The statement of scope for this rule, SS 092-24 was approved by the Governor on August 8, 2024, published in Register No. 824A2 on August 12, 2024, and approved by the Natural Resources Board on October 23, 2024. This rule was approved by the Governor on insert date.

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
REPEALING, AMENDING, AND CREATING RULES

The Wisconsin Natural Resources Board proposes an order to **repeal** NR 809.20 (1) contaminant listed in the table as "PFOS and PFOA" and its associated row, 809.203 (1) table rows 30. and 31., Table CM contaminants listed as "Perfluorooctane Sulfonic Acid (PFOS)" and "Perfluorooctanoic Acid (PFOA)" and associated table rows, and Table D listed "Method" "533" and "537.1" and associated table rows, 809.205 (1g) and (1r), 809 Appendix A to Subchapter V contaminant listed in the table as "PFOS and PFOA (ppt)" and its associated row; to **amend** NR 809.07 (1) and (3) and 809.205 (2) (intro.), (a), (b) 1., and (c); and to **create** NR 809.04 (41d), (41h), (41p), (41t), (60c), (60g), (60n), (60r), and (60w), 809.07 (3) table note 2, 809.22, 809.221, 809.222, 809.223, 809.224, 809.225, and 809.226, 809.833 (2) (a) 3., 809 Appendix A Subchapter V table section "Perfluoroalkyl and polyfluoroalkyl substances:", 809 Appendix A to Subchapter VII table section I. Dm. and table notes 16 and 17, 809 Appendix B to Subchapter VII table section Em., and Appendix C to Subchapter VII table rows HI and PFAS; relating to drinking water standards for PFAS and affecting small businesses.

DG-01-24

Analysis Prepared by the Department of Natural Resources

1. Statute Interpreted: Chapters 280 and 281, Wis. Stats.

2. Statutory Authority: Chapters 280 and 281, Wis. Stats., including ss. 280.11, 281.11, 281.12, and 281.17(8), Wis. Stats.

3. Explanation of Agency Authority: Under s. 280.11, Wis. Stats., "[t]he department shall, after public hearing, prescribe, publish, and enforce minimum reasonable standards and rules and regulations for methods to be pursued in the obtaining of pure drinking water for human consumption and the establishing of all safeguards deemed necessary in protecting the public health against the hazards of polluted sources of impure water supplies intended for human consumption.

Under s. 281.11, Wis. Stats., "[t]he department shall serve as the central unit of state government to protect, maintain and improve the quality and management of the waters of the state, ground and surface, public and private. Continued pollution of the waters of the state has aroused widespread public concern. It endangers public health and threatens the general welfare. A comprehensive action program directed at all present and potential sources of water pollution whether home, farm, recreational, municipal, industrial or commercial is needed to protect human life and health. The purpose of this subchapter is to grant necessary powers and to organize a comprehensive program under a single state agency for the enhancement of the quality management and protection of all waters of the state, ground and surface, public and private. To the end that these vital purposes may be accomplished, this subchapter and all rules and orders promulgated under this subchapter shall be liberally construed in favor of the policy objectives set forth in this subchapter."

Under s. 281.12, Wis. Stats., "[t]he department shall have general supervision and control over the waters of the state. It shall carry out the planning, management and regulatory programs necessary for implementing the policy and purpose of this chapter. The department also shall formulate plans and

programs for the prevention and abatement of water pollution and for the maintenance and improvement of water quality. . . The department, upon request, shall consult with and advise owners who have installed or are about to install systems or plants, as to the most appropriate water source and the best method of providing for its purity, or as to the best method of disposing of wastewater, including operations and maintenance, taking into consideration the future needs of the community for protection of its water supply. The department is not required to prepare plans."

Under s. 281.17 (8), Wis. Stats., "[t]he department may establish, administer and maintain a safe drinking water program no less stringent than the requirements of the [federal] safe drinking water act, 42 USC 300f to 300j-26. The department may require owners of water systems to demonstrate the technical, managerial and financial capacity to comply with national primary drinking water regulations under 42 USC 300g-1 and may assist owners of water systems to develop that capacity."

4. Related Statutes or Rules: Chapter NR 809, Wis. Adm. Code – Safe Drinking Water, establishes minimum standards and procedures for the protection of the public health, safety and welfare in the obtaining of safe drinking water.

5. Plain Language Analysis: The objective of the proposed rule is to amend ch. NR 809, Wis. Adm. Code, to establish drinking water standards referred to as Maximum Contaminant Levels (MCLs) based on the new federal standards for certain per- and polyfluoroalkyl substances (PFAS). These include the contaminant compounds perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), perfluorononanoic acid (PFNA), perfluorobutane sulfonic acid (PFBS), and hexafluoropropylene oxide dimer acid (HFPO-DA). The impacts of certain PFAS to Wisconsin's surface water and groundwater sources are threats to public health, welfare, and safety in consuming drinking water. Establishing drinking water standards for certain PFAS contaminants in this rule will protect public health by setting MCLs that may not be exceeded at certain public water systems. If MCLs are exceeded, the public water system must take corrective action to protect public health, welfare and safety of the customers it serves.

The U.S. Environmental Protection Agency (EPA) set individual MCLs for five of the PFAS, including PFOA, PFOS, PFHxS, PFNA, and HFPO-DA. Additionally, EPA established a Hazard Index (HI) MCL to protect public health from mixtures of PFHxS, HFPO-DA, PFNA, and PFBS because of their known additive toxic effects and likely co-occurrence in drinking water. The HI MCL is for any mixture containing two or more of the four compounds at or above the practical quantitation levels.

6. Summary of, and Comparison with, Existing or Proposed Federal Statutes and Regulations: EPA has granted the department primary enforcement authority (primacy) to implement the Safe Drinking Water Act (SDWA). As a primacy state, Wisconsin is required to maintain state law that is no less stringent than the federal regulations implementing the SDWA.

In 2022, the department promulgated state MCLs for PFOA and PFOS (70 ppt individually and combined). At the time, EPA did not have drinking water standards for any PFAS.

In April 2024, EPA finalized federal regulations that create MCLs for PFOS, PFOA, PFHxS, PFNA, PFBS, HFPO-DA and a Hazard Index. The EPA established National Primary Drinking Water Regulation (NPDWR) and health-based Maximum Contaminant Level Goals (MCLGs) for PFOS, PFOA, PFHxS, PFNA, and HFPO-DA. The NPDWR, which in this case is the same as the MCL, is the regulatory enforcement number that takes into consideration feasibility, including currently available analytical methods to measure and treat these chemicals in drinking water. The MCLG is a health-based goal. EPA finalized the following standards for PFOS, PFOA, PFHxS, PFNA, and HFPO-DA:

	NPDWR / MCL (ppt) (unless otherwise noted)	MCLG (ppt)
PFOS	4	0
PFOA	4	0
PFHxS	10	10
PFNA	10	10
HFPO-DA	10	10
Hazard Index	1 (unitless)	Not applicable

EPA's finalized federal regulations use an HI approach to protect public health from mixtures of PFHxS, HFPO-DA, PFNA, and PFBS because of their known additive toxic effects and likely co-occurrence in drinking water. EPA is proposing an HI of 1 (unitless) as the MCLG and MCL for any mixture containing two or more of these compounds because it represents a level at which no known or anticipated adverse human health effects are expected to occur and allows for an adequate margin of safety.

This proposed rule would revise the existing state PFOA and PFOS MCLs to be consistent with (no less stringent than) the new federal MCL standards for PFOA and PFOS, and add the additional MCLs and HI to state rule. By doing so, Wisconsin will retain primary enforcement authority over the state's public water systems. If Wisconsin does not promulgate these rules, Wisconsin could lose its primacy over the water systems in Wisconsin and EPA would enforce the SDWA, including the PFAS standards, directly for all of Wisconsin's water systems.

7. If Held, Summary of Comments Received During Preliminary Comment Period and at Public Hearing on the Statement of Scope:

Public Hearing

The department held a virtual preliminary public hearing on the scope statement on October 3, 2024, at 10:00 AM. This preliminary hearing was a joint hearing pertaining to both this scope statement and scope statement SS 093-24 (DNR number DG-02-24), related to technical corrections to ch. NR 809. Twenty-nine members of the public attended the hearing. Six attendees registered 'in support' and zero registered 'in opposition'. There were four oral comments made during the meeting, three of which related to the PFAS scope. All three comments were in favor of the PFAS rulemaking. Jeff Lamont, the President of Save Our Water, emphasized that private water PFAS drinking water standards should be established in addition to the public water standards covered by this scope statement. Kevin Duffy, with Midwest Environmental Advocates, was in favor of the PFAS promulgation but feels the rulemaking shouldn't take 30 months. He added that there shouldn't be additional costs because water systems are already required to comply with federal law. Peter Burress, with Wisconsin Conservation Voters, supported the PFAS rulemaking but felt that the process shouldn't take 30 months, and urged the DNR to hold a public hearing for the final rule by June 2025.

A recording of the preliminary public hearing is available at:
https://widnr.widen.net/s/qhcpqrwwml/hearing-recording-nr809_10.03.24.

Written Public Comment

The public comment period ended on October 3, 2024. There were four written comments related to the PFAS scope. Two of the comment letters were from organizations that also provided oral testimony, Save Our Water and Wisconsin Conservation Voters, described above. Additionally, John Robinson of Wisconsin's Green Fire wrote in support of efforts to develop groundwater standards for PFAS. Bill

Davis, of River Alliance of Wisconsin, wrote in support of the PFAS rulemaking but felt it should not take 30 months to complete. He also indicated that since public water supplies are required to comply with the federal standards, there should be no additional compliance costs so these rules should not trigger s. 227.139, Stats.

The department considered all comments received but no changes were made to the scope statement. The suggestions for streamlining the rulemaking process and addressing health protection for consumers on private wells are important, but outside the scope of the federal requirements being addressed in this step of administrative rule making. The department will work as expeditiously as possible, but timelines are constrained by proscribed state rulemaking requirements. The comment on costs is better addressed during the economic impact analysis step in the rule making process.

8. Comparison with Similar Rules in Adjacent States: All of the other states in EPA Region Five (Illinois, Indiana, Michigan, Minnesota, Ohio), as well as Iowa, are in the process of adopting the federal PFAS rules. Those states all have primacy over the SDWA and must promulgate PFAS rules to retain primacy.

9. Summary of Factual Data and Analytical Methodologies Used and How Any Related Findings Support the Regulatory Approach Chosen:

The EPA followed the standard process for determining the need for the proposed MCLs. This included establishing these PFAS on the national contaminant candidate list, assessing occurrence in the environment via the Unregulated Contaminant Monitoring Rule, and finalizing National Primary Drinking Water Standards. The Wisconsin Department of Health Services (DHS) also evaluated these MCLs. DHS health advisory information on PFAS in drinking water can be found on the agency's website: Chemicals: Perfluoroalkyl and Polyfluoroalkyl (PFAS) Substances | Wisconsin Department of Health Services

10. Analysis and Supporting Documents Used to Determine the Effect on Small Business or in Preparation of an Economic Impact Report:

Wisconsin-specific data were applied to the national economic model created by EPA, to obtain estimates of the impact to small business in Wisconsin.

References

Economic Analysis for the Final Per- and Polyfluoroalkyl Substances National Primary Drinking Water Regulation: EPA Document No. EPA-815-R-24-001 https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr_final-rule_ea.pdf

Economic Analysis for the Final Per- and Polyfluoroalkyl Substances National Primary Drinking Water Regulation Appendices: EPA Document No. EPA-R-24-002 https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr_final-rule_ea_appendices.pdf

An evaluation of the costs associated with these proposed MCLs for Wisconsin is presented in the department's economic impact analysis (EIA) for this proposed rule. The estimate of the annualized implementation and compliance cost to small business is $1,860,000.

11. Effect on Small Business (initial regulatory flexibility analysis):

This rule regulates non-transient non-community water systems, which often include places like factories, farms, schools, and other places of work. Consistent with the federal PFAS rule, the department will allow for a reduced monitoring frequency of required PFAS monitoring at public water systems below trigger levels of PFAS. Trigger levels are PFAS contaminant levels that are half of the MCL. The reduced

monitoring frequency is every three years, versus the initial requirement of quarterly monitoring. This proposed rule does not include requirements for small businesses beyond what is required under federal law.

12. Agency Contact Person: Dino Tsoris; Constantine.Tsoris@wisconsin.gov; (608) 419-4288

13. Place where comments are to be submitted and deadline for submission:
Written comments may be submitted at the public hearings, by regular mail, or email to:

Department of Natural Resources
Attn: Dino Tsoris – DG/5
PO Box 7921
Madison, WI 53707-7921
Constantine.Tsoris@wisconsin.gov

Comments may be submitted to the department contact person listed above or to DNRAdministrativeRulesComments@wisconsin.gov until the deadline given in the upcoming notice of public hearing. The notice of public hearing and deadline for submitting comments will be published in the Wisconsin Administrative Register and on the department's website, at https://dnr.wisconsin.gov/calendar. Comments may also be submitted through the Wisconsin Administrative Rules Website at https://docs.legis.wisconsin.gov/code/chr/active.

The consent of the Attorney General will be requested for the incorporation by reference of EPA Methods 533 and 537.1, Version 2.0, for analysis of PFAS.

RULE TEXT

SECTION 1. NR 809.04 (41d), (41h), (41p), (41t), (60c), (60g), (60n), (60r), and (60w) are created to read:

NR 809.04 (41d) "Hazard index" or "HI" means the sum of component hazard quotients (HQs), which are calculated by dividing the measured regulated PFAS component contaminant concentration in water by the associated health-based water concentration expressed in the same units as the measured concentration. Contaminant concentrations are expressed in parts per trillion (ppt) or nanograms per liter (ng/l). For PFAS, a mixture Hazard Index greater than 1 is an exceedance of the MCL.

(41h) "Hazard quotient" or "HQ" means the ratio of the measured concentration in drinking water to the health-based water concentration (HBWC).

(41p) "Health-based water concentration" or "HBWC" means the level below which there are no known or anticipated adverse health effects over a lifetime of exposure, including for sensitive populations and life stages, and that allows for an adequate margin of safety.

(41t) "HFPO-DA or GenX chemicals" means Chemical Abstract Service registration number 122499-17-6, chemical formula C6F11O3-, International Union of Pure and Applied Chemistry preferred name 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate, along with its conjugate acid and any salts, derivatives, isomers, or combinations thereof.

(60c) "PFBS" means Chemical Abstract Service registration number 45187-15-3, chemical formula C4F9SO3-, perfluorobutane sulfonate, along with its conjugate acid and any salts, derivatives, isomers, or combinations thereof.

(60g) "PFHxS" means Chemical Abstract Service registration number 108427-53-8, chemical formula C6F13SO3-, perfluorohexane sulfonate, along with its conjugate acid and any salts, derivatives, isomers, or combinations thereof.

(60n) "PFNA" means Chemical Abstract Service registration number 72007-68-2, chemical formula C9F17O2-, perfluorononanoate, along with its conjugate acid and any salts, derivatives, isomers, or combinations thereof.

(60r) "PFOA" means Chemical Abstract Service registration number 45285-51-6, chemical formula C8F15O2-, perfluorooctanoate, along with its conjugate acid and any salts, derivatives, isomers, or combinations thereof.

(60w) "PFOS" means Chemical Abstract Service registration number 45298-90-6, chemical formula C8F17SO3-, perfluorooctanesulfonate, along with its conjugate acid and any salts, derivatives, isomers, or combinations thereof.

SECTION 2. NR 809.07 (1) is amended to read:

NR 809.07 (1) Maximum contaminant level goals (MCLGs) are zero for the following contaminants:

Giardia lamblia
Cryptosporidium
Legionella
Escherichia coli
~~*Viruses*~~ Viruses
Lead
Arsenic
Chloroform
Bromodichloromethane
Bromoform
Bromate
Dichloroacetic acid
Combined radium-226 and radium-228
Beta particle and photon radioactivity
Gross alpha particle activity (excluding radon and uranium)
Uranium
PFOA
PFOS

SECTION 3. NR 809.07 (3) is amended to read (add the following PFAS contaminants alphabetically and amend the MCLG unit reference):

NR 809.07 (3) MCLGs which equal the MCLs are as follows:

Contaminant	**MCLG in ~~mg/ L~~ mg/L (unless otherwise noted)**
Atrazine, (total chlorinated residue)[1]	0.003
Antimony	0.006
Asbestos	7 Million fibers/L (longer than 10 micrometers)
Barium	2
Beryllium	0.004
Cadmium	0.005
Carbofuran	0.04
Chromium	0.1
Copper	1.3
Cyanide (as free Cyanide)	0.2
2,4-D	0.07
Dalapon	0.2
o-Dichlorobenzene	0.6
para-Dichlorobenzene	0.075
1,1-Dichloroethylene	0.007
cis-1,2-Dichloroethylene	0.07
trans-1,2-Dichloroethylene	0.1
Dichloromethane	0.005
Di(2-ethylhexyl)adipate	0.4
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin	0.002
Ethylbenzene	0.7
Fluoride	4.0
Glyphosate	0.7
Hazard Index [2] (HFPO-DA, PFBS, PFHxS, and PFNA)	1 (unitless)
Hexachlorocyclopentadiene	0.05

HFPO-DA	0.00001
Lindane	0.0002
Mercury	0.002
Methoxychlor	0.04
Monochlorobenzene	0.1
Nickel	0.1
Nitrate	10 (as Nitrogen)
Nitrite	1 (as Nitrogen)
Nitrate+Nitrite	10 (as Nitrogen)
Oxamyl	0.2
PFHxS	0.00001
PFNA	0.00001
Picloram	0.5
Selenium	0.05
Simazine	0.004
Styrene	0.1
Toluene	1
1,2,4-Trichlorobenzene	0.07
1,1,1-Trichloroethane	0.2

SECTION 4. NR 809.07 (3) table note 2 is created to read:

NR 809.07 (3) table note [2]The Hazard Index (HI) is the sum of component hazard quotients (HQs), which are calculated by dividing the measured component PFAS concentration in water by the corresponding contaminant's health-based water concentration (HBWC) when expressed in the same units (shown in ng/l). The HBWC for PFHxS is 10 ng/l; the HBWC for HFPO-DA is 10 ng/l; the HBWC for PFNA is 10 ng/l; and the HBWC for PFBS is 2000 ng/l. A Hazard Index greater than 1 (unitless) indicates an exceedance of the health protective level and indicates potential human health risk from the PFAS mixture in drinking water.

SECTION 5. NR 809.20 (1) contaminant listed in the table as "PFOS and PFOA" and its associated row is repealed.

SECTION 6. NR 809.203 (1) table rows 30. and 31. are repealed.

SECTION 7. NR 809.203 Table CM contaminants listed as "Perfluorooctane Sulfonic Acid (PFOS)" and "Perfluorooctanoic Acid (PFOA)" and associated table rows are repealed.

SECTION 8. NR 809.203 Table D listed "Method" "533" and "537.1" and associated table rows are repealed.

SECTION 9. NR 809.205 (1g) and (1r) are repealed.

SECTION 10. NR 809.205 (2) (intro.), (a), (b) 1., and (c) are amended to read:

NR 809.205 (2) MONITORING FREQUENCY FOR SYNTHETIC ORGANIC CONTAMINANTS ~~OTHER THAN PERFLUOROOCTANE SULFONIC ACID AND PERFLUOROOCTANOIC ACID~~. Water suppliers shall monitor to determine compliance with the maximum contaminant level for synthetic organic contaminants ~~other than perfluorooctane sulfonic acid and perfluorooctanoic acid~~ listed under s. NR 809.20 at the following frequencies:

(a) *Initial monitoring.* Water suppliers for new community public water systems or for community public water systems with new sources shall demonstrate compliance with the MCLs listed under s. NR 809.20 for synthetic organic contaminants ~~other than perfluorooctane sulfonic acid and perfluorooctanoic acid~~ prior to initiating water service. Water suppliers for each community and non-transient, non-community water system shall take 4 consecutive quarterly samples for each contaminant listed under s. NR 809.20~~, other than perfluorooctane sulfonic acid and perfluorooctanoic acid,~~ beginning

with the year the public water system initiates water service, or a new source is put into service, and every compliance period after that unless they meet the requirements under par. (b).

(b) 1. "Public water systems serving greater than ~~3,330~~ 3,300." Public water systems serving more than 3,300 persons that do not detect a contaminant in the initial compliance period or during 3 consecutive years of annual monitoring may reduce the sampling frequency to a minimum of 2 quarterly samples in one year during each repeat compliance period.

(c) *Waiver request*. Water suppliers for community and nontransient non-community systems or groundwater systems with new sources may apply to the department for a waiver from the requirements of pars. (a) and (b) for the synthetic organic contaminants ~~other than perfluorooctane sulfonic acid and perfluorooctanoic acid~~ listed under s. NR 809.20. A water supplier shall reapply for a waiver for each compliance period.

SECTION 11. NR 809.22, 809.221, 809.222, 809.223, 809.224, 809.225, and 809.226 are created to read:

NR 809.22 General requirements for per- and polyfluoroalkyl substances. (1) GENERAL. A community water system (CWS) and non-transient, non-community water systems (NTNCWS) must meet the primary drinking water PFAS regulatory requirements of this section and ss. NR 809.221 to 809.226, including the maximum contaminant levels for the PFAS identified in s. NR 809.221.

(2) IMPLEMENTATION DATES. A CWS or NTNCWS, as specified under sub. (1), must meet all of the following deadlines to comply with the provisions of this subsection:

(a) A system must report the results of initial monitoring, as described in s. NR 809.223 (2) (a), to the department by April 26, 2027.

(b) A system must meet the compliance monitoring requirements in s. NR 809.223 (2) (b) by April 26, 2027.

(c) A system must meet the MCL compliance requirements in s. NR 809.224 by April 26, 2029.

(d) A system must meet the reporting and recordkeeping requirements in s. NR 809.225 by April 26, 2027.

(e) Violations described in s. NR 809.226 include monitoring and reporting violations and violations of MCLs. Monitoring and reporting violations shall be assessed beginning on April 26, 2027. MCL violations shall be assessed beginning on April 26, 2029.

(f) Beginning with the first quarter of operations, a new CWS, new NTNCWS, or new source of water that is newly regulated after April 26, 2027, must begin compliance monitoring as specified under s. NR 809.223, meet MCL compliance requirements under s. NR 809.224, and meet the reporting and recordkeeping requirements under s. NR 809.225.

NR 809.221 Perfluoroalkyl and polyfluoroalkyl substances maximum contaminant levels and BATS. (1) APPLICABILITY. The following maximum contaminant levels for PFAS apply to a community water system and non-transient non-community water system.

Table Da

PFAS Maximum Contaminant Levels and Health Based Water Concentrations

Contaminant	MCL (mg/L, unless otherwise noted)	HBWC (mg/L) for hazard index calculation	Chemical Abstract Service (CAS) No.
PFOA	0.0000040	Not applicable	45285-51-6
PFOS	0.0000040	Not applicable	45298-90-6
PFHxS	0.00001	0.00001	108427-53-8
PFNA	0.00001	0.00001	72007-68-2
HFPO-DA	0.00001	0.00001	122499-17-6
PFBS	No individual MCL	0.002	45187-15-3
Hazard Index (HFPO-DA, PFBS, PFHxS, and PFNA)	1 (unitless) [1]	Not applicable	Not applicable

[1]The Hazard Index (HI) is the sum of component hazard quotients (HQs), which are calculated by dividing the measured component PFAS concentration in water by the relevant health-based water concentration when expressed in the same units (shown in ng/l for simplification). The HBWC for PFHxS is 10 ng/l; the HBWC for HFPO-DA is 10 ng/l; the HBWC for PFNA is 10 ng/l; and the HBWC for PFBS is 2000 ng/l.

Note: The Hazard Index = ([HFPO-DA$_{water}$ ng/l]/[10 ng/l]) + ([PFBS$_{water}$ ng/l]/[2000 ng/l]) + ([PFNA$_{water}$ ng/l]/[10 ng/l]) + ([PFHxS$_{water}$ ng/l]/[10 ng/l]). ng/l=nanograms per liter

(2) BEST AVAILABLE TREATMENT. (a) The BATs available for achieving compliance with the maximum contaminant levels for the PFAS substances listed in sub. (1) are listed in Table Da.

Table Db

Best Available Technologies for PFAS

Contaminant	**BAT**
Hazard Index (HFPO-DA, PFBS, PFHxS, and PFNA)	Anion exchange, GAC, reverse osmosis, nanofiltration
HFPO-DA	Anion exchange, GAC, reverse osmosis, nanofiltration
PFHxS	Anion exchange, GAC, reverse osmosis, nanofiltration
PFNA	Anion exchange, GAC, reverse osmosis, nanofiltration
PFOA	Anion exchange, GAC, reverse osmosis, nanofiltration
PFOS	Anion exchange, GAC, reverse osmosis, nanofiltration

(b) *Small system compliance technologies or SSCTs.* The EPA Administrator identifies the following affordable technology, treatment technique, or other means available to systems serving 10,000 persons or fewer for achieving compliance with the maximum contaminant levels for all regulated PFAS identified in sub. (1):

Small System Compliance Technologies, SSCTs, for PFAS	
Small system compliance technology[1]	**Affordable for listed small system categories[2]**
Granular Activated Carbon	All size categories.
Anion Exchange	All size categories.
Reverse Osmosis, Nanofiltration [3]	3,301-10,000.

[1]Section 1412(b)(4)(E)(ii) of SDWA specifies that SSCTs must be affordable and technically feasible for small systems.

[2]The Act (ibid.) specifies three categories of small systems: (i) those serving 25 or more, but fewer than 501, (ii) those serving more than 500, but fewer than 3,301, and (iii) those serving more than 3,300, but fewer than 10,001.

[3]Technologies reject a large volume of water and may not be appropriate for areas where water quantity may be an issue.

(3) ALTERNATIVE TREATMENT. A water supplier may use an alternative treatment not listed in sub. (2) if it is demonstrated to the department, using pilot studies or other means, that the alternative treatment is sufficient to achieve compliance with the MCLs in sub. (1).

NR 809.222 Analytical requirements for per- and polyfluoroalkyl substances. (1) DETECTION LIMITS. For purposes of this section, "detection limit" means greater than or equal to the following concentration for each contaminant:

Table Dc

Limits of Detection for PFAS Substances

Contaminant	**Detection Limit (ng/L)**
Perfluorooctanoic Acid (PFOA)	2.0 ng/L
Perfluorooctanesulfonic Acid (PFOS)	2.0 ng/L
2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA)	5.0 ng/L
Perfluorohexane Sulfonate (PFHxS)	5.0 mg/L
Perfluorononanoate (PFNA)	5.0 ng/L
Hazard Index (HFPO-DA, PFBS, PFHxS, and PFNA)	0.5 (unitless)

(2) ANALYTICAL REQUIREMENTS. (a) *General.* 1. Systems must use only the following analytical methods to demonstrate compliance with the requirements of this section:

(b) *Analytical methods.* Systems must measure regulated PFAS with the methods listed in Table Dd.

Table Dd

Analytical Methods for PFAS Contaminants

Contaminant	Methodology	EPA method
Perfluorobutane Sulfonate (PFBS)	SPE LC-MS/MS	533[1], 537.1, version 2.0[2]
Perfluorohexane Sulfonate (PFHxS)	SPE LC-MS/MS	533[1], 537.1, version 2.0[2]
Perfluorononanoate (PFNA)	SPE LC-MS/MS	533[1], 537.1, version 2.0[2]
Perfluorooctanesulfonic Acid (PFOS)	SPE LC-MS/MS	533[1], 537.1, version 2.0[2]
Perfluorooctanoic Acid (PFOA)	SPE LC-MS/MS	533[1], 537.1, version 2.0[2]
2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA or GenX Chemicals)	SPE LC-MS/MS	533[1], 537.1, version 2.0[2]

[1]EPA Method 533: Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry, 815-B-19-020, November 2019, which is incorporated by reference and available for inspection at the Legislative Reference Bureau and may be obtained from the U.S. Environmental Protection Agency, https://www.epa.gov/pfas/epa-pfas-drinking-water-laboratory-methods.

[2]EPA Method 537.1, Version 2.0: Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS), EPA/600/R-20/006, March 2020, which is incorporated by reference and available for inspection at the Legislative Reference Bureau and may be obtained from the U.S. Environmental Protection Agency, https://www.epa.gov/pfas/epa-pfas-drinking-water-laboratory-methods.

(c) *Laboratory certification.* Analyses under this section for regulated PFAS must only be conducted by laboratories that have received department certification under ch. NR 149 or have been certified by EPA or the department. To receive certification to conduct analyses for the regulated PFAS, the laboratory must comply with all of the following:

1. Analyze Performance Evaluation samples that are acceptable to the state at least once during each consecutive 12-month period by each method for which the laboratory desires certification.

2. Achieve quantitative results on the PE sample analyses that are within the acceptance limits shown under Table De.

Table De

Acceptance Limits for PFAS Performance Evaluation Samples

Contaminant	Acceptance limits (percent of true value)
Perfluorobutane Sulfonate (PFBS)	70-130
Perfluorohexane Sulfonate (PFHxS)	70-130
Perfluorononanoate (PFNA)	70-130
Perfluorooctanesulfonic Acid (PFOS)	70-130
Perfluorooctanoic Acid (PFOA)	70-130
2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propanoate (HFPO-DA or GenX Chemicals)	70-130

3. For all samples analyzed for regulated PFAS in compliance with s. NR 809.223, report data for concentrations as low as the trigger levels as defined under s. NR 809.223 (1) (f).

(3) SAMPLE COLLECTION. Samples must be collected using containers and preservatives and meet the holding times specified in Table Df. When an approved method that is not included in Table Df is used to analyze samples, samples must be collected using containers and preservatives and meet the holding times specified in the approved method. In all cases, samples should be analyzed as soon as possible after collection.

Table Df

Sample Preservation, Holding Times, and Sampling Containers for PFAS Parameters

Method	Preservative	Sample Holding Time	Extract Holding Time and Storage Conditions	Suggested Sample Size	Type of Container
533	Ammonium acetate 1.0 g/L Cool < 10º C during first 2 days after collection or received on ice, ≤ 6º C after 48 hours, not frozen.	28 days, < 6º C	28 days, room temperature	250 mL	250- mL polypropylene bottle fitted with a polypropylene screw-cap
537.1	Trizma 5.0 g/L Cool < 10º C during first 48 hours after collection. 28 days. ≤6 ºC after 48 hours, not frozen.	14 days, < 6º C	28 days, room temperature	250 mL	250- mL polypropylene bottle fitted with a polypropylene screw-cap

NR 809.223 Monitoring requirements for per- and polyfluoroalkyl substances. (1) GENERAL MONITORING REQUIREMENTS. Water suppliers for community and non-transient non-community water systems must monitor for the PFAS listed in s. NR 809.221 (1) for the purposes of determining compliance with the maximum contaminant levels as follows:

(a) Groundwater sources must be sampled under normal operating conditions at every entry point to the distribution system, which is representative of each well after treatment. Each sample must be taken at the same location unless, if approved by the department, conditions make another sampling location more representative of each source or treatment plant.

(b) Surface water sources or combined surface water and groundwater sources must be sampled at each entry point to the distribution system after treatment, or at locations in the distribution system that are representative of each source after treatment under normal operating conditions. Each sample must be taken at the same entry point location unless, if approved by the department, conditions make another sampling location more representative of each source or treatment plant.

(c) If the public water system draws water from more than one source and the sources are combined before distribution, the public water system must be sampled at an entry point to the distribution system during periods of normal operating conditions when water representative of all sources is being used.

(d) A water supplier for a new public water system or for a public water system that uses a new source of water that begins operation after April 26, 2027, must demonstrate compliance with the MCLs specified in s. NR 809.221 (1) in accordance with the requirements in this section. The water supplier must also comply with the initial sampling frequencies specified by the department to ensure the public water system can demonstrate compliance with the MCLs. Compliance monitoring frequencies must be conducted in accordance with the requirements of this section.

(e) Systems must only use data collected under the requirements of this subsection for purposes of qualifying for reduced monitoring.

(f) For purposes of this section, “trigger levels” mean greater than or equal to the following concentrations for each contaminant shown in Table Dh.

Table Dh

Trigger Levels for PFAS Contaminants

Contaminant	**Trigger level**
Hazard Index (HFPO-DA, PFBS, PFHxS, PFNA)	0.5 (unitless)
HFPO-DA	5 nanograms per liter (ng/l)
PFHxS	5 ng/l
PFNA	5 ng/l
PFOA	2.0 ng/l
PFOS	2.0 ng/l

(g) Based on initial monitoring results, for each entry point at which a regulated PFAS listed in s. NR 809.221 (1) is detected at a level greater than or equal to the trigger level, the system must monitor quarterly for all regulated PFAS beginning April 26, 2027, in accordance with sub. (3).

(h) For purposes of this section, each water system must ensure that all results provided by a laboratory are reported to the department and used for determining the required sampling frequencies. This includes values below the practical quantitation levels defined in s. NR 809.224 (1) (f) 1. d.; zero must not be used in place of reported values.

(2) INITIAL MONITORING FOR PFAS. Systems must conduct initial monitoring to determine compliance with the maximum contaminant levels for PFAS listed under s. NR 809.221 (1) using the following specified monitoring requirements and monitoring frequencies:

(a) Groundwater CWS and NTNCWS serving greater than 10,000 persons and all surface water CWS and NTNCWS must take 4 consecutive quarterly samples 2 to 4 months apart within a 12-month period, for each regulated PFAS listed in s. NR 809.221 (1).

(b) All groundwater CWS and NTNCWS serving 10,000 or fewer persons must take 2 samples for each regulated PFAS listed in s. NR 809.221 (1) 5 to 7 months apart within a 12-month period.

(c) All groundwater under the direct influence of surface water CWS and NTNCWS must follow the surface water CWS and NTNCWS monitoring schedule in par. (a) of this section.

(d) All systems that use both surface water and groundwater must apply the requirements in par. (a) to (c) of this section depending on the source of water provided at a given entry point. If the entry point provides surface water, the requirements for a surface water CWS or NTNCWS apply. If the entry point provides groundwater, the requirements for a groundwater CWS or NTNCWS apply, based on system size. If an entry point provides a blend of surface water and groundwater, the requirements for a surface water system apply. For systems that change the source water type at an entry point during the initial monitoring period, the sampling requirements for a surface water system apply.

(e) A water supplier for a new CWS or a CWS with a new source of water, shall demonstrate compliance with the MCLs for PFAS listed under s. NR 809.221 (1) prior to initiating service.

(f) Systems must monitor at a frequency indicated in Table DL, unless the department requires more frequent monitoring on a system-specific basis.

(g) A new CWS, new NTNCWS, or system with a new source of water must monitor at the frequency indicated in Table DL beginning in the first quarter that a new system or a new source of water goes into service.

Table DL

Initial Monitoring Requirements

Type of system	Minimum monitoring frequency	Sample location
Groundwater CWS and NTNCWS serving greater than 10,000 persons, all surface water CWS and NTNCWS, and all GWUDI systems	Four consecutive quarters of samples per entry point within a 12-month period, unless the exception in par. (h) applies. Samples must be taken 2 to 4 months apart.	Sample location for Entry Point
Groundwater CWS and NTNCWS serving 10,000 or fewer persons	Two consecutive samples per EP within a 12-month period, unless the exception in par. (h) applies. Samples must be taken 5 to 7 months apart.	Sample location for Entry Point

(h) The department may accept data that has been previously acquired by a water system to count toward the initial monitoring requirements if the data meet the requirements of s. NR 809.222 (2) (a), and samples were collected starting on or after January 1, 2019, and otherwise meet the timing requirements specified in Table DL. For the purposes of satisfying initial monitoring requirements, acceptable data may be reported to a concentration no greater than the MCLs. However, a system is only eligible for triennial monitoring at the start of the compliance monitoring period if the system demonstrates that concentrations in all samples it uses to satisfy the initial monitoring requirements are below the trigger levels as defined in sub. (1) (f).

(i) If a system has multiple years of data, the most recent data must be used.

(j) A system using previously acquired data that has fewer than the number of samples required in a continuous 12-month period for initial monitoring as listed in Table DL must comply with the following, as applicable:

1. A surface water system, GWUDI system, or a groundwater system serving greater than 10,000 persons must collect in a calendar year one sample in each quarter that was not represented, 2 to 4 months apart from the months with available data.

2. A groundwater system serving 10,000 or fewer persons must collect one sample in the month that is 5 to 7 months apart from the month in which the previous sample was taken.

(k) In determining the most recent data to report, a system must include all results provided by a laboratory, whether above or below the practical quantitation levels. These results must be used for the purposes of determining the frequency with which a system must monitor at that entry point at the start of the compliance monitoring period.

(l) The department may delete results of obvious sampling errors. If the department deletes a result because of an obvious sampling error and the system fails to collect another sample, this is a monitoring violation as described in s. NR 809.226 (3).

(m) Initial monitoring requirements, including reporting results to the department, must be completed by April 26, 2027.

(3) COMPLIANCE MONITORING FOR PFAS. Systems must complete compliance monitoring to determine compliance with the maximum contaminant levels for PFAS listed under s. NR 809.221 (1) using the following specified monitoring conditions and monitoring frequencies:

(a) Based on initial monitoring results, at the start of the monitoring period that begins on April 26, 2027, systems may reduce monitoring at each entry point at which all reported sample concentrations were below all trigger levels defined in sub. (1) (f) of this section, unless otherwise provided for by the department. At eligible entry points, each water system must analyze one sample for all regulated PFAS during each 3-year monitoring period, at a time specified by the department, in the quarter in which the highest analytical result was detected during the most recent round of quarterly or semi-annual monitoring. If an entry point is not eligible for triennial monitoring, then the water system must monitor quarterly at the start of the compliance monitoring period.

(b) If, during the compliance monitoring period, a system is monitoring triennially and a PFAS listed in s. NR 809.221 (1) is detected at a level equal to or exceeding the trigger levels defined in sub. (1) (f) in any sample, then the system must monitor quarterly for all regulated PFAS beginning in the next quarter at the entry point. The triggering sample must be used as the first quarter of monitoring for the running annual average calculation.

(c) For all source water types, the department may determine that all regulated PFAS at an entry point are reliably and consistently below the MCL after considering, at a minimum, 4 consecutive quarterly samples collected during the compliance monitoring period. An entry point that the department has determined to be reliably and consistently below the MCL is required to collect annual samples for at least the first 3 years after that determination is made. Annual samples must be collected in the quarter in

which detected concentrations were highest during the most recent year of quarterly monitoring. If, after 3 consecutive years, annual samples all contain results that are below the trigger levels defined in sub. (1) (f), the department may allow a system to begin triennial monitoring at the entry point. The water system must collect triennial samples in the quarter with the highest concentrations during the most recent round of quarterly sampling. If an annual sample meets or exceeds an MCL or the department determines that the result is not reliably and consistently below the MCL for all regulated PFAS, then the system must monitor quarterly for all regulated PFAS beginning in the next quarter at the entry point.

(d) The 3 different compliance monitoring sampling schedules that may be assigned and the criteria for each are summarized in Table Dp:

Table Dp

Compliance Monitoring Schedules and Requirements

Sampling frequency	**Eligibility requirements** [1]	**Sample timing requirements**
Triennial	At an individual entry point, one of the following is met: (1) All initial monitoring results demonstrate concentrations of all regulated PFAS below trigger levels. (2) The most recent 3 consecutive annual monitoring results all demonstrated concentrations of all regulated PFAS below trigger levels. (3) The previous triennial sample demonstrated all regulated PFAS concentrations below trigger levels. **Note:** After beginning compliance monitoring, a system may not transition directly from quarterly monitoring to triennial monitoring.	Sample must be collected at a time within the 3-year period designated by the department, in the quarter that yielded the highest analytical result during the most recent round of quarterly sampling, or in the most recent semi-annual sampling, if no quarterly sampling has occurred.
Annual	The department makes a determination that all regulated PFAS concentrations at the entry point are reliably and consistently below PFAS MCLs, after considering, at a minimum, 4 consecutive quarterly samples collected during the compliance monitoring period.	Sample must be collected at a time designated by the department, within the quarter that yielded the highest analytical result during the most recent round of quarterly sampling.
Quarterly	At an individual entry point, when one of the following is met: (1) Any regulated PFAS concentration meets or exceeds a trigger level during initial monitoring.	Samples must be collected in 4 consecutive quarters, on dates

	(2) Sampling is occurring quarterly during compliance monitoring and the department has not made a determination that all levels of regulated PFAS at the entry point are reliably and consistently below the regulated PFAS MCLs. (3) A sample collected by a system required to conduct triennial monitoring contains regulated PFAS concentrations that meet or exceed trigger levels. The first of these samples meeting or exceeding the trigger level is considered the first quarterly sample. (4) A sample collected by a system required to conduct annual monitoring contains regulated PFAS concentrations that meet or exceed an MCL. The first of these samples meeting or exceeding the MCL is considered the first quarterly sample.	designated by the department.

[1]The monitoring frequency at an entry point must be the same for all regulated PFAS and is determined based on the most frequent sampling required for any regulated PFAS detected at a level at or exceeding the trigger level.

(e) The department may require a confirmation sample for any sampling result. If a confirmation sample is required by the department, the system must average the result with the first sampling result and the average must be used for the determination of compliance with MCLs as specified by s. NR 809.224. The department may delete results of obvious sampling errors from the MCL compliance calculations described in s. NR 809.224. If the department deletes a result because of an obvious sampling error and the system fails to collect another sample, this is a monitoring violation as described in s. NR 809.226 (3).

(f) The department may increase the required monitoring frequency, where necessary, to detect variations within the system, such as fluctuations in concentration due to seasonal use or changes in the water source.

(g) Each public water system must monitor at the time designated by the department within each monitoring period.

(h) When a system reduces its sampling frequency to annual or triennial sampling, the next compliance sample must be collected in the monitoring period that begins the calendar year following department approval of a reduction in monitoring frequency.

NR 809.224 Compliance requirements for per- and polyfluoroalkyl substances. (1) MCL COMPLIANCE DETERMINATION. (a) Compliance with MCLs for regulated PFAS in s. NR 809.221 (1) must be determined based on the analytical results obtained at each entry point.

(b) For systems monitoring quarterly, compliance with the MCL is determined by the running annual average at each entry point.

(c) If a system fails to collect the required number of samples specified in s. NR 809.223, this is a monitoring violation as described in s. NR 809.226 (3), and compliance calculations must be based on the total number of samples collected.

(d) A system monitoring triennially that has a sample result equal to or exceeding the trigger level of 2.0 ng/l for either PFOS or PFOA, 5 ng/l for HFPO-DA, PFHxS, or PFNA, or a Hazard Index of 0.5 for the Hazard Index, must begin quarterly sampling for all regulated PFAS in the next quarter at the entry point. A system monitoring annually that has a sample result equal to or exceeding the MCL of 4.0 ng/l for either PFOS or PFOA, 10 ng/l for HFPO-DA, PFHxS, or PFNA, or a Hazard Index of 1 for the Hazard Index, must begin quarterly sampling for all regulated PFAS in the next quarter at the entry point.

(e) Except as provided in this paragraph, if a sample result exceeds an MCL, the system will not be considered in violation of the MCL until it has completed one year of quarterly sampling at the entry point with the triggering sample used as the first quarter of monitoring for the running annual average calculation. However, whenever a sample result in any quarter, or quarterly average, or if more than one compliance sample is available in a quarter because a confirmation sample was required by the department, causes the running annual average to exceed the MCL at an entry point regardless of the subsequent quarterly monitoring results required to complete a full year of monitoring, the system is out of compliance with the MCL immediately.

(f) Systems must calculate compliance using the following methods, as applicable, to determine MCL compliance at each entry point:

1. For each PFAS regulated by an individual MCL, calculation procedures are as follows:

a. For a system monitoring quarterly, divide the sum of the measured quarterly concentrations for each analyte by the number of quarters samples were collected for that analyte during the consecutive quarters included in the calculation. If more than one compliance sample for that analyte is available in a quarter because a confirmation sample was required by the department, the system must average all the

results in a quarter then average the quarterly averages. Rounding does not occur until the end of the calculation. If the running annual average exceeds the MCL, the system is not in compliance with the MCL requirements.

b. For a system monitoring annually, if the concentration measured is equal to or exceeds an MCL for regulated PFAS, the system is required to initiate quarterly monitoring for all regulated PFAS beginning in the next quarter at the entry point, with the triggering sample result used as the first quarter of monitoring for the running annual average calculation.

c. For a system monitoring triennially, if the concentration measured is equal to or exceeds the trigger level, the system is required to initiate quarterly monitoring for all regulated PFAS beginning in the next quarter at the entry point, with the triggering sample result used as the first quarter of monitoring for the running annual average calculation.

d. For the purpose of calculating MCL compliance, if a sample result is less than the practical quantitation level for a regulated PFAS, in accordance with Table Dr, zero is used for that analyte solely for the purpose of calculating the running annual average.

Table Dr

Practical Quantitation Levels (PQLs) for PFAS Contaminants

Contaminant	PQL (in parts per trillion)
HFPO-DA	5.0
PFBS	3.0
PFHxS	3.0
PFNA	4.0
PFOA	4.0
PFOS	4.0

2. For each PFAS regulated under the Hazard Index MCL, calculation procedures are as follows:

a. For a system monitoring quarterly, divide the observed sample analytical result for each analyte included in the Hazard Index by the corresponding HBWC under s. NR 809.221 (1) to obtain a hazard quotient for each analyte for each sampling event at each entry point. Sum the resulting hazard quotients

together to determine the Hazard Index for the quarter. If the department requires a confirmation sample for an analyte in the quarter, the system must average these results for each analyte in that quarter and then determine the hazard quotient or quotients from those average values, then sum the hazard quotients. Once the Hazard Indices for the individual quarters are calculated, they are averaged to determine a running annual average. If the running annual average Hazard Index exceeds the MCL and two or more Hazard Index analytes had an observed sample analytical result at or above the practical quantitation level in any of the quarterly samples collected to determine the running annual average, the system is in violation of the Hazard Index MCL. No rounding occurs until after the running annual average Hazard Index is calculated.

b. If the Hazard Index calculated using the results of an annual sample equals or exceeds the Hazard Index MCL, the system must initiate quarterly sampling for all regulated PFAS beginning in the next quarter at the entry point, with the triggering sample result used as the first quarter of monitoring.

c. If the Hazard Index calculated using the results of a triennial sample equals or exceeds the Hazard Index trigger level, the system must initiate quarterly sampling for all regulated PFAS beginning in the next quarter at the entry point, with the triggering sample result used as the first quarter of monitoring.

d. If a sample result is less than the practical quantitation level for a regulated PFAS, in accordance with Table Dr, zero is used for that analyte solely for purposes of calculating the running annual average.

(2) DETECTION OF PFAS NOT LISTED IN S. NR 809.221. Any detection of a PFAS contaminant not listed in s. NR 809.221 (1) must be reported to the department with the other monitoring reports required under this section. The laboratory must indicate whether any detected PFAS contaminant not listed in s. NR 809.221 (1) has been confirmed or tentatively identified, and when a numerical result is reported, whether the result is quantitative or an estimate.

(3) USE OF ANALYTICAL RESULTS. The department must determine compliance or initiate enforcement action based upon analytical results and other information compiled by the department or other state sanctioned representatives and agencies.

NR 809.225 Reporting and recordkeeping requirements. A system required to sample must report to the department according to the timeframes and provisions of s. NR 809.80 and retain records

according to the provisions in s. NR 809.82. A system must comply with the following reporting requirements, as applicable:

(**1**) A system conducting initial monitoring under s. NR 809.223 (2) must report sample results, including the location of each entry point, number of samples taken at each location, dates, concentrations, and whether a trigger level, defined in s. NR 809.223 (1) (f), was met or exceeded in any samples.

(2) A system conducting compliance monitoring under s. NR 809.223 (3) on a quarterly basis must report all of the following information collected during each compliance monitoring period:

(a) All sample results, including the location of each entry point, number of samples taken at each location, dates, and concentrations during the previous quarter.

(b) The running annual average at each entry point of all compliance samples.

(c) Whether a trigger level, defined in s. NR 809.223 (1) (f) was met or exceeded in any samples.

(d) Whether an MCL for a regulated PFAS in s. NR 809.221 (1) was met or exceeded in any samples.

(e) Whether, based on s. NR 809.224, an MCL was violated.

(3) A system conducting compliance monitoring under s. NR 809.223 (3) less frequently than quarterly must report all of the following information collected during each compliance monitoring period:

(a) All sample results, including the locations of each entry point, number of samples taken at each location, dates, and concentrations during the previous monitoring period.

(b) Whether a trigger level, defined in s. NR 809.223 (1) (f) was met or exceeded in any samples.

(c) Whether an MCL for a regulated PFAS in s. NR 809.221 (1) was met or exceeded in any samples.

(d) Whether, based on s. NR 809.224, an MCL was violated, meaning that the results from a single sample are more than 4 times the MCL.

NR 809.226 Violations. (1) PFAS MCL violations, both for the individual PFOA, PFOS, HFPO-DA, PFHxS, and PFNA MCLs, as well as the Hazard Index MCL, as listed in s. NR 809.221 (1) are based on a running annual average, as outlined under s. NR 809.224.

(2) Compliance with s. NR 809.221 (1) must be determined based on the analytical results obtained at each entry point. If one entry point is in violation of an MCL, the system is in violation of the MCL.

(3) Each failure to monitor in accordance with the requirements under s. NR 809.223 is a monitoring violation.

(4) Failure to notify the department following an MCL violation and failure to submit monitoring data in accordance with the requirements of ss. NR 809.225 and 809.80 are reporting violations.

(5) Results for PFAS with individual MCLs under s. NR 809.221 (1) are compared to their respective MCLs, and results for mixtures of two or more of the Hazard Index PFAS, including HFPO-DA, PFBS, PFHxS, and PFNA, are compared to the Hazard Index MCL under s. NR 809.221 (1). For determining compliance with the Hazard Index MCL, if only PFBS is reported at any concentration and no other regulated PFAS are in the mixture, it is not a violation of the Hazard Index MCL. If only one of the other PFAS within the Hazard Index (HFPO-DA, PFHxS, and PFNA) is detected and the level of this PFAS exceeds its MCL under s. NR 809.224 (1) (f) 1. a., only an individual MCL violation is assessed for the individual PFAS detected, and it is not a violation of the Hazard Index MCL. Exceedances of the Hazard Index caused by 2 or more of the Hazard Index PFAS, including HFPO-DA, PFBS, PFHxS, and PFNA, and exceedances of one or more individual MCLs can result in multiple MCL exceedances, except for purposes of public notification under appendix A, to subchapter VII, the system must only report the Hazard Index MCL exceedance.

SECTION 12. NR 809.833 (2) (a) 3. is created to read:

NR 809.833 (2) (a) 3. Hazard Index or HI: The Hazard Index is an approach that determines the health concerns associated with mixtures of certain PFAS in finished drinking water. Low levels of multiple PFAS that individually would not likely result in adverse health effects may pose health concerns when combined in a mixture. The Hazard Index MCL represents the maximum level for

mixtures of two or more of PFHxS, PFNA, HFPO-DA, and PFBS allowed in water delivered by a public water system. A Hazard Index greater than 1 requires a system to take action.

SECTION 13. NR 809 Appendix A to Subchapter V contaminant listed in the table as "PFOS and PFOA (ppt)" and its associated row is repealed.

SECTION 14. NR 809 Appendix A Subchapter V table section "Perfluoroalkyl and polyfluoroalkyl substances:" is created after the table section titled "Synthetic organic contaminants including pesticides and herbicides" to read:

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR, multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Perfluoroalkyl and polyfluoroalkyl substances:						
Hazard Index PFAS (HFPO-DA, PFBS, PFHxS, and PFNA) (unitless)	1 (unitless)	N/A	1	1	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	Per- and polyfluoroalkyl substances (PFAS) can persist in the human body and exposure may lead to increased risk of adverse health effects. Low levels of multiple PFAS that individually would not likely result in increased risk of adverse health effects may result in adverse health effects when combined in a mixture. Some people who consume drinking water containing mixtures of PFAS in excess of the Hazard Index (HI) MCL may have increased health risks such as liver, immune, and thyroid effects following exposure over many years and developmental and thyroid effects following repeated exposure during pregnancy and/or childhood.
HFPO-DA (ng/l)	0.00001	1,000,000	10	10	Discharge from manufacturing and industrial	Some people who drink water containing HFPO-DA in excess of the MCL over many years may have increased

					chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	health risks such as immune, liver, and kidney effects. There is also a potential concern for cancer associated with HFPO-DA exposure. In addition, there may be increased risks of developmental effects for people who drink water containing HFPO-DA in excess of the MCL following repeated exposure during pregnancy and/or childhood.
PFHxS (ng/l)	0.00001	1,000,000	10	10	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	Some people who drink water containing PFHxS in excess of the MCL over many years may have increased health risks such as immune, thyroid, and liver effects. In addition, there may be increased risks of developmental effects for people who drink water containing PFHxS in excess of the MCL following repeated exposure during pregnancy and/or childhood.
PFNA (ng/l)	0.00001	1,000,000	10	10	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	Some people who drink water containing PFNA in excess of the MCL over many years may have increased health risks such as elevated cholesterol levels, immune effects, and liver effects. In addition, there may be increased risks of developmental effects for people who drink water containing PFNA in excess of the MCL following repeated exposure during pregnancy and/or childhood.
PFOA (ng/l)	0.0000040	1,000,000	4.0	0	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain	Some people who drink water containing PFOA in excess of the MCL over many years may have increased health risks such as cardiovascular, immune, and liver effects, as well as increased incidence of certain types of cancers including kidney and testicular cancer. In addition, there may be increased risks of developmental and immune

					firefighting activities	effects for people who drink water containing PFOA in excess of the MCL following repeated exposure during pregnancy and/or childhood.
PFOS (ng/l)	0.0000040	1,000,000	4.0	0	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities	Some people who drink water containing PFOS in excess of the MCL over many years may have increased health risks such as cardiovascular, immune, and liver effects, as well as increased incidence of certain types of cancers including liver cancer. In addition, there may be increased risks of developmental and immune effects for people who drink water containing PFOS in excess of the MCL following repeated exposure during pregnancy and/or childhood.

SECTION 15. NR 809 Appendix A to Subchapter VII table section I. Dm. and table notes 16 and 17 are created to read:

Appendix A to Subchapter VII

Contaminant	**MCL/MRDL/TT violations [2]**		**Monitoring & testing procedure violations**	
	Tier of public notice required	**Citation (Wis. Adm. Code)**	**Tier of public notice required**	**Citation (Wis. Adm. Code)**
I. Dm. Perfluoroalkyl and polyfluoroalkyl substances:				
1. Hazard Index	2[16,17]	NR 809.221 (1)	3	NR 809.223
2. HFPO-DA	2[16]	NR 809.221 (1)	3	NR 809.223
3. PFHxS	2[16]	NR 809.221 (1)	3	NR 809.223
4. PFNA	2[16]	NR 809.221 (1)	3	NR 809.223
5. PFOA	2[16]	NR 809.221 (1)	3	NR 809.223
6. PFOS	2[16]	NR 809.221 (1)	3	NR 809.223

[16] Beginning April 26, 2029.

[17] Systems that violate the Hazard Index MCL and one or more individual MCLs based on the same contaminants may issue one notification to satisfy the public notification requirements for multiple violations pursuant to s. NR 809.952.

SECTION 16. NR 809 Appendix B to Subchapter VII table section Em. is created to read:

Appendix B to Subchapter VII

Contaminant	MCLG [1] mg/L	MCL [2] mg/L	Standard health effects language for public notification
Em. Perfluoroalkyl and polyfluoroalkyl substances:			
54c. Hazard Index (HFPO-DA, PFBS, PFHxS, and PFNA)	1 (unitless)	1 (unitless)	Per- and polyfluoroalkyl substances (PFAS) can persist in the human body and exposure may lead to increased risk of adverse health effects. Low levels of multiple PFAS that individually would not likely result in increased risk of adverse health effects may result in adverse health effects when combined in a mixture. Some people who consume drinking water containing mixtures of PFAS in excess of the Hazard Index (HI) MCL may have increased health risks such as liver, immune, and thyroid effects following exposure over many years and developmental and thyroid effects following repeated exposure during pregnancy and/or childhood.
54g. HFPO-DA	0.00001	0.00001	Some people who drink water containing HFPO-DA in excess of the MCL over many years may have increased health risks such as immune, liver, and kidney effects. There is also a potential concern for cancer associated with HFPO-DA exposure. In addition, there may be increased risks of developmental effects for people who drink water containing HFPO-DA in excess of the MCL following repeated exposure during pregnancy and/or childhood.
54L. PFHxS	0.00001	0.00001	Some people who drink water containing PFHxS in excess of the MCL over many years may have increased health risks such as immune, thyroid, and liver effects. In addition,

			there may be increased risks of developmental effects for people who drink water containing PFHxS in excess of the MCL following repeated exposure during pregnancy and/or childhood.
54p. PFNA	0.00001	0.00001	Some people who drink water containing PFNA in excess of the MCL over many years may have increased health risks such as elevated cholesterol levels, immune effects, and liver effects. In addition, there may be increased risks of developmental effects for people who drink water containing PFNA in excess of the MCL following repeated exposure during pregnancy and/or childhood.
54t. PFOA	Zero	0.0000040	Some people who drink water containing PFOA in excess of the MCL over many years may have increased health risks such as cardiovascular, immune, and liver effects, as well as increased incidence of certain types of cancers including kidney and testicular cancer. In addition, there may be increased risks of developmental and immune effects for people who drink water containing PFOA in excess of the MCL following repeated exposure during pregnancy and/or childhood.
54x. PFOS	Zero	0.0000040	Some people who drink water containing PFOS in excess of the MCL over many years may have increased health risks such as cardiovascular, immune, and liver effects, as well as increased incidence of certain types of cancers including liver cancer. In addition, there may be increased risks of developmental and immune effects for people who drink water containing PFOS in excess of the MCL following repeated exposure during pregnancy and/or childhood.

SECTION 17. NR 809 Appendix C to Subchapter VII table rows HI and PFAS are created to read:

HI…… Hazard Index

PFAS …...Per- and Polyfluoroalkyl Substances

SECTION 18. EFFECTIVE DATE. This rule takes effect on the first day of the month following publication in the Wisconsin Administrative Register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 19. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on [DATE].

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN

DEPARTMENT OF NATURAL RESOURCES

BY _____

For Karen Hyun, Ph.D., Secretary