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

PRINT IN INK or TYPE

Plumbing Board
Request for Action

NAME OF SUBMITTER	**PURPOSE OF REQUEST** (check all that apply): x New Code
Richard Blaylock	☐ Code Amendment ☐ Repeal of an existing Rule

The Minnesota Plumbing Code (MN Rules, Chapter 4714) is available at http://www.dli.mn.gov/CCLD/PlumbingCode.asp.

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

☐ Appurtenance (e.g., water conditioning equipment) ☐ Test Method

x Other (describe) Adopt section 911.0 thru 911.5 of the national 2018 UPC code. Circuit Venting.

Does your submission contain a Trade Secret? ☐ Yes x No

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

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

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

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

NOTE:

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

Circuit venting (Battery Venting) was included in the old MN Plumbing Code section 4715.2600 but was not adopted in the 2015 MN UPC. I am requesting that the board reinstates this section of the 2018 UPC 911.0 into the MN Plumbing Code.

Office Use Only

RFA File No.	Date Received by DLI	Dated Received by Committee	Date Forwarded to Board
PB0122	3.7.2019		
Title of RFA	By:		

Committee Recommendation to the Board: ☐ Accept ☐ Reject ☐ Abstain

Board approved as submitted: ☐ Yes ☐ No Board approved as modified: ☐ Yes ☐ No

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

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

In certain situation the circuit venting (battery venting) practice saves labor and material and does not affect the operation of the plumbing system. The 2015 MN UPC was adopted from the 2012 UPC code and circuit venting was not listed at that time. It is now listed as section 911.0 in 2015 UPC book.

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

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

I included copies of the old MN code 4715.2600 and 2018 UPC 911.0 thru 911.5

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

Primary reason for change: (check only one)

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

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

Anticipated benefits: (check all that apply)

☐ Save lives/reduce injuries
X Improve uniform application
☐ Improve health of indoor environment
☒ Provide more construction alternatives
☐ Reduce regulation ☐ Other (describe)

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

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

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

2. Does the proposed change increase or decrease the cost of compliance? ☒ Yes ☐ No If yes, explain
Include the estimated cost increase or decrease, and who will bear the cost increase or experience the cost decrease:
In curtian cases this can decrease the cost to perform work. The contractor will benefit from the decrease.

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

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

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

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

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

Are there any existing Federal Standards? ☒ Yes ☐ No If yes, list: It's in the UPC 2015 code book

Are there any differences between the proposed change and existing federal regulations?
☐ Yes ☒ No ☐ Not applicable ☐ Unknown
If yes, describe each difference & explain why each difference is needed & reasonable.

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

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

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

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

Information regarding submitting this form:

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

Information for presentation to the Committee and/or Board:

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

Information regarding Committee and/or Board function:

- The Plumbing Board or designated committee.

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

SUBMITTED BY NAME	FIRM NAME	SUBMITTER'S E-MAIL ADDRESS
Richard Blaylock PM063200	Blaylock Plumbing	DICK@BLAYLOCKPLUMBING.COM

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

ADDRESS	CITY	STATE	ZIP CODE

PHONE	SIGNATURE (original or electronic)	DATE

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

For Office/Committee Use Only Proposal received completed? ☐ Yes ☐ No

Date Proposer notified of gaps:	Mode of notification (e.g., e-mail)	Date returned to Proposer:	Date materials re-received:

4715.2570 INDIVIDUAL FIXTURE REVENTING REQUIRED.

When fixtures other than water closets discharge downstream from a water closet, each fixture connecting downstream shall be individually vented, under provisions set down in this code.

STAT AUTH: MS s 326.37 to 326.45

4715.2580 COMMON VENTS.

Subpart 1. **Individual vent as common vent.** An individual vent, installed vertically, may be used as a common vent for similar fixtures when both fixture drains connect with a vertical drain at the same level.

Subp. 2. **Fixtures connected to vertical drain at different levels.** Except for water closets or similar fixtures, a common vent may be used for two fixtures set on same floor level but connecting at different levels in the vertical drain, provided the vertical drain is one pipe diameter larger than the upper fixture drain but in no case smaller than the lower fixture drain, whichever is the larger and that both drains conform to part 4715.2620, subpart 4.

STAT AUTH: MS s 16B.59 to 16B.75; 326.37 to 326.45
HIST: 23 SR 686

4715.2600 CIRCUIT AND LOOP VENTING.

Subpart 1. **Battery venting.** A branch or waste pipe to which two, but not more than eight water closets (except blowout type) are connected in battery, may be vented by circuit or loop vent which shall be taken off in front of the last fixture connection of the battery. When the battery consists of not more than four closets, the vent shall be two inches; when the battery consists of five or six closets, the vent shall be 2-1/2 inches; and when the battery consists of seven or eight closets, the vent shall be three inches. In addition, lower floor branches shall be provided with a relief vent which shall be the same size as the branch vent, taken off in front of the first fixture connection of the battery. When lavatories, or similar fixtures discharge into such branches, each vertical branch from such fixtures shall be provided with a continuous vent. When closets are installed back to back, such installation shall be as per subpart 2 or 4.

Subp. 2. **Dual branches.** When parallel horizontal branches serve a total of eight water closets (four on each branch), each branch shall be provided with a relief vent at a point between the two most distant water closets. When fixtures such as lavatories discharge into the horizontal branch drain, each such fixture shall be vented.

Subp. 3. **Vent connections.** When the circuit, loop, or relief vent connections are taken off the horizontal branch, the vent branch connection shall be taken off at a vertical angle or from the top of the horizontal branch.

Subp. 4. **Fixtures back-to-back in battery.** When fixtures are connected to one horizontal branch through a double wye or a sanitary cross in a vertical position, a common vent for each two fixtures back-to-back or double connection shall be provided. The common vent shall be installed in a vertical position as a continuation of the double connection.

STAT AUTH: MS s 16B.59 to 16B.75; 326.37 to 326.45
HIST: 23 SR 686

4715.2610 FIXTURES BACK-TO-BACK.

Two fixtures set back-to-back, within the distance allowed between a trap and its vent, may be served with one continuous soil or waste-vent pipe, provided that each fixture wastes separately into an approved double fitting, having inlet openings at the same level. (See part 4715.2580, subpart 2.)

STAT AUTH: MS s 326.37 to 326.45

4715.2620 FIXTURE VENTS.

Subpart 1. **Distance of trap from vent.** Each fixture trap shall have a protecting vent so located that the slope and the developed length in the fixture drain from the trap weir to the vent fitting are within the requirements set forth in subpart 4.

Subp. 2. **Trap dip.** The vent pipe opening from a soil or waste pipe, except for water closets and similar fixtures, shall not be below the weir of the trap.

Subp. 3. **Crown venting limitation.** No vent shall be installed within two pipe diameters of the trap weir.

Subp. 4. **Distance of fixture trap from vent.**

Size of Fixture Drain, Inches	Distance Trap to Vent
1-1/4	2 ft 6 in
1-1/2	3 ft 6 in
2	5 feet
3	6 feet
4	10 feet

Note: The developed length between the trap of the water closet or similar fixture and its vent shall not exceed four feet.

STAT AUTH: MS s 326.37 to 326.45

4715.2630 VENTS FOR FIXTURE TRAP BELOW TRAP DIP.

Fixture drains shall be vented within the hydraulic gradient between the trap outlet and vent connection, but in no case shall the unvented drain exceed the distance provided for in part 4715.2620, subpart 4.

STAT AUTH: MS s 326.37 to 326.45

908.2.1 Vent Connection. The dry vent connection to the wet vent shall be an individual vent for the bidet, shower, or bathtub. One or two vented lavatory(s) shall be permitted to serve as a wet vent for a bathroom group. Only one wet-vented fixture drain or trap arm shall discharge upstream of the dry-vented fixture drain connection. Dry vent connections to the horizontal wet vent shall be in accordance with Section 905.2 and Section 905.3.

908.2.2 Size. The wet vent shall be sized based on the fixture unit discharge into the wet vent. The wet vent shall be not less than 2 inches (50 mm) in diameter for 4 drainage fixture units (dfu) or less, and not less than 3 inches (80 mm) in diameter for 5 dfu or more. The dry vent shall be sized in accordance with Table 702.1 and Table 703.2 based on the total fixture units discharging into the wet vent.

908.2.3 Trap Arm. The length of the trap arm shall not exceed the limits in Table 1002.2. The trap size shall be in accordance with Section 1003.3. The vent pipe opening from the horizontal wet vent, except for water closets and similar fixtures, shall not be below the weir of the trap.

908.2.4 Water Closet. The water closet fixture drain or trap arm connection to the wet vent shall be downstream of fixture drain or trap arm connections to the horizontal wet vent.

908.2.5 Additional Fixtures. Additional fixtures shall discharge downstream of the wet vent system and be conventionally vented. Only the fixtures within the bathroom group shall connect to the wet-vented horizontal branch.

909.0 Special Venting for Island Fixtures.

909.1 General. Traps for island sinks and similar equipment shall be roughed in above the floor and shall be permitted to be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye branch immediately below the floor and extending to the nearest partition and then through the roof to the open air, or shall be permitted to be connected to other vents at a point not less than 6 inches (152 mm) above the flood-level rim of the fixtures served. Drainage fittings shall be used on the vent below the floor level, and a slope of not less than ¼ inch per foot (20.8 mm/m) back to the drain shall be maintained. The return bend used under the drainboard shall be a one-piece fitting or an assembly of a 45 degree (0.79 rad), a 90 degree (1.57 rad), and a 45 degree (0.79 rad) elbow in the order named. Pipe sizing shall be as elsewhere required in this code. The island sink drain, upstream of the returned vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

910.0 Combination Waste and Vent Systems.

910.1 Where Permitted. Combination waste and vent systems shall be permitted where structural conditions preclude the installation of conventional systems as otherwise prescribed by this code.

910.2 Approval. Construction documents for each combination waste and vent system shall first be approved by the Authority Having Jurisdiction before a portion of such system is installed.

910.3 Vents. Each combination waste and vent system, as defined in Chapter 2, shall be provided with a vent or vents adequate to ensure free circulation of air. A branch exceeding 15 feet (4572 mm) in length shall be separately vented in an approved manner. The area of a vent installed in a combination waste and vent system shall be not less than one-half the inside cross-sectional area of the drain pipe served. The vent connection shall be downstream of the uppermost fixture.

910.4 Size. Each waste pipe and each trap in such a system shall be not less than two pipe sizes exceeding the sizes required by Chapter 7 of this code, and not less than two pipe sizes exceeding a fixture tailpiece or connection.

910.5 Vertical Waste Pipe. No vertical waste pipe shall be used in such a system, except the tailpiece or connection between the outlet of a plumbing fixture and the trap. Such tailpieces or connections shall be as short as possible, and in no case shall exceed 2 feet (610 mm).

Exception: Branch lines shall be permitted to have 45 degree (0.79 rad) vertical offsets.

910.6 Cleanouts. An accessible cleanout shall be installed in each vent for the combination waste and vent system. Cleanouts shall not be required on a wet-vented branch serving a single trap where the fixture tailpiece or connection is not less than 2 inches (50 mm) in diameter and provides ready access for cleaning through the trap.

910.7 Fixtures. No water closet or urinal shall be installed on such a system. Other one, two, or three unit fixtures remotely located from the sanitary system and adjacent to a combination waste and vent system shall be permitted to be connected to such system in the conventional manner by means of waste and vent pipes of regular sizes, providing that the two pipe size increase required in Section 910.4 is based on the total fixture unit load connected to the system.

See Appendix B of this code for explanatory notes on the design of combination waste and vent systems.

911.0 Circuit Venting.

911.1 Circuit Vent Permitted. A maximum of eight fixtures connected to a horizontal branch drain shall be permitted to be circuit vented. Each fixture drain shall connect horizontally to the horizontal branch being circuit vented. The horizontal branch drain shall be classified as a vent from the most downstream fixture drain connection to the most upstream fixture drain connection to the horizontal branch.

911.1.1 Multiple Circuit-Vented Branches. Circuit-vented horizontal branch drains are permitted to be con-

nected together. Each group of a maximum of eight fixtures shall be considered a separate circuit vent and shall be in accordance with the requirements of this section.

911.2 Vent Size and Connection. The circuit vent shall be not less than 2 inches (50 mm) in diameter, and the connection shall be located between the two most upstream fixture drains. The vent shall connect to the horizontal branch on the vertical. The circuit vent pipe shall not receive the discharge of soil or waste.

911.3 Slope and Size of Horizontal Branch. The slope of the vent section of the horizontal branch drain shall be not more than 1 inch per foot (83.3 mm/m). The entire length of the vented section of the horizontal branch drain shall be sized for the total drainage discharge to the branch.

911.3.1 Size of Multiple Circuit Vent. Multiple circuit vented branches shall be permitted to connect on the same floor level. Each separate circuit-vented horizontal branch that is interconnected shall be sized independently in accordance with Section 911.3. The downstream circuit-vented horizontal branch shall be sized for the total discharge into the branch, including the upstream branches and the fixtures within the branch.

911.4 Relief Vent. A 2 inch (50 mm) relief vent shall be provided for circuit-vented horizontal branches receiving the discharge of four or more water closets and connecting to a drainage stack that receives the discharge of soil or waste from upper horizontal branches.

911.4.1 Connection and Installation. The relief vent shall connect to the horizontal branch drain between the stack and the most downstream fixture drain of the circuit vent. The relief vent shall be installed on the vertical to the horizontal branch.

911.4.2 Fixture Drain or Branch. The relief vent is permitted to be a fixture drain or fixture branch for a fixture located within the same branch interval as the circuit-vented horizontal branch. The discharge to a relief vent shall not exceed 4 fixture units.

911.5 Additional Fixtures. Fixtures, other than the circuit-vented fixtures, are permitted to discharge to the horizontal branch drain. Such fixtures shall be located on the same floor as the circuit-vented fixtures and shall be either individually or common vented.

912.0 Engineered Vent System.

912.1 General. The design and sizing of a vent system shall be permitted to be determined by accepted engineering practices. The system shall be designed by a registered design professional and approved in accordance with Section 301.5.

912.2 Minimum Requirements. An engineered vent system shall provide protection of the trap seal in accordance with Section 901.3.