



## CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: [Mike Moore](#)

Model Code: [2024 IRC](#)

Date: [January 7, 2025](#)

Code or Rule Section:  
[2024 IRC Section 325](#)

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Firm/Association affiliation, if any: [Stator LLC, Representing the Home Ventilating Institute \(HVI\)](#)

Code or rule section to be changed: [2024 IRC Section 325](#)

Intended for Technical Advisory Group ("TAG"): [Residential Building Code](#)

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### 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/>            |

### Proposed Language

1. The proposed code change is meant to:

- change language contained in the model code book? If so, list section(s).  
[2024 IRC Section 325](#)
- 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).  
[Various places. See proposed code change.](#)
- delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).  
[This proposed code change does not propose to carry forward any Minnesota amendments except as otherwise covered in the proposed revisions to the 2024 IRC.](#)
- add new language that is not found in the model code book or in Minnesota Rule.  
[Most of the proposed language is either in the model code book or in the Minnesota Rules, but some of the language is new.](#)

2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation. Adoption of this proposed code change, which is based on requirements in the model codes and Minnesota's Rules, is supported (but not required) by Sec. 29. Minnesota Statutes 2023, section 326B.106, subdivision 1 which states, "(c) Beginning with the 2018 edition of the model building codes and every six years thereafter, the commissioner shall review the new model building codes and adopt the model codes as amended for use in Minnesota, within two years of the published edition date. The commissioner may adopt amendments to the building codes prior to the adoption of the new building codes to advance construction methods, technology, or materials, or, where necessary to protect the health, safety, and welfare of the public, or to improve the efficiency or the use of a building."
3. Provide *specific* language you would like to see changed. Indicate proposed new words with underlining and ~~strikethrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.  
Please see the proposed code change appended to the end of this document.
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. This proposed code change should be coordinated with the companion proposed code change submitted to the Mechanical and Fuel Gas Code TAG, covering Chapters 2, 15, 16, and 44.

### **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.)

Minnesota Rules chapter 1322 currently requires a balanced ventilation system for IRC buildings. Local exhaust (i.e., for bathrooms, toilet rooms, and kitchens) can be used to comply with the chapter 1322 intermittent ventilation rate but is not required. This proposed code change and its companion proposed code change (submitted to the Mechanical and Fuel Gas Code TAG) would merge the ventilation requirements of the 2024 IRC and chapter 1322 to maintain the requirement for a whole-house balanced ventilation system and establish requirements for local exhaust, while simplifying the code. Further, this proposed code change is coordinated with the Minnesota Residential Energy Code TAG's recent recommendation to approve proposals RE-7 and RE-19.1, which would modify the IECC-Residential code to require that the balanced ventilation system be a heat or energy recovery ventilator (HERV) for single-family, two-family, townhome, and low-rise multifamily dwelling units across all of Minnesota's climate zones.

If approved, accomplishments of this proposed code change and its companion proposed code change would include the following:

1. Relocate ventilation requirements from MN Rules chapter 1322 to the IRC for buildings complying with the IRC.
2. Modify the model code to retain Minnesota requirements for the whole-house mechanical ventilation system to be a balanced ventilation system.
3. Establish local exhaust requirements in bathrooms, toilet rooms (i.e., water closet compartments), and kitchens, in accordance with the 2024 IRC.
4. Align with the Minnesota Residential Energy Code TAG's recent recommendation to require an HERV for single-family, two-family, and townhomes.
5. Clarify the 2024 IRC provisions by reorganizing and using consistent terminology.

Minnesota has long required balanced ventilation for IRC dwelling units. By specifying a balanced ventilation system for whole-house ventilation, Minnesota's code prohibits exhaust-only whole-house ventilation systems that can draw air from below slabs, crawlspaces, garages, and attics. Minnesota's code also prohibits supply-only ventilation systems that can lead to formation of condensation within the building envelope.

Balanced ventilation systems are also able to provide filtered air directly from the outdoors and to temper the outdoor air (if provided with a heat or energy recovery core – as proposed by the Minnesota Residential Energy Code TAG to be required within Minnesota Rules chapter 1322 for all IRC dwelling units), increasing the likelihood of energy-efficient system operation by occupants.

Following is a comparison between the chapter 1322 ventilation requirements and those promulgated by this proposed code change and its companion proposed code change.

Item	Chapter 1322 Ventilation Provision	Corollary Section of Proposed Code Change	Comment
1	R403.5 Mechanical ventilation	R325.1.2 (requirement), M1505.4.1 (balanced ventilation system), M1505.5 (local exhaust), dampers (N1103.6/R403.6)	Maintain MN's requirement for a balanced ventilation system. Maintain the IRC requirement for local exhaust. Base whole-house ventilation rate requirements on floor area of the house.
2	R403.5.1 Alterations	Exception to Sections M1505.1 and R325.1.2	Maintain MN's exception for alterations.
3	R403.5.2 Total Ventilation Rate	M1505.4.3 (whole-house mechanical ventilation), M1505.5 (local exhaust)	For whole-house mechanical ventilation, roughly align with the MN Rules chapter 1322 Section R403.5.3 continuous ventilation rate requirement. For intermittent ventilation, maintain 2024 IRC requirements for local exhaust of kitchens, bathrooms, and toilet rooms. The resulting rates are comparable to MN's current requirements.
4	R403.5.3 Continuous Ventilation Rate	M1505.4.3 (whole-house mechanical ventilation rate)	For whole-house mechanical ventilation, roughly align with the MN Rules chapter 1322 Section R403.5.3 continuous ventilation rate requirement.
5	R403.5.4 Intermittent Ventilation Rate	M1505.5 (local exhaust)	For intermittent ventilation, maintain 2024 IRC requirements for local exhaust of kitchens, bathrooms, and toilet rooms.
6	R403.5.5 Balanced and HRV/ERV systems	M1505.4.1 (balanced ventilation); M1505.4.1, N1103.6.1/R403.6.1 (HERV requirement)	Maintain MN's requirement for a balanced ventilation system. The residential energy code is expected to have requirements for HERVs.
7	R403.5.6 Installation requirements	M1505.4 and M1505.5 (manufacturer installation instructions); M1505.4.4 (distribution); M1505.4.1, N1103.6.1/R403.6.1 (HERV requirement to replace tempering requirement)	Simplify MN's distribution requirements by replacing with Section M1505.4.4. Maintain MN's requirement for installation in accordance with manufacturer's instructions. Replace MN's R403.5.6.1.2 tempering requirement with IRC R403.6.1 HERV requirement. Replace MN's R403.5.6.1.3 airflow verification requirement with IRC N1103.6.3 (R403.6.3).
8	R403.5.7 Fans	M1505.3, M1505.5.1 (airflow ratings); N1103.6.2/R403.6.2 [fan efficacy]	Generally maintain MN's requirements for airflow ratings and fan efficacy, aligning with ASHRAE 62.2 or the 2024 IRC where divergences occur. Delete references to sound ratings, based on MN DLI staff's request.
9	R403.5.8 Multifan systems	M1504.6	Maintain MN's requirement to have dampers for multiple exhaust fans using the same exhaust duct system. Replacement language is sourced from ASHRAE 62.2.
10	R403.5.9 Connection to forced air circulation systems	M1301.3 and M1307.1	Replace MN's specific installation requirements with a general requirement to comply with manufacturer's installation instructions.
11	R403.5.10 Dampers	N1103.6/R403.6	Replace MN's requirements for dampers with the 2024 IRC requirement. Note that the 2024 IRC does not have requirements for access, except in the case of makeup air dampers.
12	R403.5.11 Intake openings	M1504.4, M1504.5 (outdoor air intake opening location and protection)	Generally maintain MN requirements for outdoor air intake openings.
13	R403.5.12 Filtration	M1301.3 and M1307.1 (manufacturer installation instructions)	Replace the filtration requirement with a general requirement to comply with manufacturer's installation instructions. Such

			instructions are expected to require filtration to protect equipment, where required.
14	R403.5.13 Noise and vibration	M1301.3 and M1307.1 (manufacturer installation instructions)	Replace noise dampening requirements with a general requirement to comply with manufacturer's installation instructions.
15	R403.5.14 Controls	M1505.4.2	Replace MN's more detailed control requirements with the IRC's more generic control requirements.
16	R403.5.15 Labeling	None	Delete requirement to label outdoor air intake openings and exhaust terminations.
17	R403.5.16 Documentation	N1101.12/R303.3	IRC Section N1101.12/R303.3 requires that, "Maintenance instructions shall be furnished for equipment and systems that require preventive maintenance."

2. Why is the proposed code change a reasonable solution?  
[See answer to #1.](#)

3. What other factors should the TAG consider?  
[See answer to #1.](#)

### **Cost/Benefit Analysis**

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.  
[Balanced ventilation systems are already required, so there is no increase in costs associated with their specification. Presumably, most bathrooms, kitchens, and toilet rooms are also provided with local exhaust, so no additional costs are assumed for these systems.](#)
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.  
[N/A](#)
3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.  
[N/A](#)
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?  
[None.](#)
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.

One alternative would be to roll back MN's current requirements. See the response to #1 under the Need and Reason section above for the rationale as to why this proposed code change is the preferred method.

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?  
If MN elects to maintain its current amendments, there is presumably minimal cost or consequence of not adopting this code change (since this code change is generally a simplified version of MN's current requirements). However, if MN adopts the IRC mechanical provisions without amendment (e.g., permitting exhaust-only whole-house ventilation systems or supply-only whole-house ventilation systems), air quality could be diminished, or the durability of the building envelope could be compromised. Poor air quality could lead to poor health outcomes and associated health costs that are borne by occupants, corporations, and institutions.
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: Incomplete forms may be returned to the submitter with instruction to complete the form. Only completed forms can be considered by the TAG.

**Revise the 2024 IRC as follows:**

**R325.1 Habitable rooms.** *Habitable space* shall be provided with natural light and ~~natural mechanical~~ ventilation in accordance with Sections R325.1.1 through R325.1.3.

**Commented [M1]:** Mechanical ventilation is required, so the natural ventilation requirements of Section R325.1.2 do not apply, based on Exceptions 1 and 2. We can therefore delete the requirement for natural ventilation.

**R325.1.1 Natural light.** Habitable rooms shall have an aggregate area of glazed openings not less than 8 percent of the floor area of such rooms. Required glazed openings shall face directly onto a street, alley or public way, or a yard or court located on the same lot as the building.

**Exceptions:**

1. Required glazed openings shall be permitted to face into a roofed porch, deck or patio adjacent to a street, alley, public way, yard or court, where there the longer side of the roofed area is not less than 65 percent unobstructed and the ceiling height is not less than 7 feet (2134 mm).
2. Required glazed openings shall be permitted to face into a sunroom adjacent to a street, alley, public way, yard or court.
3. Glazed openings are not required where artificial light is provided that is capable of producing an average illumination of 6 footcandles (65 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level.
4. Eave projections shall not be considered as obstructing the clear open space of a yard or court.

~~**R325.1.2 Natural ventilation.** Habitable rooms shall have an aggregate area openable to the outdoors not less than 4 percent of the floor area of such rooms. Openings shall be through windows, skylights, doors, louvers or other approved openings to the outdoor air. Such openings shall be provided with ready access or shall otherwise be readily controllable by the building occupants.~~

**Commented [M2]:** Because mechanical ventilation is required, Exceptions 1 and 2 apply. Therefore, natural ventilation is not required and can be deleted.

~~**Exceptions:**~~

- ~~1. Natural ventilation shall not be required in habitable rooms other than kitchens where a whole house mechanical ventilation system or a mechanical ventilation system capable of producing 0.35 air changes per hour in the habitable rooms is installed in accordance with Section M1505.~~
- ~~2. Natural ventilation shall not be required in kitchens where a local exhaust system is installed in accordance with Section M1505.~~

~~3. Required ventilation openings shall be permitted to open into a thermally isolated sunroom or roofed porch, deck, or patio where not less than 40 percent of the roofed area perimeter is open to the outdoor air.~~

~~4. Required ventilation openings shall be permitted to open into a thermally isolated sunroom provided there is an openable area between the adjoining room and the sunroom of not less than one-tenth of the floor area of the interior room and not less than 20 square feet (1.9 m<sup>2</sup>). The minimum openable area of the sunroom to outdoor air shall be based on the total floor area of the adjoining room and the sunroom.~~

**R325.1.2 Mechanical ventilation.** Buildings and dwelling units complying with Section N1102.5.1 shall be provided with mechanical ventilation, including *local exhaust*, and with whole-house mechanical ventilation consisting of a heat recovery or energy recovery ventilation system, in accordance with Sections N1103.6 and M1505.

**Exception:** Whole-house mechanical ventilation consisting of a heat recovery or energy recovery ventilation system shall not be required for an *alteration*.

**R325.1.3 Adjoining rooms.** For the purpose of determining light and *whole-house mechanical ventilation system* requirements, rooms shall be considered to be a portion of an adjoining room where not less than one-half of the area of the common wall is open and unobstructed and provides an opening of not less than one-tenth of the floor area of the interior room and not less than 25 square feet (2.3 m<sup>2</sup>).

**R325.2 Bathrooms.** Bathrooms, water closet compartments and other similar rooms shall be provided with ~~aggregate glazing area in windows of not less than 3 square feet (0.3 m<sup>2</sup>), one-half of which shall be openable.~~

**Exception:** ~~The glazed areas shall not be required where artificial light and a local exhaust system, which is permitted to be a dedicated exhaust duct from a heat recovery or energy recovery ventilation system, are provided. The minimum local exhaust rates shall be determined in accordance with Section M1505. Exhaust air from the space shall be exhausted directly to the outdoors unless complying with the exception to Section M1505.2.~~

~~**R325.3 Mechanical ventilation.** Buildings and dwelling units complying with Section N1102.5.1 shall be provided with mechanical ventilation in accordance with Section M1505, or with other approved means of ventilation.~~

**Informative note:** Section R325.2 will be coordinated with Section M1505.2 as follows.

**M1505.2 Recirculation of air.** Exhaust air from bathrooms and toilet rooms shall not be recirculated within a residence or circulated to another *dwelling unit* and shall be exhausted directly to the outdoors. Exhaust air from bathrooms, toilet rooms and *kitchens* shall not discharge into an *attic*, *crawl space* or other areas inside the *building*. This section shall not prohibit the installation of ductless range hoods in accordance with the exception to Section M1503.3.

**Exception:** Recirculation of exhaust air within a single *dwelling unit* shall be permitted during temporary defrost operation of a heat recovery ventilator or energy recovery ventilator as required by the manufacturer's installation instructions.

**R325.4.3 Opening location.** Outdoor *air* intake *openings* and exhaust *terminations* ~~openings~~ shall be located in accordance with Chapters 12 through 24 Sections R325.4.1 and R325.4.2.

~~**R325.4.1 Intake openings.** Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet (3048 mm) from any hazardous or noxious contaminant, such as vents, chimneys, plumbing vents, streets, alleys, parking lots and loading docks.~~

~~For the purpose of this section, the exhaust from dwelling unit toilet rooms, bathrooms and kitchens shall not be considered as hazardous or noxious.~~

**Exceptions:**

~~1. The 10 foot (3048 mm) separation is not required where the intake opening is located 3 feet (914 mm) or greater below the contaminant source.~~

~~2. Vents and chimneys serving fuel burning appliances shall be terminated in accordance with the applicable provisions of Chapters 18 and 24.~~

~~3. Clothes dryer exhaust ducts shall be terminated in accordance with Section M1502.3.~~

~~**R325.4.2 Exhaust openings.** Exhaust air shall not be directed onto walkways.~~

~~**R325.5 Outside opening protection.** Air exhaust and intake openings that terminate outdoors shall be protected with corrosion resistant screens, louvers or grilles having an opening size of not less than 1/4 inch (6 mm) and a maximum~~

**Commented [M3]:** This section is the result of combining the 2024 IRC Section 325.3, MN 1322, and the MN Residential Energy Code TAG recommended approval of a code change proposal to require an HERV.

**Commented [M4]:** Mechanical ventilation, including local exhaust of bathrooms, water closet compartments, and other similar rooms, is required by the 2024 IRC, so there is no need to reference window area or to retain the exception.

**Commented [M5]:** The exception in Section M1505.2 aligns with the common practice of specifying HERVs with recirculation defrost in cold climates to ensure that the whole-house mechanical ventilation system functions as a balanced mechanical ventilation system whenever it operates. Across MN's climate zones, the concurrent operation of recirculation and bathroom usage is estimated to account for less than 0.3% of the year.

**Commented [M6]:** This section is moved to R325.1.2.

**Commented [M7]:** This is a generic reference to the mechanical section of the IRC. Clothes dryer terminations are located in accordance with Section M1502.3. Local exhaust terminations are located in accordance with Section M1504.3. Outdoor air intake openings are located in accordance with Sections M1413 and M1504.4. Chapter 24 has requirements related to combustion air intakes.

~~opening size of 1/2 inch (13 mm), in any dimension. Openings shall be protected against local weather conditions. Outdoor air exhaust and intake openings shall meet the provisions for exterior wall opening protectives in accordance with this code.~~

**Informative note:** Section R325.3 will be coordinated with Section M1504 as follows.

**M1504.3 Exhaust ~~openings termination location.~~ ~~Air exhaust openings shall terminate~~Exhaust air shall not be directed onto walkways. Exhaust terminations shall be located** as follows:

1. Not less than 3 feet (914 mm) from property lines.
2. Not less than 3 feet (914 mm) from gravity **outdoor** air intake openings, operable windows, and doors.
3. Not less than 10 feet (3048 mm) from mechanical **outdoor** air intake openings except where either of the following apply:
  - 3.1. The exhaust **termination opening** is located not less than 3 feet (914 mm) above the **outdoor** air intake opening.
  - 3.2 The exhaust **termination opening** is part of a factory-built intake/exhaust combination termination fitting installed in accordance with the ~~fan~~ manufacturer's instructions, and the exhaust air is drawn from a *living space*.
- ~~4. In accordance with Sections R303.5.2 and R303.6.~~

**M1504.4 Outdoor air intake opening location.** Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet (3048 mm) from any hazardous or noxious contaminant, such as vents, chimneys, plumbing vents, streets, alleys, and parking lots. For the purpose of this section, the exhaust from *dwelling unit toilet rooms, bathrooms, and kitchens* shall not be considered as hazardous or noxious.

**Exceptions:**

1. The 10-foot (3048 mm) separation is not required where the outdoor air intake opening is located 3 feet (914 mm) or greater below the contaminant source.
2. Separation from vents and chimney terminations serving fuel-burning appliances or fireplaces shall comply with the applicable provisions of Chapters 18 and 24.
3. Separation from clothes dryer exhaust terminations shall comply with Section M1502.3.
4. Separation from other exhaust terminations shall be in accordance with Section M1504.3.
5. The outdoor air intake opening is part of a factory-built intake/exhaust combination termination fitting installed in accordance with the manufacturer's instructions, and the exhaust air is drawn from a *living space*.

**M1504.5 Exhaust termination and outdoor air intake opening protection.** Exhaust terminations and outdoor air intake openings shall be protected with corrosion-resistant screens, louvers or grilles having an opening size of not less than 1/4 inch (6 mm) and a maximum opening size of 1/2 inch (13 mm), in any dimension. Exhaust terminations and outdoor air intake openings shall be protected against local weather conditions and shall meet the provisions for exterior wall opening protectives in accordance with this code.

**Re-number remaining sections as necessary.**

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## CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

*Author/requestor:* Nick Erickson

*Date:* 12/20/24

*Email address:* nick@housingfirstmn.org

*Model Code:* IECC

*Telephone number:* 612-210-8332

*Code or Rule Section:* MR 1309

*Firm/Association affiliation, if any:* Housing First MN Spec.

*Topic of proposal:* Required Heating

*Code or rule section to be changed:* R325.8

*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 type="checkbox"/>            |

### 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).

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.  
No



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

### **R325.8 Required Heating**

Where the winter design temperature in Table R3.01.2 is below 60 F (16 C) every dwelling unit shall ~~be provided with heating facilities capable of maintaining a~~ have a heating system designed and installed to maintain a room temperature of not less than 68 F (20 C) at a point 3 feet (914mm) above the floor and 2 feet (610 MM) from exterior walls in habitable rooms at the design temperature. The installation of one or more portable space heaters shall not be used to achieve compliance with this section.

This will require adding the definition of "Heating System" in the appropriate section.

**Heating System:** A heating system consists of the heating equipment and the distribution system designed to deliver heat to the conditioned space.

*Alt: Could Call this a heating and distribution 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.  
Only as far as moving the Energy and Mechanical into 1309

### **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.)
2. Why is the proposed code change a reasonable solution?
3. What other factors should the TAG consider?

### **Cost/Benefit Analysis**

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.  
Decrease costs. Using the current language on a three-level townhome would result in an \$80,000 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.  
n/a
3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.  
n/a

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?  
Code Officials, Home Builders, Mechanical Contractors and New Home Buyers
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.  
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?  
Increased costs that price homebuyers out of the new home market in what is already the most costly new construction market in the region.
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.