

Minnesota Plumbing Board

**STATEMENT OF NEED AND  
REASONABLENESS**

In the Matter of Proposed Revisions of Minnesota  
Rules Chapter 4714; R-04633

October 2020

General information:

- 1) Availability: The State Register notice, this Statement of Need and Reasonableness (SONAR), and the proposed rule will be available during the public comment period on the Agency's Public Notices website: <https://tinyurl.com/2018UPC>.
- 2) View older rule records at: [Minnesota Rule Statutes https://www.revisor.mn.gov/rules/status/](https://www.revisor.mn.gov/rules/status/)
- 3) Agency contact for information, documents, or alternative formats: Upon request, this Statement of Need and Reasonableness can be made available in an alternative format, such as large print, braille, or audio. To make a request, contact Suzanne Todnem, Department of Labor and Industry, 443 Lafayette Road North, St. Paul, MN 55155; telephone 651-284-5006; email [dli.rules@state.mn.us](mailto:dli.rules@state.mn.us); or use your preferred telecommunications relay service.

# Contents

<b>STATEMENT OF NEED AND REASONABLENESS .....</b>	<b>1</b>
Contents .....	3
Acronyms .....	4
Introduction and Overview .....	5
<i>Introduction</i> .....	5
<i>Background</i> .....	5
<i>Public Participation and Stakeholder Involvement</i> .....	5
Statutory Authority.....	6
Reasonableness of the Amendments .....	6
<i>General Reasonableness</i> .....	6
<i>Rule-by-Rule Analysis</i> .....	6
<i>Regulatory Analysis</i> .....	25
Notice Plan .....	26
<i>Notice</i> .....	27
<i>Additional Notice Plan</i> .....	27
<i>Performance-based Rules</i> .....	28
<i>Consult with MMB on Local Government Impact</i> .....	28
<i>Impact on Local Government Ordinances and Rules</i> .....	28
<i>Costs of Complying for Small Business or City</i> .....	29
Witnesses and SONAR Exhibits .....	29
<i>Witnesses and Other Staff</i> .....	29
<i>SONAR Exhibits</i> .....	29
Conclusion .....	30

## Acronyms

APA	Administrative Procedures Act
IAPMO	International Association of Plumbing and Mechanical Officials
Minn. Stat.	Minnesota Statutes
MMB	Minnesota Management and Budget
MN	Minnesota
OAH	Office of Administrative Hearings
SONAR	Statement of Need and Reasonableness
UPC	Uniform Plumbing Code

# Introduction and Overview

## Introduction

The Minnesota Plumbing Board (“Board”) presents these proposed permanent rule amendments to update the existing Plumbing Code to include current materials, methods and technology.

## Background

Plumbing in Minnesota has been supervised by a state entity since 1933. In 2007, the rulemaking authority for the Minnesota Plumbing Code was transferred to the then newly-established Minnesota Plumbing Board. Pursuant to statute, the Board consists of 14 members.

The Minnesota Plumbing Code (“Plumbing Code” or “Code”) is part of the Minnesota State Building Code.<sup>1</sup> Although the Plumbing Code is adopted by the Board, it is administered and enforced by the Minnesota Department of Labor and Industry (“Department”) and some local jurisdictions.<sup>2</sup> The Board proposes to amend the current Plumbing Code in Minnesota Rules, chapter 4714, and update the incorporated referenced document from the 2012 Uniform Plumbing Code with amendments to the 2018 Uniform Plumbing Code (“2018 UPC”) with amendments. The Board moved from a homegrown code to incorporating a model code, the 2012 UPC, which became effective in 2016. The Uniform Plumbing Codes are published by the International Association of Plumbing and Mechanical Officials (“IAPMO”) every three years.

The Board formed an advisory committee, the Ad Hoc Code Review and Rulemaking Committee, to review the 2018 UPC. All advisory committee meetings followed the Open Meeting Law.<sup>3</sup> The advisory committee determined that all current Minnesota amendments would remain in place unless a proposed amendment was submitted to further amend or repeal the Minnesota amendment. Agencies, Board members, and members of the public submitted proposed amendments for the Board’s consideration. After reviewing and discussing the entire 2018 UPC and numerous proposed amendments, the advisory committee submitted their recommendations to the Board. The Board then reviewed the entire 2018 UPC and the committee’s recommendations. The proposed rule is the result of the Board members reaching consensus on the 2018 UPC and proposed amendments. After many months of review, discussion and public participation, the Board is proposing this permanent rule for adoption. The Board, pursuant to statute and Board bylaws, approved the proposed rules presented here by an affirmative two-thirds or more majority vote of all the voting members of the Board.<sup>4</sup>

## Public Participation and Stakeholder Involvement

The Board held public advisory committee and Board meetings. Members of the public were invited to submit Request for Action forms that contained their proposed amendments for the committee’s or Board’s consideration. Both the committee and the Board allowed members of the public to comment to the Board during these meetings. Both people in favor of or opposed to a proposed amendment were invited to address the committee or Board.

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<sup>1</sup> See Minn. R. 1300.0050.

<sup>2</sup> See Minn. Stat. § 326B.43, subd. 1.

<sup>3</sup> See Minn. Stat. chapter 13D.

<sup>4</sup> Minnesota Statutes, section 326B.435, subdivision 6(c). The Board took the official vote at the March 16, 2020, Special Board Meeting and approved minor corrections to the rule draft at the July 21, 2020, regular Board meeting.

## Statutory Authority

The Board's statutory authority to adopt the proposed rules is stated in the following Minnesota Statutes:

§ 326B.43, Subdivision 1. **Rules.** The Plumbing Board may, by rule, prescribe minimum standards which shall be uniform and which shall be effective for all new plumbing installations performed anywhere in the state, including additions, extensions, alterations, and replacements.

§ 326B.435, Subd. 2. **Powers; duties; administrative support.**

(a) The board shall have the power to: ... (3) adopt the Plumbing Code that must be followed in this state and any Plumbing Code amendments thereto. The Plumbing Code shall include the minimum standards described in sections 326B.43, subdivision 1, and 326B.52, subdivision 1. The board shall adopt the Plumbing Code and any amendments thereto pursuant to chapter 14 and as provided in subdivision 6, paragraphs (b), (c), and (d).”

This rulemaking repeals and replaces existing rules for which the Legislature has not newly revised the statutory authority; therefore, time limits in Minnesota Statutes, section 14.125, do not apply.

Under these statutes, the Board has the necessary statutory authority to adopt the proposed rules.

## Reasonableness of the Amendments

### General Reasonableness

The Board, with members representing various parts of the plumbing industry and affected parties, has thoughtfully considered every proposed amendment and weighed multiple factors and parties' interests while keeping public safety at the forefront. The proposed amendments reflect this thoughtfulness, statutory requirements, and provide minimum standards that offer performance-based rules to the extent feasible while maintaining clarity and enforceability.

### Rule-by-Rule Analysis

Some of the proposed amendments are a result of renumbering from the 2012 UPC to the 2018 UPC. For example, the Nonpotable Rainwater Catchment Systems chapter was chapter 17 in the 2012 UPC but is chapter 16 in the 2018 UPC. Also, “Referenced Standards” was chapter 14 in the 2012 UPC but is chapter 17 in the 2018 UPC.

Other amendments are substantive and explained below or serve to clarify the requirement and also explained below. Lastly, some amendments repeal Minnesota rules because of renumbering, the 2018 UPC is similar to the Minnesota amendment, or for another reason as explained below.

#### **4714.0050. TITLE; INCORPORATION BY REFERENCE**

The proposed amendments incorporate by reference the 2018 edition of the Uniform Plumbing Code to replace the 2012 Uniform Plumbing Code, as amended, in chapter 4714. The proposed amendment incorporates the 2018 UPC because it was the most current edition at the time the Board began to consider updating the Minnesota Plumbing Code.<sup>5</sup> The proposed amendments also update the

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<sup>5</sup> The Uniform Plumbing Code is on a three-year cycle; the 2021 Uniform Plumbing Code was released in 2020.

specific chapter numbers that are incorporated by reference. Chapter 14 is no longer incorporated by reference because the Referenced Standards chapter in the 2012 UPC was chapter 14 but is now in chapter 17. Chapter 14 in the 2018 UPC is Firestop Protection and the Board does not regulate firestop protection. Chapter 16 is newly incorporated because the Nonpotable Rainwater Catchment Systems chapter has been renumbered from chapter 17 (2012 UPC) to chapter 16 (2018 UPC). The references to specific portions of appendix I are deleted because they are not in the 2018 UPC and no longer need to be excepted from inclusion in the Plumbing Code.

Note: Chapter 2 of the 2018 UPC is the Definitions chapter.

#### **4714.0204 TERMS DEFINED BEGINNING WITH B.**

##### **Building Supply.**

The proposed amendments add subpart numbering because a term beginning with “B” is being *modified* along with the existing rule that *adds* a definition. Specifically, the definition for “building supply” is modified because the 2018 UPC use of the term assumes the “building or other point of use or distribution on the lot,” typically the water meter, is outside the building. However, due to Minnesota’s climate, water meters are installed inside of buildings in Minnesota to protect them from freezing rather than located outside of buildings near the curb or property lines. The Board received a Request for Interpretation to address an unintended and absurd result or conflict between the UPC definition (both the 2012 and 2018 definitions are the same) and the code provision that prohibited certain pipe material inside of buildings.<sup>6</sup> The proposed definition of “building supply” now specifically includes the pipe from municipal water supply or the source of a water supply to a building water meter or a pressure tank, which will be located inside of buildings to protect from freezing. It is reasonable to address this definition to incorporate installations in Minnesota climate conditions, and provide for clarity and consistent enforcement of the applicable provisions throughout this code where the term “building supply” is used.

#### **4714.0207 TERMS DEFINED BEGINNING WITH E.**

##### **Emergency Floor Drain.**

The proposed amendment adds the definition of “emergency floor drain” to the UPC definitions chapter to provide clarity where this term is used in Table 702.1. Table 702.1 addresses trap sizing and drainage fixture unit values. There are requirements for “Floor Drain, emergency” and “Floor Drain (for additional sizes see Section 702.0).” There was confusion as to what distinguishes an emergency floor drain from a regular floor drain. Generally, an emergency floor drain has no drainage load of its own. The Board clarified that an “emergency floor drain” is a floor drain that is located in restrooms, under emergency eyewash/shower equipment, and in laundry rooms and is intended 1) to function by capturing overflows from fixtures and therefore is considered to be emergency use to protect buildings from damage from overflows, and 2) does not serve as a receptor for receiving discharges from equipment (i.e., planned receptors assigned or intended to receive waste piping from a specific fixture). The proposed definition eliminates confusion and provides for consistent use of this code by assisting the designer in using Table 702.1 when sizing a standard floor drain versus an emergency floor drain.

#### **4714.0214 TERMS DEFINED BEGINNING WITH L.**

##### **Low Pressure Water Dispenser.**

The proposed amendment adds a definition for “low pressure water dispenser” to chapter 2 to clarify the requirements and scope of the added subsection 417.6 proposed below. The proposed definition is needed and reasonable to identify that a low pressure water dispenser that dispenses drinking water above 160 degrees Fahrenheit or cold water or both at pressure of 15 psi or less is subject to

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<sup>6</sup> See the Final Interpretation.

subsection 417.6. The proposed amendment adds clarity for consistent application and enforcement of the Plumbing Code.

#### **4714.0220 TERMS DEFINED BEGINNING WITH R.**

##### **Registered Design Professional.**

There was no defined term for “registered design professional,” “registered professional engineer” or “engineer” in the 2012 UPC so a definition for “registered professional engineer” was added to the Minnesota Plumbing Code when the 2012 UPC was incorporated by reference and amended.<sup>7</sup> All three terms are used throughout the 2018 UPC and existing Minnesota amendments so the Minnesota amendment includes references to “engineer” and “registered professional engineer.” However, the 2018 UPC defines “registered design professional.” One of the Board’s priorities is to use the model code language when possible; therefore, the Minnesota term “registered professional engineer” is modified to the 2018 UPC term while maintaining the existing Minnesota definition. The proposed amendment is needed and reasonable for consistent and clear use of the term in this code.

#### **4714.0225 TERMS DEFINED BEGINNING WITH W.**

The proposed rule moves the definition of “water conditioning equipment” in subsection 611.1.1 to chapter 2, Definitions, where all the terms and definitions are located. Subsection 611.1.1 is a Minnesota amendment that is in the current Minnesota Plumbing Code that is proposed for amendment below to delete the definition currently in 611.1.1.<sup>8</sup> The proposed amendment is not a significant change but rather provides consistent use of the UPC Chapters because users will look into Chapter 2 for definitions of terms rather than Chapter 6, Water Supply and Distribution. The proposed amendment also adds the term “water treating equipment” to the defined term to have the same meaning as “water conditioning equipment” for consistency throughout the code. “Water treating” equipment is used in the definition of a “plumbing system” in rule part 4714.0218 and section 610.6, and has the same meaning as water conditioning equipment. The proposed amendment is necessary to provide clear and consistent use of the terms.

#### **4714.0301 SECTION 301.0 GENERAL**

The proposed rule amends the title of section 301.0 to match the 2018 UPC title.

**Subpart 1. Section 301.1.** The proposed rule deletes Minnesota amendments to code sections 301.1, 301.1.1, and 301.1.2. The Minnesota amendments are no longer needed in these sections because the 2018 UPC language does what the Minnesota amendments did; that is, specifically addressed and removed non-plumbing language not regulated by this code. By deleting these Minnesota amendments, UPC 2018 sections 301.0, 301.1, 301.2, 301.2.1, 301.2.2 will be in the Minnesota code as is.

**Subsection 301.2.5.** Subsection 301.2.5 of the 2018 UPC addresses existing buildings. The proposed amendment deletes this subsection in its entirety because plumbing in existing building is already, and better, addressed in part 4714.0101, subparts 3 and 6. Rule part 4714.0101 better addresses existing buildings because it is more encompassing and more specific than the 2018 UPC language. The proposed amendment is necessary to avoid redundancy and confusion.

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<sup>7</sup> The current Minnesota Plumbing Code has the term “registered professional engineer” defined. This was a Minnesota amendment to the 2012 UPC that was incorporated by reference as amended. The term coordinated with licensure requirements for the practice of professional engineering as described in Minnesota Statutes, section 326.02, subdivision 3, that are specific to the State of Minnesota as a professional engineer by the Board of Architecture, Engineering, Land Surveying, Landscape architecture, Geoscience, and Interior Design.

<sup>8</sup> See pages 22-23 of the proposed rule dated July 23, 2020.

**Subpart 2. Section 301.3 Alternate Materials and Methods of Construction Equivalency.**

The proposed amendment renumbers section 301.2 to 301.3, and related subsections, to align with the numbering in the 2018 UPC.

Related Subsections renumbering:

301.2.1 to	301.3.1
301.2.1.1 to	301.3.1.1
301.2.1.2 to	301.3.1.2

There are no substantive changes. It is necessary and reasonable to align numbering with the 2018 UPC.

**Subpart 3. Section 301.5.6 Inspection and Testing.** The proposed amendment renumbers section 301.4.6 to 301.5.6 to align with the numbering in the 2018 UPC. There are no substantive changes. It is necessary and reasonable to align numbering with the 2018 UPC.

**4714.0313 HANGERS AND SUPPORTS.**

**Subpart 1. Table 313.3.** The proposed amendments modify an existing table in the 2018 UPC. Specifically, the amendments add a footnote to include thermal expansion for plastic drain, waste, and vent (DWV), and storm drain plastic pipe suspended aboveground for proper support. The proposed amendments are needed and reasonable to coordinate and provide clear instructions to the plumbing designer to refer to Table 313.3.1 for expansion joint lengths when using plastic pipe for DWV and storm drain. The proposed amendments: 1) add footnote number 6 to the bottom of Table 313.3 which states “For expansion joints, see Table 313.3.1”, and 2) add footnote number 6 to row, “Schedule 40 PVC, ABS DWV” both under columns horizontal and vertical installations by providing for expansion every 30 feet and allowing for the use of expansion joints in accordance with the proposed new Table 313.3.1 under Subpart 2.

**Subpart 2. Table 313.3.1.** The proposed amendment adds a new table coordinated with Table 313.3, Hangers and Supports. The proposed table establishes allowances and acceptable configurations of pipes and fittings for compensation of thermal expansion of plastic drain, waste, and vent (DWV), and storm drain pipe and fittings suspended aboveground for every 30 feet of installed pipe, both horizontal and vertical installation. The expansion joint lengths are established in the proposed Table 313.3.1 for pipe sizes from 1.5 to 12 inches based on the greatest expansion determined as limiting strain and thermal expansion of ABS materials for drain, waste, vent and storm pipe expansion. Methods, values, and formulas are based on the Plastic Pipe and Fitting Association, User Bulletin 17, with ABS limiting strain of 0.0035 In/Inch and coefficient of thermal expansion of 0.000055 In/Inch/Degrees Fahrenheit. ABS plastic pipe yields the most protective and conservative numbers and it is reasonable to conclude that any plastic pipe installation that meets the ABS numbers would be properly supported. Table 313.3.1 has two parts. The first part of the table is calculated for use “inside of building thermal envelope” using a change in temperature difference of 70 degrees Fahrenheit. The second part of the table is calculated for outside of the building thermal envelope using a change in temperature of 120 degrees Fahrenheit. For example, the temperature in an unconditioned parking ramp in the heat of summer and subzero degrees in the winter can reasonably vary 120 degrees. For pipe sizes not shown, a Minnesota licensed professional engineer (or registered design professional) may provide expansion joint length calculations to the administrative authority for review and approval for the specific project.

Footnote 1 of Table 313.3.1 allows multiple offsets or lengths of run to be used to provide for expansion for each 30-foot developed length of run of plastic pipe. Using one or multiple lengths of run of pipe sections established in the Table 313.3.1 for 10 feet, 20 feet, and 30 feet can be used to meet the minimum expansion joint lengths required for each plastic pipe size to provide for the required expansion for each 30-foot developed length of run under Table 313.3. The footnote creates options that allow the designer to use multiple small pipe sections to comply with the plastic pipe compensation limitation in

installations with restraints to install long plastic pipe run installations. For example, for an installation outside the building thermal envelope, a 1.5" pipe must have 44-inch expansion joint for every 30-foot in developed length of run. The designer can install one 44-in expansion joint or multiple expansion joints totaling 44 inches for every 30-foot.

The proposed amendment is needed and reasonable to accommodate Minnesota's unique weather conditions and provides specific requirements needed for plastic pipe design and installation for consistent enforcement. Without the proposed table and methods for expansion of plastic pipe, there would be a lack of guidance for industry and regulating entities causing confusion and inconsistency.

**Subpart 3. Section 313.7.** The proposed rule adds subpart numbering and title. The current rule deletes section 313.7 because it regulates gas piping, which is not within the scope of the Minnesota Plumbing Code. This is only a formatting change as there is no change to the rule language.

#### **4714.0403 → 4714.0412 URINALS.**

The proposed rule renames the section "URINALS" and renumbers part 4714.0403 to 4714.0412 because the Water-Conserving Fixtures and Fittings section has been renamed and renumbered from section 403 to 412 in the 2018 UPC. The current Minnesota amendment imposes water consumption limits for urinals and requires nonwater urinals to be listed and comply with the applicable standards in the referenced standards table. These Minnesota amendments are no longer necessary because section 412.1 of the 2018 UPC provides water consumption limits matching the Minnesota amendment and references standards for all urinals. Effectively, there are no substantive changes. Furthermore, providing the specific standards in the body of the code makes it easier and clearer for the code user to comply with the relevant standards.

#### **4714.0406 → 4714.0405 PROHIBITED FIXTURES.**

The proposed rule renumbers part 4714.0406 to 4714.0405 because the Prohibited Fixtures section has been renumbered to section 405 in the 2018 UPC. The specific subsection that is deleted is also renumbered as reflected in the proposed amendment. There are no substantive changes.

#### **4714.0407 LAVATORIES.**

**Subpart 1.** The proposed rule amends section 407.3 to add another nationally recognized standard, ASSE 1084, Water Heaters with Temperature Limiting Capacity, which may be used to control and limit water temperature to lavatories to reduce the risks of scalding. Water heaters listed to ASSE 1084 are intended to supply tempered water at the point-of-use in order to reduce and control the risks of scalding to the user consistent with the same level of protection under the existing requirement. The proposed amendment adds an additional compliance option; it is not another requirement in addition to existing requirements.

**Subpart 2.** The proposed rule deletes UPC section 407.4 in its entirety because section 407.4 requires self-closing or self-closing metering faucets for all lavatories in transient public restrooms. The intent of requiring metering faucets is to conserve water by automatically shutting off the water flow after a preset timing cycle (a few seconds) without the the user manually doing so. Most metering faucets are automatic or electronic controlled (battery-operated) and incorporate an active infrared sensor to detect hand motion to turn on and shut off. Water conservation is an important factor to save water costs and contributes to buildings being identified as "green" buildings. Because metering faucets are electronically operated or spring operated, they are subject to continued maintenance. Metering faucets can and do fail, which can leave water running continuously or no available water due to a dead battery. The proposed deletion does not compromise public health and safety but rather increases reliability and availability of water for handwashing. Building owners of transient public lavatories may still install metering faucets but will not be required to do so. Furthermore, the term "transient public lavatory" is vague and results in

confusion and inconsistencies among industry and code officials. The proposed deletion is necessary and reasonable to eliminate confusion among designers, plumbers, and regulatory authorities, for predictable, consistent enforcement, and to increase the reliability of availability of lavatories (aka bathroom sinks in this situation) for handwashing.

#### **4714.0408 SHOWERS.**

The proposed amendment to section 408.7 provides an exception from the shower liner requirement for shower receptors built onsite that are poured and built directly on the ground, adequately reinforced, and watertight. The shower liner is not needed since this type of shower receptor is built on the ground, poured-in-place receptor construction, complete with integral threshold, sides and back directly supported by the underlying ground, and impervious watertight receptor. Furthermore, the sides and back of the receptor pour must extend at least three inches above the finished threshold before the wall covering may be added as required to ensure watertightness between the wall and the receptor. The proposed amendment is consistent with the requirements of the UPC, but further adds language to clarify and to avoid confusion, for a more consistent code enforcement of this provision.

#### **4714.0409 BATHTUBS AND WHIRLPOOL BATHTUBS.**

**Subpart 1.** The proposed rule amends rule part 4714.0409 by aligning the language with the 2018 UPC language and updating the standard for whirlpool pedicure tubs. The 2018 UPC provides the specific nationally recognized standards in the body of the code instead of referring to the referenced standards table like the 2012 UPC did. Therefore, the proposed rule language matches the 2018 UPC language. The current Minnesota rule provides the required standard for whirlpool pedicure tubs and the proposed rule updates that standard's full number and title. The proposed rule also deletes reference to IAPMO IGC 155, Pipeless Whirlpool Bathtub Appliances because that standard is no longer active.

**Subpart 2.** The proposed rule amends section 409.4 to provide two additional nationally recognized standards, CSA B125.3 and ASSE 1084, Water Heaters with Temperature Limiting Capacity, which may be used to control and limit water temperature to bathtubs and whirlpool bathtubs to reduce the risk of scalding. The 2018 UPC references only one standard that may be used to comply temperature limiting requirements: ASSE 1070/ASME A112.1070/CSA B125.70 ("ASSE 1070"). The proposed amendment adds CSA B125.3 (2018) as a compliance option because it will allow compliance with the most current standard. Water heaters listed to ASSE 1084 have appropriate electric control protective measures that control the output temperature, limited to 120 degrees Fahrenheit for point of use application so the temperature is controlled and consistent with the existing requirements of this section. This proposed amendment adds CSA B125.3 and ASSE 1084 to the current standard as additional compliance options; it does not add another requirement in addition to existing requirements. It is necessary and reasonable to allow additional and updated options to comply with the existing requirement.

#### **4714.0410 BIDETS.**

The proposed rule amends section 410.3 similarly to the amendment to section 409.4 as it adds two additional compliance options, CSA B125.3 and ASSE 1084. The 2018 UPC references only one standard that may be used to comply temperature limiting requirements: ASSE 1070/ASME A112.1070/CSA B125.70. The proposed amendment adds CSA B125.3 (2018) as a compliance option because it will allow compliance with the most current standard. Water heaters listed to ASSE 1084 have appropriate electric control protective measures that control the output temperature that can be set to 110 degrees Fahrenheit for point of use application so the temperature is controlled and consistent with the existing requirements of this section. Updating to the most current standard consistent with the UPC and providing additional compliance options still reduce the risk of scalding.

#### **4714.0414 DISHWASHING MACHINES.**

The proposed amendment modifies UPC section 414.3 by adding another installation method for a domestic dishwasher that does not require an installation of a listed air gap fitting on the discharge side of the dishwasher. The additional installation method allows the domestic dishwasher discharge pipe to be secured and routed as high as possible under the countertop and connected to a tailpiece of a kitchen sink or food waste grinder. This proposed method is limited to residential use dishwashers, residential style dishwashers in an employee break room, or at locations where the use is other than a licensed food or beverage establishment serving the public. The proposed amendment is necessary and reasonable because it allows for another compliance option that has lower installation costs, adds installation flexibility, and yet prevents unsanitary conditions from waste water backups from the kitchen sink or sewage backups.

#### **4714.0416 EMERGENCY EYEWASH AND SHOWER EQUIPMENT.**

The proposed rule amends UPC section 416.2 by allowing another nationally recognized standard, ASSE 1085, Water Heaters for Emergency Equipment, to be used for temperature control of the water to the emergency equipment to reduce the risks of scalding where hot water is supplied to emergency equipment. Water heaters listed to ASSE 1085 are intended to supply tempered water at the point of use in order to reduce and control the risks of scalding to the user consistent with the same level of protection as existing requirements. There are no other substantive changes to this requirement. This proposed amendment adds a compliance option; it does not add another requirement.

#### **4714.0417 FAUCETS AND FIXTURE FITTINGS.**

The proposed rule amendment adds subsection 417.6 to require low pressure water dispensers as defined in 4714.0214 to meet nationally recognized standards. Specifically, beverage faucets of these dispensers must comply with ASME A112.18.1/CSA B125.1, low-pressure water dispensers that dispense electrically heated water with an integral reservoir of water vented to atmosphere must comply with ASSE 1023, and electric devices that heat water must comply with UL 499. Because the dispensed beverages are intended for human consumption, the dispensers and materials must be properly tested and certified to be suitable and safe for human consumption.

#### **4714.0418 FLOOR DRAINS.**

**Subpart 1.** The proposed rule updates the reference to section 801.2.2 in section 418.4 with a reference to section 801.3.2 because that section has been renumbered in the 2018 UPC.

**Subpart 2.** The proposed rule further amends existing section 418.7 to specifically reference the code section for design requirements of oil and flammable liquid interceptors and updates the renumbered code sections stating when they are required. Sections 1009.1, 1011.1, and 1017.1 specify the conditions when interceptors are required. This is necessary to clarify that there are multiple subsections of the code that reference when an oil and flammable liquid interceptor is required as compared to the current code that contains all the conditions in one section.<sup>9</sup>

#### **4714.0420 SINKS.**

The proposed rule renumbers the references to UPC section 420.3 to section 420.4 because it was renumbered in the 2018 UPC. There are no substantive changes.

#### **4714.0423 TRENCH DRAINS.**

The proposed rule adds section 423, trench drains to provide standards for trench drains since the 2018 UPC does not. The proposed language allows two types of trench drains: 1) trench drains that meet

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<sup>9</sup> See explanation of the amendment to section 1017 below.

a nationally recognized standard for trench drains, and 2) trench drains built onsite that do not meet the nationally recognized standard but meet the specific construction requirements listed in the rule part. These two options provide for predictable, consistent enforcement. Trench drains are used in many plumbing systems especially in parking or repair garages and manufacturing which are built onsite to collect and discharge into the drainage system. The proposed language is reasonable since requiring listing on all trench drains as currently required under code section 301.1 (renumbered to section 301.2 in the 2018 UPC, which is proposed for adoption without amendment in this rulemaking) is overly restrictive since the code allows the use of brick and concrete constructed sand and flammable waste interceptors which both are not listed to any standard and more concerning than onsite built trench drains.

#### **4714.0501 GENERAL.**

##### **Section 501.1 Applicability**

The proposed amendment replaces the reference to table number “501.1” with “501.1(2)” for consistency with 2018 UPC renumbering, provides for current minimum capacity for storage water heaters reflecting the method revised by the U.S. Department of Energy for determining the first hour rating of water heaters as outlined in 2018 UPC, table 501.1(2), deletes some language and adds some language to match the 2018 UPC language. This section still amends the UPC language by eliminating language in the 2018 UPC that references “chimneys, vents, and their connectors” because it is outside the scope of the Plumbing Code.

#### **4714.0504 WATER HEATER REQUIREMENTS.**

**Subpart 1.** No proposed amendments.

**Subpart 2. Section 504.6.** The proposed amendment deletes the reference to NFPA 54 (titled “National Fuel Gas Code”) because it is outside the rulemaking authority of the Board. It appears to have been inadvertently left in when the 2012 UPC was incorporated by referenced and amended to remove language referencing automatic gas shutoff devices. The proposed amendment also adds language referencing section 608.5 to match the 2018 UPC language. The proposed amendment is necessary to correct the reference to NFPA 54 and to update the language to reflect the 2018 UPC language.

#### **4714.0508 APPLIANCES ON ROOFS.**

The proposed rule updates the reference to UPC section range 508.0 to 508.4 with a reference to section range 508.1 to 508.3.3 because that section range has been renumbered in the 2018 UPC. There is no substantive change.

#### **4714.0509 VENTING OF APPLIANCES.**

The proposed rule updates the reference to UPC section 509.14 with a reference to section 509.15 because the 2018 UPC added an additional subsection that needs to be deleted with the other deleted provisions as it is also outside the scope of the Plumbing Code. There is no substantive change.

#### **4714.0601 HOT AND COLD WATER REQUIRED.**

The proposed rule renumbers the UPC section number references because they have been renumbered in the 2018 UPC. There are no substantive changes.

#### **4714.0603 CROSS-CONNECTION CONTROL.**

The proposed rule updates subpart 4 with new UPC section numbering because they have been renumbered in the 2018 UPC. The other subparts (1-3, 5) are not changed so there is no need to update numbering. There are no substantive changes.

#### **4714.0607 POTABLE WATER SUPPLY TANKS.**

**Subpart 1. Section 607.3.** The proposed rule amends the venting of potable water supply tanks that are necessary to prevent the tanks from developing pressure from filling of tanks or when water is used. The proposed amendment clarifies that vents on potable water tanks must not be located in an environment (e.g., a room) where potential gas, solvents, or other contaminations in the atmosphere can pollute the water supply. The proposed amendment requires all tank vents to be designed to prevent debris and contamination from falling or entering through the vent pipe by requiring the vent pipe to be turned downward. It is reasonable and necessary to make these amendments to protect the water supply from any contamination.

**Subpart 2. Section 607.4.** This code section requires potable water supply tanks to have overflow provisions to protect the tank from being overfilled or over pumped and provides some specific requirements. The proposed amendment clarifies that overflow pipes be sized to accommodate the maximum fill flowrate, be turned downward, and must not be piped directly to any drainage system. It is reasonable and necessary to protect the water supply from any potential contaminations or sewage backups by requiring the overflow pipe to discharge to through an air gap.

#### **4714.0608 WATER PRESSURE, PRESSURE REGULATORS, PRESSURE RELIEF VALVES, AND VACUUM RELIEF VALVES.**

##### **Section 608.5.**

The current Minnesota code requires water heater safety relief valves to have discharge piping not smaller than the size of the relief valve outlet, to discharge to a safe place of disposal or within 18 inches of the floor because of high temperature discharge, and the relief valve discharge pipes must be constructed of specific prescribed materials. The proposed amendment to 608.5 aligns the rule with the 2018 UPC language (slightly reworded) with the exception of item 3. Item 3 maintains a portion of the current Minnesota rule. Item 3 is maintained from the current Minnesota code because the 2018 UPC language does not adequately address safe discharge locations and allows discharge to the exterior of buildings. Discharge to the exterior of buildings raises concerns of freezing due to Minnesota winters. The current Minnesota code language provides clear requirements that can be customized to each specific situation. The proposed amendment provides a single location for relief discharge piping requirements and aligns with the 2018 UPC language. The proposed amendment provides clear and consistent requirements for the industry and regulators.

#### **4714.0609 INSTALLATION, TESTING, UNIONS, AND LOCATION.**

**Subpart 1. Section 609.1 Installation.** The proposed amendment changes only the frost level requirement for installation of building water service piping to prevent freezing of water service pipes. The remainder of the section is verbatim from the 2018 UPC. The requirements provide three options for building water service piping installation: 1) 12 inches below the maximum local frost level, 2) provide provisions (heat insulation or approved methods) to protect the water pipe from freezing per section 312.6, or 3) an alternative installation approved by the administrative authority. The 2018 UPC language requires pipes to be installed “12 inches below the average local frost depth.” Some municipalities have been experiencing burst water service pipes in recent years as a result of freezing. Because proper protection for maximum local frost level at the time of installation is the best defense, the proposed amendment modifies the 2018 UPC to address Minnesota’s consistently cold winters by installing 12 inches below the maximum local frost level rather than average local frost level. Providing multiple options to protect water pipes from freezing addresses Minnesota’s climate and the variations experienced in northern Minnesota versus southern Minnesota.

This requirement is necessary to protect the water supply system from freezing while also providing multiple options since frost level varies throughout the state of Minnesota. The 12 inches below

the maximum local frost level is a reasonable distance from freezing because 12 inches is far enough to protect the water supply from freezing. Other options in accordance with section 312.6 include heat insulation or approved methods, or other alternative methods approved by the administrative authority to protect the water pipe from freezing. The proposed amendment is needed and reasonable to protect the water supply by reducing the risk of possible contamination from pipe breakage, minimize repair costs from frozen, burst pipes, and provide multiple options to achieve compliance.

**Subpart 2. Section 609.6.** There is no substantive change; only renumbering.

**Subpart 3. Section 609. 10. Water Hammer.**

Water hammer occurs when the flow of water to plumbing fixtures and appliances is suddenly stopped by a quick-acting valve(s) closing and resulting in a pressure spike in the water system and a “hammering” noise. The proposed amendment clarifies that where water hammer occurs, a water hammer arrestor must be provided to protect plumbing fixtures and appliances from water hammer damage. The proposed language allows options for plumbing engineers and contractors in accordance with the manufacturer’s installation instructions to design and install one or more water arrestors to effectively absorb the spike in pressure as close as possible to the quick-acting valves that causes water hammer.

**Subpart 4. Section 609.12. Water Meters.**

The proposed amendment renumbers section 609.11 to 609.12 for consistency with the 2018 UPC and renumbers it as subpart 4 to remain in numerical order in the rule. Substantively, the proposed amendment adds additional requirements for water meter installation. Water meter installation must be located as close as possible to the entrance point of a building to minimize the possibility of un-approved water supply connections upstream of the water meter. The proposed amendment is needed and reasonable to limit unauthorized (e.g., unmetered) uses or connections to the potable water supply system while also acknowledging and addressing the fact that some situations are unique and do not fit a prescriptive approach. If leakages exist in the water piping, having the water meter installed as close as possible to the entrance point of a building assists water utilities in water loss mitigation through early detection.

**4714.0611 WATER CONDITIONING EQUIPMENT.**

**Subpart 1. Section 611.** Subpart numbering is added because additional subsections have proposed amendments. The proposed rule amends section 611.1.1 by deleting the definition for water conditioning equipment here and moving it to section 225 in the definitions chapter.

The proposed rule renumbers subsection 611.1.2 to 611.1.1 and 611.1.3 to 611.1.2 since the current 611.1.1 has been deleted to maintain clear numbering. The proposed rule also updates reference to Table 1401.1 to Table 1701.1 in sections 611.1.1 and 611.3 because it was renumbered in the 2018 UPC.

**Subpart 2. Section 611.5 Isolation and Bypass**

The proposed amendment adds requirements for valve installation arrangements to provide for maintenance and servicing of water conditioning equipment. This requirement is needed and reasonable so maintenance work on water conditioning equipment would not require the entire building water supply to be shut off and water conditioning contractors to be able to install water conditioning equipment where valves are installed.

**4714.0701 MATERIALS.**

The proposed rule updates references to section 701.1 to section 701.2, Table 1401.1 to Table 1701.1 in section 701.1, and Table 701.1 to Table 701.2 because the tables were renumbered in the 2018 UPC. There are no substantive changes.

## **4714.0707 CLEANOUTS.**

### **Section 707.4 Location.**

**707.4.1 Back-to-Back.** The proposed amendment deletes this requirement because the 2018 UPC, section 704.2, specifically addresses this type of installation and requires the use of a double fixture fitting, which allows drain cleaning equipment to have direct access into the drainage system without a cleanout. Therefore, the cleanout requirement is no longer needed and can be eliminated. This proposed amendment is consistent with other sections of the 2018 UPC and provides clarity for code officials, designers, and industry.

### **Section 707.4 Location.**

The 2018 UPC requires cleanouts on the main floor drainage system and none on the upper floors of a building. The proposed amendment adds cleanouts to kitchen sinks that are on the upper floors regardless of location or types of buildings. The proposed amendment only adds “kitchen sinks” to the third exception. The remainder of this section is taken from the 2018 UPC. This is necessary and reasonable because kitchen sinks are highly likely to accumulate a build-up of greasy and food wastes over time. Kitchen sinks often clog the drainage system and are problematic and unsanitary to clean without ready-access cleanouts installed. Requiring cleanouts for kitchen sinks on the first floor and not the second floor is not reasonable as these fixtures have build-ups of wastes that solidify regardless of floor level. Requiring cleanouts on all floors for high-clogging fixtures is better for public health and safety because it allows for ready and quick maintenance access to the drainage system without the need to cut the building drainage system in the upper floors or ceilings where kitchen sinks are installed.

## **4714.0710 DRAINAGE OF FIXTURES LOCATED BELOW THE NEXT UPSTREAM MANHOLE OR BELOW THE MAIN SEWER LEVEL.**

The proposed rule amends UPC section 710.10 by adding an exception to allow the vents on pool and elevator sumps to terminate within the building. The proposed language further clarifies that vents for pool and elevator sumps need not vent through the roof and must not connect to other building vent pipe. The proposed amendment is reasonable since these types of sumps are required to discharge indirectly to the building drainage system (see sections 418.6 and 813.1), and fixtures discharging to these sumps are not trapped (see section 418.6 and 813.1), therefore the proposed exception to terminate within the building does not compromise the health and safety of the occupant. In limited cases where there are hazardous chemicals in a mechanical room where the elevator or pool sump is located, the designer may vent the sump through the roof independently to prevent any hazardous conditions from entering any spaces inside the building. This proposed amendment is reasonable and necessary as a safe and more cost-effective method to vent pool and elevator sumps.

The proposed rule amends the subpart numbering because the proposed amendment above is in precedes the existing subpart 1 amendment numerically. There are no substantive changes to the existing rule subparts.

## **4714.0712 TESTING. Subpart 2. Section 712.4 Negative Test**

The proposed amendment updates the outdated versions of two referenced recognized standards for negative pressure tests for concrete manholes and sewer lines to the most current available standards published. These are standards that the Minnesota code adds so the updated editions will not be referenced by the 2018 UPC or subsequent UPCs unless they also add these standards. There are not significant substantive differences between the two versions but updating to the most current available standard is necessary and reasonable to keep up with the latest and accurate information available for proper and safe testing. In addition, the proposed amendment updates the renumbered section for the Hydrostatic Test Method from section 1109.2.2 to section 1107.2.3(B) for consistency with the numbering of the 2018 UPC.

#### **4714.0717 SIZE OF BUILDING SEWERS.**

The proposed amendment replaces a footnote to Table 717.1 that allows the Administrative Authority to approve drainage fixture unit loadings on building sewers 8 inches and larger to be less than the minimum prescribed under Table 717.1. "Fixture unit loading" is used to determine the minimum size of building sewers based on the total number of fixture units. In situations where there is a lot of new development and anticipated future growth, the minimum loading requirements under Table 717.1 might be overly restrictive and burdensome; the proposed amendment alleviates the burden by allowing designers to plan for future development. The table as presented is appropriate for established developments with minimal future growth anticipated. This proposed amendment is necessary and reasonable because allowing case-by-case determinations adds an option for the administrative authority to approve arrangements that would allow building sites with anticipated future expansion to be accommodated. As a result, pumping equipment and related costs may be eliminated. As currently required under Table 717.1, the minimum drainage fixture unit loadings are difficult to meet at lower slopes as most buildings do not contain a sufficient number of plumbing fixtures to provide these minimum loadings during the design and construction stage. The table does not provide for future provisions or other considerations. A 6-inch size sewer is often not large enough for most larger buildings, and an 8-inch size sewer often will not meet the required minimum fixture unit loading at the slope a building site permits in accordance with Table 717.1. Under current requirements, most 8-inch sewers require either the sewer to be an alternative engineered design under Section 301.5, or a pump system to be installed when gravity drainage can be utilized and is feasible per the minimum required slope under Table 717.1. Using a pump system should be avoided whenever possible.

Mathematically, using Manning's Equation with a coefficient of  $n=0.015$  that pipe velocity greater than two feet per second will be achieved at the slopes listed in the Table 717.1. Two feet per second is a nationally-recognized minimum velocity that provides scouring of the waste pipe in plumbing waste system that prevents deposition of solid waste and clogging, and therefore is reasonable to allow for less loading and yet maintained the minimum 2 feet per second scouring velocity to move solids.

#### **4714.0719 CLEANOUTS.**

The proposed amendment adds an additional option for making watertight connections to manholes and similar types of structures. Resilient rubber joints at connections to manholes, catch basins, and similar structures are added as an option because these types of joints are the prevalent and industry preferred method used in Minnesota to join pipes to manholes and are recommended by concrete pipe manufacturers. Including resilient rubber joints as approved manhole connections is necessary and reasonable because they provide an additional design option, reduce costs, and reduce administrative processing of alternate installation method requests, and increase uniform statewide administration.

#### **4714.0724 RECREATIONAL VEHICLE**

**724.1 Construction.** The proposed rule amends section 724.1 to clarify that the private sewers serving the recreational vehicle must be designed to the same requirements as building sewers. Specifically, the sewers must meet the same requirements for materials, fittings, cleanouts, slope, and installation requirements.

**724.2 Flushing Device.** The proposed rule amends section 724.2 to clarify proper backflow prevention types where continuous line pressure exists. Installing a shut-off valve downstream of the backflow device creates a continuous line pressure; therefore, a pressure-type vacuum breaker is necessary to protect the potable water line. For example, some facilities prefer to install a shutoff valve on the end of a hose. In those cases, the installation will need to use a pressure-type vacuum breaker. While typical installations have the backflow prevention device downstream from the last shutoff valve, there are some installations in which a shutoff valve will be used on the end of a hose. It is necessary and

reasonable to address situations in which there is a shutoff valve downstream from the backflow prevention device while also allowing as much flexibility as possible when there is no shutoff valve downstream. New language is added to state at no time any water piping be connected to a sewer-connected wastes such as directly connecting to a sewage holding tank of a recreational vehicle. This proposed amendment provides increased protection of the potable supply water lines at recreational vehicle sites and is consistent with the requirements of section 603.4.4. There are public health concerns associated with the use of disposal station flushing devices and therefore the added backflow requirements are necessary to prevent human contact with, and disease transmission from, feces and other sewage components and to prevent backflow of sewage into the water supply system.

**724.3 Drainage Pipe Sizes.** The proposed rule adds a section 724.3 and Table 724.3 because the Plumbing Code does not currently have specific drainage pipe size requirements for recreational vehicle sites. As a result, designers and officials are left guessing and this results in varied and inconsistent enforcement. The content of the proposed Table 724.3 is from Appendix E of the 2018 UPC for recreational vehicles. It is reasonable to use the table here because it is for the same application as Appendix E. The proposed table is necessary for predictable and consistent design and administration.

#### **4714.0801 INDIRECT WASTES.**

The proposed rule updates references to UPC section 801.2.2 to section 801.3.2 because it was renumbered in the 2018 UPC. Section 801.2.3 was renumbered to section 801.3.3. Section 801.3 was renumbered to section 801.4. There are no substantive changes.

#### **4714.0807 APPLIANCES.**

**807.3 Domestic Dishwashing Machine.** The proposed amendment modifies section 807.3 by allowing the domestic dishwasher discharge pipe to be secured and routed as high as possible under the countertop and connecting to a tailpiece of a domestic kitchen sink or food waste grinder in addition to the listed air gap method. This additional method was in the previous Minnesota Plumbing Code and heavily favored by homeowners because an air gap requires drilling a new hole in the countertop. This was particularly undesirable for homeowners who install a new dishwasher but not new countertops. This code section applies only to residential use dishwashers which could also include residential style dishwashers in an employee break room or at locations that are not a licensed food or beverage establishments serving the public. The proposed amendment is necessary and reasonable to allow for an additional method to the currently approved air gap fitting installation method to reduce installation costs and allow installation flexibility, and yet protective of any possibility of unsanitary conditions from wastewater backups from the kitchen sink or sewage backups.

#### **4714.0810 STEAM AND HOT WATER DRAINAGE CONDENSERS AND SUMPS.**

The proposed rule amends section 810.1 to delete the language regulating boiler pipes and other pipes not involving a part of the plumbing system as it is outside the scope of this code. Those other requirements are regulated in the Mechanical and Fuel Gas Code in Chapter 1346 and the Chapter 5225. The proposed rule is necessary and reasonable to avoid conflict with other building codes and to stay within the scope of the Board's authority.

#### **4714.0811 PLASTIC WASTE AND VENT PIPES.**

All parts of the plumbing system must be properly supported including chemical waste and vent systems. The proposed rule amendment adds a new subsection 811.9 for proper support due to thermal expansion and contraction compensation of plastic pipe used for chemical waste systems. This is particularly important in Minnesota due to the extreme types of climate here. The proposed amendment clearly requires that where plastic pipe is utilized and installation is in excess of 30 feet horizontally or vertically, provision for thermal expansion and contraction compensation must be in accordance with

Table 313.3.1. It is necessary and reasonable specify proper support for the use of plastic pipe in chemical waste and vent systems to prevent sagging of pipes from expansion and contraction.

#### **4714.0813 SWIMMING POOLS.**

Pool deck drains are required to be designed and installed as indirect waste piping. These drains receive only liquid wastewater from splashing on decks and wash down of deck areas. The proposed rule amendment exempts pool deck drains from trap and vent requirements in section 803.1 and requires waste piping at a minimum of 1/8-inch per foot pitch. Without the amendment, pool deck drains would be subject to a ¼-inch per foot pitch requirement for general indirect waste piping under Section 708.1 and traps and vents must be provided as required under 803.1. Section 708.1 is a general provision for all drainage piping including waste piping carrying solids. Because pool deck drains receive only liquid, a minimum 1/8-inch per foot pitch is adequate and reasonable because there is no solid waste.

#### **4714.0814 CONDENSATE WASTES AND CONTROL.**

**Subpart 1.** The proposed rule amendment deletes portions of subpart 1 because condensate from air washers, air-cooling coils, fuel-burning condensing appliances, the overflow from evaporative coolers, and similar water-supplied equipment or similar air-conditioning equipment, along with the equipment itself, are regulated by the Minnesota Mechanical Code Chapter 1346. The proposed amendment is necessary and reasonable to avoid conflicting requirements between two codes and for consistent and coordinated statewide code administration.

**Subparts 2-4.** The proposed rule updates references to Table 814.1, Section 814.2, and Section 814.3 to Table 814.3, Section 814.3, and Section 814.5, respectively, because they were renumbered in the 2018 UPC. There are no substantive changes.

#### **4714.0903 MATERIALS.**

The proposed rule updates references to Table 701.1 to Table 701.2, and Table 1401.1 to Table 1701.1 because they were renumbered in the 2018 UPC. There are no substantive changes.

#### **4714.1001 TRAPS REQUIRED.**

The proposed rule updates references to section 1001.1 to section 1001.2 because it was renumbered in the 2018 UPC. There are no substantive changes.

#### **4714.1002 TRAPS PROTECTED BY VENT PIPES.**

The proposed rule amends UPC section 1002.2 to add an exception to individual venting requirements of each fixture trap for certain types of floor drains. Emergency floor drains, tell tale floor drains, and floor drains not used as waste receptors installed within 25 feet of a vented branch or main are exempted because they do not have a drainage fixture unit value or are not intended to receive indirect waste discharges. They are unlikely to siphon the trap seals and do not need to be individually vented because the quantity and frequency in which these drains would be used is small. The proposed amendment reduces the cost of installation of floor drains to plumbing projects and maintains health and safety.

#### **4714.1006 FLOOR DRAIN TRAPS.**

The proposed rule amends UPC section 1006.1 to clarify the language and add an exception for floor drains and trench drains connected to sand interceptors or oil and flammable liquid interceptors. The general rule is that all floor drains must be trapped. Trapping the floor drains and/or trench drains connected to sand and/or oil and flammable liquid interceptors is unsafe and defeats the purpose of the sand interceptor and oily and flammable liquid interceptor. That is, the sand/dirt/solids would fill the trap

before entering the sand interceptor for proper separation and collection. Without the proposed exception, each floor drain and trench drain trap would have a vent located near a wall, which is difficult in an open space such as a garage. The proposed amendment reduces plumbing project costs and improves the overall functioning of the plumbing system.

#### **4714.1009 INTERCEPTORS (CLARIFIERS) AND SEPARATORS.**

The proposed rule amends the rule part title for consistency with the 2018 UPC. Subpart numbering is added because the proposed rule adds a second subsection that is amended.

**Subpart 2.** The proposed rule amends UPC section 1009.4 by adding the last sentence. The proposed rule specifies where interceptor and neutralization tank vent ports must be located to prevent blockage of vent ports that can occur over time when located below the highest liquid flow level where vent ports are submerged in wastewater or from back-ups of the building drainage system. Blockage of vent ports creates risks of unsafe conditions that can be detrimental to the public by releasing fumes from chemicals or gasoline vapors inside the building environment. It is reasonable and necessary to clarify the location of these vent ports for a safe and proper functioning plumbing system.

#### **4714.1016 SAND INTERCEPTORS.**

The proposed rule amends UPC section 1016.4 to clarify the language and add an exception for sand interceptors connected to oil and flammable liquid interceptors in compliance with section 1017 because having a water seal on sand interceptor designs creates an unsafe condition where flammable liquid wastes can be stored in the sand interceptors for a period of time before entering the oil and flammable liquid interceptor for collection of flammable liquid wastes. The purpose of the sand interceptor is to collect sand and debris, and not flammable liquid wastes. Therefore, it is reasonable and necessary to provide an exception to the general requirement that sand interceptors must be provided a water seal when sand interceptors are connected to flammable liquid interceptors. Since a water seal is no longer required, the exception also includes the vent. The purpose of a vent is to protect the water seal for proper circulation of air in the pipes to protect the water seal hence, the vent is no longer needed, it is also proposed in the exception. In addition to reducing the cost of installation, the proposed exception provides for a safer plumbing system, consistent design, and administration.

#### **4714.1017 OIL AND FLAMMABLE LIQUID INTERCEPTORS.**

**Subpart 1. Section 1017.1.** The proposed rule amends UPC section 1017.1 to coordinate with section 1009.1 and the proposed amendments to section 418.7. The proposed amendments clarify when an interceptor is required in parking garages and vehicle wash facilities. Currently, a flammable/oily waste interceptor must be provided in parking garages and vehicle wash facilities when required by the AHJ under sections 1009.1 and 418.7. The proposed amendment requires an oil and flammable liquid interceptor in a parking garage if a certain size threshold is met. Oil and flammable liquid interceptors protect the drainage and sewer systems by separating and retaining damaging liquids before they enter the sewer systems. Without the proposed language, these sections are not consistently administered among jurisdictions and is subject to approval project by project basis.

**Subpart 2. Section 1017.2.** The proposed amendment replaces the UPC sentence that reads, “Above 10 vehicles, the Authority Having Jurisdiction shall determine the size of the interceptor required” with “Above 10 vehicles, each interceptor shall have a holding capacity of not less than 35 cubic feet.” The UPC language does not provide any guidance to designers, building owners or building officials. Because it is completely up to the Authority Having Jurisdiction with no parameters or guidance, there has been unpredictable and inconsistent enforcement. Striking a balance between prescriptive and performance-based code is always the goal and the UPC language misses the target. While allowing flexibility, the proposed amendment offers guidance based on collective industry

knowledge that 35 cubic feet will be adequate for most situations and can be emptied more frequently if necessary.

**Subsection 1017.2.1.** The proposed rule adds this subsection to require service and maintenance records to show regular removal of oil and flammable substances. Proper maintenance of the oil and flammable liquid interceptor prevents overflow of harmful substances into the sewer. Specifically, this requirement encourages regular removal of accumulated oily and flammable waste per the manufacturer's recommended maintenance instructions. The amendment to section 1017.2 above is proposed in concert with this additional requirement as they complement each other and together establish a necessary and reasonable standard that removes harmful accumulated waste for the proper functioning of the interceptor.

#### **4714.1101 GENERAL.**

Subparts 1-5. The proposed rule updates multiple references to sections and subsections because they have been renumbered in the 2018 UPC. There are no substantive changes to 1101.2, 1101.3, 1101.4, and 1101.12.1.

#### **Subpart 4.**

##### **Section 1101.12.2.1 Location.**

The roof drainage system removes rainwater from roofs to prevent the roof collapsing. There are generally two roof drains – the primary and the secondary. When the primary roof drain clogs, the rainwater pools onto the roof if there is no secondary roof drainage system. Minnesota Rules, chapter 1305 requires primary and secondary roof drainage and the Plumbing Code regulates the design and function of the primary and secondary roof drainage. The proposed rule amendment clarifies there are two possible locations for the secondary roof drain. 1) The secondary roof drainage shall be located at the maximum possible depth of ponding a structural roof is designed to withstand per chapter 1305 as certified by a Minnesota licensed professional engineer; or 2) two inches above the lowest point of the roof surface. The proposed amendment to locate the secondary roof drain two inches above the lowest point reflects the 2018 UPC language and adds clarity for designers and installers where a roof is not required by law to be certified by a Minnesota licensed professional structural engineer. The proposed rule amendment is necessary and reasonable to ensure the roof is protected from water ponding that will lead to roof collapse and to provide clear options for compliance and consistent enforcement.

##### **Section 1101.12.2.2 Engineered System.**

The proposed amendment adds language to prohibit engineered siphonic roof drainage systems in the design of a secondary roof drainage system. Unlike the conventional roof drainage system, an engineered siphonic drainage system has no slope in the pipe, the pipe sizes are much smaller, and uses the hydraulic principles in the adopted standard, ASPE 45, to operate under depressurized conditions (siphon) where the piping is flowing full-bore with little or no air to remove water from the roof. The system is a unique and complex engineering system and requires a higher level of understanding on the part of the designer and installer with precise details for successful functioning of the engineered system. All roof drains of the primary roof drainage system will simultaneously receive rainwater flow during any precipitation or rainfall event. Unlike the primary roof drainage system, the secondary roof drainage system might have only one roof drain receiving flow at any given time during a rainfall event. The secondary drainage system functions differently and independent of the primary system. Secondary siphonic roof drainage systems are not allowed because all primary roof drains would need to be simultaneously clogged in order for there to be sufficient full flow for a siphon to trigger a secondary siphonic roof drainage system with multiple roof drainages connected (manifolded). It is unlikely and rare that all primary roof drains would be simultaneously clogged. The required hydraulic head in sizing the piping system per ASPE 45 will not be achieved with only one secondary drain receiving full flow and other secondary drains not receiving full flow, and therefore would function like a conventional gravity

system, and not an engineered siphonic roof drainage system. The proposed amendment is necessary to clarify that utilizing the engineered siphonic roof drainage system for the secondary roof drainage system is not within the scope or application of the nationally recognized standard ASPE 45. In addition, the proposed amendment is necessary because secondary roof drains are required by the Minnesota Building Code to discharge above grade to an approved visible location. Engineered siphonic roof drainage systems require siphonic break points with high velocity (over 15-20 feet per second) and can be problematic for secondary siphonic roof drainage systems, such as increased ponding of water at a faster speed around the building without proper site drainage evaluation, unsafe conditions shooting rainwater at discharge locations abovegrade or pavement on or near public walkways. The proposed amendment is reasonable and adds reliability of the secondary roof drainage system as it is intended to be an overflow function and is critical in building safety by preventing building collapse and costly errors.

#### **4714.1106 → 4714.1103 SIZE OF LEADERS, CONDUCTORS, AND STORM DRAINS.**

UPC section 1106 has been renumbered to section 1103 in the 2018 UPC. The proposed amendments update the numbering and amends UPC sections 1103.1 and 1103.2 by adding, “For sizes not listed under Table [1103.1 / 1103.2], a minimum rainfall rate of 4 inches per hour must be used to size the rainwater piping” because some buildings have larger roofs and require larger pipe sizes than the two referenced tables address. The proposed amendment is not a significant change but provides clarification for larger pipe sizes not shown on the referenced Tables 1103.1 and 1103.2. The roof drainage system must be sized at a minimum rainfall rate of 4 inch per hour, which is consistent with the smaller pipe sizes shown on Table 1103.1 and Table 1103.2, and also the 4-inch rainfall rate shown under section 1101.12.1 for sizing of primary roof drainage systems. The proposed amendment is necessary and reasonable because it clarifies and is consistent with existing related requirements.

#### **4714.1108 → 4714.1105 CONTROLLED-FLOW ROOF DRAINAGE.**

The proposed rule updates references to UPC section 1108.1 to section 1105.1 and other referenced section numbers because they have been renumbered in the 2018 UPC. There are no substantive changes.

#### **4714.1109 → 4714.1107 TESTING.**

The proposed rule updates references to UPC section 1109.1 to section 1107.1 because it has been renumbered in the 2018 UPC. Other references to various 1109 sections and subsections have also been renumbered to reflect the 2018 UPC numbering and formatting. There are no substantive changes.

#### **4714.1110 → 4714.1106 SIPHONIC ROOF DRAINAGE SYSTEM.**

The proposed rule updates references to various UPC sections and section 1110 has been renumbered to section 1106 because they have been renumbered in the 2018 UPC. There are no substantive changes.

#### **4714.1605 INSPECTION AND TESTING.**

Section 1702.11 has been renumbered to 1605.3. There are no substantive changes to this Minnesota amendment but this shows up as new language because of the renumbering.

#### **4714.1401 → 4714.1701 REFERENCED STANDARDS.**

The proposed rule updates references to UPC Table 1401.1 to Table 1701.1 because it has been renumbered in the 2018 UPC. Other UPC section references contained in the amended portions of the table that have been renumbered in the 2018 UPC have also been updated. In the 2012 UPC, only one referenced standards table was used and regular and bold font was used to distinguish between standards

that were referenced in a specific section versus standards that could be used for alternate materials and methods. The 2018 UPC created two tables (1701.1 and 1701.2) to distinguish standards that can be used for alternate materials and methods (Table 1701.2). In addition to the renumbering the formatting changes are reflected in the proposed rule.

The deleted standards on page 49 were moved into Table 1701 for formatting consistency (see below) as they are referenced standards in the Minnesota Plumbing Code.

**Subpart 1.** The proposed rule adds to Table 1701.1 the referenced standards in the proposed amendments above.

**Subpart 2.** The proposed rule amends referenced standards in Table 1701.1 that are in the 2018 UPC. The amendments generally align the list of referenced sections to reflect the Minnesota amendments above.

**Subpart 3.** The proposed rule deletes a standard from Table 1701.2 that is no longer referenced as a result of the Minnesota amendments.

**Subpart 4.** The proposed rule adds a referenced standard to Table 1701.2 that the Board has approved for use in section 301.2.2.

#### **4714.1701 → 4714.1601 GENERAL.**

**Subpart 1.** UPC section 1701 has been renumbered to section 1601 in the 2018 UPC. The proposed rule updates all section and subsection references. Because of renumbering, the proposed rule adds “Subpart 1” and “Subpart 2” and relocates existing Minnesota rule to subpart 2. Specifically, what is currently subpart 22 of 4714.1702 is renumbered and relocated to this subpart 2 because of renumbering in the 2018 UPC. There are no substantive changes.

#### **4714.1702 → 4714.1602 NONPOTABLE RAINWATER CATCHMENT SYSTEMS.**

UPC section 1702 has been renumbered to section 1602 in the 2018 UPC. The proposed rule updates all section and subsection references. There are no substantive changes except as described below.

**Subpart 8.** Table 1702.9.4, renumbered Table 1602.9.6, is in the current Minnesota Rule and the 2018 UPC has its version of a Minimum Water Quality Table. The Minnesota table was previously vetted during the last Plumbing Code rulemaking and again this time. The Board is updating the Minnesota table to reflect current standards, available technology, and practices for water treatment of nonpotable rainwater catchment systems as presented to the Board by the Minnesota Department of Health. There are two proposed amendments to Table 1602.9.6 (as renumbered), Minimum Water Quality, establishing new minimum water quality requirements that are risk-based and performance-based and yet maintaining a safe and continuous operation of a nonpotable rainwater catchment system. The first proposed amendment modifies the filtration and disinfection water quality standard from a 5-micron absolute filter and a 0.5-log inactivation of viruses, to a minimum 100-micron or smaller filter, and a 3.5 log reduction of bacteria. Using the new minimum risk-based and performance-based water quality standards allows any type of water treatment technology to treat water to achieve a water treatment of 3.5 log reduction of bacteria, rather than 0.5-log inactivation of viruses as they are not a concern in rainwater from roofs. Continuous monitoring of the minimum of 3.5 log reduction of bacteria will ensure the water quality is safe for the intended use. The proposed minimum 100-micron or smaller filter will allow a wider range of water treatment technology available for treatment utilizing risk-based and performance-based technology and this filtration standard is consistent with the filtration requirements of the 2018 UPC.

The second proposed amendment deletes the minimum turbidity parameter (also known as water clarity) from the water quality Table 1602.9.6. Turbidity consists of suspended material/particles in water

causing a cloudy appearance that must be treated to reduce the particles for water treatment and is no longer a significant factor in water quality treatment because the proposed risk-based and performance-based treatment of 3.5 log reduction of bacteria means 99.9 percent removal of pathogens. The design of the treatment system will address turbidity to meet the 3.5 log reduction of bacteria and therefore turbidity is not a concern from a regulatory standpoint. The proposed amendment is necessary and reasonable to update to current water treatment technologies that are available to achieve water quality that is safe and protects public health.

**Repealed sections:**

**4714.0314 TRENCHING, EXCAVATION, AND BACKFILL.**

The proposed amendment repeals Minn. R. part 4714.0314. Part 4714.0314 deletes code sections 314.0 to 314.4 because these sections replicate the 2018 UPC and are needed and necessary for proper installation of underground thermoplastic drainage pipe and fittings inside of buildings and outside sewers since installation standards in the appendixes addressing proper underground plastic pipe installations are no longer part of the 2018 UPC, and therefore, is not adopted by incorporation. It is necessary to re-introduce these sections back in the code since these sections under the 2018 UPC now have more specific and relevant regulations relating to requirements of trenching, excavation, and backfill that are necessary for proper installation of pipe. Trenching section 314.2 of 2018 UPC has provisions for tunneling and driving in yards and driveways with specific requirements outlined for proper installation using tunneling and driving with a maximum of eight feet without breaking up driveways and without comprising the installation. Section 314.3 clarifies that open trench excavation for a building drainage system within walls of a building must be utilized for proper installation. 2018 UPC Section 314.4 and 314.4.1 add specific requirements for underground thermoplastic pipe and fittings for sewers and gravity flow applications which previously did not. This proposed amendment will ensure underground thermoplastic pipe installation will be installed correctly.

**4714.0421 FIXTURES AND FIXTURE FITTINGS FOR PERSONS WITH DISABILITIES.**

The proposed rule repeals this rule part because the 2018 UPC language (renumbered to section 407.3) is similar to the Minnesota amendment. The Board prefers to use the 2018 UPC language when possible. There is one difference and that is the maximum temperature. In the current rule, the maximum temperature is 110° F while the 2018 UPC allows a maximum temperature of 120° F. The higher maximum temperature offers designers and building owners additional flexibility. Changing to the higher temperature is necessary and reasonable for consistency with the 2018 UPC and assists in the prevention of legionella growth.

**4714.0507 OTHER WATER HEATER INSTALLATION REQUIREMENTS.**

**Subpart 1.** No proposed amendments.

**Subpart 2. Section 507.5 Relief Valve Discharge.**

The proposed amendment repeals this subpart because the relief valve discharge requirements have been relocated to section 608.5 in the 2018 UPC and the (proposed for repeal) Minnesota rule is largely moved to and replicated there (see below). The proposed deletion reverts section 507.5 to the 2018 UPC language, which is consistent with section 504.6, which has proposed amendments to include the relevant 2018 UPC language (see above).

**4714.0511 DIRECT-VENT APPLIANCES.**

The proposed rule repeals this rule part because the Board does not have statutory authority to regulate venting of appliances. Venting of appliances is regulated under the Minnesota Mechanical Code in Minnesota Rules chapter 1346.

## **4714.0604 MATERIALS.**

### **Section 604.11, Lead Content**

The proposed rule repeals this rule part because the 2018 UPC has renumbered section 604.11 to 604.2 and section 604.2 incorporates equivalent lead-free standards such as the Safe Drinking Water Act that is referenced in part 4714.0604.

## **4714.0705 JOINTS AND CONNECTIONS.**

### **Section 705.10.2 Expansion Joints.**

The proposed amendment repeals the Minnesota amendment to section 705.10.2 because 2018 UPC section 705.9.2 covers expansion joint provisions. The only difference is the 2018 UPC does not require expansion joints in vent piping or drainage stacks to be accessible where as part 4714.0705 does require expansion joints in vent piping and drainage stacks to be accessible. However, failures of expansion joints are rare and can be replaced or repaired by cutting the wall to access the joints. This proposed amendment is consistent with the requirements of the 2018 UPC and is reasonable as this is the national standard and it is not necessary to alter this for a Minnesota-specific purpose.

## **Regulatory Analysis**

This part addresses the requirements of Minnesota Statutes, section 14.131 (a), which require state agencies to address a number of questions in the SONAR. For most of the questions, the response is general and applies to this rulemaking as a whole. In some cases, the response will depend on a specific amendment being proposed and specific detail will be provided.

### **A. Description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule.**

The proposed rules will likely affect plumbing contractors, journeymen, apprentices, master plumbers, restricted master plumbers, restricted journeymen, plumber's apprentices, registered unlicensed individuals, employers of persons who perform plumbing work, persons who wish to perform plumbing work, plumbing inspectors, building officials, engineers, persons in the water conditioning industry, residential and commercial building contractors and owners, and the general public.

### **B. The probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues.**

The Board adopts the Plumbing Code but does not administer or enforce it; therefore, the Board will not incur any costs associated with the adoption of the proposed rules.

Costs to the Department include the costs of purchasing code books for state employees who address Plumbing Code questions. Because the Department already enforces the current Plumbing Code, there are no additional costs to the Department as a result of the proposed rule. Adoption of the proposed rules will not affect state revenues because it is a self-funded program through the collection of fees.

### **C. A determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule.**

The purpose of the proposed rules "is to promote the public health and safety through properly designed, acceptably installed, and adequately maintained plumbing systems." No other less costly or less intrusive methods would establish minimum plumbing standards and adequately maintain plumbing systems. In this case, the proposed rule adopts a model code. The proposed rule prioritized maintaining the current Minnesota amendments and the 2018 UPC to the greatest extent possible because both were thoroughly vetted by a variety of industry professionals and went through rigorous approval processes.

**D. A description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the Agency and the reasons why they were rejected in favor of the proposed rule.**

The Board seriously considered three options: 1) keep the 2012 UPC incorporated by reference and update the existing Minnesota Plumbing Code; 2) incorporate by reference the 2018 UPC, with amendments; and 3) do nothing and maintain the existing Minnesota Plumbing Code. The Board rejected the first option because the existing Code is outdated and individually updating the outdated portions would be time-consuming and defeat the purpose of adopting a model code. The third option was rejected because, again, the existing code is outdated. Leaving the code outdated would result in difficulty obtaining outdated materials, additional expense to use updated materials and methods as alternates, and confusion with the outdated requirements. The second option was chosen because it was the most efficient way to broadly update the existing code.

**E. 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.**

Plumbers, municipal inspection departments and designers will likely purchase copies of the new code book. Training curriculum will need to be updated to incorporate any changes in the code.

Costs to new home or commercial building owners or other plumbing work to which the code applies is anticipated to be neutral or minimal. Some changes might result in higher expenses than the existing rule requirements but other code changes will result in cost savings. For example, the proposed rules allow more products to be used without additional local approval, resulting in more available options than the existing code. There is nothing in the proposed rules that is anticipated to be a significant cost increase as compared to the current code.

Costs to retrain to the new code are not anticipated to be significantly different from the existing code because training is already required under Minnesota Rules, chapter 4716. There is no additional costs for training as a result of the proposed rule.

**F. 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 governmental units, businesses, or individuals.**

The existing code is already outdated so not adopting the proposed rules would result in a Plumbing Code that is further outdated. Other costs or consequences include eliminating new technologies from the pool of available products and methods. Use of these new technologies would require approval as an alternate method, which requires additional time, planning, uncertainty and oftentimes money. These costs and consequences would ultimately fall to the building owner.

**G. An assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference.**

There are no applicable federal regulations that address Plumbing Code issues in the construction of non-federally owned buildings. There are some provisions that coordinate with the Federal Safe Drinking Water Act as enforced by the Minnesota Department of Health.

**H. An assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.**

There are no other state or federal regulations related to the specific purpose of the proposed rules so there are no cumulative effects.

## Notice Plan

Minnesota Statutes, section 14.131, requires that an agency include in its SONAR a description of its efforts to provide additional notification to persons or classes of persons who may be affected by the proposed rule or must explain why these efforts were not made.

## Notice

This Additional Notice Plan was reviewed by the Office of Administrative Hearings (“OAH”) and approved in an October 5, 2020, order by Administrative Law Judge James E. LaFave.

This Notice Plan includes giving notice required by statute. The Board will mail or email the Notice of Intent to Adopt to everyone who has registered to be on the Department’s and Board’s rulemaking mailing or emailing lists under Minnesota Statutes, section 14.14, subdivision 1a. The Board will also give notice to the Legislature per Minnesota Statutes, section 14.116.

In addition to the rulemaking lists required by statute, the Board will be mailing or emailing the Notice of Intent to Adopt to organizations and trade associations anticipated to be substantially affected by the proposed rules. Those organizations and associations are as follows.

## Additional Notice Plan

The Board intends to send an electronic notice with a hyperlink to electronic copies of the Notice, SONAR and the proposed rule amendments to:

1. American Backflow Prevention Association (ABPA) – Region 10
2. American Society of Plumbing Engineers (ASPE) – Minnesota Chapter
3. American Society of Civil Engineers – Minnesota Section
4. American Council of Engineering Companies of Minnesota
5. American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) – Minnesota Chapter
6. American Waterworks Association – Minnesota Chapter
7. Associated Builders and Contractors
8. Association of General Contractors of Minnesota
9. Association of Minnesota Building Officials (AMBO)
10. Association of Minnesota Counties
11. Building Officials licensed in Minnesota
12. Building Owners and Managers Association (BOMA)/Duluth
13. Building Owners and Managers Association (BOMA)/Minneapolis
14. Building Owners and Managers Association (BOMA)/St. Paul
15. Builders Association of Minnesota (BAM)
16. Builders Association of the Twin Cities, nka Housing First Minnesota
17. City Engineers Association of Minnesota
18. Laborers-Employers Cooperation Education Trust – Minnesota Chapter (LECET)
19. League of Minnesota Cities
20. Metropolitan Council
21. Minnesota Association of Plumbing and Mechanical Officials
22. Minnesota Association of Townships
23. Minnesota Department of Agriculture
24. Minnesota Department of Natural Resources
25. Minnesota Department of Transportation
26. Minnesota-licensed plumbers and plumbing contractors
27. Minnesota Mechanical Contractors Association
28. Minnesota Nursery & Landscape Association
29. Minnesota Onsite Wastewater Association (MOWA)

30. Minnesota Pipe Trades Association
31. Minnesota Plumbing, Heating and Cooling Contractors Association
32. Minnesota Pollution Control Agency; Municipal Division
33. Minnesota Rural Water Association
34. Minnesota State Fire Chiefs Association
35. Minnesota State Fire Marshal Division
36. Minnesota Utilities Contractors Association
37. Minnesota Water Quality Association (MWQA)
38. U. S. Green Building Council – Minnesota Chapter
39. United Association of Plumbers and Gasfitters Local Union #15
40. University of Minnesota Extension Program: Onsite Sewage Treatment Program
41. Water conditioning engineers licensed in Minnesota
42. Water Quality Association (WQA)

Our Additioanl Notice Plan does not include notifying the Commissioner of Agriculture because the rules do not affect farming operations per Minnesota Statutes, section 14.111.

## **Performance-based Rules**

Minnesota Statutes, section 14.002, requires state agencies, whenever feasible, to develop rules that are not overly prescriptive and inflexible, and rules that emphasize achievement of the agency’s regulatory objectives while allowing maximum flexibility to regulated parties and to the agency in meeting those objectives.

The Plumbing Code is performance-based in that it balances the method with the end result of the plumbing work within a framework of standards. The proposed rules are performance-based standards to the extent practicable while maintaining clear, predictable, enforceable rules.

## **Consult with MMB on Local Government Impact**

As required by Minnesota Statutes, section 14.131, the agency consulted with Minnesota Management and Budget (MMB). The Board did this by sending MMB copies of the documents that were sent to the Governor’s Office for review and approval. The documents included: the Governor’s Office Proposed Rule and SONAR Form; the near-final proposed rules; and the near-final SONAR. MMB Executive Budget Officer Kwesi Pasley responded, in part, as follows in a memo dated October 2, 2020: “The incorporation of the 2018 UPC, with amendments, into the Minnesota Plumbing Code is not anticipated to have a substantial cost to local units of government.”

The Board will submit a copy of the cover correspondence and the response received from MMB to OAH at the hearing or with the documents it submits for Administrative Law Judge review.

## **Impact on Local Government Ordinances and Rules**

Minnesota Statutes, section 14.128, subdivision 1, requires an agency to make a determination of whether a proposed rule will require a local government to adopt or amend any ordinances or other regulation in order to comply with the rule. The Board has determined that the proposed amendments will not have any effect on local ordinances or regulations. Local governments that currently enforce the Plumbing Code will continue to enforce the Plumbing Code in their jurisdiction.

## Costs of Complying for Small Business or City

Minnesota Statutes, section 14.127, subdivisions 1 and 2, require an agency to “determine if the cost of complying with a proposed rule in the first year after the rule takes effect will exceed \$25,000 for any one business that has less than 50 full-time employees, or any one statutory or home rule charter city that has less than ten full-time employees.”

The Board has considered whether the cost of complying with the proposed rules in the first year after the rules 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. The Board has determined that the cost of complying with the proposed rules in the first year after the rules take effect will not exceed \$25,000 for any small business or small city. The Board asked the public to comment on whether any small city or small business will incur costs exceeding \$25,000 in the Request for Comments and received no comments addressing this topic.

## Witnesses and SONAR Exhibits

### Witnesses and Other Staff

- 1) The agency expects that the proposed amendments will be noncontroversial. In the event that a hearing is necessary, the agency anticipates having the listed authors testify as witnesses in support of the need for and reasonableness of the rules.
- 2) Ms. Suzanne Todnem, Minnesota Department of Labor and Industry. Ms. Todnem is the attorney to the Board and will introduce the required jurisdictional documents into the record and provide answers to APA procedural questions.
- 3) Mr. Richard Jacobs, Chair, Minnesota Plumbing Board, will testify about the Board’s interest in amending the Plumbing Code and any technical questions.
- 4) Ms. Cathy Tran, P.E., Public Health Engineer, Department of Labor and Industry, will testify about the technical aspects and the background of the proposed amendments. Ms. Tran is the commissioner’s designee member on the Board.
- 5) Mr. Brad Jensen, Plumbing Inspection Section Chief, Department of Labor and Industry, will testify about the technical information about the Plumbing Code and the background of the proposed amendments.
- 6) Other Department of Labor and Industry staff or Board members, if necessary, will testify about the technical aspects of the proposed amendments, the background of the proposed amendments, and the Board’s interest in amending the Plumbing Code.

### SONAR Exhibits

- 1) 2018 Uniform Plumbing Code
- 2) Current Minnesota Plumbing Code
- 3) All links within this document are available online.
- 4) Copies of Board and advisory committee meeting agendas and minutes and submitted proposal forms are available online.<sup>10</sup>

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<sup>10</sup> See <https://www.dli.mn.gov/about-department/boards-and-councils/plumbing-board>

## Conclusion

In this SONAR, the agency has established the need for and the reasonableness of each of the proposed amendments to Minnesota Rules, chapter 4714. The agency has provided the necessary notice and in this SONAR documented its compliance with all applicable administrative rulemaking requirements of Minnesota statute and rules.

Based on the forgoing, the proposed amendments are both needed and reasonable.



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Richard Jacobs, Chair  
Minnesota Plumbing Board

October 16, 2020

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Date

This SONAR was made available for public view, per OAH Rules, part 1400.2070, subpart 1, item E, as of October 16, 2020.