New Maximum Contaminant Levels (MCLs) for Perfluorooctanoic acid (PFOA), Perfluorooctane sulfonate (PFOS) and 1,4-Dioxane

Frequently Asked Questions for Public Water Supplies (PWS)

August 25, 2020

This document is intended to help answer frequently asked questions a PWS may have about the newly adopted maximum contaminant levels (MCLs) of 0.0000100 mg/L (10 ppt) for PFOA, 0.0000100 mg/L (10 ppt) for PFOS and 0.0010 mg/L (1.0 µg/L) for 1,4-dioxane. *This document contains information about:*

I. Monitoring

Q1: When does each Public Water System (PWS) need to begin monitoring?

The MCL will be immediately effective upon publication of the Notice of Adoption in the New York State Register on August 26, 2020. A public water system (PWS) that serves 10,000 persons or more must begin monitoring for PFOA, PFOS and 1,4-Dioxane within 60 days of adoption, or by October 25, 2020. A PWS that serves 3,300 to 9,999 people must begin monitoring for these compounds within 90 days of adoption, or by November 25, 2020 and a PWS that serves less than 3,300 must begin monitoring within 6 months of adoption, or by February 25, 2020.

Q2. Which water systems need to monitor for these compounds?

Community Water Systems (CWS) and non-transient noncommunity (NTNC) water systems that meet the federal definition of a PWS must monitor for these compounds in accordance with Subpart 5-1 Table 9C. Transient noncommunity water systems (NC) and non-public water systems (NP) may be required to monitor if the LHD determines that the source serving the PWS is at risk for and/or susceptible to contamination by one or more of these compounds. Reasons that a NC may be required to monitor for these compounds, include but are not limited to:

- Proximity to a known or potential source of PFOA, PFOS or 1,4-dioxane; or
- Proximity to a CWS that has one or more water supply source(s) containing one more of these compounds above the MCL;

LHDs should work with their regional water supply field coordinator if they are unsure whether a transient NC water system should monitor for these compounds.

Q3: What is considered the population served for the purposes of monitoring requirements?

The population served is the total population served by the sources being tested. Consecutive systems served by a PWS should be included in the PWS population. If a PWS serves a portion of a consecutive system and the LHD or PWS has a reasonable method of determining that population, only the population in the consecutive system served by the wholesale or parent system needs to be counted.

Q4: How often are samples required to be collected?

The monitoring requirements for PFOA, PFOS and 1,4-Dioxane are specified in Subpart 5-1, Table 9C. Each PWS must complete quarterly monitoring on the schedule that corresponds with the size of the population served. Each PWS with a surface water source or with a groundwater under the direct influence of surface water (GWUDI) source must collect four consecutive quarters of source samples. A PWS with a ground water source may reduce source monitoring to annually only if the compounds are not detected for two consecutive quarters.

Q5: Are PFOA, PFOS and 1,4-Dioxane considered principal organic compound (POC) or a specific organic contaminant (SOC) under Part 5?

All three compounds are SOCs for the purpose of this regulation.

Q6: What are the Environmental Laboratory Approval Program (ELAP) approved laboratory methods for drinking water source samples?

Currently the ELAP approved laboratory methods that can be used for drinking water source supply samples are EPA 533, EPA 537, EPA 537.1 and the isotope dilution method (ISO) for PFOA and PFOS. The approved method for 1,4-Dioxane is EPA 522. EPA released method 533 in December of 2019 that includes a larger suite of per- and polyfluoroalkyl substances (PFAS) including replacement compounds.

Q7. Where can I get a list of ELAP certified laboratories for drinking water sample analyses?

The ELAP program has recently updated its search engine for approved laboratories. The search engine can be accessed at https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/. Make sure to select “Potable Water” as the category under the advanced search section.

Q8. How do I determine if a compound has been detected?

A compound is detected if it is reported by the State approved laboratory to be greater than or equal to the method detection limit.

Q9: Does a PWS need to monitor and report only PFOA, PFOS and 1,4-Dioxane or does it need to report all analytes in the method?

For initial monitoring, a PWS is only required to monitor for and report the laboratory analytical results of PFOA, PFOS and 1,4-Dioxane, although we recognize that some laboratories may analyze for and a PWS may request additional analytes. If a PWS receives a laboratory report that includes analytes other than PFOA, PFOS and 1,4-Dioxane, all analytes must be reported to the LHD and all analytes must be entered into the State Drinking Water Information System (SDWIS), even those that are not detected. In accordance with Table 9C, footnote 3, if a contaminant is detected at a PWS that serves 3,300 or more persons, repeat analysis must include all analytes contained in the approved analytical method for the

detected contaminant. All detected compounds must be reported in the Annual Water Quality Report (AWQR).

Q10: Do the 10 ppt MCLs for PFOA and PFOS apply to any other PFAS compounds that may be detected?

The 10 ppt MCLs apply to PFOA and PFOS, and to each compound individually (not to the sum). If other compounds are detected and PFOA and PFOS are both below the MCL, LHDs should contact their regional field coordinator for further guidance.

Q11: If neither PFOA nor PFOS are detected, but other Perfluoroalkyl substances (PFAS) are detected, should the PWS remain on quarterly monitoring?

Yes. The PWS should remain on quarterly monitoring until the LHD determines that the detected PFAS compound(s) is(are) reliably and consistently below the MCL for Unspecified Organic Contaminants (UOCs) per Table 3. If other compounds are detected, and PFOA and PFOS are both below the MCL, LHDs should contact their regional field coordinator for further guidance.

Q12: Can initial monitoring for PFOA, PFOS and 1,4-Dioxane be waived if a PWS has a waiver from SOC monitoring?

No. Initial monitoring for these compounds cannot be waived.

Q13. After initial monitoring, can a PWS apply for a SOC waiver?

A PWS should not monitor for SOCs less frequently than every three years except in very rare circumstances.

Q14: Can a PWS use data from the EPA's third Unregulated Contaminant Monitoring Rule (UCMR 3) or other previously collected samples to fulfill its initial monitoring requirement?

UCMR 3 data cannot be used to meet the initial monitoring requirements for PFOA and PFOS under the new Part 5 monitoring requirements. The reporting limit for both PFOA and PFOS under UCMR 3 was above the NYS adopted MCL for each of these compounds.

Previously collected source water sample data can only be used to satisfy the initial monitoring requirement under Part 5 if:

- Samples were analyzed by a NYS ELAP- certified lab;
- Samples were collected quarterly for one year at the monitoring location(s) as required in Table 9C, or compounds were not detected for two consecutive quarters of samples for a PWS with a groundwater source;
- the PWS must be placed on routine monitoring in accordance with Table 9C; and
- The previously collected samples used to satisfy the initial monitoring requirement must be added to SDWIS, including any PFAS compound(s) that was (were) analyzed and reported in addition to PFOA and PFOS.

Some LHDs have already/previously implemented robust monitoring programs for PFOA, PFOS and/or 1,4-Dioxane. The Department will work with those LHDs individually to determine the best monitoring schedule for each PWS.

Q15: Will the State provide small system monitoring assistance for initial monitoring?

Each PWS should plan to conduct initial monitoring at their expense.

Q16. Will compositing of samples be permissible as defined in the Subpart 5-1.52 SOC table?

Compositing samples will be allowed. Compositing must be conducted in accordance with the specified requirements as outlined in Subpart 5-1.

Q17. Will source water monitoring be acceptable in lieu of entry point sampling for a PWS with a population <3,300?

Yes. Table 9C, footnote 1 states, "The location for sampling of each ground water source of supply shall be between the individual well and at or before the first service connection and before mixing with other sources, unless otherwise specified by the State to be at the entry point representative of the individual well…" This footnote applies to a PWS of any size.

Q18. If a PWS serves more than one jurisdiction (i.e., county), which jurisdiction should the PWS report to?

The PWS should report to the jurisdiction in which the source water is located.

II. Reporting

Q1: What are the reporting requirements for PFOA, PFOS, and 1,4-Dioxane?

A PWS must submit monitoring results to the LHD by the 10th day of the month following the monitoring period in accordance with 5-1.72(c) if the sample does not exceed the MCL. In accordance with Table 13, the PWS must notify the State when a single sample exceeds the MCL. Section 5-1.77(a) states that the PWS must notify the State with 24 hours of any other violation or situation that may pose a risk to public health. A PWS operator that fails to notify the State that they may be in violation of the MCL should be cited with a Type 75 violation. In accordance with the regulations, the PWS must provide the following information:

- a description of the violation or situation, including the contaminant of concern, and (as applicable) the laboratory detected/reported contaminant level;
- the date/time when the violation or situation occurred;
- the actions that the PWS is taking to correct the violation or situation; and
- the date or anticipated timeframe when the PWS expects to return to compliance.

Q2: Is electronic data reporting available?

Electronic data reporting is expected to soon be available. In accordance with Subpart 5-1.74(c), the owner of a PWS shall ensure that the ELAP approved laboratory performing the analyses submits laboratory results to the department in a manner as prescribed by the Department.

III. Enforcement

Q1: How is the MCL calculated?

Per Subpart 5-1.52 Table 3, if the analytical results of a monitoring sample exceed the MCL, the supplier of water shall collect one to three more samples from the same sampling point, as soon as practical, but within 30 days. An MCL violation occurs when the contaminant is detected in at least one of the confirming samples and the mathematical average of the initial sample and all confirming samples exceeds the MCL.

Q2: Will LHDs need to place a PWS that is in violation of the MCL on a formal compliance schedule?

Similar to other MCL violations, if a PWS is in violation of either the PFOA, PFOS or 1,4-Dioxane MCLs, or any combination of one or more of these MCLs, the LHD is expected to initiate appropriate actions using available enforcement resources to ensure the PWS achieves compliance as soon as practical.

Q3: What are the best available technologies (BATs) for achieving MCL compliance?

In accordance with Subpart 5-1.91 (d), the BAT for PFOA and PFOS is granular activated carbon (GAC). The BAT for 1,4-Dioxane is advanced oxidation process (AOP).

Q4: Will blending be allowed as a permanent solution for achieving and maintaining MCL compliance?

Guidance is being revised to incorporate additional flexibility to allow blending as a long-term solution, with adequate controls. This change is being made in recognition of the challenges that a PWS with limited options may have in implementing a viable and sustainable long-term BAT.

IV. Public Notification

Q1: If a PWS exceeds the MCL, what are the public notification requirements?

If a PWS exceeds the MCL for either PFOA, PFOS or 1,4-Dioxane, it is required to notify the public in accordance with Subpart 5-1, Table 13. PFOA, PFOS and 1,4-Dioxane are addressed on Table 9C, and public notification must be completed according to the requirements of Tier 2. The Department is developing standard health effects language for PFOA, PFOS and 1,4-Dioxane that will be shared with the LHDs once it is complete.

Q2: What information must be reported in the Annual Water Quality Report (AWQR) for these compounds?

The AWQR guidance document will be updated to include PFOA, PFOS and 1,4-Dioxane. Beginning in 2020, a PWS that serves more than 10,000 people must distribute the AWQR twice per year under the American Water Infrastructure Improvement Act (AWIA).

V. Granular Activated Carbon (GAC) Design

Q1: Who will approve plans for GAC?

In most cases, the LHD will approve plans for a PWS that serves less than 1,000 persons. All projects that received financing under the Drinking Water State Revolving Fund (DWSRF) or Water Infrastructure Improvement Act (WIIA) must be approved by the BWSP in coordination with the LHD.

Q2: Can point of use (POU) GAC systems be used?

POU GAC systems will not be an accepted form of treatment for PFOA, PFOS and/or 1,4-Dioxane.

Q3: Will GAC guidance and plan review training be made available to LHDs?

The BWSP is developing guidance on reviewing GAC treatment systems. The BWSP intends to offer training to LHDs on this guidance. Recommended Standards for Water Works should be used as a general guidance for GAC design, however, the GAC components are not comprehensive.

Q4: Is there a template available for the application, design and installation of GAC, and, does it need to be signed by a Professional Engineer (P.E.)?

The BWSP is developing a template that can be used by a PWS that is 30 gallons per minute (gpm) or 43,200 gallons per day (gpd) or less. When using this template, a water operator or owner that has sufficient knowledge of the PWS can sign the request of the submission for GAC design application. The LHD having jurisdiction must be contacted first before using this template, and the plans must be stamped by a P.E.

Q5: Is pilot testing required for GAC systems?

Piloting is not required for GAC systems.

VI. Advanced Oxidation Process (AOP) Design

Q1: Who will approve plans and specifications for AOP systems?

In most cases, the BWSP will review and approve plans and specifications for AOP systems. LHDs are encouraged to coordinate review with the BWSP.

Q2: Can POU AOP systems be used?

POU AOP systems will not be accepted as a form of treatment for PFOA, PFOS and/or 1,4-Dioxane.

Q3: Is pilot testing required for AOP systems?

Full scale pilot systems will be required for most AOP systems. Requests to forego pilot testing will be handled on a case-by-case basis, with input from the LHD.

VII. Operation and Maintenance

Q1. When is a PWS required to replace its GAC?

The BWSP is developing GAC operation, monitoring and maintenance guidance. The efficacy of GAC should be routinely monitored and the GAC changed out prior to an occurrence of an MCL exceedance. It is recommended that a PWS with GAC treatment remain on quarterly monitoring at entry point to ensure continued compliance with the MCL, even if the PWS is reliably and consistently below the MCL.

VIII. Operator Certification

Q1. What operator grade can operate GAC treatment?

GAC treatment that does not require a certified water treatment system operator to exchange media inside a container (media exchange is performed by a qualified contractor) may be operated by Operator Grades A, B, C, or D. GAC treatment systems that require periodic replacement of GAC filter media by the operator may be operated utilized and managed by Operator Grades A, B, or C.

Q2. What operator grade can operate an AOP?

AOP systems use or combine two or more oxidizing agents to create hydroxyl radicals for elimination of organic pollutants. Typical AOP treatment consists of oxidizing agents (UV and/or ozone and/or hydrogen peroxide) + GAC finish. An AOP treatment system may be operated by Operator Grades A, B, or C.

IX. Deferrals

Q1: What is a deferral?

Subdivision 5-1.51(p) was added to recognize a PWS that has proactively sampled for PFOA, PFOS and/or 1,4-Dioxane in advance of the adoption and effective date of the PFOA, PFOS and 1,4-Dioxane MCLs, has determined that their PWS will be in violation of one or more of the new MCLs and have either proposed or are already moving forward with implementing appropriate corrective action(s). A deferral only defers issuance of an MCL violation. A PWS must demonstrate progress with an agreed upon corrective action plan. Deferrals may be revoked if a PWS does not demonstrate good faith effort or progress with implementing the corrective action.

Q2: Which PWSs are eligible for a deferral?

Any PWS that meets the criteria below is eligible for a deferral:

1. Has collected samples in accordance with Table 9C and can demonstrate with at least one repeat sample that the MCL for either PFOA, PFOS or 1,4-Dioxane is exceeded.
2. Has developed a corrective action plan;
3. Has applied to the State within 90 days of the effective date of the MCL.

Q3: Who will approve a deferral application?

The BWSP will be issuing all deferrals with LHD input. A deferral team has been established, and each deferral application will be reviewed by a minimum of three (3) BWSP staff members to ensure consistency in determinations, statewide.

Q4: How does a PWS apply for a deferral and what information must be included in the application?

The BWSP is preparing a PWS deferral application form and guidance that will be distributed to LHDs and any interested PWS under separate cover.

Q5: Can a PWS apply for a deferral if they comply with the MCL during initial monitoring, but are in violation of the MCL at a later date?

No. The deferral provision is only available for the first 90 days immediately following adoption of the MCLs.

Q6: Can a PWS still apply for a deferral if it misses the initial application deadline?

No. The deferral provision is only available for the first 90 days immediately following adoption of the MCLs. If a PWS misses the deadline, the LHD should cite the PWS with a violation and place them on a compliance timetable.

Q7: Can a small PWS that is scheduled to monitor within 6 months of adoption of the MCLs still monitor during the timeframe that's designated in the regulations and still apply for a deferral?

No. The purpose of the deferral is to recognize a PWS that proactively sampled for PFOA, PFOS and 1,4-Dioxane prior to adoption of the MCLs and that has determined that their PWS will be in violation of one or more of the new MCLs. If a PWS would like to take advantage of the deferral provision, it is encouraged to begin monitoring as soon as possible. The BWSP will not accept deferral applications more than 90 days after the effective date of the MCLs.

Q8: What are the public notification requirements for the deferral?

A PWS must distribute an initial public notice within 30 days of receiving approval of the deferral as well as include information about the deferral application and approval in their AWQR. The Department will issue conditions as part of the deferral approval, including a requirement for regular notification to their consumers on the corrective action(s) and progress. The Department will provide this language to each PWS that receives a deferral.