

**Plumbing Board  
Meeting Minutes  
January 20, 2015 at 9:30 a.m.  
Minnesota Room – Department of Labor and Industry  
443 Lafayette Road North, St. Paul, MN 55155**

**Members**

John Parizek (Chair)  
Scott Eggen  
Jim Kittelson  
Larry Justin  
John Flagg  
Ron Thompson  
Phillip Sterner  
Jim Lungstrom  
Grant Edwards  
Mike McGowan  
Jeff Brown

**Members Absent**

Joe Beckel  
Pete Moulton

**DLI Staff & Visitors**

Commissioner Ken Peterson  
Wendy Legge (Chief Gen. Counsel, DLI)  
Suzanne Todnem (DLI)  
Cathy Tran (DLI)  
Jim Peterson (DLI)  
Lyndy Lutz (DLI)  
Gary Thaden (MMCA)  
Matt Marciniak (IAPMO)  
Richard Hauffe (ICC)  
Gary Ford (Metro Testing)  
Brian Noma (MDH)  
Tim Power (MNLA)  
Tara Adams (Seaton, Peters & Revnew)  
Doug Seaton (Seaton, Peters & Revnew)  
Craig Johnson (Leidus Engineering)  
Chuck Olson (DLI)  
Brad Jensen (DLI)  
Chris Nelson (KFI)  
David Rogge (PHCC)  
Carl Crimmins (PHCC)  
David Paulson (Water Control Corporation)  
Scott Thompson (MN Plumbing Training)  
Brian Soderholm (Soderholm/WCC)

**I. Call to Order**

The meeting was called to order by Chair Parizek at 9:35 a.m. Introductions and housekeeping announcements were made. Attendance was taken; a quorum was met with 10 of 12 members present. Jeff Brown introduced himself to the Board – he is a code instructor representing Duluth.

**II. Approval of Meeting agenda**

A motion was made by Sterner, seconded by Justin, to approve the agenda with the following change: Add procedure for variance request, to follow item B. The vote was unanimous with 12 of 12 votes; the motion carried.

### III. Approval of Previous Meeting Minutes

#### A. Plumbing Board Minutes – October 21, 2014

**A motion was made by Kittelson, seconded by Flagg, to approve the Minutes as presented. The vote was unanimous with 11 of 12 votes and one abstention (McGowan); the motion carried.**

### IV. Regular Business

Approval of Expense Reports – Parizek approved the expenses as presented.

Legge noted that since Gale Mount resigned from the Board, a two-thirds majority vote would require 8 of the 12 members.

### V. Committee Reports

#### A) Department Updates

##### i. Commissioner Peterson

The Commissioner thanked the Board for their service and said he appreciated all their hard work.

##### ii. Rulemaking – Construction Codes

Todnem provided an update: Effective Jan. 24, 2015: Chapter 1300 (Administration), Chapter 1307 (Elevators), Chapter 1309 (Residential), Chapter 1311 (Existing Buildings), Chapter 1341 (Accessibility), and Chapter 1346 (Mechanical & Fuel Gas Code). Effective Feb. 14: Chapter 1303 (Radon Control Methods), Chapter 1322 (Residential Energy Code). Chapter 1305 (Building Code) will be forwarded to the Administrative Law Judge for review. For more detailed information on codes go to: <http://www.dli.mn.gov/cclcd/codes15.asp>

Tran discussed new sprinkler requirements for one-family 4,500 square foot or larger homes. For more detailed information visit:

<http://www.dli.mn.gov/CCLD/Plumbing.asp>

#### B) Executive Committee

##### i. Meeting Report

Discussed items addressed by the Board.

##### ii. Report of Chair

###### 1. North Dakota Plumbing Board

Chair Parizek met with North Dakota Plumbing Board regarding Continuing Education (CE) requirements. North Dakota requires 3 hours to renew licenses; Minnesota requires 16 hours and the department is working with ND to find a solution to CE requirements for ND residents with a MN reciprocal license. There are no concerns with CE requirements/reciprocal license renewals between South Dakota and Minnesota.

## 2. Manitou Ridge Golf Course

The Petition for Variance was reviewed at the last Board meeting and Parizek sent a request to the petitioner for additional information. This will be brought back to the Board for a final decision once the requested information is received.

## 3. Water Efficiency MN / DNR

**Parizek referred to Attachment A.** DNR expressed concerns with water availability in certain parts of Minnesota. Water quality is either poor or flow volumes are low and alternatives are being reviewed.

### C) Construction Codes Advisory Council

The next meeting to be held March 19, 2015 (tentative) @ 10:00 a.m. in the Minnesota Room at the Department of Labor.

## I. Special Business

### A) Request for Interpretation (RFI) File #PB0082; 4715.0100, Subpart 81 and 83, submitted by Jim Gander (see Attachment B)

Jim Gander addressed the Board and summarized his dispute as detailed in Attachment B.

Gander asked the Board: “Does the plumbing system, drainage and vent pipes, that includes the potable water supplies and distribution pipes, all plumbing fixtures and traps, all drainage and vent pipes, and all building drains, that connect exclusively to the “private” use fixture constitute a system that serves the public?”

A motion was made by Justin, that yes, it does serve the public; however, the motion was not seconded.

Minnesota Plumbing Code 4715.0100, Subpart 81 was discussed regarding distinguishing between public and private use. Parizek said the Board is being asked to interpret something that they have no authority over.

**A motion was made by Flagg, seconded by Edwards, that the Board shall respond to Mr. Gander by saying that his Request for Interpretation is not a request for an interpretation of the plumbing code; therefore, the Board has no authority to issue any interpretation. The majority vote ruled with 9 for and 3 opposed; the motion carried.**

### B) Petition for Variance – Margaret A. Cargill Philanthropies (Attachment C)

Chris Nelson addressed the Board. He is with KFI and is representing Margaret A. Cargill. He referred to the packet and letter in Attachment C. Minnesota Statutes 14.056 requirements were discussed, see below:

**2014 Minnesota Statutes**  
**14.056 RULE VARIANCES; PROCEDURES.**

**Subdivision 1. Contents of variance petition.**

A petition for a variance under section [14.055](#) must include the following information:

- (1) the name and address of the person or entity for whom a variance is being requested;
- (2) a description of and, if known, a citation to the specific rule for which a variance is requested;
- (3) the variance requested, including the scope and duration of the variance;
- (4) the reasons that the petitioner believes justify a variance, including a signed statement attesting to the accuracy of the facts asserted in the petition;
- (5) a history of the agency's action relative to the petitioner, as relates to the variance request;
- (6) information regarding the agency's treatment of similar cases, if known; and
- (7) the name, address, and telephone number of any person the petitioner knows would be adversely affected by the grant of the petition.

**Subd. 2. Fees.**

(a) An agency may charge a petitioner a variance fee. The fee is:

- (1) \$10, which must be submitted with the petition, and is not refundable; or
- (2) the estimated cost for the agency to process the variance petition, if the agency estimates that the cost will be more than \$20.

(b) If an agency intends to charge costs to the petitioner under paragraph (a), clause (2):

- (1) the agency and the petitioner must agree on the costs and the timing and manner of payment;

- (2) for purposes of the 60-day limit in subdivision 5, the petition is not complete until there is agreement with the petitioner on the costs and timing and manner of payment; and
- (3) if the payment made by the petitioner exceeds the agency's actual costs, the agency must refund the overpayment to the petitioner. The payment is not otherwise refundable.

(c) Proceeds from fees charged under this subdivision are appropriated to the commissioner of management and budget. The commissioner of management and budget may transfer amounts to the fund and agency that supports the program that is the subject of the variance petition when the agency makes a request for the fee proceeds and the commissioner of management and budget determines the agency needs the fee proceeds to implement this section. Annually, the commissioner of management and budget must transfer proceeds from fees that are not transferred to agencies to the general fund.

**Subd. 3. Notice.**

In addition to any notice required by other law, an agency shall make reasonable efforts to ensure that persons or entities who may be affected by the variance have timely notice of the request for a variance. The agency may require the petitioner to serve notice on any other person or entity in the manner specified by the agency.

**Subd. 4. Additional information.**

*Before granting or denying a variance petition, an agency may request additional information from the petitioner.*

**Subd. 5. Order; timing.**

*An agency must issue a written order granting or denying a variance and specifying the scope and period of any variance granted. The order must contain an agency statement of the relevant facts and the reasons for the agency's action. The agency shall grant or deny a variance petition as soon as practicable, and within 60 days of receipt of the completed petition, unless the petitioner agrees to a later date. Failure of the agency to act on a petition within 60 days constitutes approval of the petition.*

**Subd. 6. Order; delivery.**

*Within five days of issuing a variance order, the agency shall send the order to the petitioner and to any other person entitled to notice under other law.*

**Subd. 7. Record.**

*An agency shall maintain a record of all orders granting and denying variances under section [14.055](#). The records must be indexed by rule and be available for public inspection to the extent provided in chapter 13.*

**The Petition for Variance from Margaret A. Cargill was reviewed by the Board for completeness per Minnesota Statute 14.056 Rule Variances; Procedures, Items 1 through 7 were reviewed as follows:**

- 1) *(1) the name and address of the person or entity for whom a variance is being requested:*  
**Complete**
- 2) *a description of and, if known, a citation to the specific rule for which a variance is requested -*  
**Complete**
- 3) *the variance requested, including the scope and duration of the variance -*  
**The intent is to develop the performance during one season. The Owner is willing to share information – performance, issues, testing parameters of the water – information that addresses “does the system work and are they able to maintain growing”. Legge asked if the petitioner was asking for a temporary variance for one year only or a permanent variance. Chris said permanents as their intent is to install the system and use on an ongoing basis.**
- 4) *the reasons that the petitioner believes justify a variance, including a signed statement attesting to the accuracy of the facts asserted in the petition -*  
**Legge said she doesn't see a statement from someone with legal authority from Margaret A. Cargill attesting to the accuracy of all the facts included with the petition.**
- 5) *a history of the agency's action relative to the petitioner, as relates to the variance request –*  
**Has the department received any plans for review for this project? Tran said no, the department has an agreement with the City of Eden Prairie that the city would do the plan review. Jim Lungstrom noted that the City could request that DLI do the plan review. Parizek asked if the City would handle all plan reviews if the variance**

was granted and Nelson replied yes. Nelson replied that he wasn't aware if the city had done other plan reviews on gray water and drip irrigation.

- 6) (6) information regarding the agency's treatment of similar cases, if known; and -  
**Addressed**
- 7) the name, address, and telephone number of any person the petitioner knows would be adversely affected by the grant of the petition – **Nelson stated there are no adjacent properties that would be affected. He added that there is a low grade wetland to the west but they aren't irrigating out to that area.**

Legge referred to **Subd. 3 Notice.**

*In addition to any notice required by other law, an agency shall make reasonable efforts to ensure that persons or entities who may be affected by the variance have timely notice of the request for a variance. The agency may require the petitioner to serve notice on any other person or entity in the manner specified by the agency.* - **Parizek made a request that the Board could ask that Notice be given and also that fees could be imposed.**

**Parizek referred to Subd. 2 Fees.** This is one of the things that the Board would be concerned with is how everything is going to be tied back into the sewer system during the off season. Is there any potable water if there isn't gray water? The city has a rain water collection system and this system does not have a potable water connection. The same would be said for the gray water – there wouldn't be a connection to it.

**Parizek summarized the following items needing additional information:**

- 1) Is it going to be a permanent or temporary? The operation of the system, one season or continuing for the length of the variance? The accuracy of the letter from Margaret Cargill – is this from someone with legal authority? Has the City of Eden Prairie dealt with this type of issue before? Chris's assumption is that they have not although they have done rain water reclamation.
- 2) Subd. 3 Notice – other affected agencies – Department of Health would want to have input and possibly the Interagency Workgroup. Parizek said he would determine if other agencies needed to be contacted.
- 3) Nelson asked the Board for guidance or certain stipulations that would help the variance get approved.
- 4) Legge referred to Minnesota Statute 14.055, in particular Subdivision 4:  
*2014 Minnesota Statutes  
14.055 RULE VARIANCES; STANDARDS.  
§ Subdivision 1. Authority.  
A person or entity may petition an agency for a variance from a rule adopted by the agency, as it applies to the circumstances of the petitioner.*

*§ Subd. 2. General terms.*

*The following general terms apply to variances granted pursuant to this section:*

- (1) the agency may attach any conditions to the granting of a variance that the agency determines are needed to protect public health, safety, or the environment;*

*(2) a variance has prospective effect only;*

*(3) conditions attached to the granting of a variance are an enforceable part of the rule to which the variance applies; and*

*(4) the agency may not grant a variance from a statute or court order.*

**§ Subd. 3. Mandatory variances.**

*An agency shall grant a variance from a rule as applied to the particular circumstances of the petitioner, if the agency finds that the application of the rule, as applied to the circumstances of that petitioner, would not serve any of the purposes of the rule.*

**§ Subd. 4. Discretionary variances.**

***An agency may grant a variance if the agency finds that:***

***(1) application of the rule to the petitioner would result in hardship or injustice;***

***(2) variance from the rule would be consistent with the public interest; and***

***(3) variance from the rule would not prejudice the substantial legal or economic rights of any person or entity.***

***Legge referred to Subd. 4 and asked for clarification of:***

- a. Has there been information provided on why application of these rules would result in hardship or injustice?
- b. Legge referred to the RESOLUTION that was passed at the last meeting regarding variance requests (as shown below) and concluded that Chair Parizek has the authority to take action as identified below:

**RESOLUTION**

*It is hereby resolved that the Plumbing Board Chair is authorized to take the following actions in connection with a petition for a variance submitted to the Board under Minnesota Statutes § 14.055:*

- 1. Require the Petitioner to submit additional information in connection with the Petition if the Chair believes that the Petition does not contain all information required by Minnesota Statutes § 14.056, subdivision 1, or if the Chair believes that the Board needs additional information in order to determine whether to grant or deny the requested variance;*
- 2. Require the Petitioner to serve notice, in the manner determined by the Chair, on any person or entity who may be affected by the variance. This includes not only persons or entities listed by the Petitioner under Minnesota Statutes § 14.056, subdivision 1(7), but also any other person or entity who, in the opinion of the Chair, may be affected by the variance;*
- 3. Enter into an agreement with the Petitioner to extend the 60 day deadline for the Board to grant or deny the variance; and*

4. *Charge the Petitioner a variance fee in accordance with section 14.056, Subd. 2, including entering into an agreement on the costs and the timing and manner of payment.*

Parizek said he would provide information to Nelson on issues that needed to be addressed.

**C) Edits to Chapter 4714 / Related SONAR (see Attachment D)**

Todnem referred to Attachment D and hand-written changes.

**A motion was made by McGowan, seconded by Flagg, to accept changes on pages 4, 54, and 58 of Revisor's RD4139 dated 10/31/14 (Attachment D). The vote was unanimous; the motion carried.**

**VII. Complaints**

Parizek has addressed complaints regarding CE requirements and backflow certifications and the Board will be copied. Licensing enforcement issues were also received and have been addressed.

**VIII. Open Forum**

**Gary Ford, Metro Testing, RPZ rebuilds due every 5 years**

Ford discussed rebuilds every 5 years and testing every year and noted that this issue was discussed at previous board meetings. Parizek said it has been brought to the Board previously and the Board made the decision not to adopt. Legge said if the Board has already made a decision not to adopt the amendment then by Statute if you didn't get a 2/3 vote to go forward with the amendment then it cannot be included in the current rulemaking.

Ford added that the online registration the state is requiring them to do would cost \$25,000 to do an online 4-hour course. He asked if the Board could look at requirements/restrictions due the high cost.

**Richard Hauffe, ICC (See Attachment E)**

Since you are now in the rulemaking stage you may believe the UPC is suitable and 4 years is a long time to study such an endeavor; however, this is a critically important occasion. A new plumbing code has the greatest reach into every new house and new commercial building constructed in Minnesota and affects everyone. He asked the Board to give the decision to adopt the UPC the right focus and diligence and give the International Plumbing Code (IPC) due consideration and study to determine its compatibility as the model code to replace the State Plumbing Code. He believed that only the UPC was truly considered and that the IPC was not.

**Doug Seaton, ICC**

Reiterated what Hauffe stated. Asked the Board to please reconsider and give full consideration to IPC. He urged the Board, the department and the Governor's office to delay adoption of the UPC until review and full consideration be given to the IPC.

Suzanne Todnem asked if one or two examples could be given by IPC showing their code did not get sufficient treatment in April 2011. Seaton replied that he could turn to the result and say it speaks for itself. He doesn't see a record of the IPC being considered and he doesn't believe the Board can point to a line by line comparison of the two codes (UPC vs IPC) and their particular take on a given issue. He doesn't think there was an analysis of the two codes; however, he said he can't point to specific technical requirements of the two codes. This should and could be something set aside by consideration by a type of study commission.

**Legge referred to MN 326B.435, Subd. 6, Item (c) and asked Seaton what legal authority, in his opinion, is there for the Board to reconsider their decision? Seaton said if the Board were to stop and say wait, we've heard more information and we'd like to backtrack on our position and reverse course and vote accordingly. He thinks this is the way the law works and that there would be authority to do this. He thinks there could be two codes. The Board noted that having two different codes in different counties within the same state has the potential to create numerous problems.**

**Justin referred to meeting minutes from April 19, 2011 and said there were multiple votes, with many failing, and the Board decided to move forward with the UPC by a two-thirds vote. He added that a lot of discussion took place. Legge added that the Board decided to go forward with amendments to the UPC by a two-thirds vote. Seaton said there should have been more consideration in detail of the codes before the Board took or concluded their final votes and they are not saying that the Board did not pass a two-thirds majority vote.**

*Subd. 6. Officers, quorum, voting.*

*(a) The board shall elect annually from its members a chair, vice-chair, and secretary. A quorum of the board shall consist of a majority of members of the board qualified to vote on the matter in question. All questions concerning the manner in which a meeting is conducted or called that is not covered by statute shall be determined by Robert's Rules of Order (revised) unless otherwise specified by the bylaws.*

*(b) Except as provided in paragraph (c), each plumbing code amendment considered by the board that receives an affirmative two-thirds or more majority vote of all of the voting members of the board shall be included in the next plumbing code rulemaking proceeding initiated by the board. If a plumbing code amendment considered, or reconsidered, by the board receives less than a two-thirds majority vote of all the voting members of the board, the plumbing code amendment shall not be included in the next plumbing code rulemaking proceeding initiated by the board.*

***(c) If the plumbing code amendment considered by the board is to replace the Minnesota Plumbing Code with a model plumbing code, then the amendment may only be included in the next plumbing code rulemaking proceeding if it receives an affirmative two-thirds or more majority vote of all the voting members of the board.***

*(d) The board may reconsider plumbing code amendments during an active plumbing code rulemaking proceeding in which the amendment previously failed to receive a two-thirds*

*majority vote or more of all the voting members of the board only if new or updated information that affects the plumbing code amendment is presented to the board. The board may also reconsider failed plumbing code amendments in subsequent plumbing code rulemaking proceedings.*

*(e) Each proposed rule and rule amendment considered by the board pursuant to the rulemaking authority specified in subdivision 2, paragraph (a), clauses (5) or (6), that receives an affirmative majority vote of all the voting members of the board shall be included in the next rulemaking proceeding initiated by the board. If a proposed rule or rule amendment considered, or reconsidered, by the board receives less than an affirmative majority vote of all the voting members of the board, the proposed rule or rule amendment shall not be included in the next rulemaking proceeding initiated by the board.*

*(f) The board may reconsider proposed rules or rule amendments during an active rulemaking proceeding in which the amendment previously failed to receive an affirmative majority vote of all the voting members of the board only if new or updated information that affects the proposed rule or rule amendment is presented to the board. The board may also reconsider failed proposed rules or rule amendments in subsequent rulemaking proceedings.*

**Phil Raines regarding Jim Gander's RFI**

Phil Raines, Associated Builders and Contractors, addressed the Board regarding RFI by Jim Gander, previously discussed and determined by the board that the Request for Interpretation was not a request for an interpretation of the plumbing code and the Board ruled they have no authority to issue any interpretation.

**IX. Board Discussion**

Full time plumbing inspectors for municipalities, enforcement issues, and plumbing board recommendations were addressed. Parizek noted in the future the Board will need to review licensing/registrations/certifications.

**X. Announcements**

Next regularly scheduled meetings – all meetings will be held in the Minnesota Room at 9:30 a.m. Executive Committee meetings occur at 8:00 a.m., prior to each regular meeting.

- i. April 21, 2015
- ii. July 21, 2015
- iii. October 20, 2015

**XI. Adjournment at 2:15 p.m.**

Respectfully submitted,

*Phillip Sterner*  
Phillip Sterner



# Attachment A

## Minnesota Department of Natural Resources

### Operations Services Division

Peter K. Paulson  
500 Lafayette Road  
St. Paul, Minnesota 55155-4029  
651.259.5486 TTY: 651.296.5484 Fax: 651.297.5818  
Peter.Paulson@state.mn.us

December 29, 2014

To:

**Jim Lungstrom**  
Assistant Director  
Construction Codes and Licensing  
Dept. of Labor and Industry  
jim.lungstrom@state.mn.us

**Cathy Tran**  
Plumbing Plan Review Supervisor  
Dept. of Labor and Industry  
cathy.tran@state.mn.us

**Jim Peterson**  
Plumbing Standards Representative  
Dept. of Labor and Industry  
jim.peterson@state.mn.us

**John Parizek**  
Exec/Board Chair  
Minnesota Plumbing Board  
jparizek@dunwoody.edu

**Ron Thompson**  
Hydrologist Supervisor  
Dept. of Health  
ronald.thompson@state.mn.us

From:

**Peter Paulson**  
DNR Principal Architect

Subject: Water Efficiency Strategies for New DNR Buildings

I am contacting you per a recent phone conversation with Jim Lungstrom regarding a strong DNR interest to pursue and implement innovative water efficiency strategies in our new buildings; specifically, non-potable graywater reuse and/or rainwater harvesting treatment systems for toilet flushing.

It's our understanding that use of graywater systems for toilet flushing is not necessarily compliant with current MN plumbing codes, and that the MN Plumbing Board has not yet adopted rules regulating their use. However the DNR conservation mission coupled with an increasing focus on water efficiency as required by Governor Dayton's Executive Order 11-13 (paragraph 1.d) and sustainable building guidelines such as B3 and LEED are compelling us to pursue innovation.

Many DNR facilities and worksites (especially state park campgrounds) are located in areas where municipal services are not available, and use of well water and onsite septic systems in our buildings is therefore quite common. Use of well water can deplete aquifers, and aquifer depletion can cause unintended negative consequences.

Reductions in potable (well) water use can reduce the size, impact and cost of onsite septic systems, many of

which are located by necessity within highly sensitive DNR sites (such as state park campgrounds) where natural and cultural resource protection is an imperative.

Several projects scheduled to begin construction in 2015 better illustrate our concerns:

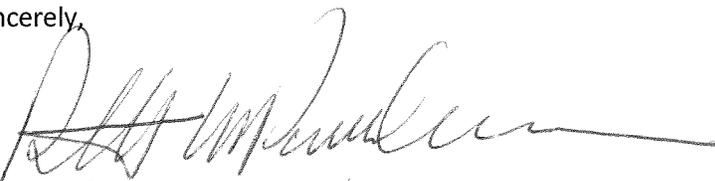
- Lake Vermilion State Park Campground – First phase development will include two campground sanitation buildings, an RV dumpstation, and onsite septic systems. Well water of sufficient quantity and quality is not available to fulfill operational needs due to the unique geology/hydrology of the site (bedrock and wetlands), and sourcing potable water from the town of Soudan (4+ miles of force main) is not practical or cost effective. Potable water for this and subsequent phases will be sourced from Lake Vermilion, with treatment and storage facilities installed as part of phase-one. Suitable terrain for onsite septic systems is extremely limited.
- Whitewater State Park Campground – New campground in a previously undeveloped area of the park that includes two campground sanitation buildings, several camper cabins and an onsite septic system. Well water and treatment is part of the project. B3 guidelines will be used for the camper cabins, and the new campground is directly adjacent to a 'protected water' (Whitewater River).
- Glenwood Area Office – New office project for DNR Fish and Wildlife division staff will use the B3 guidelines and will seek LEED gold certification status, including implementing all requirements for water use reduction.

It's our intention to implement innovative water efficiency strategies at all these new facilities, and we are specifying low-flow/'WaterSense' fixtures and devices such as toilets, faucets and shower heads; and also specifying waterless urinals. But quite simply, we appear to have run out of code compliant options for further reductions of potable water use, despite our intentions.

If you are all agreeable, I'd like to meet and begin a dialogue to address DNR questions, concerns and intentions as soon as is convenient; either at DLI or DNR central offices.

Please feel free to contact me via phone or email.

Sincerely,



**Peter Paulson, ALA, CSI, LEED Green Assoc**

cc: Erika Rivers, Dana Vanderbosch, Deb Boyd, Kent Lokkesmoe, Kath Ouska, Dave Sobania, Trent Luger, Steve Kummer, Linda Michie, Patrick Litchy

## Attachment B -

January 9, 2015

Jim Gander  
Superior Companies of Minnesota Inc.  
DBA: Superior Mechanical  
1244 – 60<sup>th</sup> Avenue NW  
Rochester, MN 55901

Mr. Gander,

The Plumbing Board has received your Request for Interpretation (RFI) of Minnesota Rules, part 4715.0100, subpart 81 and subpart 83. I will contact Mr. Durenberger to confirm a conflict with your interpretation and tentatively place your RFI on the agenda for the next meeting of the Plumbing Board. The meeting is currently scheduled for January 20, 2015 at the Department of Labor and Industry, 443 Lafayette Road North, St. Paul, MN. The meeting will begin at 9:30 a.m. in the Minnesota Room. I will be in contact with you as the date approaches to confirm.

Respectfully,

John Parizek, Chair  
Plumbing Board

## Plumbing Board Request for Interpretation

PRINT IN INK or TYPE

NAME OF SUBMITTER <i>Jim Gardner</i>	Rule(s) to be interpreted (e.g., 4715.0330) <i>4715.0100 Subpart 81 &amp; 83</i>
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The Minnesota Plumbing Code (MN Rules, Chapter 4715) is available at [www.dli.mn.gov/CCLD/PlumbingCode.asp](http://www.dli.mn.gov/CCLD/PlumbingCode.asp)  
 Has a request for interpretation been submitted to Department of Labor and Industry (DLI) staff, either as a verbal request or a written request?  Yes  No

If "No," contact DLI staff at 651-284-5187. The DLI is responsible for administration and interpretation of the Minnesota Plumbing Code, and all requests must be processed and provided a DLI interpretation before being referred to the Plumbing Board. This form is intended to be used to request an interpretation from the Plumbing Board's Code Interpretation Committee only as a resolution of dispute with DLI interpretation.

CODE/RULE to be interpreted: <i>4715.0100 Subpart 81 &amp; 83</i>	NAME OF DLI employee gave interpretation: <i>Charles Nurenberger unidentified legal counsel</i>	DATE interpretation originally requested: <i>Approx March 2014</i>
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Provide a copy of the DLI interpretation with this request (a copy must be provided as reference).

Is there a local dispute with an Inspector of other official?  <input type="checkbox"/> Yes <input type="checkbox"/> No	If Yes, state the name or type of official
---	--

State the circumstances of the initial dispute:

*See Attached*

Explain what you believe the Code to read and why you disagree with the interpretation given to you by DLI staff.

*See Attached*

List any other information you would like the Committee to consider:

*See Attached*

**Information regarding submitting this form:**

- Submit any supporting documentation to be considered electronically to [DLI.CCLDBOARDS@state.mn.us](mailto:DLI.CCLDBOARDS@state.mn.us). Once your Request For Interpretation form has been received, it will be assigned a file number. Please reference this file number on any correspondence and supplemental submissions.

**Information for presentation to the Committee:**

- You will be notified with the date of the Committee Meeting in which your Request For Interpretation will be heard.
- Limit presentations to 5 minutes or less.
- Be prepared to answer questions regarding the Code, the circumstances that led to the dispute and please bring copies of any documentation.

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

- The Code Interpretation Committee serves on behalf of the Plumbing Board to issue final interpretation.

**What you can do if you disagree with the Committee's determination:**

- If you would like to appeal the Code Interpretation Committee's determination, please notify us within thirty (30) days and it will be forwarded to the Administrative Law Judge for final interpretation.

**Office Use Only**

RFI File No.	Date Received by DLI	Dated Received by Committee	Date of Committee Meeting
Title of RFI	By:		

I understand that the Code Interpretation Committee has the authority to issue final interpretation on behalf of the Plumbing Board.

**Submitted by:**

NAME <i>JIM GANDER</i>		FIRM NAME <i>Superior Companies of Minnesota, Inc</i> <i>DBA: Superior Mechanical</i>		
ADDRESS <i>1244 60<sup>th</sup> Ave N.W.</i>		CITY <i>Rochester</i>	STATE <i>MN</i>	ZIP CODE <i>55901</i>
PHONE <i>507-289-0229</i>	SIGNATURE (original or electronic) <i>Jim Gander</i>		DATE <i>12-15-14</i>	

For Assistance or questions on completing this form, please call 651-284-5898 or 651-284-5889.

Mailing address:

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

\*\*\* Please remember to attach all necessary explanations and supporting documentation\*\*\*

**State Circumstance of the initial dispute:**

Upon inspection of another structure at the same construction site as the home in question, a state plumbing inspector asked to review the approved plans for this single family home. In accordance with DLI'S website instructions, Superior Mechanical had not submitted plans for the single family home. The inspector apparently subsequently reported his findings to his office, resulting in correspondence from Cindy Clawson. I responded within the time frame requested and a series of emails took place between Mr. Durenberger and myself.

It is my opinion that the Minnesota Plumbing Code, The Minnesota Residential Building Code, The Department of Labor and Industry's website instructions as well as other state authored and published directives disagree with Mr. Durenberger and his legal counsel's interpretation:

The final conclusion dated August 19, 2014 from Mr. Durenberger states *"Our Legal Council is adamant in defending our position that the Boyd Loge Cabin(s) does in fact **serve the public** and any plumbing work in it is subject to plan review and inspection by DLI....If you don't want to submit plans and call for inspection of the work Superior performed on the cabin, we'll have to issue an Administrative Order requiring you to do so and imposing an appropriate civil penalty."*

Not wanting an Administrative Oder on my record, and not wanting to pay a fine, I submitted the plan for review and scheduled the inspection. As of this date, several of these single family homes have followed procedure demanded by Mr. Durenberger.

**Explain what you believe the Code to read and why you disagree with the interpretation given to you by DLI staff.**

Minnesota Plumbing Code 4715.0100 Subpart 83 leaves no doubt that the fixtures on this project are "private" and are "intended for use of one family".

Minnesota Plumbing Code 4715.0100 Subpart 81 leaves no doubt that these "private" fixtures are an integral part of the *"plumbing system...includes...all plumbing fixtures and traps."*

The interpretation I desire:

Does the *"potable water supplies and distribution pipes...drainage and vent pipes...within the property lines of the premises"* that connect exclusively to the "private" fixtures constitute a *"system that serves the public"* when such fixtures and pipes clearly and exclusively *"are intended for the use of one family or an individual"*

List any other information you would like the Committee to consider:

Here are the State Authored documents I have referred to

Plumbing Code Book

4715.0100 Definitions

The following definition demonstrates the intent of the code as it defines a dwelling unit. Stating a dwelling unit (cabin, home, motel room etc.) is arranged for the use of (serving) one family or individual (not serving the public).

Subp. 43. **Dwelling Unit.**

“Dwelling unit” means one or more rooms with provision for living, sanitary, and sleeping facilities **arranged for the use of one family or individual.**

Plumbing Code Book

4715.0100 Definitions

The following two definitions demonstrate the intent of the code as it separates private bathrooms in rental spaces versus bathrooms that **serve the public** (similarity unrestricted). Again if the plumbing systems in hotel rooms and similar installations are intended to be used by one family or individual then they are not intended to **serve the public**. The definitive word in the second definition is “unrestricted”...or serving the public, seemingly meaning the private use of fixtures in the first definition are restricted...restricted for the use to serve the private residents of the home, apartment, dwelling, etc.

Subp 83. **Private or private use.**

In the classification of plumbing fixtures, “private” applies to fixtures in residences and apartments, and to fixtures in **private bathrooms of hotels, as well as similar installations** in other buildings where fixtures are intended for use of one family or individual.

Subp 84. **Public or public use.**

In the classification of plumbing fixtures, “public” applies to fixtures in general toilet rooms of schools, gymnasiums, hotels, railroad stations, bars, public comfort stations, and other installations (whether pay or free) **where fixtures are installed so that their use is similarly unrestricted.**

Minnesota Residential Code:

**1309.0202 SECTION R202, DEFINITIONS.**

**Subpart 1. Modifications.** IRC Section R202 is amended by modifying the following definitions:

**DWELLING:**

**SINGLE-FAMILY.** Any building that contains one dwelling unit used, intended, or designed to be built, used, **rented, leased, let or hired out to be occupied, or occupied for living purposes.**

**TWO-FAMILY.** Any building that contains two separate dwelling units with separation either horizontal or vertical on one lot that is used, intended, or designed to be built, used, **rented, leased, let or hired out to be occupied, or occupied for living purposes.**

International building code/Minnesota building code (commercial)

The IBC adopted by Minnesota specifically addresses public toilet facilities for spaces intended for **public utilization** (serves the public) identifying the users as customers, patrons, and visitors, (not residents). The conclusion here is that these public toilet facilities are plumbed by **plumbing systems** intended to serve the public. One can then consider that private toilet facilities use **plumbing systems** not intended to serve the public.

**PJ 2902.3 Employee and public toilet facilities.**

Customers, patrons and visitors shall be provided with public toilet facilities in structures and tenant spaces intended for public utilization. The number of plumbing fixtures located within the required toilet facilities shall be provided in accordance with Section 2902.1 for all users. Employees shall be provided with toilet facilities in all occupancies. Employee toilet facilities shall either be separate or combined employee and public toilet facilities.

DLI website Plan Review Rules and Instruction page and DLI website FAQ page:

This exert from the DLI website pages specifically excludes the necessity of plan review and inspection **plumbing systems** proposed for structures with less than five housing units.

DLI reviews proposed plumbing projects to ensure compliance with the Minnesota Plumbing Code (Minnesota Rules Chapter 4715). Plumbing plans and a fee must be submitted for modification or installation of all plumbing systems that serve the public or that serve a considerable number of persons. This includes, but is not limited to, restaurants, grocery stores, department stores, offices, warehouses, churches, hospitals, nursing homes, assisted living facilities and **housing with five units or more** (excluding townhomes built to the International Residential Code (IRC) with individual water and sewer services to each dwelling unit). The fees for plan review are required by Minnesota Statutes 32

### Trespass statutes

This Minnesota statute again defines a dwelling unit in much the same way and thereby agrees that the dwelling unit serves the individual not the public. We are also very aware that an uninvited guest (the public) trespasses when he helps himself to the bathroom of a dwelling unit even if it is a rental. While using a plumbing system in a mall, church, school, arena, etc. is not considered trespassing.

### **609.605 TRESPASS.**

#### Subdivision 1. **Misdemeanor.**

(a) The following terms have the meanings given them for purposes of this section.

(1) "Premises" means real property and any appurtenant building or structure.

(2) "Dwelling" **means the building or part of a building** used by an individual as a place of residence on either a full-time or a part-time basis.

### Opinion of attorney General Lori Swanson

This excerpt from the office of the Attorney General of Minnesota clarifies that even a landlord cannot enter a leased room or property without the permission of the renter, verifying that in fact the dwelling unit serves the family or person renting it not the public.

Generally, a landlord may only enter a tenant's unit for a "reasonable business purpose" after making an effort to give the tenant reasonable notice. (57) If a landlord violates this law, the tenant can take the landlord to court to break the lease, recover the damage deposit, and receive a civil penalty of up to \$100 per violation. (58)

Examples of a reasonable business purpose include:

1. Showing the unit to prospective tenants. (59)
2. Showing the unit to a prospective buyer or insurance agent. (60)
3. Performing maintenance work. (61)
4. Showing the unit to state or local officials (i.e., fire, housing, health, or building inspectors) inspecting the property. (62)
5. Checking on a tenant causing a disturbance within the unit. (63)
6. Checking on a tenant the landlord believes is violating the lease. (64)
7. Checking to see if a person is staying in the unit who has not signed the lease. (65)
8. Checking the unit when a tenant moves out. (66)
9. Performing housekeeping work in a senior housing unit. A senior housing unit is a building where 80 percent of the tenants are age 55 or older. (67)

It should be noted that the plumbing systems in the homes Mr. Durenberger has required us to “submit plans and call for inspection” are contracted for approximately \$7,000.00. The plan review fee, engineered drawings, required expense of the additional inspection cause an estimated \$750.00 in additional expenses. Adding 11% to the cost of these structures.

In addition, I'd like to offer one more item for consideration by the committee. Section 4625.1200 TOILET REQUIREMENTS states the following:

*“Every hotel, motel, and lodging house shall be equipped with adequate and conveniently located water closets for the accommodation of its employees and guests. Water closets, lavatories, and bathtubs or showers shall be available on each floor when not provided in each individual room. Toilet, lavatory, and bath facilities shall be provided in the ratio of one toilet and one lavatory for every ten occupants, or fraction thereof, and one bathtub or shower for every 20 occupants, or fraction thereof. Toilet rooms shall be well ventilated by natural or mechanical methods. **The doors of all toilet rooms serving the public and employees shall be self-closing.** Toilets and bathrooms shall be kept clean and in good repair and shall be well lighted and ventilated. Hand-washing signs shall be posted in each toilet room used by employees. Every resort shall be equipped with adequate and convenient toilet facilities for its employees and guests. If privies are provided they shall be separate buildings and shall be constructed, equipped, and maintained in conformity with the standards of the commissioner and shall be kept clean.”*

November 26, 2014

Jim Gander  
Superior Companies of Minnesota Inc.  
DBA: Superior Mechanical  
1244 – 60<sup>th</sup> Avenue NW  
Rochester, MN 55901

Mr. Gander,

The Plumbing Board has received your Request for Interpretation of Minnesota Rules, part 1300.0215. The Plumbing Board only has final interpretative authority with respect to the Plumbing Code. See Minnesota Statutes, section 326B.127, subdivision 5. This section states that the Commissioner of Labor and Industry has final interpretative authority applicable to all codes adopted as part of the State Building Code except for the Plumbing Code and the Electrical Code. The State Building Code is defined in Minnesota Rules, part 1300.0050. This rule also defines the Minnesota Plumbing Code as chapter 4715 of the Minnesota Rules. Therefore, your request for an interpretation of Minnesota Rules, part 1300.0215 is a request for an interpretation outside the authority of the Plumbing Board, and will not be brought forward to the Plumbing Board for review.

The Commissioner of Labor and Industry has final interpretative authority applicable to Minnesota Rules, part 1300.0215. By copy of this letter, I am referring your Request for Interpretation to Commissioner Ken Peterson.

Respectfully,

John Parizek, Chair  
Plumbing Board

cc: Commissioner Ken B. Peterson (with copy of request for interpretation)

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

## Plumbing Board Request for Interpretation

PRINT IN INK or TYPE

NAME OF SUBMITTER <i>Jim Gander</i>	Rule(s) to be interpreted (e.g., 4715.0330) <i>1300.0215 19, 135 of the Minnesota plumbing code</i>
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The Minnesota Plumbing Code (MN Rules, Chapter 4715) is available at [www.dli.mn.gov/CCLD/PlumbingCode.asp](http://www.dli.mn.gov/CCLD/PlumbingCode.asp)

Has a request for interpretation been submitted to Department of Labor and Industry (DLI) staff, either as a verbal request or a written request?  Yes  No

If "No," contact DLI staff at 651-284-5187. The DLI is responsible for administration and interpretation of the Minnesota Plumbing Code, and all requests must be processed and provided a DLI interpretation before being referred to the Plumbing Board. This form is intended to be used to request an interpretation from the Plumbing Board's Code Interpretation Committee only as a resolution of dispute with DLI interpretation.

CODE/RULE to be interpreted: <i>1300.0215</i>	NAME OF DLI employee gave interpretation: <i>Charles Duxenberger + Unidentified legal counsel</i>	DATE interpretation originally requested: <i>Approx March 2014</i>
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Provide a copy of the DLI interpretation with this request (a copy must be provided as reference).

Is there a local dispute with an Inspector of other official? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If Yes, state the name or type of official
--	--

State the circumstances of the initial dispute:

*See Attached*

Explain what you believe the Code to read and why you disagree with the interpretation given to you by DLI staff.

*See Attached*

List any other information you would like the Committee to consider:

*See Attached*

### Information regarding submitting this form:

- Submit any supporting documentation to be considered electronically to [DLI.CCLDBOARDS@state.mn.us](mailto:DLI.CCLDBOARDS@state.mn.us). Once your Request For Interpretation form has been received, it will be assigned a file number. Please reference this file number on any correspondence and supplemental submissions.

### Information for presentation to the Committee:

- You will be notified with the date of the Committee Meeting in which your Request For Interpretation will be heard.
- Limit presentations to 5 minutes or less.
- Be prepared to answer questions regarding the Code, the circumstances that led to the dispute and please bring copies of any documentation.

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

- The Code Interpretation Committee serves on behalf of the Plumbing Board to issue final interpretation.

### What you can do if you disagree with the Committee's determination:

- If you would like to appeal the Code Interpretation Committee's determination, please notify us within thirty (30) days and it will be forwarded to the Administrative Law Judge for final interpretation.

### Office Use Only

RFI File No.	Date Received by DLI	Dated Received by Committee	Date of Committee Meeting
Title of RFI	By:		

This material can be made available in different forms, such as large print, Braille or on a tape. To request, call 1-800-342-5354 (DIAL-DLI) Voice or TDD (651) 297-4198.

I understand that the Code Interpretation Committee has the authority to issue final interpretation on behalf of the Plumbing Board.

**Submitted by:**

NAME <i>Jim Gander</i>		FIRM NAME <i>Superior Companies of Minnesota, Inc. DBA: Superior Mechanical</i>	
ADDRESS <i>1244 40th Avenue NW</i>		CITY <i>Rochester</i>	STATE ZIP CODE <i>MN 55901</i>
PHONE <i>507-289-0229</i>	SIGNATURE (original or electronic) 	DATE <i>10-29-14</i>	

For Assistance or questions on completing this form, please call 651-284-5898 or 651-284-5889.

Mailing address:

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

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**Explain what you believe the Code to read and why you disagree with the interpretation given to you by DLI staff.**

Our disagreement and the need for interpretation rests solely upon the definition of the three word phrase Mr. Durenberger points out in his Administrative Order edict.... *"serves the public"*. Apparently there is not a published definition of *"serves the public"*. There are however several locations throughout the state plumbing and building codes and several other state of Minnesota authored documents that come near to defining this phrase. In my opinion, without exception, all of these align with my interpretation and the intent of the codes. Furthermore, even the DLI website that offers directions for plan submittal clearly agrees with my interpretation and disagrees with Mr. Durenberger and his legal counsel.

**List any other information you would like the Committee to consider:**

**Here are the State Authored documents I have referred to**

Plumbing Code Book

4715.0100 Definitions

The following definition demonstrates the intent of the code as it defines a dwelling unit. Stating a dwelling unit (cabin, home, motel room etc.) is arranged for the use of (serving) one family or individual (not serving the public).

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Plumbing Code Book

4715.1420 Water Closets

This excerpt from our code again demonstrates the intent of the code to separate private bathrooms in rental spaces versus bathrooms that **serve the public** (similarly unrestricted). By definition from above; motels, hotels, resorts, rooming houses, though fully licensed by the Minnesota Department of Health may use round front type toilets. Again, demonstrating the intent of the code separating restrooms intended for the private use of the owner or tenant, restricted, not serving the public. Otherwise, why allow the exception?

Subp 2. **Water Closet Bowls.** All water closet bowls must be of the elongated type, except that regular type round bowls may be used in residential or dwelling type occupancy.

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9. Performing housekeeping work in a senior housing unit. A senior housing unit is a building where 80 percent of the tenants are age 55 or older. (67)

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AKALOA RESOURCE FOUNDATION | ANNE RAY CHARITABLE TRUST | MARGARET A. CARGILL FOUNDATION

To whom it may concern,

The Margaret A. Cargill Philanthropies (MACP) is planning an expansion of their existing facility at 6889 Rowland Road in Eden Prairie, MN. Our current facility achieved a LEED Gold rating in 2010 but for the new expansion our goal is to achieve a LEED Platinum rating. The MACP has set these goals to be good stewards of all resources with a special interest in water conservation and reuse. To this extent, the MACP would like to install a Gray Water Drip Irrigation System to help fulfill their mission statement- "To provide meaningful assistance and support to society, the arts and the environment".

We understand this system does not have provisions under the current MN Plumbing code but we are requesting a Variance per MN Statues 14.055 & 14.056 to allow us to install a Gray Water Drip Irrigation System. We would like to use our facility as a test site to further the knowledge of these system. The MACP has hired repuable engineers and contractors to design and install this system and we are fully confident that the testing will provide valuable information to the State of Minnesota and the sustainability community in general. The testing information and report will be complied by our design and construction team and will be made available to the State of Minnestoa upon a full season of operation (anticipated November of 2016).

Sincerely,

A handwritten signature in black ink, appearing to read "Shawn P. Kinniry", is written over a light blue circular stamp.

**Shawn P. Kinniry**  
Manager, Office and Facilities  
Margaret A. Cargill Philanthropies  
[skinniry@macphil.org](mailto:skinniry@macphil.org)  
direct 952.223.8147  
6889 Rowland Road, Eden Prairie, MN 55344  
[www.macphilanthropies.org](http://www.macphilanthropies.org)



**Karges-Faulconbridge, Inc.**  
*Engineers*

# MEMORANDUM

**Date: 10-17-14**  
**To: Minnesota State Plumbing Board**  
**From: Christopher D. Nelson**  
**KFI Project Number: 13-430**

**Subject: Margaret A. Cargill Philanthropies (MACP) Gray Water Drip Irrigation System- Variance Request**

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## SUMMARY VARIANCE REQUEST:

The design team and Owner understands that MN Plumbing Code does not have a provision for a Gray Water Drip Irrigation System and thus we are asking for a Variance per MN Statutes 14.055 & 14.056. Specifically, the design intent is to collect gray water from only lavatory sinks, showers, and clothes washers for use in a separately zoned gray water drip irrigation system in a designated area.

Gray water will be collected and treated with a manufactured piece of equipment with primary 100 micron filter, ozone treatment system, secondary 100 micron cartridge filter, and UV light sterilizer. The estimated discharge is 145 gallons per day.

The City of Eden Prairie has indicated they will provide permitting (as described in this variance request) of a Gray Water Drip Irrigation System and that the collection and filtration equipment is to be designed by MN registered Engineer. But the City of Eden Prairie has asked that the design team receive a Variance through the Minnesota State Plumbing Board before they will provide a permit. Note: the City of Eden Prairie has coordinated with Hennepin County, in such that they have agreed that the City of Eden Prairie would issue the permit as they are the local unit of government who administers the Minnesota Pollution Control Agency Rules Chapter 7080.2240.

## BACKGROUND:

The Owner, Margaret A. Cargill Philanthropies (MACP), is planning an expansion of their existing facility at 6889 Rowland Road in Eden Prairie, MN. Their current facility achieved a USGBC LEED Gold rating in 2010 but for the new expansion their goal is to achieve a LEED Platinum rating. The MACP has set these goals to be good stewards of all resources with a special interest in water conservation and reuse. They also would like to use their facility as a means of promoting sustainable products. By allowing gray water reuse for landscape irrigation in a designated area, the MACP will be able to reach their sustainability goals, educate the general public, and fulfill its mission statement- "To provide meaningful assistance and support to society, the arts and the environment".

## CODE REVIEW:

The design team has reviewed the MN Plumbing Code, MN Pollution Control Agency Rules, and model codes. The design team has also reviewed installation practices with contractors. Based on this information KFI has made MN Plumbing Code variance requests and provided model codes that the design team would follow.

## MN Plumbing Code

The design team has reviewed the MN Plumbing Code and found references that would impede the implementation of a Gray Water Drip Irrigation System. Minnesota Plumbing Code references are below:

### 4715.0310 USE OF PUBLIC SEWER AND WATER SYSTEMS REQUIRED.

If a public sewer is accessible in a street or alley to a building or premises and the connection is feasible, liquid wastes from any plumbing system in that building must be discharged into the public sewer unless otherwise prohibited by this code or a local ordinance.



If a public water supply system is accessible, the water distribution system must be connected to it unless otherwise permitted by the administrative authority. A water well taken out of service because a person is connecting to a public water supply must either be maintained for a use such as irrigation, or sealed and abandoned in accordance with the Minnesota Water Well Construction Code. (Minnesota Rules, chapter 4725)

If either a public sewer or water supply system or both are not available, an individual water supply or sewage disposal system, or both, conforming to the published standards of the administrative authority must be provided. Every building must have its own independent connection with a public or private sewer, except that a group of buildings may be connected to one or more manholes which are constructed on the premises, and connected to a public or private sewer. These manholes must conform to the standards set by the local sewer authority

#### 4715.1200 CONNECTIONS TO PLUMBING SYSTEM REQUIRED.

All plumbing fixtures and drains used to receive or discharge liquid wastes or sewage shall be connected to the drainage system of the building in accordance with the requirements of the code.

#### MN Pollution Control Agency Rules

The design team has reviewed the Minnesota Pollution Control Agency Rules and have found references Gray Water Systems under MN Rules Chapter 7080. These MN Rules appear to apply to higher volume municipal systems. The MACP project is light commercial office space and is well below the gray water volume thresholds (5,000 gallon/day). The MACP project is anticipated to discharge 145 gallon/day. Note: the City of Eden Prairie has coordinated with Hennepin County, in such that they have agreed that the City of Eden Prairie would issue the permit as they are the local unit of government who administers the Minnesota Pollution Control Agency Rules Chapter 7080.2240. Refer to Landscape Irrigation Distribution Piping section for engineered soils distribution.

#### Model Codes:

The design team has reviewed model codes and have found several sample codes and issue years that referenced Gray Water Recycling Systems. Specifically, Gray Water Recycling Systems appear in the following sample codes:

- 2006 International Plumbing Code: Appendix C
- 2009 International Plumbing Code: Appendix C
- 2009 Uniform Plumbing Code: Chapter 16
- 2012 Uniform Plumbing Code: Chapter 16
- 2012 International Plumbing Code: Chapter 13

Specifically, we intend to base the design of gray water collection and filtration equipment on the language contained in the 2012 International Plumbing Code Chapter 13 Gray Water Recycling Systems, less section 1302 (Systems for Flushing Water Closets and Urinals) and section 1303 (Subsurface Landscape Irrigation Systems). This model code will be used to quantify gray water collection and filtration requirements. Note: we are not asking for approval to use gray water for flushing of water closets or urinals; nor will there be any domestic water make-up provisions. See attached references from the 2012 International Plumbing Code Chapter 16.

#### **NEED AND RESONS FOR THE CHANGE:**

##### Request:

The design team has met with the City of Eden Prairie asking for approval to collect and filter gray water for reuse but the City has requested that we seek approval through the DLI. The City of Eden Prairie has indicated they will provide permitting of a Gray Water Drip Irrigation System and that the collection and filtration equipment is to be designed by MN registered Engineer.

Specifically, we are asking for a variance from the above MN Plumbing Code references and the use of the 2012 International Plumbing Code Chapter 13 Gray Water Recycling Systems, less section 1302 (Systems for Flushing Water Closets and Urinals) and section 1303 (Subsurface Landscape Irrigation Systems). Note: we are not asking for approval to use gray water for flushing of water closets or urinals. The Owner is willing to use their facility as a test site to further the research of these systems. This specific project proposes to collect drain water from lavatories, showers, and clothes washer drains via a Gray Water processor and use the processed water for a gray water drip irrigation system in a designated location.



### Background:

The Margaret A. Cargill Philanthropies (MACP) is planning an expansion of their existing facility at 6889 Rowland Road in Eden Prairie, MN. Their current facility achieved a LEED Gold rating in 2010 but for the new expansion their goal is to achieve a LEED Platinum rating. The MACP has set these goals to be good stewards of all resources with a special interest in water conservation and reuse. They also would like to use there facility as a means of testing and promoting sustainable products. By allowing gray water reuse for landscape irrigation in a designated area, the MACP will be able to reach their sustainably goals, educate the general public, and fulfill its mission statement- "To provide meaningful assistance and support to society, the arts and the environment".

### **OWNER RESPONSIBILITIES:**

#### Design Team:

The Owner will contract with reputable engineers and landscape irrigation designers for a fully designed Gray Water Irrigation System. The gray water collection and filtration equipment will be designed by Minnesota licensed professional engineers. The drip irrigation distribution equipment will be designed by a certified landscape irrigation designer who is also a US EPA WaterSense Partner.

The design team will design the system to meet the MN Plumbing code with variance request and model code 2012 International Plumbing Code, Chapter 13 Gray Water Recycling Systems, less section 1302 (Systems for Flushing Water Closets and Urinals) and section 1303 (Subsurface Landscape Irrigation Systems) . The design team will provide drawings and specifications for the system to document the installation. The design team will be involved in the review and commissioning of the system to ensure the system is working properly per the design intent.

#### Construction Team:

The Owner will contract with reputable master plumbers holding licensure with the State of Minnesota for the installation of the gray water collection and filteration equipment. Installation of the landscape irrigation distribution equipment will be conducted by a landscape irrigation contractor with the following credentials:

- MN Licenced Technology Systems Contractor employing not less than one Power Limited Technician who shall conduct or supervise the conduct of work at all times.
- Certified Irrigation Contrator (third-party accredited national cerification) as offered by the Irrigation Association, Falls Church, Virginia with continous onsite installation and supervision by a power limited technician.
- US EPA WaterSense Partner who shall conduct or supervise the conduct of work at all times.

#### Landscape Irrigation Distibution Piping

The gray water distribution via a below grade drip irrigation will be in a designated area. The equipment used will be standard landscape irrigation components with continuous and permanant marking in purple. Grade level signage will be installed indicating the area is irrigated with reuse gray water.

Installation of gray water drip irrigation piping will be not less than 3" below grade and within the root zone of the plants receiving gray water. Soils in the designated reuse gray water area will be engineered to accept discharge of gray water without surface runoff. The engineered soils will meet MnDOT 3877-3 & MnDOT 3877C specifications.

Note: The City of Eden Prairie has indicated they will provide permitting (as described in this variance request) of a Gray Water Drip Irrigation System as they are the local unit of government who administers the Minnesota Pollution Control Agency Rules Chapter 7080.2240.

#### Maintenance:

The Owner currently has a maintenance contact with a reputable contactor to perform building and grounds maintenance. The installation of the proposed gray water collection and filtration equipomnt will be added to the contactors responsibilities. Maintenance includes:

- Site observation of system on a weekly basis for the first month of operation; with log sheet.
  - Verify primary filter is in place and self regulating back wash system is operational.



- Verify pump is operational and that gray water is discharged every 24hrs.
- Verify ozone and UV conditioning equipment are operating.
- Verify final filter is in place and condition is acceptable.
- Verify overflow is unobstructed.
- Verify diversion valve is normally closed during normal operation.
- Site observation of system controls on a quarterly basis after the first month of operation; with log sheet.
  - Perform primary filter cleaning per maintenance guide; per quarter or more often depending on filter loading.
  - Perform final filter cleaning per maintenance guide; per quarter or more often depending on filter loading.
  - Verify filter is in place and self regulating back wash system is operational.
  - Verify pump is operational and that gray water is discharged every 24hrs.
  - Verify ozone and UV conditioning equipment are operating.
  - Verify overflow is unobstructed.
  - Verify diversion valve is normally closed during normal operation.
- System Shutdown Maintenance: Once irrigation is no longer needed (approx. October), the system diversion valve shall be manually turned to open to bypass all greywater flow to the building sanitary sewer. Verify flow is diverting and system is isolated. System to be flushed with clean water and pumped down to zero water level. Tank filters are to be cleaned manually and placed back into the tank. Ozone and UV systems to be deactivated and cleaned. Final filter to be cleaned or replaced and placed back into cartridge container. Irrigation system to be cleared via compressed air. System to be tagged as shutdown.

Public Health:

The gray water system is being equipped with 100 micron filters, tank ozone treatment system, secondary 100 micron cartridge filter, and UV light sterilizer. These systems are installed to ensure that the gray water is cleaned to industry standards. These cleaning systems will reduce the bacteria counts significantly as well as effectively destroy pathogens. The gray water distribution system is designed to be below grade with engineered soils so that the gray water will not become surface runoff. This design is intended to not allow for human contact of the gray water. In addition, the gray water irrigation area will be a separate designated area with grade level signage to notify the public of its use.

The Owner is committed to providing the resources necessary to maintain this system. Please see the attached letter from the Owner indicating their understanding of the process and their commitment to the project.



# CHAPTER 13

## GRAY WATER RECYCLING SYSTEMS

### SECTION 1301 GENERAL

**1301.1 Scope.** The provisions of Chapter 13 shall govern the materials, design, construction and installation of gray water systems for flushing of water closets and urinals and for subsurface landscape irrigation. See Figures 1301.1(1) and 1301.1(2).

**1301.2 Installation.** In addition to the provisions of Section 1301, systems for flushing of water closets and urinals shall comply with Section 1302 and systems for subsurface landscape irrigation shall comply with Section 1303. Except as provided for in this chapter, all systems shall comply with the provisions of the other chapters of this code.

**1301.3 Materials.** Above-ground drain, waste and vent piping for gray water systems shall conform to one of the standards listed in Table 702.1. Gray water underground building drainage and vent pipe shall conform to one of the standards listed in Table 702.2.

**1301.4 Tests.** Drain, waste and vent piping for gray water systems shall be tested in accordance with Section 312.

**1301.5 Inspections.** Gray water systems shall be inspected in accordance with Section 107.

**1301.6 Potable water connections.** Only connections in accordance with Section 1302.3 shall be made between a gray water recycling system and a potable water system.

**1301.7 Waste water connections.** Gray water recycling systems shall receive only the waste discharge of bathtubs, showers, lavatories, clothes washers or laundry trays.

**1301.8 Collection reservoir.** Gray water shall be collected in an approved reservoir constructed of durable, nonabsorbent and corrosion-resistant materials. The reservoir shall be a closed and gas-tight vessel. Access openings shall be provided to allow inspection and cleaning of the reservoir interior.

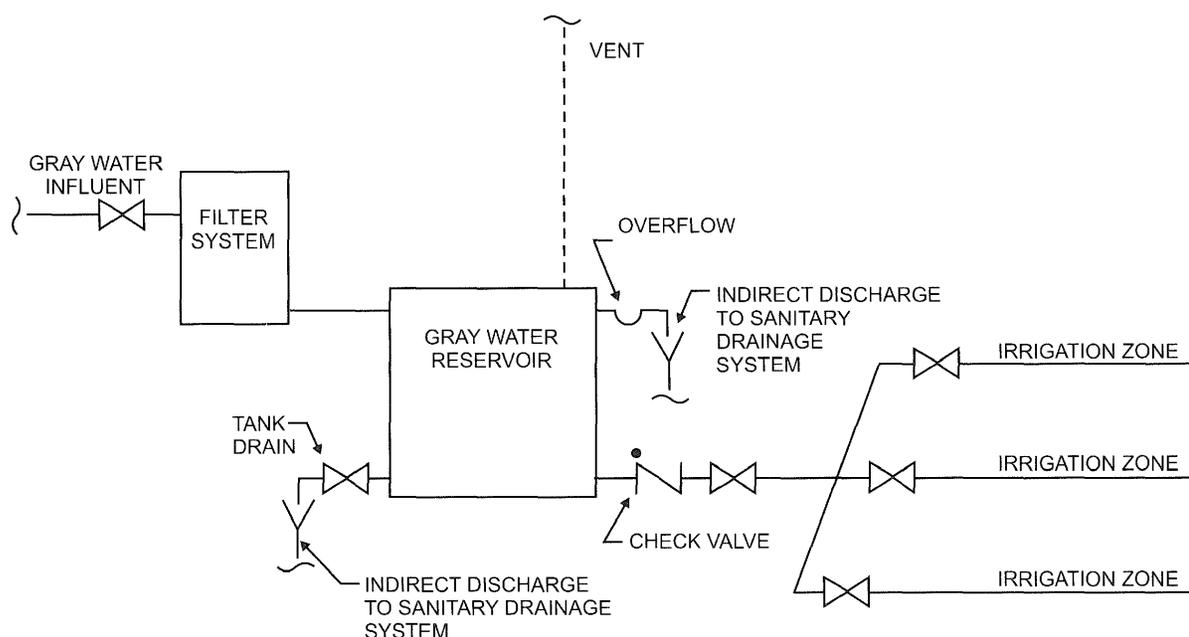
**1301.9 Filtration.** Gray water entering the reservoir shall pass through an approved filter such as a media, sand or diatomaceous earth filter.

**1301.9.1 Required valve.** A full-open valve shall be installed downstream of the last fixture connection to the gray water discharge pipe before entering the required filter.

**1301.10 Overflow.** The collection reservoir shall be equipped with an overflow pipe having the same or larger diameter as the influent pipe for the gray water. The overflow pipe shall be trapped and shall be indirectly connected to the sanitary drainage system.

**1301.11 Drain.** A drain shall be located at the lowest point of the collection reservoir and shall be indirectly connected to the sanitary drainage system. The drain shall be the same diameter as the overflow pipe required in Section 1301.10.

**1301.12 Vent required.** The reservoir shall be provided with a vent sized in accordance with Chapter 9 and based on the diameter of the reservoir influent pipe.



**FIGURE 1301.1(1)**  
**GRAY WATER RECYCLING SYSTEM FOR SUBSURFACE LANDSCAPE IRRIGATION**

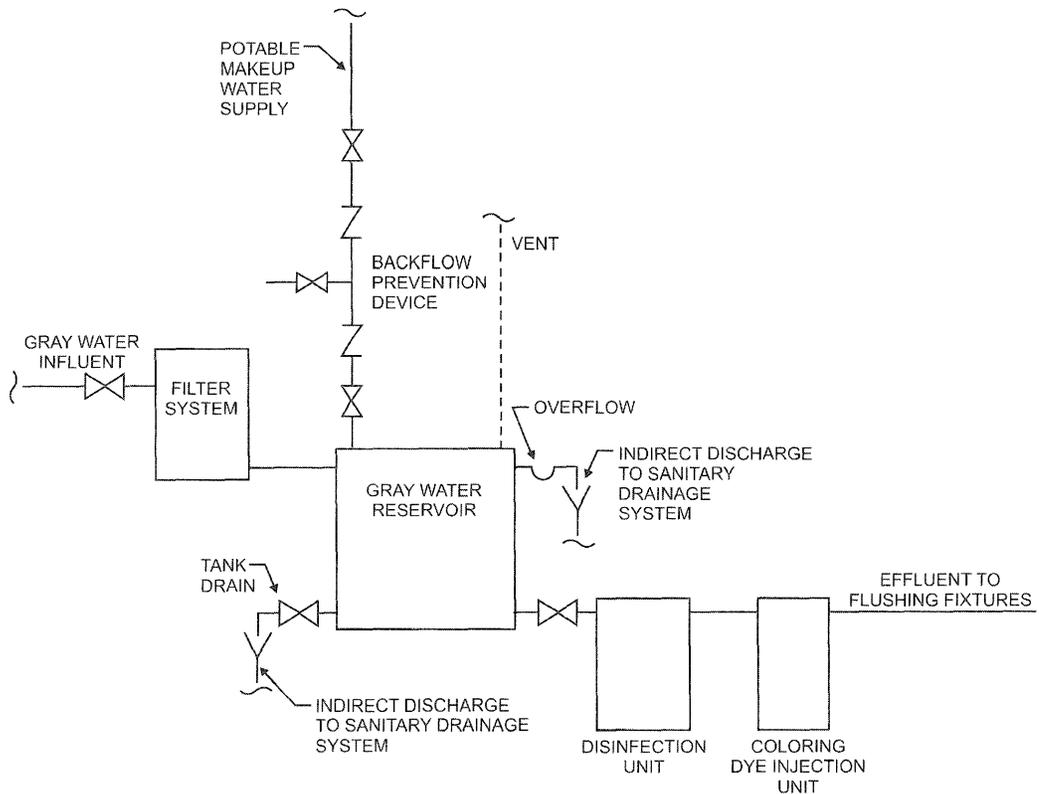


FIGURE 1301.1(2)  
GRAY WATER RECYCLING SYSTEM FOR FLUSHING WATER CLOSETS AND URINALS

**SECTION 1302  
SYSTEMS FOR FLUSHING WATER CLOSETS AND URINALS**

**1302.1 Collection reservoir.** The holding capacity of the reservoir shall be a minimum of twice the volume of water required to meet the daily flushing requirements of the fixtures supplied with gray water, but not less than 50 gallons (189 L). The reservoir shall be sized to limit the retention time of gray water to a maximum of 72 hours.

**1302.2 Disinfection.** Gray water shall be disinfected by an approved method that employs one or more disinfectants such as chlorine, iodine or ozone that are recommended for use with the pipes, fittings and equipment by the manufacturer of the pipes, fittings and equipment.

**1302.3 Makeup water.** Potable water shall be supplied as a source of makeup water for the gray water system. The potable water supply shall be protected against backflow in accordance with Section 608. There shall be a full-open valve located on the makeup water supply line to the collection reservoir.

**1302.4 Coloring.** The gray water shall be dyed blue or green with a food grade vegetable dye before such water is supplied to the fixtures.

**1302.5 Materials.** Distribution piping shall conform to one of the standards listed in Table 605.4.

**1302.6 Identification.** Distribution piping and reservoirs shall be identified as containing nonpotable water. Piping identification shall be in accordance with Section 608.8.

**SECTION 1303  
SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS**

**1303.1 Collection reservoir.** Reservoirs shall be sized to limit the retention time of gray water to a maximum of 24 hours.

**1303.1.1 Identification.** The reservoir shall be identified as containing nonpotable water.

**1303.2 Valves required.** A check valve and a full-open valve located on the discharge side of the check valve shall be installed on the effluent pipe of the collection reservoir.

**1303.3 Makeup water.** Makeup water shall not be required for subsurface landscape irrigation systems. Where makeup water is provided, the installation shall be in accordance with Section 1302.3.

**1303.4 Disinfection.** Disinfection shall not be required for gray water used for subsurface landscape irrigation systems.

**1303.5 Coloring.** Gray water used for subsurface landscape irrigation systems shall not be required to be dyed.

**1303.6 Estimating gray water discharge.** The system shall be sized in accordance with the gallons-per-day-per-occupant number based on the type of fixtures connected to the gray

water system. The discharge shall be calculated by the following equation:

$$C = A \times B \quad \text{(Equation 13-1)}$$

where:

$A$  = Number of occupants:

Residential—Number of occupants shall be determined by the actual number of occupants, but not less than two occupants for one bedroom and one occupant for each additional bedroom.

Commercial—Number of occupants shall be determined by the *International Building Code*®.

$B$  = Estimated flow demands for each occupant:

Residential—25 gallons per day (94.6 lpd) per occupant for showers, bathtubs and lavatories and 15 gallons per day (56.7 lpd) per occupant for clothes washers or laundry trays.

Commercial—Based on type of fixture or water use records minus the discharge of fixtures other than those discharging gray water.

$C$  = Estimated gray water discharge based on the total number of occupants.

**1303.7 Percolation tests.** The permeability of the soil in the proposed absorption system shall be determined by percolation tests or permeability evaluation.

**1303.7.1 Percolation tests and procedures.** At least three percolation tests in each system area shall be conducted. The holes shall be spaced uniformly in relation to the bottom depth of the proposed absorption system. More percolation tests shall be made where necessary, depending on system design.

**1303.7.1.1 Percolation test hole.** The test hole shall be dug or bored. The test hole shall have vertical sides and a horizontal dimension of 4 inches to 8 inches (102 mm to 203 mm). The bottom and sides of the hole shall be scratched with a sharp-pointed instrument to expose the natural soil. All loose material shall be removed from the hole and the bottom shall be covered with 2 inches (51 mm) of gravel or coarse sand.

**1303.7.1.2 Test procedure, sandy soils.** The hole shall be filled with clear water to a minimum of 12 inches (305 mm) above the bottom of the hole for tests in sandy soils. The time for this amount of water to seep away shall be determined, and this procedure shall be repeated if the water from the second filling of the hole seeps away in 10 minutes or less. The test shall proceed as follows: Water shall be added to a point not more than 6 inches (152 mm) above the gravel or coarse sand. Thereupon, from a fixed reference point, water levels shall be measured at 10-minute intervals for a period of 1 hour. Where 6 inches (152 mm) of water seeps away in less than 10 minutes, a shorter interval between measurements shall be used, but in no case shall the water depth exceed 6 inches (152 mm). Where 6 inches (152 mm) of water seeps away in less than 2 minutes, the test shall be

stopped and a rate of less than 3 minutes per inch (7.2 s/mm) shall be reported. The final water level drop shall be used to calculate the percolation rate. Soils not meeting the above requirements shall be tested in accordance with Section 1303.7.1.3.

**1303.7.1.3 Test procedure, other soils.** The hole shall be filled with clear water, and a minimum water depth of 12 inches (305 mm) shall be maintained above the bottom of the hole for a 4-hour period by refilling whenever necessary or by use of an automatic siphon. Water remaining in the hole after 4 hours shall not be removed. Thereafter, the soil shall be allowed to swell not less than 16 hours or more than 30 hours. Immediately after the soil swelling period, the measurements for determining the percolation rate shall be made as follows: any soil sloughed into the hole shall be removed and the water level shall be adjusted to 6 inches (152 mm) above the gravel or coarse sand. Thereupon, from a fixed reference point, the water level shall be measured at 30-minute intervals for a period of 4 hours, unless two successive water level drops do not vary by more than  $\frac{1}{16}$  inch (1.59 mm). At least three water level drops shall be observed and recorded. The hole shall be filled with clear water to a point not more than 6 inches (152 mm) above the gravel or coarse sand whenever it becomes nearly empty. Adjustments of the water level shall not be made during the three measurement periods except to the limits of the last measured water level drop. When the first 6 inches (152 mm) of water seeps away in less than 30 minutes, the time interval between measurements shall be 10 minutes and the test run for 1 hour. The water depth shall not exceed 5 inches (127 mm) at any time during the measurement period. The drop that occurs during the final measurement period shall be used in calculating the percolation rate.

**1303.7.1.4 Mechanical test equipment.** Mechanical percolation test equipment shall be of an approved type.

**1303.7.2 Permeability evaluation.** Soil shall be evaluated for estimated percolation based on structure and texture in accordance with accepted soil evaluation practices. Borings shall be made in accordance with Section 1303.7.1 for evaluating the soil.

**1303.8 Subsurface landscape irrigation site location.** The surface grade of all soil absorption systems shall be located at a point lower than the surface grade of any water well or reservoir on the same or adjoining lot. Where this is not possible, the site shall be located so surface water drainage from the site is not directed toward a well or reservoir. The soil absorption system shall be located with a minimum horizontal distance between various elements as indicated in Table 1303.8. Private sewage disposal systems in compacted areas, such as parking lots and driveways, are prohibited. Surface water shall be diverted away from any soil absorption site on the same or neighboring lots.

**TABLE 1303.8  
LOCATION OF GRAY WATER SYSTEM**

ELEMENT	MINIMUM HORIZONTAL DISTANCE	
	HOLDING TANK (feet)	IRRIGATION DISPOSAL FIELD (feet)
Buildings	5	2
Lot line adjoining private property	5	5
Water wells	50	100
Streams and lakes	50	50
Seepage pits	5	5
Septic tanks	0	5
Water service	5	5
Public water main	10	10

For SI: 1 foot = 304.8 mm.

**1303.9 Installation.** Absorption systems shall be installed in accordance with Sections 1303.9.1 through 1303.9.5 to provide landscape irrigation without surfacing of gray water.

**1303.9.1 Absorption area.** The total absorption area required shall be computed from the estimated daily gray water discharge and the design-loading rate based on the percolation rate for the site. The required absorption area equals the estimated gray water discharge divided by the design-loading rate from Table 1303.9.1.

**TABLE 1303.9.1  
DESIGN LOADING RATE**

PERCOLATION RATE (minutes per inch)	DESIGN LOADING FACTOR (gallons per square foot per day)
0 to less than 10	1.2
10 to less than 30	0.8
30 to less than 45	0.72
45 to 60	0.4

For SI: 1 minute per inch = min/25.4 mm,  
1 gallon per square foot = 40.7 L/m<sup>2</sup>.

**1303.9.2 Seepage trench excavations.** Seepage trench excavations shall be not less than 1 foot (304 mm) in width and not greater than 5 feet (1524 mm) in width. Trench excavations shall be spaced not less than 2 feet (610 mm) apart. The soil absorption area of a seepage trench shall be computed by using the bottom of the trench area (width) multiplied by the length of pipe. Individual seepage trenches shall be not greater than 100 feet (30 480 mm) in developed length.

**1303.9.3 Seepage bed excavations.** Seepage bed excavations shall be not less than 5 feet (1524 mm) in width and have more than one distribution pipe. The absorption area of a seepage bed shall be computed by using the bottom of the trench area. Distribution piping in a seepage bed shall be uniformly spaced not greater than 5 feet (1524 mm) and not less than 3 feet (914 mm) apart, and greater than 3 feet (914 mm) and not less than 1 foot (305 mm) from the sidewall or headwall.

**1303.9.4 Excavation and construction.** The bottom of a trench or bed excavation shall be level. Seepage trenches or beds shall not be excavated where the soil is so wet that such material rolled between the hands forms a soil wire. All smeared or compacted soil surfaces in the sidewalls or bottom of seepage trench or bed excavations shall be scarified to the depth of smearing or compaction and the loose material removed. Where rain falls on an open excavation, the soil shall be left until sufficiently dry so a soil wire will not form when soil from the excavation bottom is rolled between the hands. The bottom area shall then be scarified and loose material removed.

**1303.9.5 Aggregate and backfill.** Not less than 6 inches in depth of aggregate ranging in size from 1/2 to 2 1/2 inches (12.7 mm to 64 mm) shall be laid into the trench below the distribution piping elevation. The aggregate shall be evenly distributed not less than 2 inches (51 mm) in depth over the top of the distribution pipe. The aggregate shall be covered with approved synthetic materials or 9 inches (229 mm) of uncompacted marsh hay or straw. Building paper shall not be used to cover the aggregate. Not less than 9 inches (229 mm) of soil backfill shall be provided above the covering.

**1303.10 Distribution piping.** Distribution piping shall be not less than 3 inches (76 mm) in diameter. Materials shall comply with Table 1303.10. The top of the distribution pipe shall be not less than 8 inches (203 mm) below the original surface. The slope of the distribution pipes shall be not less than 2 inches (51 mm) and not greater than 4 inches (102 mm) per 100 feet (30 480 mm).

**TABLE 1303.10  
DISTRIBUTION PIPE**

MATERIAL	STANDARD
Polyethylene (PE) plastic pipe	ASTM F 405
Polyvinyl chloride (PVC) plastic pipe	ASTM D 2729
Polyvinyl chloride (PVC) plastic pipe with a 3.5 inch O.D. and solid cellular core or composite wall.	ASTM F 1488

**1303.11 Joints.** Joints in distribution pipe shall be made in accordance with Section 705 of this code.

10/31/14

REVISOR

SS/AA

RD4139

4.1 U. If water closets or other plumbing fixtures are installed in a building where  
 4.2 there is no public sewer available as determined by the Authority Having Jurisdiction,  
 4.3 suitable provisions shall be made for treatment of the building sewage by methods that  
 4.4 meet the requirements of rules administered by the Pollution Control Agency.

4.5 V. Devices for heating and storing water shall be designed and installed to  
 4.6 prevent all dangers from explosion and overheating.

4.7 W. Sewage or other waste shall not be discharged into surface or subsurface  
 4.8 water unless it first has been subjected to an acceptable form of treatment approved by the  
 4.9 Pollution Control Agency.

4.10 **4714.0101 CONFORMANCE WITH CODE.**

4.11 Subpart 1. Scope. As provided in Minnesota Statutes, sections 326B.43 and  
 4.12 326B.52, this code applies to all new plumbing installations performed anywhere in the  
 4.13 state, including additions, extensions, alterations, and replacements.

4.14 Subp. 2. <sup>In new buildings, all</sup> ~~All~~ plumbing materials and plumbing systems or parts  
 4.15 thereof shall be installed to meet the minimum provisions of this code.

4.16 Subp. 3. Existing buildings. In existing buildings and premises in which plumbing  
 4.17 systems, drainage systems, or other work regulated by this code are to be added, altered,  
 4.18 renovated, or replaced, the new materials and work shall meet the provisions of this code. If  
 4.19 the Authority Having Jurisdiction finds that the full performance of bringing the work into  
 4.20 compliance with all requirements of this code would result in exceptional or undue hardship  
 4.21 by reason of excessive structural or mechanical difficulty or impracticability, a deviation  
 4.22 may be granted by the Authority Having Jurisdiction only to the extent the deviation can  
 4.23 be granted without endangering the health and safety of the occupants and the public.

4.24 Subp. 4. Changes in building occupancy. A plumbing system that is a part of a  
 4.25 building or structure undergoing a change in use or occupancy, as defined in the building

54.1 1702.10.1 (A) TO CONSERVE WATER, THIS BUILDING USES RAINWATER  
 54.2 TO FLUSH TOILETS AND URINALS.

54.3 1702.10.1 (B) TO CONSERVE WATER, THIS BUILDING USES RAINWATER  
 54.4 TO FLUSH TOILETS.

54.5 1702.10.1 (C) TO CONSERVE WATER, THIS BUILDING USES RAINWATER  
 54.6 TO FLUSH URINALS.

54.7 1702.10.1 (D) TO CONSERVE WATER, THIS BUILDING USES RAINWATER  
 54.8 TO \* \_\_\_\_\_ \*

54.9 \* \_\_\_\_\_ \* shall indicate the rainwater usage.

54.10 Subp. 17. Section 1702.11. UPC section 1702.11.2 is amended to read as follows:

54.11 1702.11.2 Cross-Connection Inspection and Testing. An initial and subsequent

54.12 annual inspection and test in accordance with Section 1702.5 shall be performed

54.13 on both the potable water system and rainwater catchment water systems. The

54.14 potable and rainwater catchment water systems shall be isolated from each other

54.15 and independently inspected and tested to ensure there is no cross-connection in

54.16 accordance with Sections 1702.11.2.1 through 1702.11.2.4.

54.17 1702.11.2.1 Visual System Inspection. Prior to commencing the

54.18 cross-connection testing and annually thereafter, a dual system inspection shall

54.19 be conducted as follows:

54.20 Pumps, equipment, equipment room signs, and exposed piping in an equipment

54.21 room shall be inspected for visible cross-connections, proper operation, and

54.22 damage.

54.23 1702.11.2.2 Cross-Connection Test. The following procedure shall be followed

54.24 by the plumbing contractor in the presence of the Authority Having Jurisdiction

54.25 to determine whether a cross-connection has occurred:

54.26 (1) The potable water system shall be activated and pressurized. The rainwater

54.27 catchment water system shall be shut down and completely drained.

- 58.1 Inspect pumps and verify operation. After initial installation and every
- 58.2 12 months thereafter.
- 58.3 Inspect valves and verify operation. After initial installation and every
- 58.4 12 months thereafter.
- 58.5 Inspect pressure tanks and verify operation. After initial installation and every
- 58.6 12 months thereafter.
- 58.7 Clear debris from and inspect storage tanks and After initial installation and every
- 58.8 locking devices and verify operation. 12 months thereafter.
- 58.9 Inspect caution labels and marking. After initial installation and every
- 58.10 12 months thereafter.
- 58.11 Cross-connection inspection and test.\* After initial installation and
- 58.12 thereafter in accordance with
- 58.13 Section 1702.11.2.4.

58.14 \*The cross-connection <sup>inspection and</sup> test shall be performed in accordance with this chapter by a plumber

58.15 licensed under Minnesota Statutes, section 326B.46, and certified to ASSE Standard 5120.

58.16 Subp. 20. Section 1702. UPC section 1702 is amended by adding a section as follows:

58.17 **1702.13 Operation and Maintenance Manual.** An operation and maintenance manual

58.18 for rainwater catchment systems shall be supplied to the building owner by the system

58.19 designer. The operating and maintenance manual shall include the following:

- 58.20 (1) Detailed diagram of the entire system and the location of system components.
- 58.21 (2) Instructions on operating and maintaining the system.
- 58.22 (3) Details on maintaining the required water quality in Table 1702.9.4.
- 58.23 (4) Details on deactivating the system for maintenance, repair, or other purposes.
- 58.24 (5) Applicable testing, inspection, and maintenance frequencies in accordance with Table
- 58.25 1702.12.
- 58.26 (6) A method of contacting the manufacturer(s).

58.27 Subp. 21. Section 1702. UPC section 1702 is amended by adding the following

58.28 section:

# Attachment E -

To: John Parizek, Chair, Minnesota State Plumbing Board  
From: Richard A. Hauffe, Regional Manager, International Code Council  
Date: January 20, 2015

RH

Mr. Chairman:

Thank you for the opportunity to address you and the Board on this historic occasion. We are at the jumping off position of possibly replacing Minnesota's state plumbing code with a model code.

The result of enacting a model code will reshape how the plumbing installation industry of Minnesota does business. We are four years down the road from the April 19, 2011, meeting <sup>when</sup> the Board voted to compare the Uniform Plumbing Code ("UPC") with the Minnesota State Plumbing Code to see if it is ~~compatible~~ <sup>SUITABLE</sup> for inclusion as the new Minnesota State Plumbing Code.

Since you are now in the rulemaking stage of this process, it appears ~~you are~~ <sup>MAY BE</sup> convinced the UPC is ~~compatible~~ <sup>SUITABLE</sup>, and four years is a long time to study and work on such an endeavor.

As I said before, this is an historic occasion. It is a critically important occasion.

A new plumbing code has perhaps the greatest reach into every new house and new commercial building constructed in Minnesota, for everyone who turns on a faucet, flushes a toilet and uses a drain. This is a policy that ultimately touches every Minnesota resident and business every day. To believe that the UPC is a code that allows one industry to chart its own destiny may be true, but that would be an extremely narrow view of what and who state plumbing policy is designed to affect and serve.

Today I am asking you and the Minnesota State Plumbing Board to give this decision the weight, focus and diligence that replacing a state homegrown plumbing code truly deserves. Four years and two code cycles have elapsed since you began, and I am asking you to consider giving the International Plumbing Code due consideration and study to determine its compatibility as the model code to replace the state plumbing code.

I attended the April 19, 2011, meeting as one of my first assignments with the International Code Council. I watched and listened as representatives of the ICC and IAPMO were each allotted a 10-minute presentation. I also watched and listened to about a dozen proposals come before this board leading to the conclusion that only the UPC would be considered for possible adoption, and that the International Plumbing Code ("IPC") would not.

A 10-minute presentation pretty much amounts to a ~~glorified~~ <sup>longer</sup> elevator pitch on a plumbing code. Nothing more. The fact that nearly four years were spent to investigate and act on the UPC's compatibility to replace the homegrown Minnesota State Plumbing Code confirms the contention that this process may have failed to fully investigate and consider all options on the table for this Board.

There is ~~obviously~~ <sup>APPARENTLY</sup> no rush to enact the UPC. Ignoring any significant consideration of the IPC ignores the widely believed fact that the IPC is the business- and consumer-friendlier and trusted model plumbing code that is already correlated with the family of the Minnesota State Building Code, which is based on the International Building Code, the International Residential Code, the International Existing Building Code, the International Mechanical and Fuel Gas Codes, the International Fire Code and the

International Energy Conservation Code. In the last four years, this Board has had written correspondence on a few occasions from leading Minnesota businesses and organizations involved in enhancing the built environment attesting their preference for the IPC. Why should their preference be ignored in this historic decision?

Whether other nearby states have adopted the UPC or the IPC as their model code should not have much bearing on Minnesota's code decision since everyone understands that state jurisdictions have different approaches.

With all due respect, Mr. Chairman, you've invested four years to reach this point. You and the Board have it in your power to make sure the process fully considers its options and enacts the best available public policy which affects all Minnesotans.

Thank you for your consideration.