

Plumbing Board  
c/o Department of Labor and Industry  
443 Lafayette Road North  
St. Paul, MN 55155-4344  
www.dli.mn.gov

## Plumbing Board Request for Action

PRINT IN INK or TYPE

<b>NAME OF SUBMITTER</b> <b>Cathy Tran</b>	<b>PURPOSE OF REQUEST</b> (check all that apply): <input type="checkbox"/> New Code <input checked="" type="checkbox"/> Code Amendment <input type="checkbox"/> Repeal of an existing Rule
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The Minnesota Plumbing Code (MN Rules, Chapter 4714) is available at <http://www.dli.mn.gov/CCLD/PlumbingCode.asp>.

**Specify the purpose of the proposal:** (If recommendation for code change for fixture, appurtenance, material, or method, check all that apply)

- Appurtenance (e.g., water conditioning equipment)  Test Method  
 Other (describe) \_\_\_\_\_

**Does your submission contain a Trade Secret?**  Yes  No

If Yes, mark “**TRADE SECRET**” prominently on each page of your submission that you believe contains trade secret information. Minnesota Statutes, section 13.37, subdivision 1(b), defines “trade secret” as follows:

“Trade secret information” means government data, including a formula, pattern, compilation, program, device, method, technique or process (1) that was supplied by the affected individual or organization, (2) that is the subject of efforts by the individual or organization that are reasonable under the circumstances to maintain its secrecy, and (3) that derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

Note that, although “trade secret” information is generally not public, the Board and its committees may disclose “trade secret” information at a public meeting of the Board or committee if reasonably necessary for the Board or committee to conduct the business or agenda item before it (such as your request.) The record of the meeting will be public.

**Describe the proposed change.** The Minnesota Plumbing Code (Minnesota Rules Chapter 4714) is available via the World Wide Web at <http://www.revisor.leg.state.mn.us/arule/4714/>

### NOTE:

- Please review the Minnesota Plumbing Code and include all parts of the Code that require revision to accomplish your purpose.
- The proposed change, including suggested rule language, should be *specific*. If modifying existing rule language, underline new words and ~~strike through deleted words~~. Please list all areas of the Minnesota Plumbing Code that would be affected.

See attached proposed amendments for Chapter 11

Office Use Only			
RFA File No. PB0125	Date Received by DLI 3.21.2019	Dated Received by Committee	Date Forwarded to Board
Title of RFA	By:		
Committee Recommendation to the Board: <input type="checkbox"/> Accept <input type="checkbox"/> Reject <input type="checkbox"/> Abstain			
Board approved as submitted: <input type="checkbox"/> Yes <input type="checkbox"/> No		Board approved as modified: <input type="checkbox"/> Yes <input type="checkbox"/> No	

This material can be made available in different forms, such as large print, Braille or audio. To request, call 1-800-342-5354.

**Need and Reasons For the Change.** Thoroughly explain the need and why you believe it is reasonable to make this change. During a rulemaking process, the need and reasonableness of all proposed rule changes must be justified; therefore, a detailed explanation is necessary to ensure the Board thoroughly considers all aspects of the proposal.

See Below for specific reasons for each proposed change.

If your product/method standard(s) is not currently listed in both national codes, your Request For Action will not be considered by the Board or its committees, however, you are welcome to present at any Board meeting during the Open Forum section of the Agenda.

The proposal must be accompanied by copies of any published standards, the results of testing, and copies of any product listings, as documentation of the health, sanitation and safety performance of any materials, methods, fixtures, and/or appurtenances. If none are available, please explain:

Please attach electronic scanned copies of any literature, standards and product approvals or listings. Printed or copyrighted materials, ***along with written permission from the publisher to distribute the materials at meetings***, should be sent to the Plumbing Board, c/o Department of Labor and Industry, 443 Lafayette Road No., St. Paul, MN 55155-4344.

**Primary reason for change:** (check only one)

- Protect public, health, safety, welfare, or security
- Lower construction costs
- Encourage new methods and materials
- Change made at national level
- Other (describe) \_\_\_\_\_

- Mandated by legislature
- Provide uniform application
- Clarify provisions
- Situation unique to Minnesota

**Anticipated benefits:** (check all that apply)

- Save lives/reduce injuries
- Improve uniform application
- Improve health of indoor environment
- Provide more construction alternatives
- Reduce regulation
- Other (describe) \_\_\_\_\_

- Provide more affordable construction
- Provide building property
- Drinking water quality protection
- Decrease cost of enforcement

**Economic impact:** (explain all answers marked "yes")

1. Does the proposed change increase or decrease the cost of enforcement?  Yes  No If yes, explain

2. Does the proposed change increase or decrease the cost of compliance?  Yes  No If yes, explain  
Include the estimated cost increase or decrease, and who will bear the cost increase or experience the cost decrease:

3. Are there less costly or intrusive methods to achieve the proposed change?  Yes  No If yes, explain

4. Were alternative methods considered?  Yes  No If no, why not? If yes, explain what alternative methods were considered and why they were rejected.

5. If there is a fiscal impact, try to explain any benefit that will offset the cost of the change. If there is no impact, mark "N/A."

6. Provide a description of the classes of persons affected by a proposed change, who will bear the cost, and who will benefit.

7. Does the proposed rule affect farming operations? (Agricultural buildings are exempt from the Minnesota Building Code under Minnesota Statutes, Section 326B.121.)  Yes  No If yes, explain

Are there any existing Federal Standards?  Yes  No If yes, list:

Are there any differences between the proposed change and existing federal regulations?

- Yes
- No
- Not applicable
- Unknown

If yes, describe each difference & explain why each difference is needed & reasonable.

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Minnesota Statutes, section 14.127, requires the Board to determine if the cost of complying with proposed rule changes in the first year after the changes take effect will exceed \$25,000 for any small business or small city. A small business is defined as a business (either for profit or nonprofit) with less than 50 full-time employees and a small city is defined as a city with less than ten full-time employees.

During the first year after the proposed changes go into effect, will it cost more than \$25,000 for any small business or small city of comply with the change?  Yes  No If yes, identify by name the small business(es or small city(ies).

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Will this proposed plumbing code amendment require any local government to adopt or amend an ordinance or other regulation in order to comply with the proposed plumbing code amendment?  Yes  No, If yes, identify by name the government(s) and ordinances(s) that will need to be amended in order to comply with the proposed plumbing code amendment.

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Additional supporting documentation may also be attached to this form. Are there any additional comments you feel the Committee/Board may need to consider? If so, please state them here:

**Information regarding submitting this form:**

- Submissions are received and heard by the Committee on an “as received” basis. **Any missing documentation will delay the process, and your proposal will be listed as the date it was received “Complete.”**
- **Submit any supporting documentation to be considered**, such as manufacturer’s literature, approvals by other states, and engineering data electronically to [DLI.CCLDBOARDS@state.mn.us](mailto:DLI.CCLDBOARDS@state.mn.us). Once your Request For Action form has been received, it will be assigned a file number. Please reference this file number on any correspondence and supplemental submissions.
- **For copyrighted materials that must be purchased from publishers, such as published standards, product approvals or testing data, listings by agencies (IAPMO, ASSE, ASTM, etc..) you may send just 2 copies, along with written permission from the publisher to distribute the materials at meetings, via U.S. Mail to: Plumbing Board, c/o Department of Labor and Industry, 443 Lafayette Road No., St. Paul, MN 55155-4344.**
- **For materials that must be submitted by U.S. Mail, please include a copy of your “Request For Action” form originally submitted and reference your assigned RFA file number.**

**Information for presentation to the Committee and/or Board:**

- Limit presentations to 5 minutes or less.
- Be prepared to answer questions regarding the proposal and any documentation.

**Information regarding Committee and/or Board function:**

- The Plumbing Board or designated committee.

I understand that any committee action is a recommendation to the Plumbing Board and is not to be considered final action.

SUBMITTED BY NAME	FIRM NAME	SUBMITTER'S E-MAIL ADDRESS
Cathy Tran	DLI	Cathy.tran@state.mn.us

NAME, PHONE NUMBER & E-MAIL ADDRESS OF PRESENTER TO THE COMMITTEE (if different):

ADDRESS	CITY	STATE	ZIP CODE
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PHONE	SIGNATURE (original or electronic)	DATE
651 284 5898		3/21/19

For Assistance or questions on completing this form, contact Cathy Tran, Department of Labor and Industry at 651-284-5898.

<b>For Office/Committee Use Only</b> Proposal received completed? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Date Proposer notified of gaps:	Mode of notification (e.g., e-mail)	Date returned to Proposer:	Date materials re-received:

Code Section	DLI Chapter 7 Proposed Change	Justification
4714.1101	<p><b>1101.11 Roof Drainage.</b></p> <p><b>1101.11.1 Primary Roof Drainage.</b> When roof areas of a building are drained by roof drains, the location and sizing of the drains shall be coordinated with the structural design and pitch of the roof in accordance with section 1106 or as permitted elsewhere in this code. The roof drainage system shall be sized on a basis of a rate of rainfall of at minimum 4 inches per hour.</p> <p><b>1101.11.2 Secondary Drainage.</b> Secondary (emergency) roof drainage shall be provided in accordance with Minnesota Rules, chapter 1305.</p> <p><b>1101.11.2.1 Location.</b> <u>Unless the roof design is certified by a state-licensed structural engineer for maximum possible depth of water that will pond in accordance with Minnesota Rules, Chapter 1305, the roof drains must located not less than 2 inches above the roof surface.</u></p> <p><b>1101.11.2.2 Engineered System.</b> <u>Engineered siphonic roof drainage systems must not be utilized in the design of a secondary roof drainage system.</u></p>	<p>1101.11.2.1 The proposed amendment is to reflect the national code, UPC 2018 language and provide clear language for licensed designers to locate the secondary roof drain properly to protect the building from collapse. This language adds clarity for designers and installers where a roof is not required by law to be certified by a Minnesota licensed professional structural engineer.</p> <p>1101.11.2.2. Siphonic roof drainage system is reviewed under Section 1110 as an engineered system subject to the approval of the administrative authority. It is a unique and complex engineering system. It requires a higher level of understanding on the part of the designer and installer with precise details. The system has no pitched and pipes are much smaller, and uses the hydraulic principles</p> <p>The secondary (emergency) roof drainage system functions differently than primary roof drainage system. Based on the adopted standard of ASPE 45, the emergency roof drainage system is not able to be designed to function siphonically. In particularly when the secondary roof drains are connected together, and not all primary can be blocked simultaneously to siphon the secondary system. The required hydraulic head in sizing the piping system can not be achieve with one secondary drain blocked, and other drains not, and therefore function like a gravity system. Basically, secondary roof drainage system can not meet engineered and alternate standard ASPE 45. Even if each secondary roof drainage is provided with one separate and independent rainwater pipe (not connected) to meet ASPE 45, there are siphonic break points with high velocity (over 15-20 feet per second) creating hazard conditions shooting rainwater at discharge locations abovegrade/pavement, and problematic to find solutions to ensure safety and ponding of water around the building.</p> <p>The reliability of the emergency roof drainage system is critical in building safety preventing building collapse and preventing costly errors, and therefore, must not be compromised.</p>
4714.1106 (UPC 2018, section 1103)	<p><b>1103.1 Vertical Conductors and Leaders.</b> Vertical conductors and leaders shall be sized by the maximum projected roof area and Table 1103.1. <u>For sizes not listed under Table 1103.1, a minimum rainfall rate of 4 inches per hour must be use to size the rainwater piping.</u></p> <p><b>1103.2 Size of Horizontal Storm Drains and Sewers.</b> The size of building storm drains, or building storm sewers or their horizontal branches shall be based on the maximum projected roof or paved area to be handled and Table 1103.2. <u>For sizes not listed under Table 1103.1, a minimum rainfall rate of 4 inches per hour must be use to size the rainwater piping.</u></p>	<p>The proposed amendment adds clarity when using table 1103.2 where larger pipe sizes are necessary because large building roofs, than a min. 4 inch per hour is required. This clarification is consistent with already required language under 1101.11.1</p>