



MassDEP Fact Sheet

Q&A for PWS on Per- and Polyfluoroalkyl Substances (PFAS) Regulations

Introduction

This fact sheet includes general questions and answers about PFAS Drinking Water Standard Implementation for Public Water Suppliers from Training Sessions ***“Per- and Polyfluoroalkyl Substances (PFAS) in Drinking Water and the new Massachusetts Drinking Water Regulations”***.

PFAS Drinking Water Regulations implementation questions are continuing to be received so this Q&A will be updated periodically.

Section 1: Standard or Maximum Contaminant Level (MCL)

1. When is the PFAS6 standard exceeded?

A sampling location exceeds the MCL if the average of 3 months of PFAS6 concentrations is greater than 20 ng/L within the same quarter (for instance, Quarter 2 includes April, May and June) or any one sample would cause the quarterly average to exceed 20 ng/L. For example, if a first month sample has PFAS6 levels confirmed at greater than 60 ng/L, that would cause the quarterly average concentration to exceed the 20 ng/L MCL.

2. Why has Massachusetts set a MCL for 6 PFAS at 20 ppt while all other states (except VT) are setting higher thresholds and the EPA has a standard of 70ppt?

The USEPA Health Advisory is an advisory, there is not yet a federal maximum contaminant level (MCL) standard. When there is no federal MCL each state develops its own standards and procedures. The MassDEP Office of Research and Standards has determined through an in-depth review of recent scientific peer-reviewed research and in consultation with their Health Effects Advisory Committee that 20 ppt for PFAS6 was the appropriate level to protect consumers in sensitive subgroups such as pregnant or nursing women, infants, and people with compromised immune systems.

Section 2: Monitoring and Sampling

1. When a PWS has multiple sources that combine in one source before treatment and there is only one entry point to distribution, is only one sample required?

Yes, a PWS that draws water from more than one source, with sources combined before distribution, must collect samples that are representative of all combined sources after treatment. The entry point to the distribution system is the sample location. If all sources are not operated simultaneously under normal operating conditions, then additional samples shall be collected representing each source when operated.

2. Are confirmation samples required every time a sample is above the MRL, or just on the initial hit for that site?

A confirmation sample is required after the initial detection of any PFAS compound above the MRL in finished water. Confirmation samples are also required when PFAS6 is detected > 10 ng/L for the first time during initial or routine PFAS monitoring. If a location is on an increased monitoring schedule due to concentrations > 10 ng/L, confirmation samples are

no longer required unless required by MassDEP due to results outside the historic range. A PWS may choose to confirm the first results over 20 ng/L during monthly monitoring.

3. *If confirmation samples are required, when does the 14 day deadline start?*

The confirmation samples must be collected within 14 days of the receipt of the analytical results from the lab or notification from MassDEP. The deadline for collecting confirmation samples can be extended if the PWS applies for and receives up to 14 additional days from MassDEP as allowed under the regulations.

4. *What are the regulations when a raw water source is above the MCL but the finished water is below?*

The PFAS6 MCL applies to finished water. If there is existing treatment or blending that is allowing a source that is high in PFAS6 to deliver finished drinking water that is below the MCL, MassDEP may require increased monitoring at the source, the finished water entry point, or both.

5. *Are MWRA communities required to test at each entry point even though MWRA tests for PFAS at the source?*

If the PWS is a fully consecutive system that purchases all of its water from the Massachusetts Water Resources Authority (MWRA) or another PWS, then that PWS is not required to sample for PFAS as long as the PWS that they purchase the water from has completed the required sampling for PFAS.

6. *Will the PWS be specifically notified of what resampling is needed through eDEP?*

The eDEP system is for submitting monitoring results, it does not notify a PWS what resampling is needed. Any correspondence related to required actions will come from the local MassDEP regional office. The regional PFAS coordinators follow up with PWS about any sampling issues. (see below for regional coordinator contact information).

7. *If we are contracted by a town to operate their PWS, are we still eligible for PWS PFAS analysis and PFAS design grants, or does the town have to apply for the grants?*

Grants and financing are dictated by the legislation and program requirements for that specific opportunity.

Free PWS analysis: Contract operators are welcome to apply on behalf of the PWS that authorized them to apply for the free PWS PFAS analyses program.

PFAS design grants: As of Jan 27th 2021, the PFAS design grants for municipal systems have provided \$2M of funding, with an additional \$3M in funding anticipated in 2021. The deadline for the second round of grant applications was Dec 31, 2020; they were available to municipal and non-municipal community and non-transient non-community PWSs.

8. *Can labs sub out the PFAS work?*

Subcontracting may be allowed in certain circumstances to fulfill the requirement of reporting through eDEP. However, generally, labs that are not certified with MassDEP cannot subcontract to labs that are certified by MassDEP. We understand that PWS have ongoing relationships with labs that may not be certified for PFAS analysis.

9. *How much will each test cost the PWS?*

Laboratories set their prices for PFAS analysis based on a variety of factors. The prices that PWS have reported range from approximately \$200 per drinking water sample to \$400 per sample for analysis using USEPA Method 537.1. We encourage PWS to [apply for MassDEP's free PFAS analysis program](https://www.mass.gov/drinking-water-program) if they have not yet received a round of PFAS sampling through the program.

Section 3: Public Notification, Public Education, and Consumer Confidence Reports

1. *If a COM PWS provided PN and PE before the regulations were promulgated, is it still required to mail the education and notification?*

Yes, under the regulations at 310 CMR 22.07G(7)(e) a PWS must deliver Public Education materials after a confirmed detection of PFAS6 > 20 ng/L as soon as practical and within 30 days of receipt of those confirmed results. The PWS must continue to provide those materials quarterly until the water being delivered is below the PFAS6 MCL or the contaminated source(s) is taken off-line. Public notice must be provided when the MCL is violated and repeated quarterly as long as the violation persists (as long as the quarterly average exceeds the PFAS6 MCL). MassDEP has template documents available, including a template for a combined Public Education materials and Public Notice. The delivery requirements for Public Education materials are in the regulations at 310 CMR 22.07G(7)(e) and delivery requirements for Public Notice are found at 310 CMR 22.16.

2. *Where is the public education information on the DEP website?*

The templates are being finalized with revisions based on the first rounds of public education materials sent by PWSs. While the templates are being finalized, PWSs will be provided with the templates as needed by the regional MassDEP office.

3. *Do raw water results for PFAS need to be reported in the Consumer Confidence Report?*

The requirements for the Consumer Confidence Report include any PFAS detected in finished water, and health effects language must be included if the MCL is exceeded. A PWS may choose to report raw water results for PFAS in the Consumer Confidence Report to provide information to consumers. Reporting raw water results for PFAS in the Consumer Confidence Report is not a MassDEP requirement.

4. *What happens if a PWS has detected PFAS6 over 20 ppt in its only water supply and cannot meet any of the short-term solutions?*

PWS should review the resource information below, consider what they should do and in accordance with 310 CMR 22.04 (13) update their emergency response plan with a plan of action for when/if they detect PFAS over the MCL. PWS may have opportunities for interconnections to purchase water that is below the MCL. PWS may also consider providing bottled water that has been tested for PFAS for their consumers in sensitive sub-groups. Public education materials and the Public Notification requirements can help to inform the consumers about their drinking water and options for reducing their exposures, such as using bottled water that has been tested for PFAS for drinking and cooking of foods that absorb water (like pasta).

5. *Can a PWS limit the distribution of PFAS Public Education materials if the affected source(s) provide water to a portion of the distribution system?*

The PFAS regulations require that Public Education (PE) materials “be provided to all persons served by the affected Public Water System” (310 CMR 22.07G(7)(e)2.). However, if the PWS can document to MassDEP’s satisfaction based, for example, on a hydraulic model or due to physical isolation, that elevated levels of PFAS were only delivered to a distinct portion of the distribution system, then MassDEP may limit the PE mailing to consumers within the affected portion of the distribution system and may approve the use of alternative delivery methods (as per 310 CMR 22.07G(7)(e)5.) for consumers outside the affected portion of the distribution system. These alternative delivery methods may include a combination of: telephonic messages (e.g. Reverse 911), web and social media posts, print and broadcast media announcements, physical postings, electronic sign boards, hand delivery and/or other methods approved by MassDEP.

Section 4: PFAS and Data Usability

1. PFAS data variability can be 30 %, which seems like a lot, how can MassDEP accept that range?

There is always some variability in drinking water testing results from one certified laboratory to another. This is true whether labs are analyzing drinking water for PFAS or for any other contaminant. Testing results will vary within a lab as well as across labs. In accordance with 310 CMR 42.00 each laboratory is certified to ensure that their results meet the accepted laboratory standards set by the MassDEP Laboratory Certification Program. The same is true if a lab has been reviewed by another certification authority. Labs must pass Quality Assurance/Quality Control criteria in order to receive certification and pass periodic performance tests and audits to retain certification. The certification is subject to revocation if MassDEP finds problems. Also, a PWS can report a lab to MassDEP for review if they experience problems. In addition, MassDEP has temporarily contracted UMass Amherst to do the Quality Control review of all the PFAS lab reports we receive from PWS. As in all analytical monitoring programs, confidence in the PFAS testing results being reported by labs and the best indication of the levels of PFAS6 in the water, will increase after looking at numerous testing results over time.

Some PWS have chosen to split samples and sent them to different labs for PFAS testing. If the PWS reports several sampling results taken from the same location within the same monitoring period, whether they are analyzed by the same lab or different labs, and the results meet quality control requirements, in accordance with 310 CMR 22.07G(10)(b)(1) MassDEP averages them for compliance purposes.

If a PWS wishes to take a split sample and send it to two different labs, the PWS must follow proper PFAS collection techniques, including sending Field Reagent Blanks to both labs. The PWS should contact their regional drinking water program contact or the Drinking Water Program at program.director-dwp@mass.gov prior to initiating split samples for PFAS to ensure that correct split sampling procedures are followed.

2. Does the lab calculate PFAS6 total and submit via eDEP or is that up to PWS?

Labs will calculate the PFAS6 value and submit it, along with the individual PFAS data, to MassDEP using eDEP.

3. Is there a mechanism that a user could see if their utility has tested for PFAS as well as get the results?

Yes, data that are quality control approved by MassDEP and data entered are available through the EEA data portal. The data quality control review process may take two weeks. Currently data is being manually data entered, which may also take about two weeks. Once eDEP is up and running, data quality control will still take up to two weeks, but once that process has been completed and the results approved, results should be available on the EEA data portal in about 24 hours. Drinking water data is searchable at: <https://eeaonline.eea.state.ma.us/Portal/#!/search/drinking-water>.

4. Will EEA show all results or only results after they are averaged with confirmatory samples?

The EEA data portal displays all of the PFAS analysis results submitted and accepted; the data portal does not average confirmatory samples.

Section 5: Miscellaneous

1. Can public water supplies be contaminated by per- and polyfluoroalkyl substances (PFAS) washing off solar panels and solar sheets installed at public water systems?

PFAS may be generated as a waste during the manufacture of the panels. We have not identified any water sampling results that have detected PFAS coming off solar panels or that PFAS is present on panels.

MassDEP's solar guidance, policy, model certification, template approval letter and SOP for staff state that PWS shall use

solar panels and solar sheets that do not contain PFAS. It is a PWS's responsibility to ask the manufacturer about PFAS from the solar panels being considered.

We have also been approached by a company that is marketing thin, flexible solar sheets that they adhere to infrastructure and they were specifically asking about adhering solar sheets to PWS drinking water storage tanks. After reviewing data, talking with the company and the manufacturer, we decided to allow such an installation under our Policy #98-01 which is titled Antennas & Other Appurtenances Attached to Public Drinking Water Storage Tanks with one condition: that if the drinking water storage tank is located within the Zone I, the project proponent clearly demonstrates, possibly through testing, that there is no PFAS in the solar sheets, adhesives, other components of the solar installation or maintenance practices. A copy of the written documentation must be maintained in the PWS's files for MassDEP review when requested. Additionally, the PWS have been made aware through the updated policy that solar sheeting on drinking water storage tanks may increase the temperature of the water in the tank. Care should be taken in selecting the type of solar sheeting to be used, managing the water in the tank and preventing detrimental impacts to the structural integrity of the tank.

The most up-to-date DWP solar guidance, solar Zone I policy and Antenna & Other Appurtenances on Drinking Water Storage Tanks solar policy for PWS posted at <https://www.mass.gov/service-details/drinking-water-policies-and-guidance>. As new information becomes available, MassDEP will update this and other relevant documents.

2. Can a Public Water Supplier offer home treatment systems or devices, or incentives for homeowner treatment systems to remove PFAS?

Yes. A PWS may offer home treatment systems or devices or incentives for homeowner for treatment systems to remove PFAS under the following conditions:

- **A PWS must be aware and inform consumers that home treatment systems and devices are not specifically designed to meet Massachusetts' drinking water standard for PFAS6.** Currently available home treatment systems or devices have been designed to meet the USEPA's Health Advisory of 70 ng/L for the sum of PFOS and PFOA. At a minimum, any such treatment system or device should be certified to meet the [National Sanitation Foundation \(NSF\)](#) standard P473 to remove PFOS and PFOA compounds so that the sum of their concentrations is below the USEPA Health Advisory of 70 ng/L. **Please be aware that 70 ng/L is significantly greater than the MassDEP's drinking water standard of 20 ng/L for the PFAS6 compounds.** Many of these treatment systems and devices certified to meet NSF standard P473 will likely be able to reduce PFAS6 levels below 70 ng/L, but there are no federal or state processes to confirm this possibility.
- A PWS offering incentives for homeowner PFAS treatment systems or devices must inform the homeowners of the above information and whether or not the PWS has evaluated the efficacy of specific devices to remove and maintain PFAS6 below the MassDEP MCL. The PWS should also inform all consumers who chooses to install a treatment device, that they should check to see if the manufacturer has independently verifiable monitoring results demonstrating that the device can reduce PFAS6 below 20 ng/L. See more detailed information on treatment systems in the [Private Well Factsheet](#).
- MassDEP is aware that some homeowners will decide to install a home treatment unit despite the current lack of certification by a national organization to treat water to levels below the MassDEP PFAS6 MCL. Therefore, if a PWS mentions home treatment as an option to reduce PFAS6 levels in a PFAS public notices or educational information the PWS should also inform all consumers who choose to install a home treatment system or device, that they should check to see if the manufacturer has independently verifiable monitoring results demonstrating that the device can reduce PFAS6 below 20 ng/L. For more detailed information on home treatment systems see <https://www.mass.gov/service-details/home-water-treatment-devices-point-of-entry-and-point-of-use-drinking-water> and [Private Well Factsheet](#).

A PWS delivering water with PFAS6 concentrations over 20 ng/L (as measured at any entry point to the system) must obtain MassDEP Drinking Water Program approval before offering any assistance, such as rebates, for home treatment systems or devices to remove PFAS6.

A PWS in violation of the PFAS6 MCL must comply with 310 CMR 22.23 if seeking to use home treatment devices to comply with the PFAS6 MCL. For more information see <https://www.mass.gov/doc/self-guide-for-point-of-use-and-point-of-entry-treatment-devices/download>.

A PWS delivering water with PFAS6 concentrations below 20 ng/L and following MassDEP guidance at <https://www.mass.gov/doc/per-and-polyfluoroalkyl-substances-pfas-in-public-drinking-water-supplies-questions-and-answers/download> (see question 14, “Can a PWS support customer use of Point of Use (POU) or Point of Entry (POE) devices to reduce PFAS?”) and <https://www.mass.gov/service-details/home-water-treatment-devices-point-of-entry-and-point-of-use-drinking-water> may offer rebates and other assistance with home treatment systems or devices without obtaining prior MassDEP Drinking Water Program approval for such programs.

For more information contact your MassDEP regional PFAS contact or the Drinking Water Program at program.director-dwp@mass.gov.

OTHER USEFUL RESOURCES

MassDEP fact sheets “[Per- and polyfluoroalkyl Substances \(PFAS\) in Drinking Water Supplies - Questions and Answers for Public Water Systems](#)” and “[PFAS in Drinking Water: Questions and Answers for Consumers](#)” describe the drinking water standards, sources of PFAS compounds, health effects, and MassDEP recommendations to reduce consumer exposure. The PWS factsheet is available at <https://www.mass.gov/doc/per-and-polyfluoroalkyl-substances-pfas-in-public-drinking-water-supplies-questions-and-answers/>, and the consumer factsheet is available at <https://www.mass.gov/doc/massdep-fact-sheet-pfas-in-drinking-water-questions-and-answers-for-consumers>.

CONTACT INFORMATION

My questions were not answered here. Who should I contact?

Contact the MassDEP Drinking Water Program at program.director-dwp@mass.gov, Subject: PFAS.

Who are the MassDEP Drinking Water Program Regional PFAS contacts?

Region	Name	Phone #	Email
Western	Catherine Wanat	413-755-2216	Catherine.Wanat@mass.gov
Central	Paula Caron	508-767-2719	Paula.Caron@mass.gov
Northeast	Amy LaPusata	978-694-3291	Amy.lapusata@mass.gov
Southeast	William Schwartz	508-946-2818	William.Schwartz@mass.gov
Boston	Margaret Finn	617-292-5746	Margaret.Finn@mass.gov
Boston:	Program.director-dwp@mass.gov , Subject: PFAS		

PFAS Drinking Water Regulations implementation questions are continuing to be received so this Q&A will be updated periodically. Please continue to send all questions to program.director-dwp@mass.gov
