, valve tampering, and waterflow conditions. However, the current language is lacking sufficient detail because, as written, it could be interpreted to allow some existing supervised sprinkler systems to forgo monitoring.

Example: An owner of an existing sprinkler system installed in 2016, where the code in effect at the time of installation required monitoring for systems having 20 or more sprinklers, may interpret Section 903.4, Exception 8, to mean their system, which has only 80 sprinklers, is no longer required to be monitored and therefore the monitoring service required for supervised systems under Section 903.4.1 may be discontinued.

This change clarifies that if an existing system was required to be electrically supervised in accordance with the code in effect at the time of installation, then that monitoring must be maintained.

- 2. Why is the proposed code change a reasonable solution?

 The change is reasonable as it only clarifies the intent of an existing amendment. There is no substantive change to the requirements.
- 3. Is there additional data or information that should be considered?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No change in costs. Clarifying language, only.
- If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
 N/A





- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? Local fire and building code officials, property owners and operators.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule? No. Clarifying language, only.
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No.
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 By not adopting the proposed change, there may be cases where property owners or operators mistakenly believe they're able to discontinue monitoring services for building sprinkler systems. This could result in sprinkler waterflow conditions going unnoticed for extended periods of the time when the building is not occupied (e.g., after business hours), causing extensive water damage to the property. The loss of monitoring can also allow sprinkler water supply valves to be closed without anyone's knowledge, completely negating a required fire- and life-safety system and jeopardizing the safety of occupants.





- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A





24CCP_80

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us)		
**Please complete all sections. Incomplete forms may be returned for additional information.		
Author/requestor: Tom Jenson, Code Specialist, SFM Date: 4-26-2024 Email address: Thomas.Jenson@state.mn.us Telephone number: 651-201-7221 Organization/Association/Agency, if any: DPS – State Fire Marshal		
Code or rule section to be changed (include code or rule title and edition year): 7511.0903		
Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: \boxtimes NO: \square UNKNOWN: \square		
**If yes, a <u>building code change proposal</u> must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division.		
General Information Yes No		
A. Is the proposed change unique to the State of Minnesota? □ □		
B. Is the proposed change required due to climatic conditions of Minnesota?		
C. Will the proposed change encourage more uniform enforcement?		
D. Will the proposed change remedy a problem? □		
E. Does the proposal delete a current Minnesota Rule, chapter amendment? □ □ □		
F. Would this proposed change be appropriate through the ICC code development process? $\hfill \square$		
Proposed Language 1. The proposed code change is meant to:		
\square Change language contained the model code book? If so, list section(s).		



	☐ Delete language contained in the model code book? If so, list section(s).
	\Box Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
3.	Provide <i>specific</i> language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
	903.4.4 Valve security. All valves controlling water supplies for automatic sprinklers shall be locked or secured in the open position by methods approved by the fire code official.
	Exception: Valves located in a room or space when access is limited to essential personnel only.
4.	Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No
	Need and Reason
1.	Why is the proposed code change needed? Typically fire protection contractors secure valves controlling water supply to sprinklers and standpipe systems with heavy chain and lock. First in fire crews do not carry bolt cutters as part of their equipment cache. To shut down the control valve requires returning to the apparatus for tools or retrieving keys from the fire department lock box. After a fire is out or in case of a broken sprinkler, any delay in shutting down water flow leads to further

property damage. This change will allow fire code officials to allow the use of heavy-duty tie wraps to secure the valve and quickly removed with a knife or other tool in their immediate





possession and shut down water flow.

- 2. Why is the proposed code change a reasonable solution?

 The use of a plastic tie wrap provides the same type of security to deter people from closing the control valve.
- 3. Is there additional data or information that should be considered?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? Fire protection contractors, fire code officials, building owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

None

- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No





- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 - Continued use of chain and lock delaying shut down of water flow leads to additional water damage. This can add to the negativity of installing sprinklers and the perception of water damage.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

 No
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A





24CCP_79

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us)		
**Please complete all sections. Incomplete forms may be returned for additional information.		
Author/requestor: Tom Jenson, Code Specialist SFM Date: 4-29-2024 Email address: Thomas.Jenson@state.mn.us Telephone number: 651-201-7221 Organization/Association/Agency, if any: DPS – State Fire Marshal		
Code or rule section to be changed (include code or rule title and edition year): 7511.0905 Sudd 2		
Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⊠ NO: □ UNKNOWN: □ **If yes, a building code change proposal must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division.		
General Information Yes No		
A. Is the proposed change unique to the State of Minnesota?		
B. Is the proposed change required due to climatic conditions of Minnesota? □ □ □		
C. Will the proposed change encourage more uniform enforcement? □ □		
D. Will the proposed change remedy a problem? □ □		
E. Does the proposal delete a current Minnesota Rule, chapter amendment? □ □		
F. Would this proposed change be appropriate through the ICC code development process? $\hfill \square$		
Proposed Language 1. The proposed code change is meant to:		



	\square Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	☐ Delete language contained in the model code book? If so, list section(s).
	□ Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). □ Total 1.0905 Subd 2
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation. Yes. 299F.011 Subdivision 4

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

905.3.2.1 Group A exhibition. Class I automatic standpipes shall be provided in Group A-3 occupancies where the floor area used for exhibition exceeds 12,000 square feet (1,115 m2).

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. 1305.0905

Need and Reason

Why is the proposed code change needed?
 Standpipe requirements for Group A occupancies with exhibition space first appeared in the 1979 Uniform Building Code for areas over 5,000 square feet (sf). In 1998, the first

the 1979 Uniform Building Code for areas over 5,000 square feet (sf). In 1998, the first Minnesota amendment to increase the size to over 12,000 sf was adopted into the 1997 Minnesota State Building Code and Minnesota Uniform Fire Code. This requirement was not brought forward with the merger of several codes into the 2000 International Building and Fire Codes. Minnesota continued with the amendment, modifying it to fit the format of the new codes. However, the 2003 Statement of Need and Reasonableness (SONAR) does not provide any rationale as to why the amendment was continued.





Due to the lack of a rationale for the amendment and because any significantly sized Group A-3 occupancy now requires sprinkler protection, the proposal is to delete the amendment in deference to the standpipe provisions of the model code.

- 2. Why is the proposed code change a reasonable solution? Minnesota Statute 326B.02 Subdivision 6 requires the State Fire Marshal to adopt a model code. This coincides with Statute 326B.106 Subdivision 1 for the Minnesota Building Code. This requirement is not unique to Minnesota and if necessary, should be addressed through the model code process.
- 3. Is there additional data or information that should be considered?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. Decrease removing a requirement not found in the model codes.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? Fire and building code officials, owners, contractors, and architects.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?





- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Costs to install standpipes in exhibition halls not required by the model codes.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 None





24CCP_78

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us)		
**Please complete all sections. Incomplete forms may be returned for additional information.		
Author/requestor: Tom Jenson, Code Specialist SFM Date: 4-24-2024 Email address: Thomas.Jenson@state.mn.us Telephone number: 651-201-7221 Organization/Association/Agency, if any: DPS – State Fire Marshal		
Code or rule section to be changed (include code or rule title and edition year): 7511.0905, 1305.0905		
Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⊠ NO: □ UNKNOWN: □		
**If yes, a <u>building code change proposal</u> must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division.		
General Information Yes No A. Is the proposed change unique to the State of Minnesota? □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		
□ □ □ □ □ □ □		
Proposed Language 1. The proposed code change is meant to:		
\square Change language contained the model code book? If so, list section(s).		



	□ Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). 7511.0905, 1305.0905
	☐ Delete language contained in the model code book? If so, list section(s).
	\Box Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
3.	Provide <i>specific</i> language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
	905.3.10 Group R-2 occupancies; small hose connections. In Group R-2 occupancies not

required to have standpipes per Section 905.3, sSmall hose connections shall be installed in Group R-2 occupancies three or more stories in height where any portion of the building's interior area is more than 200 feet (60,960 mm) of travel, vertically or horizontally, from the nearest point of fire department vehicle access. Small hose connections required by this

- 1. Supply one 1-1/2-inch (38 mm) fire hose valve at each floor level or intermediate stair landing in each required and enclosed stairway.
- 2. The water for the small hose connections shall be supplied separately from the sprinkler system protecting that area so that the small hose connections are still functional if the water supply to the sprinkler system is shut down following fire extinguishment.
- 3. The piping shall be a minimum of 1-1/2-inch (38 mm).

section shall comply with the following:

- 4. The water shall be supplied from a wet-pipe sprinkler system only.
- 5. The piping shall be comprised of metallic piping and hose valve connections.





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

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Need and Reason

- Why is the proposed code change needed?
 Clarify that these are only required in buildings not required to be provided with standpipes.
- 2. Why is the proposed code change a reasonable solution?

 Provides minimal fire hose connections for three story buildings where distances from the fire apparatus vehicles are extensive.
- 3. Is there additional data or information that should be considered?

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
- If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. N/A
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?





Architects, engineers, construction contractors, building officials and inspectors, fire code officials and building owners.

2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

None

results.

- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 The proposed change is the lowest impact option with the potential to produce the desired
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?

 None
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 - Continued confusion amongst affected parties and misinterpretation of the original intent of the rule. In addition, the model codes addressed the travel distance from the apparatus to upper stories by now including four story buildings needing standpipes.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 None





24CCP_77

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us) **Please complete all sections. Incomplete forms may be returned for additional information. Author/requestor: Tom Jenson, Code Specialist SFM Date: 3-28-2024 Email address: thomas.jenson@state.mn.us Telephone number: 651-201-7221 Organization/Association/Agency, if any: DPS - State Fire Marshal Code or rule section to be changed (include code or rule title and edition year): 7511.0906 Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⊠ NO: □ UNKNOWN: □ **If yes, a building code change proposal must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division. **General Information** A. Is the proposed change unique to the State of Minnesota? B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? \boxtimes **Proposed Language** 1. The proposed code change is meant to:

☐ Change language contained the model code book? If so, list section(s). IFC 906.1





	□ Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). 7511.0906
	\square Delete language contained in the model code book? If so, list section(s).
	\square Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
3.	Provide <i>specific</i> language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
	906.1 Where required. Portable fire extinguishers shall be installed in the following

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

Exceptions:

locations:

- 1. In Group E occupancies equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, fire extinguishers shall be required only in laundry and soiled linen rooms, boiler and furnace rooms, mechanical and electrical rooms, garages, stages, projection booths, shops, laboratories, kitchens, locker rooms, custodial closets, trash-collection rooms, storage rooms greater than 100 square feet, and similar areas.
- 2. In Group S parking garages, fire extinguishers shall only be required at stairways and elevator lobbies.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. No

Need and Reason





- 1. Why is the proposed code change needed? Vehicle fires inside parking ramps is one of the most dangerous fires to fight with extremely toxic smoke produced where one breath by an unprotected person could be their last breath. Placing fire extinguishers throughout parking ramps encourages the public to use them. In addition, many ramps are now automated with no personnel on site. Fire extinguishers are often stolen and/or used as a form of vandalism or projectile.
- 2. Why is the proposed code change a reasonable solution?
 It is better to locate the fire extinguishers in a stairway or elevator lobby moving the public away from the fire to an exit and then they can decide if it is worth the risk. Most vehicles involved in a fire are not repairable.

Comments from MAC Fire Marshal: Portable fire extinguishers for untrained people are meant to extinguish a small controllable fire, when they can safely do so, not a vehicle fire. We have taught people for decades that the first thing to do is to ensure you have an exit path and to exit the area. Placing fire extinguishers at or near exits provides people the option, exit the area and call 911, or call 911 and safely use the fire extinguisher on small fires, but always maintain your exit and escape path.

3. Is there additional data or information that should be considered? Looking for fire data

Cost/Benefit Analysis

- Will the proposed code change increase or decrease costs? Please explain.
 It will most likely reduce costs to the owner due to not having to replace stolen extinguishers.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?





Owners. No anticipated impact on fire extinguisher companies.

2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

None

- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals? Continued costs to replace missing extinguishers
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 None





24CCP_76

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us)		
**Please complete all sections. Incomplete forms may be returned for additional information.		
Author/requestor: Tom Jenson, Code Specialist SFM Date: 4-11-2024 Email address: Thomas.Jenson@state.mn.us Telephone number: 651-201-7221 Organization/Association/Agency, if any: DPS – State Fire Marshal		
Code or rule section to be changed (include code or rule title and edition year): 7511.0906		
Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: \boxtimes NO: \square UNKNOWN: \square		
**If yes, a <u>building code change proposal</u> must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division.		
General Information Yes No		
A. Is the proposed change unique to the State of Minnesota?		
□B. Is the proposed change required due to climatic conditions of Minnesota?		
C. Will the proposed change encourage more uniform enforcement? □		
D. Will the proposed change remedy a problem? □ □		
E. Does the proposal delete a current Minnesota Rule, chapter amendment? □ ⊠		
F. Would this proposed change be appropriate through the ICC code development process? □ □		
Proposed Language 1. The proposed code change is meant to:		
\square Change language contained the model code book? If so, list section(s).		



	☐ Delete language contained in the model code book? If so, list section(s).
	\square Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation. 144G.45 for assisted living facilities added language for fire extinguishers in Group R-3 homes that were not required in the MSFC at the time the statute was enacted.
3.	Provide <i>specific</i> language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
	906.1 Where required. Portable fire extinguishers shall be installed in the following locations:
	7. R-3 occupancies used as family day care, group family day care, foster care, adult family day services, and residential hospices. Group R-3 and R-4 occupancies licensed as a care facility as defined in Table 202.1. In such occupancies, as an alternative to the provisions of Section 906.6, where approved by the fire code official, portable fire extinguishers may be mounted in approved locations that are obstructed from view provided they are accessible to care providers.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

Need and Reason

Why is the proposed code change needed?
 This rule has required portable fire extinguishers in licensed Group R-3 residential occupancies. The change adds all licensed care facilities as defined in Table 202.1. In





addition, it allows portable fire extinguishers to be mounted out of site of residents and accessible to care providers.

- 2. Why is the proposed code change a reasonable solution? It expands the requirement to all licensed care facilities including the newly licensed assisted living facilities to match requirements in Minnesota Statute 144G.45 Subdivision 2 (2). For resident and care provider safety reasons, it is better that the fire extinguishers are located out of site, such as a front closet, but must be mounted in compliance with Section 906.7.
- 3. Is there additional data or information that should be considered?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No, already required by statute and rule.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? None as already required by existing statute and rule.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?





- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 None
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

 None
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 None





24CCP 84

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us) **Please complete all sections. Incomplete forms may be returned for additional information. Author/requestor: Forrest Williams, Supervisor (SFM) Date: 5-1-2024 Email address: forrest.williams@state.mn.us Telephone number: 651-769-7784 Organization/Association/Agency, if any: DPS – State Fire Marshal Code or rule section to be changed (include code or rule title and edition year): MR 7511.0907, MR 7511.1103, and MR 1305.0907 Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⊠ NO: □ UNKNOWN: □ **If yes, a building code change proposal must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division. **General Information** Yes No A. Is the proposed change unique to the State of Minnesota? \boxtimes B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? **Proposed Language** 1. The proposed code change is meant to: ☐ Change language contained the model code book? If so, list section(s).





	Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	MR 7511.0907, MR 7511.1103, and MR 1305.0907, including Subsections 907.2.1.1, 907.2.3.1, 907.2.4.1, 907.2.5.1, 907.2.6.1.1, 907.2.6.2.1, 907.2.6.3.1, 907.2.6.4.1, 907.2.8.1, 907.2.9.1.1, 907.2.9.2.1, 1103.7.1.2, 1103.7.2.2, 1103.7.4.2, and 1103.7.5.2.
	\square Delete language contained in the model code book? If so, list section(s).
	\square Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
3.	Provide <i>specific</i> language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

Here's an example:

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

This proposal is to add 'elevator equipment rooms' to the list of areas required to have automatic fire detection under the various initiation subsections found in Sections 907.2 for new buildings and 1103.7 for existing buildings. Including 907.2.1.1, 907.2.3.1, 907.2.4.1, 907.2.5.1, 907.2.6.1.1, 907.2.6.2.1, 907.2.6.3.1, 907.2.6.4.1, 907.2.8.1, 907.2.9.1.1,

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

MR 1305.0907

907.2.9.2.1, 1103.7.1.2, 1103.7.2.2, 1103.7.4.2, and 1103.7.5.2.





Need and Reason

1. Why is the proposed code change needed?

In buildings that require a fire alarm system per Section 907.2 or 1103.7, both SFM and DLI/CCLD have historically required fire alarm system detection in elevator equipment rooms based on the "...and similar areas" qualifier in the respective initiation subsections. However, it's acknowledged that local jurisdictions may not necessarily have a similar interpretation, and thus allowing elevator equipment rooms to be without automatic fire detection for the purposes of early notification to occupants and emergency services.

In buildings protected by automatic fire alarm systems, it's important that building occupants receive early notification of a potential fire condition within rooms or areas not normally occupied and where a fire could develop and progress unnoticed. This is the rationale behind the list of locations requiring automatic fire protection. The early warning via the fire alarm evacuation signal is intended to provide occupants sufficient time for evacuation before the situation becomes hazardous. It also enables a timelier fire department response and reduces the potential of fire extending to other areas of the building. Further, the need for detection in elevator equipment rooms is even more critical because such rooms are prohibited from containing fire sprinklers.

- 2. Why is the proposed code change a reasonable solution?

 This proposal simply clarifies the intent that elevator equipment rooms are to be equipped with fire detection when located in buildings required to have a fire alarm system pursuant to Section 907.2 or 1103.7. It does not add a new requirement.
- Is there additional data or information that should be considered?
 This change proposal was coordinated with DLI/CCLD building plan review and elevator code staff members.

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No change in costs clarification only.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.

N/A

- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.





No

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? Building and fire code officials, design professionals, construction/fire alarm industries, property owners and operators.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 - N/A clarification only. Not a new requirement.
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule? N/A
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No. This change involves a current MN Rule.
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None. Clarification only. Not a new requirement.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals? Without adopting the proposed rule change, design professionals, fire alarm system designers, and local code officials may erroneously interpret this section to not require fire detection in elevator equipment rooms because such areas are not specifically listed as one of the examples. This could allow for a fire to grow undetected, which may pose a life-safety hazard to building occupants and increase the potential for fire to extend to other areas of the building before extinguishment attempts can be made by the responding fire department. Further, by not adopting this proposal there will continue to be inconsistent enforcement among various jurisdictions.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A









24CCP 86

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us) **Please complete all sections. Incomplete forms may be returned for additional information. Author/requestor: Forrest Williams, Supervisor (SFM) Date: 5-7-2024 Email address: forrest.williams@state.mn.us Telephone number: 651-769-7784 Organization/Association/Agency, if any: DPS – State Fire Marshal Code or rule section to be changed (include code or rule title and edition year): MR 7511.0907, Subpart 8, Section 907.2.6 and MR 1305.0907, Section 907.2.6 Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⊠ NO: □ UNKNOWN: □ **If yes, a building code change proposal must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division. **General Information** Yes No A. Is the proposed change unique to the State of Minnesota? \boxtimes B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? **Proposed Language** 1. The proposed code change is meant to: ☐ Change language contained the model code book? If so, list section(s).





	 \int Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). MR 7511.0907, Subpart 8, Section 907.2.6, and MR 1305.0907, Section 907.2.6
	☐ Delete language contained in the model code book? If so, list section(s).
	\Box Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation.

- Provide specific language you would like to see changed. Indicate proposed new words
 with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or
 rule subpart that contains your proposed changes.
 - **907.2.6 Group I, general.** A fire alarm system shall be installed in accordance with Sections 907.2.6.1 through 907.2.6.4.2 in Group I occupancies.
 - **907.2.6.1 Group I-1 occupancies, general.** A manual and automatic fire alarm system shall be installed in Group I-1 occupancies in accordance with Sections 907.2.6.1.1 through 907.2.6.1.3.
 - **907.2.6.1.1 Initiation.** Initiation of the fire alarm system shall be by manual and automatic means. Approved automatic fire detectors shall be installed in laundry and soiled linen rooms, boiler and furnace rooms, mechanical and electrical rooms, shops, laboratories, kitchens, locker rooms, custodial closets, trash-collection rooms, storage rooms, lounges, gift shops, and similar areas. Automatic smoke detectors shall be provided in corridors and areas that are open to corridors.

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

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



alarm system shall immediately transmit an alarm to an approved central station or remote station service.

Exceptions:

- 1. In lieu of audible notification appliances, visible notification appliances shall be allowed to be used in critical care areas.
- 2. Where occupants are incapable of evacuating themselves because of age, physical/mental disabilities or physical restraint, only the attendants or other personnel required to evacuate occupants from a zone, area, floor, or building shall be required to be notified. This notification shall include means to readily identify the zone, area, floor, or building in need of evacuation.
- **907.2.6.1.3 Sleeping room smoke alarms.** Smoke alarms shall be installed in resident sleeping rooms in accordance with Section 907.2.10.2.
- Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. MR 1305.0907, Section 907.2.6

Need and Reason

1. Why is the proposed code change needed?

The first change removes 'nurses' stations' from the exception to manual fire box locations in Section 907.2.6.1.1 as Group I-1 occupancies typically do not contain such locations. Thus, the mention of nursing stations is not needed and may cause confuse the reader.

The second change deletes the 2 exceptions in Section 907.2.6.1.2 which requires a general evacuation signal to notify all building occupants of a fire alarm condition. Exception 1 allows visible notification only in critical care areas; however, such areas do not exist in Group I-1 occupancies, and therefore Exception 1 should be deleted. Exception 2 applies to occupants who are incapable of self-preservation, where only those personnel responsible for evacuating occupants need be notified of a fire alarm signal. However, by definition both I-1, Condition 1 and Condition 2 occupancies cannot have residents who are incapable of self-preservation. Such care facilities would likely be classified as Group I-2. As such, exception 2 does not apply to Group I-1 and thus should be deleted.

These exceptions do not apply to Group I-1 occupancies, and therefore may cause confusion, resulting in misinterpretation and misapplication of fire alarm system requirements. It would pose a fire- and life-safety hazard to allow staff-only fire alarm notification in Group I-1 occupancies where constantly attending locations are rare and staff are limited and incapable of affecting rapid notification of building occupants. Since occupants are capable of evacuation with limited to no assistance in Group I-1





occupancies, fire alarm activation must initiate a general evacuation signal that notifies all building occupants of a potential fire condition.

- 2. Why is the proposed code change a reasonable solution?

 This change is reasonable because it deletes language that does not apply to Group I-1 occupancies and therefore may cause confusion, resulting in misinterpretation and misapplication of fire alarm system requirements.
- 3. Is there additional data or information that should be considered?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain.

 This proposal is cost-neutral, as it only seeks to prevent a misapplication of the fire alarm provisions by deleting exceptions for conditions that don't exist in Group I-1 occupancies.
- If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
 N/A
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Fire and building code officials, design professionals, fire alarm system contractors, owners/operators of assisted living facilities, group homes, congregate care facilities, half-way houses, board & care homes.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

No additional costs.

3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?





- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? No cost changes.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 By not adopting this proposed rule change, exceptions intended to apply to Group I-2 occupancies will remain within the Group I-1 section. Thus, allowing confusing and nonsensical language to remain, leaving the potential for misapplication of the code. It would pose a fire- and life-safety hazard to allow staff-only fire alarm notification in Group I-1 occupancies where constantly attending locations are rare and staff are limited and incapable of affecting rapid notification of building occupants. Since occupants are capable of evacuation with limited to no assistance in Group I-1 occupancies, fire alarm activation must initiate a general evacuation signal that notifies all building occupants of a potential fire condition.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

 No
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A





^{**}Please complete all sections. Incomplete forms may be returned for additional information.

24CCP 85

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us) **Please complete all sections. Incomplete forms may be returned for additional information. Author/requestor: Forrest Williams, Supervisor (SFM) Date: 4-26-2024 Email address: forrest.williams@state.mn.us Telephone number: 651-769-7784 Organization/Association/Agency, if any: DPS – State Fire Marshal Code or rule section to be changed (include code or rule title and edition year): MN Rules 7511.0907.3, Subpart 15a. Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⊠ NO: □ UNKNOWN: □ **If yes, a building code change proposal must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division. **General Information** No A. Is the proposed change unique to the State of Minnesota? \boxtimes B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? **Proposed Language** 1. The proposed code change is meant to: ☐ Change language contained the model code book? If so, list section(s).



	Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). 7511.0907.3, Subpart 15a
	☐ Delete language contained in the model code book? If so, list section(s).
	\Box Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
	\square Add new language that is not found in the model code book or in Minnesota Rule.
2.	Is this proposed code change required by Minnesota Statute? If so, please provide the citation.
3.	Provide <i>specific</i> language you would like to see changed. Indicate proposed new words

- Provide specific language you would like to see changed. Indicate proposed new words
 with underlining and words proposed to be deleted. Include the entire code (sub) section or
 rule subpart that contains your proposed changes.
 - **907.3 Fire safety functions.** Automatic fire detectors required by Section 907.2 and Chapter 11 are to activate notification appliances in accordance with those sections. When automatic fire detectors are installed for other fire safety functions, they shall perform the intended function upon activation. When automatic detectors are installed for fire safety functions and the building has a fire alarm system <u>required by Section 907.2</u>, the detectors shall activate supervisory signals at the fire alarm control panel or at a constantly attended location. When the building does not have a fire alarm system <u>required by Section 907.2</u>, the detectors shall activate a visual and audible supervisory signal at an approved location, which shall indicate the source of the signal.
- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. The MBC includes the same amendment in MR 1305.0907.3, and would also require a change for proper coordination.

Need and Reason

1. Why is the proposed code change needed?

The proposed change is for clarification purposes only. There are no technical changes.

The change clarifies that detection devices installed specifically for the control of equipment are to be supervised by a fire alarm control panel only if the building requires a fire alarm





system pursuant to Section 907.2. This qualifier is consistent with the intent of the model code language on which this amendment is based, and coordinates with the MN Mechanical Code, Section 606.4.1, for air distribution systems.

2024 IFC Section 907.3

907.3 Fire safety functions.

Automatic fire detectors utilized for the purpose of performing fire safety functions shall be connected to the building's fire alarm control unit where a *fire alarm system* is required by Section 907.2.

2024 IMC Section 606.4.1

[F] 606.4.1 Supervision. [2]

The duct smoke detectors shall be connected to a fire alarm system where a fire alarm system is required by Section 907.2 of the *International Fire Code*. The actuation of a duct smoke detector shall activate a visible and audible supervisory signal at a constantly attended location. In facilities that are required to be monitored by a supervising station, duct smoke detectors shall report only as a supervisory signal, not as a fire alarm.

This change will enable uniform enforcement, as some code officials have interpreted the current language to require interconnection to any fire alarm control panel within the building, even if the building does not have a building fire alarm system required by Section 907.2. For example, buildings protected with fire sprinkler systems must be monitored for valve supervision and waterflow. This is often done by a dedicated function fire alarm control panel. In such cases, some code officials have been incorrectly requiring in-duct smoke detection for air-distribution equipment control to be connected to the sprinkler system's dedicated function control panel. This is not the intent and will likely increase the cost of compliance.

- 2. Why is the proposed code change a reasonable solution?
 It's reasonable because it provides language that clarifies intent and coordinates with the model codes, including the MN Mechanical Code, and does not make a technical change to the existing requirements.
- 3. Is there additional data or information that should be considered?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain.

 The proposed change will decrease costs in circumstances where local code officials are mistakenly requiring smoke detection for air handling equipment to be connected to a fire alarm panel where a building alarm system isn't required per Section 907.2.
- 2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.





No cost increases.

- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

 No
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? Fire and building code officials, design professionals, fire alarm contractors, and property owners.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?

No associated costs.

- Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals? The consequences of not adopting this change will be the continued inconsistent application and enforcement of the MSFC/MBC, and language that remains in conflict with the MN Mechanical Code.





- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A

**Please complete all sections. Incomplete forms may be returned for additional information.





Author/requestor: Dan Morehead



CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Date: 4-28-24

Email	Model	el Code: 2024 IBC						
Telepl	none number: 952-564-5844	Code or Rule Sed	ction: 9	07.5.2.1.3				
Firm/Association affiliation, if any: Minnesota Automatic Fire Alarm Association								
Code or rule section to be changed: 2024 IBC 907.5.2.1.3								
Intended for Technical Advisory Group ("TAG"):								
Gener	al Information		Yes	<u>No</u>				
B. C. D. E.	Is the proposed change unique to the State of Minnesota? Is the proposed change required due to climatic conditions of Mill the proposed change encourage more uniform enforcement Will the proposed change remedy a problem? Does the proposal delete a current Minnesota Rule, chapter and Would this proposed change be appropriate through the ICC condevelopment process?	nt? nendment?						
Proposed Language 1. The proposed code change is meant to:								
	X Change language contained the model code book? If so, list 2024 IBC 907.5.2.1.3	section(s).						
	change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).							
	delete language contained in the model code book? If so, list section(s).							
	delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).							
	add new language that is not found in the model code book	or in Minnesota F	Rule.					
2.	Is this proposed code change required by Minnesota Statute? I	f so, please provi	de the	citation.				

 Provide specific language you would like to see changed. Indicate proposed new words with underlining and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.
 2024 IBC

907.5.2.1.3 Audible alarm signal frequency in Group R-1, R-2 and I-1 sleeping rooms. Audible alarm signal frequency in Group R-1, R-2 and I-1 occupancies shall be in accordance with Sections 907.5.2.1.3.1, and 907.5.2.1.3.2, and 907.5.2.1.3.3.

907.5.2.1.3.1 Fire alarm system audible signal. In sleeping rooms of Group R-1, R-2 and I-1 occupancies, the audible alarm signal activated by a fire alarm system shall be a 520-Hz low-frequency signal complying with NFPA 72.

907.5.2.1.3.2 Smoke alarm signal in sleeping rooms. In sleeping rooms of Group R-1, R-2 and I-1 occupancies that are required by Section 907.2.8 or 907.2.9 to have a fire alarm system, the audible alarm signal activated by single- or multiple-station smoke alarms in the dwelling unit or sleeping unit shall be a 520-Hz signal complying with NFPA 72. Where a sleeping room smoke alarm is unable to produce a 520-Hz signal, the 520-Hz alarm signal shall be provided by a listed notification appliance or a smoke detector with an integral 520-Hz sounder.

907.5.2.1.3.3 For the purpose of 907.5.2.1.3, sleeping rooms shall include interior habitable space which includes but is not limited to bedrooms, living rooms, spare rooms, and dens.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.
No

Need and Reason

1. Why is the proposed code change needed?

The intent of this proposal is to clarify the definition of "sleeping rooms" as it relates to requirements for waking sleeping occupants to alert them of an emergency. The lack of a definition of sleeping rooms in chapter 2 creates inconsistent enforcement by code officials throughout the state. This inconsistent enforcement creates a situation that allows for the intent of the code to be ignored, removing safeguards for some residents based on their choice of sleeping location.

- 2. Why is the proposed code change a reasonable solution? It is reasonable to modify code language to provide clarity and consistency that will lead to more uniform installations and enforcement throughout the state. This proposal does not change the intent of the code. It is reasonable to approve a code language change that does not change the intent of the code yet potentially saves lives. It is reasonable to understand that people sleep in living rooms and dens.
- 3. What other considerations should the TAG consider?

 The 2025 NFPA 72 technical code committee has approved the following language in the 2025 edition of the NFPA 72 "For the purpose of 18.4.6, sleeping areas shall include bedrooms, as well as living rooms, spare rooms, dens, and other spaces where sleeping will occur." The 2022 NFPA 72 Annex Section A18.4.6.3 also explains the intent of the code is to require low frequency notification devices "in areas that might be reasonably used for sleeping".
 - The 2025 NFPA 72 will not be referenced by the 2026 MSBC and the Annex material in NFPA 72 is not enforceable; however, this does not negate the relevance of this information. The above code

sections were written by individuals with a life safety background and these sections explain the definition of "sleeping room" with the proper context. When a definition is not provided in chapter 2 of the MSBC, code officials are directed by section 201.4 of the MSBC to use the definition found in the Merriam Websters Collegiate Dictionary. In this case the dictionary does not have a definition for "sleeping room". It is inappropriate to use the term "bedroom" to define "sleeping room" because that term is not mentioned in this code section and lacks context as it relates to waking sleeping occupants of a building.

Cost/Benefit Analysis

Will the proposed code change increase or decrease costs? Please explain.

If the new requirements of the 2024 IFC section 907.5.2.1.3.2 are met by installing a fire alarm system-controlled smoke detector with an integral 520HZ sounder rather than a single or multistation smoke alarm the costs associated with this proposal could be eliminated. The credit from removing devices no longer needed to comply with section 907.5.2.1.3.1 would completely offset any additional costs associated with this proposal.

Section 907.5.2.1.3.2 was introduced in the 2021 IFC and as of 4-28-24 a single or multi-station smoke alarm device that can produce the required 520 HZ sound is not readily available for installation. If a cost effective single or multi-station device becomes available, the below scenarios hope to explain what the overall cost increase might be to comply with this proposal.

The cost to comply with this proposed change should be neutral because the requirement to install 520-Hz devices in sleeping rooms already exists in the code. From a practical standpoint many AHJ's have not been enforcing the installation of 520-Hz devices in living rooms and dens. If accepted, this proposed change will require the installation of additional 520-Hz devices in many jurisdictions. This will ultimately increase the overall cost of fire alarm systems in buildings classified as R1 or R-2 occupancy types. It is difficult to apply a universal formula to a condition-based code requirement. Below are some scenarios based on real buildings in Minnesota. These scenarios will help explain the potential cost increases. The costs will vary depending on the building design, the fire alarm system design, and the capabilities of the specified fire alarm equipment.

Scenario #1 Small R-2 Occupancy

- The AHJ interprets dens and living rooms as sleeping rooms
- The system includes (52) 520Hz low frequency horns in bedrooms, dens and living rooms
- The total fire alarm system installation cost for this project is \$32,180
- This proposal would result in a 0% overall fire alarm system cost increase for this scenario

Scenario #2 Small R2 Occupancy

- The AHJ does not interpret dens and living rooms as sleeping rooms but does require standard notification devices in dens and living rooms
- The system includes (24) 520Hz low frequency horns in bedrooms and (28) standard horns in dens and living rooms
- The proposed change would require replacing the (28) standard horns installed in dens and living rooms with (28) 520Hz Low Frequency Horns
- In this scenario the standards horns can be replaced with 520Hz low frequency horns without adding additional power supplies, boxes or cabling
- The base price of the project in this scenario is \$30,940

- The labor and material to replace (28) standard horns with (28) 520Hz Low Frequency Horns would be \$1,240
- This proposal would result in a 4% overall fire alarm system cost increase for this scenario

Scenario #3 Small R2 Occupancy

- The AHJ does not interpret dens and living rooms as sleeping rooms and does not require any notification devices in dens or living rooms
- The layout of the building in this scenario does not allow for (1) device to produce the proper dB level in multiple rooms
- The system includes (24) 520Hz low frequency horns in bedrooms
- The proposed change would require (28) additional 520Hz low frequency horns to be installed in living rooms and dens to meet the required dB levels
- In this scenario (28) 520Hz low frequency horns can be added without adding additional power supplies
- The base price of the project in this scenario is \$24,195
- The labor and material to add (28) additional 520Hz Low Frequency Horns is \$7,985
- This proposal would result in a 33% overall fire alarm system cost increase for this scenario

Scenario #4

Large R2 Occupancy

- The AHJ does interpret dens and living rooms as sleeping rooms
- The system includes (315) 520Hz low frequency horns in bedrooms, dens and living rooms
- The total fire alarm system installation cost for this project is \$135,395
- This proposal would result in a 0% overall fire alarm system cost increase for this scenario

Scenario #5

Large R2 Occupancy

- The AHJ does not interpret dens and living rooms as sleeping rooms but does require notification devices in dens and living rooms
- The system includes (155) 520Hz low frequency horns in bedrooms and (160) standard horns in dens and living rooms
- The proposed change would require replacing the (160) standard horns installed in dens and living rooms with (160) 520Hz low frequency horns to meet the required dB levels
- In this scenario replacing the 520Hz low frequency horns will also require the power supplies to be upgraded
- The base price of the project in this scenario is \$126,880
- The labor and material to replace (160) standard horns with (160) 520Hz low frequency horns is \$8,515
- This is a 6.7% overall fire alarm system cost increase for this scenario

Scenario #6

Large R2 Occupancy (Worst Case)

- The AHJ does not interpret dens and living rooms as sleeping rooms.
- The layout of the building in this scenario does not allow for (1) device to produce the proper dB level in multiple rooms
- The system includes (155) 520Hz low frequency horns in bedrooms.
- The proposed change would require (160) additional 520Hz Low Frequency Horns to be installed in living rooms and dens to meet the required dB levels

- In this scenario adding the 520Hz low frequency horns will also require the addition of power supplies, boxes and cabling
- The base price of the project in this scenario is \$90,355
- The labor and material to add (160) additional 520Hz Low Frequency Horns is \$45,040
- This is a 49.8% overall fire alarm system cost increase for this scenario

Scenario #7 Large R2 Occupancy

- The AHJ does not interpret dens and living rooms as sleeping rooms.
- The system includes (155) 520Hz low frequency horns in bedrooms.
- This scenario involves a building layout that would allow (1) low frequency device to produce the proper dB level in two separate rooms in most areas. The code does not mandate a separate device per room. The layout of the building would still require adding (7) additional 520Hz Low Frequency Horns in some living rooms and dens to meet the required dB levels
- In this scenario adding the 520Hz low frequency horns will not require additional power supplies to be installed
- The base price of the project in this scenario is \$90,355
- The labor and material to add (7) additional 520Hz Low Frequency Horns is \$721
- This is a 0.8% overall fire alarm system cost increase for this scenario
- 1. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. The cost will be offset by ensuring all sleeping residents will have an equal opportunity to wake up and escape a fire regardless of where they choose to sleep.
- 2. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 - If the code is clear and consistent, a fire alarm system can be properly designed and applied throughout the state. Inconsistent enforcement can lead to design changes later in a construction project, typically resulting in increased costs. Clarifying the definition of "sleeping rooms" will eliminate the confusion and the need for last minute changes in fire alarm design. The clarity that this proposed change brings, will reduce the overall cost of enforcement and compliance. The cost for inspecting additional devices will be offset by increased inspection fees based on total device count or total project cost.
- 3. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

If the new requirements of the 2024 IFC section 907.5.2.1.3.2 are met by installing a fire alarm system-controlled smoke detector with an integral 520HZ sounder rather than a single or multistation smoke alarm the costs associated with this proposal could be eliminated. If a code compliant single or multi-station smoke alarm is used the below explanation would apply. The costs associated with this proposal are condition-based and project based. There will not be a consistent cost increase. The uniform enforcement that this proposal will create may result in additional costs to building owners or general contractors that may be considered small businesses. It is possible that this proposal could cause an increase for those small business that would exceed \$25,000 in the first year after this proposal takes effect. The cost increase would only exceed \$25,000 if a project with the proper conditions was built in certain jurisdictions. The total cost increase would depend on many factors. Please see the list of scenarios in Cost Benefit Analysis Question #1 for an example of potential monetary cost increases.

Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 Building owners, general contractors, fire alarm contractors, electrical contractors, homeowners, or renters.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues? If additional devices are added to a fire alarm design, this will result in increased inspection fees, ultimately creating additional revenue for the state.
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 - The main objective of the proposed code change is to provide consistency across the state and safeguard human life. This objective can also be partially achieved in a more cost-effective way by defining "sleeping rooms" as <u>not</u> including dens, living rooms or similar rooms. This would be in direct contrast with the intent of the code as explained in the 2022 NFPA 72 annex and the new code language of the 2025 NFPA 72. This method does not provide safeguards for all sleeping residents. It only provides safeguards for Minnesotans who chose to sleep in traditional "bedrooms".
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals?
 Please see the list of scenarios in Cost Benefit Analysis Question #1 for an example of potential monetary cost increases. Any monetary cost increase will ultimately be borne by the building owner or developer.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?
 Not adopting a clear and consistent definition of a "sleeping room" will continue to encourage unfair bidding practices, inconsistent enforcement of a state code and potential avoidable loss of life.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.
 Not aware
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A

^{***}Note: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can considered by the TAG.

24CCP 99.1

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us) **Please complete all sections. Incomplete forms may be returned for additional information. Author/requestor: Forrest Williams, Supervisor (SFM) Date: 5/22/2024 Email address: forrest.williams@state.mn.us Telephone number: 651-769-7784 Organization/Association/Agency, if any: DPS – State Fire Marshal Code or rule section to be changed (include code or rule title and edition year): 2024 IFC/IBC 907.3 Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⊠ NO: □ UNKNOWN: □ **If yes, a building code change proposal must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division. **General Information** Yes No A. Is the proposed change unique to the State of Minnesota? \boxtimes B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? **Proposed Language** 1. The proposed code change is meant to: Change language contained the model code book? If so, list section(s).



2024 IFC/IBC 907.3 and 2024 IMC 606.4.1
\square Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).
\Box Delete language contained in the model code book? If so, list section(s).
☑ Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s). MR 7511.
\square Add new language that is not found in the model code book or in Minnesota Rule.
Is this proposed code change required by Minnesota Statute? If so, please provide the citation.

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

[Note: This change proposal seeks to incorporate current state amendments in 7511.0907, Section 907.3 and 1305.0907, Section 907.3 with the updated language in 2024 IFC/IBC Section 907.3. The added references to Chapter 11 are not intended to be included in the building code amendment.]

907.3 Fire safety functions.

Automatic fire detectors utilized for the purpose of performing fire safety functions shall be connected to the building's fire alarm control unit where a *fire alarm system* is required by Section 907.2 or Chapter 11. Detectors shall, upon actuation, perform the intended function and shall initiate a visible and audible supervisory signal at the fire alarm control unit activate the alarm notification appliances or activate a visible and audible supervisory signal or at a constantly attended location. In buildings not equipped with a *fire alarm system*, the automatic fire detector shall be powered by normal electrical service and, upon actuation, perform the intended function and activate a visual and audible supervisory signal at an approved location which shall indicate the source of the signal. The detectors shall be located in accordance with NFPA 72.

907.3.1 Duct smoke detectors.



2.



Smoke detectors installed in ducts shall be *listed* for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit where a *fire alarm system* is required by Section 907.2 or Chapter 11. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at the fire alarm control unit a *constantly attended location* and shall perform the intended fire safety function in accordance with this code and the *International Mechanical Code*. Activation of a duct smoke detector shall not initiate a general evacuation signal. In facilities that are required to be monitored by a supervising station, duct smoke detectors shall report only as a supervisory signal and not as a fire alarm. They shall not be used as a substitute for required open area detection.

Exceptions:

1. The supervisory signal at a *constantly attended location* is not required where duct smoke detectors activate the building's alarm notification appliances.

In occupancies not required to be equipped with a *fire alarm system*, actuation of a smoke detector shall activate a visible and an audible signal in an *approved* location. Smoke detector trouble conditions shall activate a visible or audible signal in an *approved* location and shall be identified as air duct detector trouble.

907.3.2 Special locking systems.

Where special locking systems are installed on *means of egress* doors in accordance with Section 1010.2.13 or 1010.2.12, an automatic detection system shall be installed as required by that section.

907.3.3 Elevator emergency operation.

Automatic fire detectors installed for elevator emergency operation shall be installed in accordance with the provisions of ASME A17.1/CSA B44 and NFPA 72.

907.3.3.1 Elevator control functions. Fire detectors installed to control or recall elevators or to control doors for elevators, elevator lobbies, or elevator shafts and that are connected to a fire alarm system shall not activate a general evacuation signal. Elevator emergency operations and control functions shall not be initiated by fire detectors or initiating devices installed for purposes other than elevator control.

Exception: Occupant evacuation elevators and fire service access elevators shall function as required by Chapter 30 of the Minnesota Building Code.

907.3.4 Door hold-open functions. Smoke detectors that are installed to hold open fire doors or fire shutters under nonemergency conditions and that are connected to the





building's fire alarm system shall sound a general evacuation signal when the doors or shutters being held open are directly communicating with an exit access corridor, exit access stairway or exit enclosure. When not connected to a fire alarm system, smoke detectors that are installed to hold open fire doors or fire shutters are not required to activate a visual or audible signal.

907.3.<u>5</u>4-Wiring.

The wiring to the auxiliary devices and equipment used to accomplish the fire safety functions shall be monitored for integrity in accordance with NFPA 72.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. Yes, 2024 IMC 606.4.1. This section will need to be amended similar to what's proposed for IFC/IBC Section 907.3.1.

Need and Reason

- Why is the proposed code change needed?
 Because IFC/IBC Section 907.3 has been revised since the 2018 editions, it's necessary to incorporate our current state amendments so they properly coordinate with the updated language.
- Why is the proposed code change a reasonable solution?
 It's reasonable because it maintains currently adopted state amendments in MR 7511 and 1305.
- 3. Is there additional data or information that should be considered?

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain.

 There will be no change in costs as the currently adopted provisions are being maintained.
- If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
 N/A
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

 No





4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

Regulatory Analysis

- 1. What parties or segments of industry are affected by this proposed code change? None, as the currently adopted provisions are being maintained.
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? There will be no probable costs of compliance as the currently adopted provisions are being maintained.
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals? The consequence of not adopting the proposed change would be that the existing state amendments would overwrite much of the updated model code language.
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

 No
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A





**Please complete all sections. Incomplete forms may be returned for additional information.



24CCP 83

Fire Code Change Proposal Form

(Submit via email to: fire.code@state.mn.us) **Please complete all sections. Incomplete forms may be returned for additional information. Author/requestor: Forrest Williams, Supervisor (SFM) Date: 4-11-2024 Email address: forrest.williams@state.mn.us Telephone number: 651-769-7784 Organization/Association/Agency, if any: DPS-State Fire Marshal Code or rule section to be changed (include code or rule title and edition year): MR 7511.0910 Subpart 5, Section 910.5, and Subpart 6, Section 910.6. Is the subject matter of the proposed change also regulated by the Minnesota Building Code? YES: ⊠ NO: □ UNKNOWN: □ **If yes, a building code change proposal must also be completed and submitted to the Minnesota Department of Labor and Industry – Construction Codes and Licensing Division. **General Information** Yes No A. Is the proposed change unique to the State of Minnesota? \boxtimes B. Is the proposed change required due to climatic conditions of Minnesota? C. Will the proposed change encourage more uniform enforcement? D. Will the proposed change remedy a problem? E. Does the proposal delete a current Minnesota Rule, chapter amendment? F. Would this proposed change be appropriate through the ICC code development process? **Proposed Language** 1. The proposed code change is meant to: ☐ Change language contained the model code book? If so, list section(s).





☐ Change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).				
☐ Delete language contained in the model code book? If so, list section(s).				
☑ Delete language contained in an existing amendment in Minnesota Rule? If so, list Rule				
part(s). MR 7511.0910, Subparts 5 and 6. Section 910.5 - Calculated engineering design of mechanical smoke exhaust, and Section 910.6 – Testing and maintenance.				
$\hfill \square$ Add new language that is not found in the model code book or in Minnesota Rule.				
Is this proposed code change required by Minnesota Statute? If so, please provide the citation.				
Although not necessarily a requirement of MN Statutes, 326B.02 Subd. 6 states: "The code and its amendments shall conform insofar as practicable to model fire codes generally accepted and in use throughout the United States" Thus, the repealing of this state				

3. Provide *specific* language you would like to see changed. Indicate proposed new words with <u>underlining</u> and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

amendment in deference to the provisions of the model code is consistent with this

This proposal would delete MR 7511.0910, Subparts 5 and 6, in deference of the model code language in IFC Section 910.4 (mechanical smoke removal systems) and IFC Section 910.5 (maintenance and testing).

910.5 Calculated engineering design of mechanical smoke

exhaust. Calculated engineering design of mechanical smoke exhaust shall be in accordance with Sections 910.5.1 through 910.5.5.

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

910.5.2 Calculation method. Volumetric flow rate calculations



2.

statement.



shall demonstrate that the system will provide at least three air changes per hour for the space required to be provided with smoke exhaust. When only a portion of a space is used for high-piled storage requiring smoke exhaust, the volume to be extracted shall be based on the ceiling height multiplied by the actual gross floor area for storage.

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

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

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

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

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

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





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

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

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

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

- 4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts. Affected rules include the following from MR 7511.0910, Subpart 1.
 - Section 910.1.1, exception 1 to be deleted as it references 910.5.
 - Section 910.1.3 to be deleted as it references 910.5.

Need and Reason

1. Why is the proposed code change needed?

The model code language now adequately addresses the design, installation, and maintenance of smoke and heat removal systems. The IFC design language includes provisions for minimum exhaust rates, makeup air, activation method, and manual control locations. As such, there is no need for an additional design option under MN Rules beyond what's permitted under the national model code.

The following selection is from the 2007 Chapter 7511 SONAR for Section 910.5, as amended. The primary rationale for the state amendment was to allow for a less complicated engineering design method. However, since then the model code language has been greatly simplified, prescribing a design method with a minimum exhaust rate of 2 air changes per hour (see 2024 IFC Section 910.4).

The proposal would vastly simplify the current rule by eliminating the need for a fairly complex fire engineering analysis, and instead requiring three air changes per hour. This would also greatly reduce the amount of text in the rule and the complexity of the requirements. Most mechanical contractors are accustomed to dealing with movement of air (air changes per hour). The State Fire Marshal Division modeled several fire





scenarios using computer simulation software programs. These models showed that 3 air changes per hour were roughly equivalent to the volumetric calculations required under the current rule.

The 2007 SONAR also states that 3 air changes per hour, as required by the amendment, were roughly equivalent to the more complex design method offered by the 2006 IFC. However, that language has since been replaced for a much simpler design method of 2 air changes per hour. This is another indication the state amendment is outdated as it no longer offers an equivalent option to the model code design requirements as initially intended.

Further, Section 910.6, as amended, should also be repealed along with Section 910.5 as the maintenance and testing provisions in the mode code under IFC Section 910.5 are written to coordinate with the overall provisions of Section 910. And with the repealing of Section 910.5, there's no longer a need for amended (added) Section 910.6.

- 2. Why is the proposed code change a reasonable solution?
 Repealing the current state amendment in deference to similar provisions of a nationally recognized model code is consistent with M.S. 326B.02 Subd. 6, conforming insofar as practicable to model fire codes in use throughout the United States. It's reasonable because the current amendment is no longer serving its intended purpose.
- 3. Is there additional data or information that should be considered? N/A

Cost/Benefit Analysis

- 1. Will the proposed code change increase or decrease costs? Please explain. No change in costs.
- If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
 N/A
- Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
 None
- 4. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city? A small business is any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.
 No





Regulatory Analysis

- What parties or segments of industry are affected by this proposed code change?
 None
- 2. What are the probable costs to the agency and to any other State agencies of implementing and enforcing of the proposed rule? Is there an anticipated effect on state revenues?
 None
- 3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
- 4. Can you think of other means or methods to achieve the purpose of the proposed code change? If so, please explain what they are and why your proposed change is the preferred method or means to achieve the desired result.
 No
- 5. What are the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals? None
- 6. What are the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals? None
- 7. Are you aware of any federal regulation or federal requirement related to this proposed code change? If so, please list the federal regulation or requirement and your assessment of any differences between the proposed rule and the federal regulation or requirement.

 No
- Please include an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.
 N/A

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