

[Plumbing Board](#)

c/o Department of Labor and Industry
 443 Lafayette Road North
 St. Paul, MN 55155
www.dli.mn.gov
 Email: DLI.cclboards@state.mn.us

Plumbing Board**Request for Action (RFA)**

 Name of submitter:

 Purpose of request (check all that apply): New rule Rule amendment Repeal of an existing rule

 The Minnesota Plumbing Code (MN Rules, Chapter 4714) is available at <https://epubs.iapmo.org/2020/MPC/>
Specify the purpose of the proposal (check all that apply):

Appurtenance (e.g., water conditioning equipment)

Test method

Other (describe):

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

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

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

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

Describe the proposed change. The Minnesota Plumbing Code (Minnesota Rules Chapter 4714) is available here:

<https://epubs.iapmo.org/2020/MPC/>

NOTE: Please review the Minnesota Plumbing Code and identify all parts of the Code that require revision to accomplish your purpose. The proposed change, including suggested rule language, should be *specific*. **If modifying existing rule language, underline new words and strike through deleted words.**

Please list all areas of the Minnesota Plumbing Code that would be affected. **Important:** If your text does not fit in the field below, please attach this information at the end of this form and insert “see attachment” in the field below.

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

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

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

Please submit the form and all supporting documents electronically. Attach scanned copies of any literature, standards, and product approvals or listings. If any of the materials you are submitting come from printed or copyrighted sources, please include written permission from the publisher allowing the materials to be distributed at meetings. Email all documents to: DLI.cclboards@state.mn.us

Primary reason for change: (check only one)

- | | |
|--|-------------------------------|
| Protect public, health, safety, welfare, or security | Mandated by the legislature |
| Lower construction costs | Provide uniform application |
| Encourage new methods and materials | Clarify provisions |
| Change made at the national level | Situation unique to Minnesota |
| Other (describe): | |

Anticipated benefits: (check all that apply)

- | | |
|--|--------------------------------------|
| Save lives/reduce injuries | Provide more affordable construction |
| Improve uniform application | Provide building property |
| Improve the health of the indoor environment | Drinking water quality protection |
| Provide more construction alternatives | Decrease cost of enforcement |
| Reduce regulation | Other (describe): |

The Following information is optional. This information can assist in evaluating a Request for Action and in rulemaking and should be provided if known.

Economic impact: (explain all answers marked “yes”)

1. Does the proposed change increase or decrease the cost of enforcement? Yes No. **If yes**, explain
2. Does the proposed change increase or decrease the cost of compliance? Yes No. **If yes**, explain. Include the estimated cost increase or decrease, and who will bear the cost increase or experience the cost decrease:
3. Are there less costly or intrusive methods to achieve the proposed change? Yes No. **If yes**, explain.
4. Were alternative methods considered? Yes No. **If no**, why not? **If yes**, explain what alternative methods were considered and why they were rejected.
5. If there is a fiscal impact, try to explain any benefit that will offset the cost of the change. If there is no impact, mark "N/A."

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

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

8. Are there any existing Federal Standards? Yes No. **If yes, list below.**

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

10. Minnesota Statutes, section 14.127, requires the Board to determine if the cost of complying with proposed rule changes in the first year after the changes take effect will exceed \$25,000 for any small business or small city. A small business is defined as a business (either for profit or nonprofit) with fewer than 50 full-time employees, and a small city is defined as a city with fewer than ten full-time employees. During the first year after the proposed changes go into effect, will it cost more than \$25,000 for any small business or small city to comply with the change? Yes No. **If yes, identify by name the small business(es) or small city(ies).**

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

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

Information regarding submitting this form:

1. Submissions are reviewed in the order they are received. Missing documentation will delay processing, and your proposal will not be considered “Complete” until all required materials are received.
2. Submit all supporting documentation (manufacturer literature, approvals from other states, engineering data, etc.) electronically to DLI.CCLDBOARDS@state.mn.us
3. After your Request for Action (RFA) form is received, you will be assigned a file number. Use this file number on all correspondence and supplemental materials.
4. For copyrighted materials that must be purchased from publishers (such as published standards, product approvals or testing data, or listings by agencies like IAPMO, ASSE, ASTM, etc.), submit these electronically, with written permission from the publisher to distribute them at meetings, to DLI.CCLDBOARDS@state.mn.us

Information for presentation to the Committee or Plumbing Board:

5. You will be notified of the date of the Committee or Plumbing Board meeting in which your Request For Action will be heard.
6. Limit presentations to 5 minutes or less. You are not required to provide a formal presentation or additional handouts. However, if you choose to do so, please submit them to lyndy.logan@state.mn.us at least 3 days before the meeting.
7. Be prepared to answer questions regarding the proposal and any documentation.

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

SUBMITTED BY

Name:

Date:

Company name/representing:

Mailing address (Street, City, State, Zip):

Email address:

Phone:

For assistance or questions on completing this form, contact Mike Westemeier, Department of Labor and Industry at michael.westemeier@state.mn.us or by phone 651-284-5898.

OFFICE USE ONLY

RFA File Number:

Date received by DLI:

Date of Committee/Board meeting:

Title of RFA:

Please remember to attach all necessary explanations and supporting documentation.

4714.0202 DEFINITIONS

Subpart 1. Alternate water source. The UPC Chapter 2 definition of "alternate water source" is amended to read as follows:

Alternate water source. A nonpotable source of water including gray water, on-site treated nonpotable water, reclaimed (recycled) water, and rainwater collected and used within a building or structure. Alternate water source does not include stormwater used for outdoor nonpotable applications.

4714.1501 SECTION 1501.0 Applicability

Subpart 1. **Section 1501.1.** UPC section 1501.1 is amended to read as follows:

1501.1 Applicability. The provisions of this chapter shall apply to the construction, alteration, and repair of alternate water source systems for indoor non-potable applications within a building or structure.

1501.1.1 The provisions of this chapter do not apply to alternate water sources, including stormwater for outdoor nonpotable applications. For purposes of this chapter, stormwater means precipitation and snowmelt runoff that is collected, conveyed, stored, or treated in stormwater ponds, basins, wetlands, cisterns, underground storage systems, or other stormwater management facilities, whether or not treated. Outdoor nonpotable applications include irrigation, dust control, street sweeping, sewer and hydrant flushing, construction water, soil compaction, equipment and vehicle washing, ice rink flooding, and similar uses occurring outside a building or structure. Nothing in this chapter limits the capture, storage, conveyance, treatment, or use of stormwater for outdoor nonpotable applications.

1501.1.24 Allowable use of alternate water. Where expressly approved by the Authority Having Jurisdiction, alternate water sources [reclaimed (recycled) water, and on-site treated nonpotable water] may be used indoors instead of potable water for the applications identified in this chapter. ~~On-site treated nonpotable water for outdoor use is not allowed. Alternate water sources shall not be stormwater. In jurisdictions that do not allow alternate water sources, potable water shall be required.~~

1501.1.3 Preservation of Other Authority. Nothing in this chapter alters or limits the authority of the Minnesota Pollution Control Agency, the Department of Natural Resources, the Department of Health, the Board of Water and Soil Resources, watershed districts, watershed management organizations, or local units of government over the capture, storage, conveyance, treatment, or use of stormwater.

1501.1.4 Existing Systems. Systems that capture, store, convey, treat, or use stormwater for outdoor nonpotable applications and that are in operation on the effective date of this chapter are not subject to this chapter.

Subp. 2. **Section 1501.2.** UPC section 1501.2 is amended to read as follows:

1501.2 System Design. Alternate water source systems shall be designed in accordance with this chapter by a licensed plumbing contractor or a registered design professional. An operation and maintenance report that specifies necessary operating conditions and identifies surrogate parameters requires

continuous or periodic monitoring to demonstrate treatment effectiveness must be submitted along with the plumbing plans. The report must show that required log reduction targets listed in table 1501.7 are achieved by the treatment process(es). Components, piping, and fittings used in any alternate water source system shall be listed.

Subp. 3. **Section 1501.3.** UPC section 1501.3 is amended to read as follows:

~~1501.3 **Operating Permit.** The building owner must have an operating permit issued by the Authority Having Jurisdiction before operating an on-site treated nonpotable water system. The operating permit must include system specific end uses of the treated nonpotable water in a manner that protects public health and environment. The owner must notify the Authority Having Jurisdiction of any changes in ownership.~~

It shall be unlawful for a person or entity to construct, install, alter, or cause to be constructed, installed or altered an alternative water source system within a building without obtaining a permit from the Authority Having Jurisdiction.

UPC Section 1501.4 is preserved without amendment.

Subp. 4. **Section 1501.5.** UPC section 1501.5 is amended to read as follows:

1501.5 Maintenance and Inspection. Alternate water source systems and components shall be inspected and maintained in accordance with Section 1501.5.1 through Section 1501.5.3.

1501.5.1 Frequency. Alternate water source systems and components shall be inspected and maintained in accordance with Table 1501.5 unless more frequent inspection and maintenance are required by the manufacturer, designer, or the Authority Having Jurisdiction.

1501.5.2 Maintenance Log. A maintenance log for on-site treated non-potable water systems is required and shall be maintained by the property owner and be available for inspection. The property owner or designated appointee shall ensure that a record of testing, inspection, and maintenance in accordance with Table 1501.5 and any requirements of the manufacturer, designer or the Authority Having Jurisdiction is maintained in the log. The log will indicate the frequency of inspection and maintenance for each system.

1501.5.3 Maintenance Responsibility. The required maintenance and inspection of alternate water source systems shall be the responsibility of the property owner unless otherwise required by the Authority Having Jurisdiction.

Table 1501.5

Description	Minimum Frequency
Inspect and clean debris filters and screens, and replace (where necessary).	Every 3 months
Inspect and verify that disinfection, filters, and water quality treatment devices and systems are operational and maintaining minimum water quality requirements as determined by the Authority Having Jurisdiction.	In accordance with the manufacturer's Instructions, operations and maintenance manual, and the Authority Having Jurisdiction.
Inspect pumps and verify operation	After initial installation and daily thereafter
Inspect valves and verify operation.	After initial installation and every 3 months thereafter
Inspect pressure tanks and verify operation.	After initial installation and every 3 months thereafter
Clear debris from, clean and inspect storage tanks, locking devices, and verify operation.	After initial installation and every 3 months thereafter
Inspection caution labels and marking	After initial installation and every 3 months thereafter
Cross connection inspection and test*	After initial installation and every 12 months thereafter
Test water quality of alternative water systems required by section 1501.7 to maintain a minimum water quality.	Every 12 months. After system renovation or repair.

*The cross-connection inspection and test shall be performed in accordance with this chapter by a ~~plumber licensed under Minnesota Statutes, section 326B.46, and~~ [an individual](#) certified to ASSE Standard 51120.

** Testing may be required more frequently due to the manufacturer's instructions, operations, and maintenance manual, or the Authority having Jurisdiction.

Subp. 5. **Section 1501.6.** UPC section 1501.6 is amended to read as follows:

1501.6 Operation and Maintenance Manual. An operation and maintenance manual for on-site treated water systems shall be supplied to the building owner by the system designer. The building owner must keep the manual on the premises in one or more locations specified in the O&M manual. The owners

must review the manual annually and update it as appropriate and/or upon request by the Authority having jurisdiction. The operation and maintenance manual must include the following:

1. Detailed diagram of the entire system and the location of system components including: location of approved air gaps, other approved backflow prevention assemblies, flow meters, treatment components, sample ports, and diversion location(s); makeup water source and; public access restrictions in place to minimize human contact with treated nonpotable water.
2. Instructions for operating and maintaining the system including: treatment process operations, instruments and alarms, and any chemicals used; equipment and instrument product manufacturer literature that specifically addresses product installation, recommendations, and maintenance; and end use water management plan.
3. Details on maintaining the required water quality for on-site nonpotable systems including: a compliance monitoring plan including treatment system monitoring, pathogen reduction compliance, and water quality sampling; and provisions for monitoring and managing failure of treatment unit processes.
4. Details on deactivating the system for maintenance, repair, or other purposes.
5. Applicable testing, inspection, and maintenance frequencies in accordance with Table 1501.5 and any requirements of the manufacturer, designer or the Authority Having Jurisdiction.
6. A method of contacting the manufacturer(s), key personnel, qualified operator(s), the installer and designer of the primary treatment system.
7. Any additional information or changes needed to protect public health and the environment that the Authority Having Jurisdiction or the commissioner of health may require.

Subp. 6. **Section 1501.7.** UPC section 1501.7 is amended to read as follows:

1501.7. Minimum Water Quality Requirements. Reclaimed (recycled) water systems shall meet the applicable water quality requirements as determined by the Minnesota Pollution Control Agency for the intended application. On-site treated nonpotable water systems must have a treatment process that achieves the log reduction targets for pathogens and water quality limits listed in Table 1501.7. Treated nonpotable water must continuously achieve the log reduction targets and any inadequately treated nonpotable water not meeting log reduction targets or water quality limits in table 1501.7 must divert to sanitary or storm sewer as appropriate for the source of inadequately treated water.

Table 1501.7

PATHOGEN LOG ₁₀ REDUCTION TARGETS (LRT) FOR INDOOR USE ¹			
Source Water	Virus	Protozoa	Bacteria
Untreated Onsite Wastewater ²	10.0	6.5	5.5
Gray Water ²	7.5	4.0	3.5
Foundation Drainage ³	5.0	3.0	2.5

PATHOGEN LOG ₁₀ REDUCTION TARGETS (LRT) FOR INDOOR USE ¹			
AC Condensate ⁴	N/A	N/A	3.5
WATER QUALITY LIMITS			
	Parameter	Limit	
All	pH	6.0 – 9.0	
Gray Water and On-site Wastewater	5-day Biological Oxygen Demand (DOB)	30mg/l	

¹ Indoor use includes toilet flushing, clothes washing, decorative fountains, trap primers for floor drains and floor sinks, and fire suppression.

² U.S. Environmental Protection Agency. 2025. Risk-Based Framework for Developing Microbial Treatment Targets for Water Resue. U.S. Environmental Protection Agency, office of Research and Development, EPA/600/R-25/009, p. 39.

³ The LRTs for foundation drainage are based on the assumption that foundation drainage will be of similar quality to stormwater containing a small amount of wastewater (.01% dilution).

⁴ the LRTs for AC condensate are assumed to be the same as for rainwater.

Subp. 7 **1501.8.** UPC section 1501.8 is amended to read as follows:

1501.8. **Material Compatibility.** Alternate water source systems shall be constructed of materials that are compatible with the type of pipe and fitting materials, water treatment, and water conditions in the system and listed within the plumbing code.

UPC sections 1501.9 and 1501.10 are preserved without amendment.

Subp. 8. **1501.11.** Section 1501.11 is added as follows:

1501.11. **Operator Qualifications and Duties.** The alternate water system owner must directly employ or maintain a service contract with a qualified operator who will be in charge of the daily and ongoing operations and maintenance of the alternate water source system.

4714.1502 INSPECTION AND TESTING

Subpart 1. **1502.1.** UPC section 1502.1 is amended to read as follows:

1502.1 **General.** Alternate water source systems shall be inspected and tested in accordance with

Section 1502.2 through Section 1502.3.4. The installation of alternate water source systems shall only be permitted when a periodic testing and inspection program conducted by qualified personnel will be provided by an agency acceptable to the Authority Having Jurisdiction. All alternate water source systems shall be registered with and inspection reports submitted to the Authority Having Jurisdiction.

UPC section 1502.2 is preserved without amendment.

Subpart 2. **1502.3.** UPC section 1502.3 is amended to read as follows:

1502.3 Annual Cross-Connection and Water Quality Inspection and Testing. An initial and subsequent annual inspection and test shall be performed on both the potable and alternate water source systems. The potable and alternate water source system shall be isolated from each other and independently inspected and tested to ensure there is no cross-connection in accordance with Section 1502.3.1 through Section 1502.3.4. An initial and subsequent annual inspection and test shall be performed to determine compliance with the log reduction targets for pathogens and applicable water quality limits in accordance with Section 1502.3.5.

- A. **Visual System Inspection.** Before commencing the cross-connection testing, a dual system inspection shall be conducted by the Authority Having Jurisdiction and other authorities having jurisdiction as follows:
1. Meter locations of the alternate water source and potable water lines shall be checked to verify that no modifications were made and that no cross-connections are visible.
 2. Pumps and equipment, equipment room signs and exposed piping in equipment room shall be checked.
 3. Valves shall be checked to ensure that the valve lock seals are still in place and intact. Valve control door signs shall be checked to verify that no signs have been removed.
- B. **Cross-Connection Test.** The procedure for determining cross-connection shall be followed by the plumbing contractor [or an individual certified to ASSE Standard 5110](#) in the presence of the Authority Having Jurisdiction and other authorities having jurisdiction to determine whether a cross-connection has occurred as follows:
1. The potable water system shall be activated and pressurized. The alternate water source system shall be shut down, depressurized, and drained.
 2. The potable water system shall remain pressurized for a minimum period specified by the Authority Having Jurisdiction while the alternate water source system is empty. The minimum period the alternate water source system is to remain depressurized shall be determined on a case-by-case basis, taking into account the size and complexity of the potable and the alternate water source distribution systems, but in no case shall that period be less than 1 hour.
 3. The drain on the alternate water source system shall be checked for flow during the test and fixtures, potable and alternate water source, shall be tested and inspected for flow. Flow from an alternate water source system outlet indicates a cross-connection. No flow from a potable water outlet shall indicate that it is connected to the alternate water source system.
 4. The potable water system shall then be depressurized and drained.
 5. The alternate water source system shall then be activated and pressurized.

6. The alternate water source system shall remain pressurized for a minimum period specified by the Authority Having Jurisdiction while the potable water system is empty. The minimum period the potable water system is to remain depressurized shall be determined on a case-by-case basis, but in no case shall that period be less than 1 hour.
 7. Fixtures, potable, and alternate water source shall be tested and inspected for flow. Flow from a potable water system outlet indicates a cross-connection. No flow from an alternate water source outlet will indicate that it is connected to the potable water system.
 8. The drain on the potable water system shall be checked for flow during the test and at the end of the test.
 9. Where there is no flow detected in the fixtures which would indicate a cross-connection, the potable water system shall be repressurized.
- C. **Discovery of Cross-Connection.** If a cross-connection is discovered, the following procedure, in the presence of the Authority Having Jurisdiction, shall be activated immediately:
1. The alternate water source piping to the building shall be shut down at the meter, and the alternate water source riser shall be drained.
 2. Potable water piping to the building shall be shut down at the meter.
 3. The cross-connection shall be uncovered and disconnected.
 4. The building shall be retested in accordance with Section 1502.3.1 and Section 1502.3.2.
 5. The potable water system shall be chlorinated with 50 parts-per-million (ppm) chlorine for 24 hours.
 6. The potable water system shall be flushed after 24 hours, and a standard bacteriological test shall be performed. Where test results are acceptable, the potable water system shall be permitted to be recharged.
- D. **Annual Inspection.** An annual inspection of the alternate water source system, following the procedures listed in Section 1502.3.1 shall be required. Annual cross-connection testing, following the procedures listed in Section 1502.3.2 shall be required by the Authority Having Jurisdiction, unless site conditions do not require it. In no event shall the test occur less than once in 4 years. Alternate testing requirements shall be permitted by the Authority Having Jurisdiction.
- E. **Water Quality Inspection.** A property served by on-site treated nonpotable water is subject to inspection by the Authority Having Jurisdiction and/or the commissioner of health. An inspection to verify compliance with the log reduction targets for pathogens and applicable water quality limits must be conducted a minimum of annually by the Authority Having Jurisdiction or the commissioner of health.

UPC section 1502.4 is preserved without amendment

Subp. 3. **1502.5.** UPC section 1502.5 is amended to read as follows:

1502.5. **Abandonment.** Alternate water source systems that are no longer in use or fail to be maintained in accordance with Section 1501.5 shall be abandoned. Abandonment shall comply with Section 1502.5.1 and Section 1502.5.2. Written notice of the abandonment must be made to the Authority Having Jurisdiction.

1502.5.1. General. An abandoned system or part thereof covered under the scope of this chapter shall be disconnected from remaining systems, drained, plugged, and capped in an approved manner.

1502.5.2. Underground Tank. An underground water storage tank that has been abandoned or otherwise discontinued from use in a system covered under the scope of this chapter shall be completely drained and filled with earth, sand, gravel, concrete, or other approved material or removed in a manner satisfactory to the Authority Having Jurisdiction.

UPC section 1502.6 is preserved without amendment.

4714.1503 GRAY WATER SYSTEMS

UPC sections 1503.0 to 1503.9 are deleted in their entirety.

4714.1504 SUBSURFACE IRRIGATION SYSTEM ZONES

UPC sections 1504.0 to 1504.11 are deleted in their entirety.

4714.1505 RECLAIMED (RECYCLED) WATER SYSTEMS

Subpart 1. **1505.1.** UPC section 1505.1 is amended to read as follows:

1505.1 General. The provisions of this section shall apply to the installation, construction, alteration, and repair of reclaimed (recycled) water systems intended to supply uses as allowed by the Authority Having Jurisdiction and the reclaimed water purveyor.

Subpart 2. **1505.2.** UPC section 1505.2 is amended to read as follows:

1505.2 Permits. It shall be unlawful for a person or entity to construct, install, alter, or cause to be constructed, installed or altered a reclaimed (recycled) water system within a building without obtaining a permit from the Authority Having Jurisdiction.

Subpart 3. **1505.3.** UPC section 1505.3 is amended to read as follows:

1505.3 System Changes. No changes or connections shall be made to either the reclaimed (recycled) water system or the potable water system within the site containing a reclaiming (recycled) water system without a permit per Minnesota Rules 1300.0120 and approval by the Authority Having Jurisdiction.

UPC sections 1505.4 – 1505.14 are preserved without amendment.

4714.1506 ON-SITE TREATED NONPOTABLE WATER SYSTEMS

Subpart 1. **1506.1.** UPC section 1506.1 is amended to read as follows:

1506.1 **General.** The provisions of this section shall apply to the installation, construction, alteration, and repair of on-site treated nonpotable water systems intended to supply indoor uses such as water closets, urinals, clothes washers, trap primers for floor drains and floor sinks, dust suppression, decorative fountains, vehicle washing, fire suppression, and other uses approved by the Authority Having Jurisdiction and the commissioner of health.

UPC sections 1506.2 – 1506.7~~3~~ are preserved without amendment.

1506.4 Connections to Potable or Reclaimed (Recycled) Water Systems. Potable water is permitted to be used as makeup water for a reclaimed (recycled) water system or storage tank provided the water supply inlet is protected by an air gap or reduced-pressure principle backflow preventer in accordance with this code.

UPC sections 1506.5 – 1506.7 are preserved without amendment

Subp. 2. **1506.8.** UPC section 1506.8 is amended to read as follows:

1506.8 On-Site Treated Nonpotable Water Devices and Systems. Devices or equipment used to treat on-site treated non-potable water to maintain the minimum water quality requirements in section ~~1505.7~~ **1501.7** shall be listed and labeled (third-party certified) by a listing agency (accredited conformity assessment body) or approved for the intended application. For example, certification to NSF/ANSI 350 Annex N-2 is appropriate for commercial graywater treatment systems.

UPC sections 1506.9 and 1506.10 are preserved without amendment.

Subp. 3. **1506.10.** UPC section 1506.10 is amended to read as follows:

1506.10 Design and Installation. The design and installation of on-site treated non-potable systems shall be in accordance with Section 1506.10.1 through Section 1506.10.5.

1506.10.1 Listing Terms and Installation Instructions. On-site -treated nonpotable water system components shall be installed in accordance with the terms of their listing and the manufacturer's installation instructions.

1506.10.2 Disinfection Required. On-site treated nonpotable water supplied to toilets or urinals or for other uses in which it is sprayed or exposed to the public shall carry a free or total chlorine residual. A free chlorine residual of 0.2 mg/L or a total chlorine residual of 0.5 mg/L must be maintained at all points of the distribution system. Potable water shall be supplied to personal hygiene devices (bidets and bidet seats).

1506.10.3 Deactivation and Drainage. The on-site treated non-potable water system and the potable water system within the building shall be provided with the required appurtenances (e.g., valves, air/vacuum relief valves, etc.) to allow for deactivation or drainage as required for a cross-connection test in accordance with Section 1502.3.

1506.10.4 Near Underground Potable Water Pipe. On-site treated non-potable water pipes shall be permitted to be run or laid in the same trench as potable water pipes with a 12 inch (305 mm) minimum vertical and horizontal separation where both pipe materials are approved for use within a building. Where piping materials do not meet this requirement the minimum separation shall be increased to 60 inches (1524 mm). The potable water piping shall be installed at an elevation above the on-site treated non-potable water piping.

1506.10.5 **Required Filters.** A filter permitting the passage of particulates no larger than 100 microns (100 µm) shall be provided for on-site treated non-potable water supplied to water closets, urinals, [and trap primers,](#) ~~and drip irrigation system.~~

UPC sections 1506.11 – 1506.13 are preserved without amendment.

Subp. 4. **1506.14.** Section 1506.14 is added as follows:

1506.14 **Monitoring and Sampling.** An operator must monitor water quality parameters at the locations and frequencies outlined in the operations and maintenance report to ensure compliance with the log reduction targets for pathogens and any water quality limits. ~~The operator must also monitor any parameters required by the Authority Having Jurisdiction.~~

Subp. 5. **1506.15.** Section 1506.15 is added as follows:

1506.15 **Reporting.** The owner must notify the Authority Having Jurisdiction and building users within 24 hours when inadequately treated nonpotable water enters the treated nonpotable water distribution system.

Subp. 6. **1506.16.** Section 1506.16 is added as follows:

1506.16 **Prohibited Discharge to Subsurface Sewage Treatment Systems (SSTS):** On-site treated nonpotable water systems shall not discharge, directly or indirectly, to a Subsurface Sewage Treatment System regulated under Minnesota Rules, chapters 7080 to 7083, including any disposal above or below the ground surface. Such systems shall be designed and constructed so that all treated nonpotable water remains within the internal plumbing of the structure or is discharged to a municipal wastewater collection system.

Subp. 7. **1506.17.** Section 1506.17 is added as follows:

1506.17 **System Location:** All components of an on-site treated nonpotable water system shall be located within the dwelling or building structure it serves. No tanks, treatment devices, or appurtenances associated with the on-site treated nonpotable water system may be installed outside the building footprint.

Subp. 8. **1506.18.** Section 1506.18 is added as follows:

1506.18 **Sewage removal during Operation and Maintenance:** Any solids or liquids removed from an on-site treated nonpotable water system shall be considered domestic septage and be disposed according to Minnesota Rules, part 7080.2450, subpart 6. Collection, transportation, and disposal shall be performed only by a licensed Subsurface Sewage Treatment System. Maintainer in accordance with Minnesota Rules, part 7083.0770.

4714.1601 NONPOTABLE RAINWATER CATCHMENT SYSTEMS

Subpart 1. Scope. Chapter 16 shall not be amended to apply to stormwater or to any alternate water source used for outdoor nonpotable applications.

APPENDIX S ONSITE STORMWATER TREATMENT SYSTEMS

Appendix S of the Uniform Plumbing Code is not adopted.