

CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

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Date: [6-17-2024](#)

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Model Code: [2024 IMC](#)

Telephone number: [952-564-5844](#)

Code or Rule Section: [606.4.1](#)

Firm/Association affiliation, if any: [Minnesota Automatic Fire Alarm Association](#)

Code or rule section to be changed: [606.4.1](#)

Intended for Technical Advisory Group (“TAG”):

General Information

Yes **No**

- | | | |
|----------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| B. Is the proposed change required due to climatic conditions of Minnesota? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| C. Will the proposed change encourage more uniform enforcement? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| D. Will the proposed change remedy a problem? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| E. Does the proposal delete a current Minnesota Rule, chapter amendment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| F. Would this proposed change be appropriate through the ICC code development process? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Proposed Language

1. The proposed code change is meant to:

change language contained the model code book? If so, list section(s).
[606.4.1](#)

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.

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 underlining and words proposed to be deleted. Include the entire code (sub) section or rule subpart that contains your proposed changes.

~~2024 IMC 606.4.1 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 to be monitored by a supervising station duct smoke detectors shall report only as a supervisory signal, not as a fire alarm.~~

Actuation of a smoke detector shall activate a visible and audible signal in an *approved* location. Duct smoke detector trouble conditions shall activate a visible or audible signal in an *approved* location and shall be identified as air duct detector trouble.

Exceptions:

~~1. The supervisory signal at a constantly attended location is not required where the duct smoke detector activates the building's alarm-indicating appliances.~~

~~2. In occupancies not required to be equipped with a fire alarm system actuation of a smoke detector shall activate a visible and audible signal in an *approved* location. Duct smoke detector trouble conditions shall activate a visible or audible signal in an *approved* location and shall be identified as air duct detector trouble.~~

1. A visible and audible signal in an approved location is not required when a duct detector is connected to a fire alarm system. In facilities that are to be monitored by a supervising station duct smoke detectors shall report only as a supervisory signal, not as a fire alarm.

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.
MSFC will have to be adjusted if approved.

Need and Reason

1. Why is the proposed code change needed?
Duct detector supervision is not being properly enforced in Minnesota. The 2020 MMFGC refers to the NFPA 72 and the IFC fire code. Although the 2020 MMFGC references codes that are typically enforced by other AHJ's there is no mechanism in place to ensure that the responsibility of properly inspecting duct detector supervision is accomplished. This code change simplifies the duct detector supervision requirement, yet still allows duct detectors to be connected to a fire alarm system as an option.
2. Why is the proposed code change a reasonable solution?
The proposed code change is reasonable because Section 606.4.1 of the MMFGC refers to section 907.2 of the IFC to determine when duct detectors are required to be connected to a fire alarm system. Minnesota has significantly altered section 907.2 resulting in fewer duct detectors that are required to be connected to a fire alarm system.
3. What other considerations should the TAG consider?
The TAG should consider the confusion in the industry and the vast number of duct detectors that continue to be improperly supervised in the state of Minnesota.

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain.
This proposed code change is condition specific. The overall cost impact to building owners will vary. Under the current code, and the proposed changes, the intent of the code remains the same. All duct detectors are required to be supervised. This proposal provides clarification of how the supervision should be achieved. The cost may shift from fire alarm contractors to HVAC

contractors, or electrical contractors in some buildings. If you take into consideration the reduction in nuisance calls related to power outages and other issues that this proposed change intends to fix then, the overall cost to building owners could decrease. This decrease could be significant over the life of each duct detector.

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain.
As stated above, the cost impact is condition specific. Costs will be dependent on building specifications and equipment capabilities. If there is an overall increase in cost, that cost would be offset by increasing the likelihood that a duct detector will be properly supervised by a stand-alone monitoring device rather than being improperly monitored by a fire alarm system.
3. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.
Clarifying this code section will reduce confusion and eliminate wasted labor hours that code officials and contactors spend on corrective action orders and re-inspections.
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?
Mechanical Contractors, Electrical Contractors, Fire Alarm Installation Contractors, 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?
No change
3. Are there less costly intrusive methods for achieving the purpose of the proposed rule?
The proposed change is the most cost-effective solution to increase proper duct detector supervision.
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.
Requiring all duct detectors to be monitored by a supervising station would provide the most reliable detector supervision; however, this method could increase the overall cost of installation.
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?
The financial and other consequences of not adopting this proposed change have been stated above in the Cost/Benefit Analysis.
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 financial and other consequences of not adopting this proposed change have been stated above in the Cost/Benefit Analysis.

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.
I am not aware of any impact that this proposed change would have.
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.
Minnesota fire code would need to be revised.

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

Section 907.2 Fire Alarm Requirements		
Occupancy Type	2020 MSFC	2024 IFC
A	Not required in buildings under 1000 occupants if an approved sprinkler system is installed	Required in buildings over 300 occupants or 100 occupants below or above the level of discharge
B	In other than ambulatory care facilities a fire alarm is not required if an approved sprinkler system is installed	Required in ambulatory care, buildings over 500 total occupants or 100 occupants below or above the level of discharge
E	Required	Required
F	Not required if an approved sprinkler system is installed	The building is 2 or more stories in height or contains a combined occupant load of 500 or more occupants below or above the lowest level of discharge
H	Required	Required
I	Required	Required
M	Not Required	The building contains a combined occupant load of 500 or 100 or more occupants below or above the lowest level of discharge
R1	There are exceptions where a fire alarm system would not be required	Required
R2	There are exceptions where a fire alarm system would not be required	Required
R3	There are exceptions where a fire alarm system would not be required	Required
R4	There are exceptions where a fire alarm system would not be required	Required
S	Not Required	Required