Date Updated: 11/28/2023

PFAS MCL Rule – FAQ

Contents

General Questions

Q: Will there be an official announcement/technical guidance provided by PADEP regarding this issue?

> **A:** DEP provided notice about the new rule provisions via an email and a mass mailing to water suppliers, a newsletter (email : Webview : Drinking Water News - January 2023 (e2ma.net)) and the webpage. Regional SDW staff were also notified of the new provisions when the rule was published in January. Classroom training is being scheduled in the fall of 2023.

Q: When do the new MCLs go into effect?

> **A:** The MCLs became effective as of publication of the rule in the PA Bulletin, or on January 14, 2023.

Q: Do the MCLs only apply to CWS and NTNCWS?

> **A:** The MCLs apply to ALL PWSs, including community water systems (CWS), nontransient noncommunity water systems (NTNCWS), transient noncommunity water systems (TNCWS), and bottled, vended, retail, and bulk (BVRB) water systems. TNCWS are not required to conduct routine monitoring for PFAS under the rule, but the MCLs still apply.

Q: What are the requirements for transient noncommunity systems (TNCs)?

> **A:** TNCs are not required to conduct routine monitoring for PFAS. However, as with all MCLs, the PFOA and PFOS MCLs do still apply to TNCs. We can require special monitoring under 109.302 if we have reason to believe a TNC is not complying with an MCL.

Q: What should Pennsylvanians know about PFAS if they aren't already familiar with these chemicals?

> **A:** Per- and polyfluoroalkyl substances (PFAS) are a large class of human-made synthetic chemicals that were created in the 1930s and 1940s for use in many industrial and manufacturing applications. It is estimated that the PFAS family includes more than 6,000 chemical compounds. PFAS are sometimes referred to as “forever chemicals” because PFAS do not readily break down when exposed to air, water, or sunlight, and therefore persist in the environment. PFAS have been widely used for their unique properties that make products repel water, grease and stains, reduce friction and resist heat. PFAS are found in industrial and consumer products such as clothing, carpeting, upholstery, food packaging, non-stick cookware, fire-fighting foams, personal care products, paints, adhesives, metal plating and wire manufacturing. Unfortunately, many manufacturers do not provide information about which products contain PFAS.

Q: What are the benefits of Pennsylvania having state level PFAS regulations? Only a few states have them; how will PA residents benefit from being one of those states?

> **A:** The state PFAS regulations set MCLs for contaminants in drinking water that are currently unregulated at the Federal level. With this rule, the Commonwealth has moved ahead of the United States Environmental Protection Agency (EPA) in addressing PFOA and PFOS in drinking water and joins a small group of states that have set regulatory limits for select PFAS in drinking water. Currently, seven states have set MCLs or other regulatory limits for one or more PFAS—Massachusetts, Michigan, New Hampshire, New Jersey, New York, Vermont, and Washington. Proactively addressing PFOA and PFOS contamination in drinking water can reduce the

incidence of illness and reduce health care costs. Although the EPA has started the process of setting more stringent standards for PFOA and PFOS in drinking water, that process is expected to take years to complete. For that reason, these more protective standards for this Commonwealth will better protect the health of residents.

Q: What are some of the highlights of the PFAS MCL Rule that residents should know about?

A: The PFOA and PFOS MCLs of 14 ng/L and 18 ng/L, respectively, apply to all water systems, while the monitoring requirements apply to all community, nontransient noncommunity, bottled, vended, retail and bulk water systems in this Commonwealth. The benefits associated with reductions of PFOA and PFOS in drinking water arise from a reduction in adverse human health effects. Exposure to PFOA is associated with adverse developmental effects (including neurobehavioral and skeletal effects) and exposure to PFOS is associated with adverse immune system impacts (including immune suppression). The rule also establishes the provisions necessary to comply with the MCLs, including requirements for monitoring and reporting, public notification, consumer confidence reports, best available treatment technologies and analytical requirements.

Q: How are these limits going to help Pennsylvanians?

A: The state PFAS regulations set MCLs for contaminants in drinking water that are currently unregulated at the Federal level. With this rule, the Commonwealth has moved ahead of the United States Environmental Protection Agency (EPA) in addressing PFOA and PFOS in drinking water and joins a small group of states that have set regulatory limits for select PFAS in drinking water. Proactively addressing PFOA and PFOS contamination in drinking water can reduce the incidence of illness and reduce health care costs. Although the EPA has started the process of setting more stringent standards for PFOA and PFOS in drinking water, that process is expected to take years to complete. For that reason, these more protective standards for this Commonwealth will better protect the health of residents.

Q: What would happen if these chemicals stay in the water?

A: Decades of widespread use of products containing PFAS has resulted in elevated levels of environmental pollution and exposure in some areas of the State. PFAS remain in the environment and cycle through various media (air, water, soil) depending on how and where the substances were released. The primary means of distribution of PFAS throughout the environment has been though the air, water, biosolids, food, landfill leachate and fire-fighting activities. Because of their unique chemical structure, PFAS readily dissolve in water and are mobile, are highly persistent in the environment and bioaccumulate in living organisms over time.

Q: How this might lead to other states adopting the same limits?

A: Currently, seven other states have set MCLs or other regulatory limits for one or more PFAS—Massachusetts, Michigan, New Hampshire, New Jersey, New York, Vermont, and Washington. Each state must follow its own statutory and regulatory authority when determining whether to set state drinking water standards.

Q: What motivated the DEP action on PFAS?

A: The Pennsylvania Department of Environmental Protection (DEP) first became aware of PFAS in drinking water in 2013, when the United States Environmental Protection Agency (EPA) released its Third Unregulated Contaminant Monitoring Rule (UCMR 3). UCMR 3 required monitoring for 30 unregulated contaminants in drinking water, including six PFAS. In 2018, then-Governor Tom Wolf issued an executive order establishing the PFAS Action Team. The Governor tasked this multi-agency team with developing a comprehensive response to identify and eliminate sources of PFAS contamination, ensure drinking water is safe, and manage environmental contamination from PFAS. Because PFAS have been used for several decades in the manufacturing of a range of products (including certain fabrics, carpets, cookware, and food packaging) and are present in certain types of fire-fighting foams, DEP has documented PFAS contamination at a number of sites throughout the state. As part of Pennsylvania's PFAS Action Team, DEP recently took a major step to protect Pennsylvanians from the adverse health effects associated with 2 PFAS by establishing limits for PFOA (perfluorooctanoic acid) and PFOS (perfluorooctane sulfonic acid) in public drinking water in Pennsylvania. A summary of the drinking water PFAS MCL Rule is in the DEP Bureau of Safe Drinking Water's January 2023 newsletter (which is available on DEP's website). Additionally, in 2021 DEP's Bureau of Environmental Cleanup and Brownfields promulgated regulations that established the first ever cleanup standards for three PFAS – PFOA, PFOS, and PFBS (perfluorobutane sulfonic acid).

Q: Should Pennsylvania residents be concerned about the presence of these chemicals in their water?

A: DEP's recently finalized drinking water regulation is a major step towards protecting Pennsylvanians from the adverse health effects associated with certain PFAS. In addition to drinking water, DEP has conducted sampling in waterways in PA and has documented PFAS contamination in fish tissue. DEP is currently exercising and evaluating its regulatory authority to prevent and remediate PFAS contamination across all environmental media in Pennsylvania.

Q: Are there regions in the state where PFAS chemicals are being found at elevated concentrations?

A: DEP's Bureau of Safe Drinking Water conducted sampling of public drinking water across the state, and the results of that sampling are available on DEP's PFAS webpage here and are also summarized in Table 1 of the preamble to the recent drinking water rulemaking.

Q: How did DEP arrive at the 14 ppt for PFOS and the 18 ppt for PFOA? They are still above the advisory limits established by EPA (which are practically zero).

A: The full process by which we set the drinking water MCLs is explained in the preamble. Briefly, the Department followed a rigorous process when setting the drinking water MCLs in this final-form rulemaking. An MCL rulemaking must be based on available data, studies, and science, and must consider all factors as required by the Federal Safe Drinking Water Act (Federal Act) (42 U.S.C.A. §§ 300f—300j-27) and the Commonwealth's Regulatory Review Act (RRA), (71 P.S. §§ 745.1—745.14). Among other things, the Department must consider the following:

- Health effects,
- Occurrence data,
- Technical limitations such as available analytical methods and detection and reporting limits,

- Treatability of the contaminant and available treatment technologies, and
- Costs and benefits. (71 P.S. § 745.5b).

In addition to State requirements, the Department needs to consult the Federal Act and its implementing regulations. See 42 U.S.C.A. §§ 300f—300j-9; see also 40 CFR Parts 141, 142, and 143 (relating to National Primary Drinking Water Regulations; National Primary Drinking Water Regulations Implementation; and Other Safe Drinking Water Act Regulations). The EPA explains how the agency sets standards at the following link: www.epa.gov/sdwa/how-epa-regulates-drinking-water-contaminants. In establishing the MCLs in this final-form rulemaking, the Department was informed by the EPA's procedure to establish an MCL. It is important to understand the process of setting an MCL because similar criteria are required of the Department under the RRA. In addition, to retain primacy for implementing the Federal Act in this Commonwealth, the Department's standard setting process must be at least as stringent as the Federal process. The MCLs were set at 14 ppt (PFOA) and 18 ppt (PFOS) because these levels strike the appropriate balance of the relevant factors noted above. The current health advisory levels are not enforceable standards and are not technically feasible because current analytical methods cannot detect levels that low.

Monitoring Requirements – General

Q: Compliance monitoring/enforcement won't begin until 2024 for water systems serving more than 350 people, and won't begin until 2025 for systems serving less than 350 people, correct?

A: In this final-form rulemaking, initial quarterly monitoring for community and nontransient noncommunity systems serving a population of more than 350 persons begins January 1, 2024, and initial quarterly monitoring for community and nontransient noncommunity systems serving 350 or fewer persons begins January 1, 2025.

This population breakdown was selected to evenly split initial monitoring across 2 years to ease laboratory capacity issues and allow small systems more time to prepare for compliance monitoring. Initial monitoring for all BVRB systems begins January 1, 2024. Based on the number of PWSs and EPs in the Pennsylvania Drinking Water Information System (PADWIS) at the time of this final-form rulemaking, there are 1,885 EPs that will begin monitoring in year 1 (2024) and 1,900 that will conduct initial monitoring in year 2 (2025).

Q: Will sample bottles be mailed to water systems each quarter for monitoring?

A: Each water system will need to make arrangements with a PA-accredited laboratory to conduct initial compliance monitoring required under the PFAS MCL Rule. The specifics of those arrangements -- including sample bottles, sample collection, delivery to the lab, etc. – will need to be worked out between the individual water system and the lab.

Labs accredited for analysis of PFAS by one of the approved methods identified by the rule can be found at Laboratory Accreditation Program (pa.gov); under the heading "Search Environmental Laboratories," select:

- Search PA Accredited Environmental Laboratories Link

Q: Are PFOA/PFOS to be included in New Source sampling for Community and Nontransient Noncommunity public water supply applications?

A: Yes.

Q: Is the effective data for New Source sampling Jan. 23, 2023 or Jan. 2024?

A: The effective date for new source sampling requirements was January 14, 2023, which is the date the final regulation was published in the *Pa Bulletin*.

Q: For any monitoring that would occur before initial monitoring is required, should the results be reported as Special samples?

A: No. Monitoring conducted at the entry point under § 109.302 is reported as sample type E. Monitoring conducted in accordance with permit conditions should be reported as specified in the permit. Additionally, UCMR 5 monitoring that is intended to count as initial compliance monitoring is also reported as sample type E, *if the data meets all the requirements specified in the PA rule*.

We added § 109.301(16)(i)(C) to the PFAS MCL Rule between the proposed and final stages in response to comments received, to allow systems to change their initial monitoring schedule to align with UCMR 5 monitoring. This was done as a *potential* cost savings if systems are able to utilize the same set of data for both rules by meeting ALL requirements of both. *However*, we did NOT include any language in the rule that allows a PWS to change their initial monitoring schedule for any other reason, and we did NOT include language to allow for grandparenting of data, including data collected in 2023. What that means is that if a PWS chooses to monitor prior to their scheduled start date in the rule, that would be their choice for informational purposes, but it would NOT be in lieu of initial monitoring. They would still need to conduct quarterly initial monitoring in either 2024 or 2025 depending on population.

That said, the MCLs are currently in effect, as is the one-hour reporting requirement. If a PWS chooses to conduct monitoring at the Entry Point prior to their initial compliance monitoring start date, those results should be reported to DWELR as E samples. If they have a detection that is over one or both MCLs, they are required to report that to the Department within one hour of learning of the results.

Repeat monitoring would be dependent on the results during initial monitoring (2024 or 2025). If they have 4 quarters of non-detects during initial quarterly monitoring, repeat monitoring is triennial (§ 109.301(16)(iii)); there is no waiver to apply for triennial monitoring.

Q: If a PWS was to begin monitoring early and all results are non-detect (ND), would they then be able to use those results towards the requirements of the use waiver?

A: No. PWSs that have all ND during initial monitoring have no need of a waiver because they will be automatically reduced to a triennial monitoring frequency. The ONLY monitoring waivers we included in the rule are only applicable to systems that are annual monitoring due to a previous detection (§ 109.301(16)(vii)).

Q: A small PWS with a population under 350 is interested in possibly starting PFAS monitoring in 2024 rather than wait until 2025. They want to know whether the results will count as initial monitoring if

they collect quarterly samples a year early. Can we allow initial monitoring a year earlier than the schedule in the regulation?

A: The short answer is that we *cannot* allow PWSs to conduct initial compliance monitoring outside of the schedule specifically stated in 109.301(16)(i). Based on that language, there are three possible schedules for initial monitoring:

> (A) Systems serving more than 350 persons shall begin monitoring during the quarter beginning January 1, 2024.
>
> (B) Systems serving 350 or fewer persons shall begin monitoring during the quarter beginning January 1, 2025.
>
> (C) Upon request, a system required to conduct monitoring under the Fifth Unregulated Contaminant Monitoring Rule (UCMR 5), specified in 40 CFR Part 141, may upon written approval from the Department modify the initial monitoring period required under clause (A) or (B) to coincide with UCMR 5.

This regulatory language does not support us allowing an initial monitoring schedule other than listed above. That means that the only option for changing the schedule from the default start dates in (A) and (B) based on population is to align the schedule with the UCMR 5 schedule, as stated in (C).

If a PWS chooses to conduct voluntary monitoring prior to their scheduled start date in the rule, that would be their choice for informational purposes, but it would NOT be in lieu of initial monitoring. They would still need to conduct quarterly initial monitoring in either 2024 or 2025 depending on population.

Also, the MCLs are currently in effect, as is the one-hour reporting requirement. If a PWS chooses to conduct monitoring at the Entry Point prior to their initial compliance monitoring start date, those results should be reported to DWELR as E samples. If they have a detection that is over one or both MCLs, they are required to report that to the Department within one hour of learning of the results.

Q: If a PWS is granted reduced monitoring but would like to continue monitoring quarterly, will PADWIS be able to track quarterly monitoring?

A: Monitoring and reporting frequencies will be determined according to rule requirements. Since we cannot require quarterly monitoring if the rule does not support it, PADWIS will determine monitoring and reporting compliance and frequency changes as supported by the rule. It should be noted that if a PWS chooses to monitor more frequently than required, the system's CMP should reflect that monitoring increase.

Monitoring requirements for consecutives and interconnections

Q: Does a consecutive system, who solely purchase water from another PWS, need to test for PFAS under the new rule?

A: Consecutive systems that obtain all of their water from another public water system may be exempt from monitoring for PFAS under § 109.301(16). The rulemaking modified

§ 109.301(8)(iii) to add PFAS monitoring under paragraph (16) to the list of contaminants that consecutives do not need to monitor for if the selling public water system conducts the required monitoring and is in compliance with the MCLs (see below).

(8) *Monitoring requirements for public water systems that obtain finished water from another public water system.*

* * * * *

(iii) Consecutive water suppliers may be exempt from conducting monitoring for the MCLs for VOCs, SOCs, IOCs, radionuclides and PFAS if the public water system from which the finished water is obtained complies with paragraphs (5)—(7), (14) and (16) and is in compliance with the MCLs, except that asbestos monitoring is required in accordance with subparagraph (ii).

Q: Monitoring requirements "apply to all community water systems (CWS), nontransient noncommunity water systems (NTNCWS)," and at "…each entry point to the distribution system…". Also "Paragraph (8)(iii) is amended to clarify that consecutive water systems may be exempt from PFAS monitoring, in addition to volatile synthetic organic chemicals (VOCs), SOCs, inorganic chemicals (IOCs) and radionuclides." What about interconnections to CWSs or NTNCs that are not consecutive systems? Since interconnections are listed as entry points is there any wording in the PFAS rule that allows for Entry Points receiving water from a public water system that has already monitored for PFAS to be exempt from monitoring? Or does the rule intend to have systems with interconnections monitor the water again at the interconnection entry point?

A: The intent of this rulemaking is that compliance monitoring for PFOA and PFOS applies to EPs the same as EP monitoring for SOCs, VOCs, etc. If a PWS has one EP served by their own source or sources, and a second EP that is an interconnection to another PWS, EP monitoring is required at the first EP, but is not required at the interconnection as long as the selling PWS is conducting the required monitoring. Monitoring would generally only be required at a purchased EP if there is reason to believe that it may be exceeding an MCL, under § 109.302.

There is existing language in § 109.301(8)(iv) that did not need to be amended with this rulemaking, which clarifies this exemption for interconnections at PWSs that do not meet the definition of a consecutive: "For a public water system which is not a consecutive water system, the exemption in subparagraph (iii) applies to entry points which obtain finished water from another public water system."

Q: Will a consecutive system have to begin their own monitoring if the system they purchase from would ever have an MCL exceedance or violation? If so, would that work similar to addition of a new source where the monitoring would have to begin in the next quarter? Would the sampling location be at the point of interconnection?

A: The monitoring exemption for consecutive systems and purchased EPs applies when the selling system is conducting the required monitoring AND is in compliance with the MCLs.

If the selling system has an MCL exceedance, that exemption would no longer apply *unless* the interconnection is receiving water from a portion of the seller's system that is physically / hydraulically separate from the seller's source/EP that has the exceedance. If the

interconnection is (or is potentially) receiving water from the seller's source/EP that has the MCL exceedance, the purchasing system would be required to conduct monitoring at their entry point (i.e. the interconnection) as soon as possible under § 109.302 in order to find out whether or not they are meeting the MCLs. Monitoring by the purchasing system may need to continue as long as the selling system exceeds the MCL.

Q: For an out of state bulk water supplier that supplies water to a PA water system, who is responsible for sampling?

A: The out of state bulk water hauler needs to be permitted by PA DEP to sell water within PA, so they would be required to conduct monitoring the same as any other regulated bulk-hauling water system. If the bulk hauler is responding to an emergency situation, monitoring requirements should be specific in the emergency permit for both the bulk hauler and the purchasing water system

Sampling, labs, and analytical methods

Q: What is the Department's recommended sampling protocol? Will field and equipment blanks be required for PFOA/PFOS considering the low (ng/L) detection/reporting levels?

A: Samplers should contact the laboratory that will be conducting the analysis for specific sampling instructions. The approved methods specify the QA/QC, including the need for blanks. Generally, a field reagent blank is required and would be analyzed if the sample has detections for PFOA/PFOS. Because PFAS are generally considered to be ubiquitous, the presence of PFAS in many consumer products is assumed. Preparation is essential in minimizing the likelihood of cross-contamination when collecting samples for PFAS analysis. Sample collectors should try to use clothing that is made of natural fibers (such as 100% cotton and denim), shoes that are (to the extent possible) constructed of natural material (such as untreated leather or canvas), or PVC or polyurethane, and personal care products that are 100% natural, and avoid handling or using products that may contain PFAS. Handwashing and wearing nitrile gloves can also help prevent cross contamination.

Q: Does BOL's lab accreditation program (LAP) have any type of oversight over sample collection technique? Is that part of the lab's accreditation? What can be done to ensure proper collection techniques are followed?

A: For the EPA methods for PFAS the sample collection is specified in the method in section 8. The only oversight that LAP has over sample collection is that the procedure in the method be followed. The LAP does not assess sample collection technique or provide any training. Chapter 252 only requires the lab to provide a sample collection SOP, which LAP reviews during an assessment.

The LAP has more oversight over sample collectors that are employed by the lab as opposed to samples collected by the clients. Again, the lab is required to have a sample collection SOP and to follow the specific sampling requirements in the method.

Q: What is the difference between field duplicates and field reagent blanks?

A: Field duplicates are essentially duplicate samples that the lab analyzes to demonstrate precision, or repeatability. Field reagent blanks are lab grade reagent water that is exposed to sampling conditions to determine if any cross contamination may be present. Field duplicates and field reagent blanks are required by and defined in the approved methods for PFAS analysis. The definitions in EPA Method 537.1 are as follows:

> 3.7. FIELD DUPLICATES (FD1 and FD2) – Two separate samples collected at the same time and place under identical circumstances, and treated exactly the same throughout field and laboratory procedures. Analyses of FD1 and FD2 give a measure of the precision associated with sample collection, preservation, and storage, as well as laboratory procedures.
>
> 3.8. FIELD REAGENT BLANK (FRB) – An aliquot of reagent water that is placed in a sample container in the laboratory and treated as a sample in all respects, including shipment to the sampling site, exposure to sampling site conditions, storage, preservation, and all analytical procedures. The purpose of the FRB is to determine if method analytes or other interferences are present in the field environment.

Q: Are field duplicates required?

A: Field duplicates are a required QC element in the methods, but they are not required for every sampling event. Samplers should follow instructions provided by their laboratory for sample collection, including collection of any QC samples such as field duplicates. If the lab requests field duplicates and provides additional bottles, the sampler should collect the additional samples as requested.

Q: Are field reagent blanks (FRB) required?

A: Field reagent blanks (FRB) are also a method requirement. FRBs are required to accompany each sample set, which consists of samples collected from the same sample site at the same time. That means that to meet method requirements, each sample location needs to have a corresponding FRB collected and submitted to the lab. Because it is a method requirement, labs should not accept PFAS samples for analysis by one of the approved methods without an accompanying FRB. However, if the lab does accept and analyze a sample for which there was no FRB submitted, or if the FRB is lost in the lab for any reason, that is not a reason to invalidate the sample and those results would still be reportable. It should also be noted that the methods allow for the FRB to not be analyzed if the corresponding sample does not have detections. Some labs may offer cost savings if the FRB does not need to be analyzed.

Q: Do FRB results get reported to DWELR?

A: No, FRB results do not get reported to DWELR.

Q: If the FRB is not collected, or if it is collected but then subsequently “lost” at the lab prior to analysis, is that a reason to invalidate the sample?

A: No, a missing FRB is not a reason to invalidate a sample.

Q: If the FRB is collected and analyzed and there is some sort of QC failure associated with it, can the sample results for the corresponding compliance sample be submitted?

> **A:** In this case, the lab must submit a Request to Submit Qualified Data BEFORE reporting the corresponding sample result to DWELR.

Q: Will we consider invalidating samples based on sampling conditions that the collector documents during sample collection? If not, why do we recommend that they document sampling conditions?

> **A:** It is always good practice to document sampling conditions whenever collecting samples. If a sampler notes something during sample collection that they are concerned may cause false positive results, they should do their best to eliminate that potential source of cross contamination prior to collecting a compliance sample. We will likely not allow sample invalidation based on sampling conditions. However, referring back to notes from previous samples can help a sample collector in determining what to be aware of for future sample collection.

Compliance

Q: If a sample is taken after the effective date of the rule (1/14/23) but before initial compliance monitoring begins, and the result indicates an exceedance of the PFOA and/or PFOS MCL, the PWS must immediately report the results to DEP?

> **A:** Correct, the MCLs became effective immediately upon publication of the rule on January 14, 2023, so any monitoring that results in an exceedance of an MCL will require the PWS to notify DEP within one hour, per 109.701(a)(3).

Q: How are confirmation samples used for compliance if they are collected on time, but after the 10th of the month. For example, if a routine annual sample (sample type E) is collected on Sept 30 and is over the MCL and reported by Oct 10, but a confirmation sample (sample type C) is not collected until Oct 12 (still within the required 2 weeks, but it wouldn't be reported until Nov 10). Will it trigger a non-monitoring violation? Will it be used to average with the routine sample for compliance determination?

> **A:** While the regulations allow up to 2 weeks to collect the confirmation sample, the end of the monitoring period/reporting deadline supersedes the 2 weeks allowed for the confirmation sample. Sample type E & C results must *both* be received by the 10th of the next month following the end of the quarter. Using the example, if the C result is not reported by Oct 10, it is not counted in the compliance determination for the Jul-Sept quarter, so the PWS would incur a type 01 MCL violation & a type 04 check sample M/R violation. If the C result is reported in November, the E and C data would be used to calculate the Jul-Sept quarterly average for the RAA calculation done at the end of the Oct-Dec quarter.

Q: How are confirmation samples used for compliance if multiple C samples are reported within the 2-week timeframe?

> **A:** At this point the PFAS compliance program is bringing all type 'C' confirmation samples if they are within the required time frame. All type 'C' samples are averaged together, then added to the type 'E' sample result and divided by 2 for the compliance determination.

Q: Will compliance be determined quarterly or monthly? The concern raised was whether there will be a lag time if only determined quarterly to learn about MCL violations.

> **A:** The regulations specifically state that MCL compliance is determined quarterly, as is done for all chems (IOCs/VOCs/SOCs/Rads). There are several tools in place to ensure we know about exceedances ASAP, such as 1-hour reporting, the 24-hour notice from the lab and the email notification from DWELR when results > MCL are submitted. Staff may manually review the data to determine whether a violation has occurred before the end of the quarter.

Q: Will triennial monitoring be done at any time during the VOC/SOC year? Or will it be required during a specific quarter?

> **A:** PWSs reach triennial monitoring for PFAS by not having any detections during initial quarterly monitoring, so there are no results that would indicate a highest historic quarter. So triennial monitoring can be done any time during the appropriate year in the three-year compliance period.

Q: If a sample fails QC and the PWS recollects outside the required quarter, will they be in violation for non-monitoring that quarter, or can we use discretion?

> **A:** As is the case for all other chems monitoring, the PWS would incur a type 03 M/R violation that should be validated because a result was not reported for the required monitoring period, which is why PWSs should not wait until the end of the monitoring period to collect samples. Any discretion that may occur based on the reason for the missed monitoring would be related to enforcement actions.

Q: For a system on annual monitoring, will it definitely be a monitoring violation if a system doesn't monitor in the historic highest quarter of previous detection, but still monitors in that year? (For example, if they are supposed to monitor in Q1, but don't monitor until Q2, is it still a violation even though they are still ultimately monitoring in that year's annual monitoring period)? In other words, will DEP be tracking the quarter with the highest quarterly results?

> **A:** Monitoring must be done in the quarter with highest previous result. This information will be displayed with the Monitoring Information details in the Drinking Water Reporting System (DWRS), the public website.

Q: Will the highest quarter be indicated in some way on monitoring calendars, or is it just going to be manual tracking to know which quarter is required?

> **A:** Yes, it will be added to the DWRS Monitoring Calendars, but this will be for PFAS contaminants only.

UCMR 5

Q: Systems sampling under UCMR5 *may* be able to use sample results for both UCMR 5 and DEP PFAS MCL Rule initial monitoring. Have any labs had issues reporting for both UCMR 5 and DEP?

> **A:** We have been informed by some labs that there may be issues with the QA/QC that is preventing labs from reporting the data for both purposes. There are 3 approved methods under the PFAS MCL Rule (EPA Methods 537, 537.1, and 533) and we can accept results

analyzed by any of these methods, but UCMR 5 specifies that PFOA and PFOS must be analyzed by Method 533. The method specifies the required QA/QC, but there is an additional specification for QC under UCMR 5. Some labs may have been able to identify a way to analyze samples that meets both the general method requirement and the specific UCMR 5 requirement.

Q: Is UCMR 5 data only reportable if the lab is accredited by PA DEP?

A: Yes. Data generated for UCMR 5 by a laboratory that is not PA accredited would not be reportable to DWELR for compliance purposes.

Q: What actions would the Department require of water systems related to UCMR 5 results originating from labs that are not DEP accredited? Based on past experience, results will be posted in SDWARS through CDX within 90 days of collection, but there is no direct notification to the PWS.

A: If any results are over an MCL, one-hour reporting is required, according to 109.701(a)(3)(i). Whether the lab reports the data to the water system, or the water system discovers the results by reviewing the data reported to SDWARS, one-hour reporting is required from the time the system learns of the results. Even if the lab is not PA accredited, we would not be able to ignore results exceeding an MCL. As confirmation of the result, we would require the water system to have a sample analyzed by an accredited lab, according to 109.302. Those results from the accredited lab would be reportable to DWELR. Follow up actions would be determined based on the results from the accredited lab. For results that are detected but not exceeding an MCL, no additional action is required.

Q: With the limited control water systems would have over the EPA contracted labs, to what extent is the data from those labs being looked at by PA DEP with regards to reporting requirements (DWELR)?

A: If any results are over an MCL, one-hour reporting is required, according to 109.701(a)(3)(i). Even if the lab is not PA accredited, we would not be able to ignore results exceeding an MCL. However, the data would not be reportable to DWELR.

Q: To ensure the data is handled correctly, with respect to UCMR 5 detections below the MCLs for monitoring conducted under the UCMR 5 program, reporting through DWELR is not required regardless of the lab's accrediting status, correct? As long as a PWS are not changing the PA DEP required start date for initial monitoring and the results are less than the new PFOA and PFOS MCLs, reporting of the data through DWELR is not required. Is this correct?

A: UCMR 5 data is not required to be reported to DWELR, even if the lab is PA accredited. If the lab conducting the analysis is PA accredited and you would like it to be reported to DWELR, that would be a conversation for you to have with the lab, but it is not required. However, whether the lab is reporting the data via DWELR or not, 1-hour reporting requirements apply for any results exceeding an MCL.

Q: How do we communicate UCMR 5 results to our customers?

A: UCMR results that are detected (over the UCMR reporting limits) must be reported in the CCR, according to 40 CFR 141.153.

Q: We are a large system (> 10,000) required to monitor for PFAS for UCMR 5. Can we have the results count towards initial compliance monitoring also?

A: It *may be* possible for the same set of data to count toward the monitoring requirements of both rules, IF the monitoring schedules align and IF ALL requirements of both rules are met, including the monitoring period, frequency and number of samples collected, using an approved method and laboratory, and meeting all reporting requirements. It is the responsibility of the water system to ensure that all requirements are met.

If you would like to align monitoring schedules for the two rules, you can either modify your UCMR 5 schedule to coincide with PA initial compliance monitoring, or you can request to modify your PA initial compliance monitoring schedule. We included a provision to allow for that possibility in the final rule language.

To modify your UCMR 5 schedule: For large water systems serving > 10,000, UCMR 5 schedules can be modified by emailing UCMR_Sampling_Coordinator@epa.gov.

To request to modify your initial compliance monitoring schedule: You would need to complete and submit the PFAS Initial Compliance Monitoring Schedule Change Request Form (linked below) *and* receive written approval.

PFAS INITIAL COMPLIANCE MONITORING SCHEDULE CHANGE REQUEST FORM AND INSTRUCTIONS.DOCX **3930-FM-BSDW0051** (NEW)

PFAS INITIAL COMPLIANCE MONITORING SCHEDULE CHANGE REQUEST FORM AND INSTRUCTIONS.PDF **3930-FM-BSDW0051** (NEW)

Again, aligning schedules is only the first step. It is important to remember that all requirements of both rules must be met for the data to be used for both. We have been informed by some labs that there may be issues with the QA/QC that is preventing labs from reporting the data for both purposes.

If you chose not to align the schedules, then you would need to conduct monitoring for UCMR 5 according the schedule and requirements of that rule, *AND* conduct monitoring for initial compliance with the PFAS MCL Rule, quarterly beginning January 1, 2024, for systems serving more than 350 persons, in accordance with 109.301(16)(i), and meeting all other requirements.

For more information, please visit the PFAS MCL Rule website at PFAS MCL Rule (pa.gov) to view the webinar for PFAS MCL Rule UCMR 5 monitoring overlap implications, under the heading 'Training'.

Q: Our PWS serves < 10,000 and will be starting the UCMR 5 sampling in 2023. Will this year's PFAS sampling cover us for the "Initial Monitoring" requirements of 2024, or will we need to do this all over again next year? If we need to request that 2023 UCMR5 results count toward Initial Monitoring, please let me know how to go about that.

A: It *may be* possible for the same set of data to count for the monitoring requirements of both rules, IF the monitoring schedules align and IF ALL requirements of both rules are met, including reporting requirements. It is the responsibility of the water system to ensure that all requirements are met.

However, it is important to point out that for small/medium systems serving less than 10,000, there are a few challenges with this. Specifically, For UCMR 5 monitoring, EPA selects the laboratory for the water system from their list of UCMR 5 approved labs and pays for analysis. If

that lab is not also PA-accredited for the specific method required under UCMR 5 (EPA Method 533 for PFOA and PFOS), we will not be able to accept the monitoring data for compliance monitoring purposes. Also, since EPA is paying for UCMR 5 analysis, EPA is the client of the laboratory, not the PWS; therefore, even if the lab is both UCMR 5 approved and PA-accredited, it will likely not be possible for the lab to report the data to PA in addition to reporting to SDWARS for UCMR 5.

Keeping that in mind, if you would like to align monitoring schedules for the two rules, you can either modify your UCMR 5 schedule to coincide with PA initial compliance monitoring, or you can request to modify your PA initial compliance monitoring schedule. We included a provision to allow for that possibility in the final rule language. To modify your UCMR 5 schedule, contact the EPA contractor for UCMR 5, Great Lakes Environmental Center (GLEC), at UCMR5@glec.com. To request to modify your initial compliance monitoring schedule, you would need to complete and submit the PFAS Initial Compliance Monitoring Schedule Change Request Form (linked below) and receive written approval. But again, aligning schedules is only the first step. Due to the challenges noted above, it still may not be possible to use the same set of data for both rules.

PFAS INITIAL COMPLIANCE MONITORING SCHEDULE CHANGE REQUEST FORM AND INSTRUCTIONS.DOCX **3930-FM-BSDW0051** (NEW)

PFAS INITIAL COMPLIANCE MONITORING SCHEDULE CHANGE REQUEST FORM AND INSTRUCTIONS.PDF **3930-FM-BSDW0051** (NEW)

Again, aligning schedules is only the first step. It is important to remember that all requirements of both rules must be met for the data to be used for both. We have been informed by some labs that there may be issues with the QA/QC that is preventing labs from reporting the data for both purposes.

If you chose not to align the schedules, then you would need to conduct monitoring for UCMR 5 according the schedule and requirements of that rule, *AND* conduct monitoring for initial compliance with the PFAS MCL Rule, quarterly beginning January 1, 2024, for systems serving more than 350 persons, in accordance with 109.301(16)(i), and meeting all other requirements.

For more information, please visit the PFAS MCL Rule website at PFAS MCL Rule (pa.gov) to view the webinar for PFAS MCL Rule UCMR 5 monitoring overlap implications, under the heading 'Training'.

Q: My PWS serves <10,000 people, designating us as a 'small' system by the UCMR 5 definition. One of my concerns was that EPA is going to select the accredited laboratory for small PWS to complete the required UCMR 5 monitoring. Has DEP inquired whether or not a small PWS may contact GLEC and request which accredited lab they will be assigned? If we may request to be assigned a PA-accredited laboratory, we can take advantage of at least two monitoring periods.

A: The Department did ask EPA whether they would entertain requests by small systems that their samples be sent to a lab that is both EPA approved for UCMR 5 and PA accredited. Their answer was that yes, small systems can make that request. EPA did not guarantee that they will be able to accommodate all such requests. Also keep in mind that EPA will be paying for analysis and reporting to SDWARS for UCMR 5. If you are assigned a lab that is also PA accredited, the

lab must also be willing to report the results for PA compliance via DWELR, the Drinking Water Electronic Laboratory Reporting System. All compliance data must be reported appropriately and on time via DWELR.

Cost Estimates

Q: Do you know the additional testing cost?

A: Monitoring costs will depend on several different factors:

- which lab is doing the analysis
- whether the lab or the PWS collects the sample
- which method is used for analysis
- which parameters are being requested (PFOA, PFOS, both or the full range that the method can identify)
- how many samples are needed for each EP
- whether the field reagent blank also needs to be analyzed

The monitoring cost estimates are in the preamble in Section G (starting on page 350); the compliance monitoring costs start on page 354. This is an excerpt of that information:

Compliance monitoring costs

Compliance monitoring cost estimates for this final-form rulemaking were determined based on a survey conducted of laboratories accredited in this Commonwealth for PFAS analysis by one or more of the analytical methods in this final-form rulemaking, as well as assumptions made based on an analysis of the occurrence data. According to lab survey results, the analytical cost for PFAS by either EPA Method 533, EPA Method 537 version 1.1 or EPA Method 537.1 varied greatly among the labs that responded, with a range of $325 to $750, and an average of $516, including the cost of analysis of the associated field reagent blank required by the methods for each sample site. This does not include an additional fee for sample collection, which also varied greatly among the labs offering that service; sample collection is approximately an additional $200 based on the survey.

Approximately half of the responding laboratories noted that they offer a cost reduction for reporting of fewer analytes than included in the method, which would provide a cost savings for systems since monitoring is required for only two analytes—PFOA and PFOS. Also, a few labs noted potential savings if there are no detections in the sample; the associated field blank would be extracted, but would not need to be analyzed, which would reduce the overall cost. A few labs also noted potential additional fees for PFAS-free blank water, overnight shipping costs for samples and Level 4 data reports if requested.

For compliance monitoring cost estimates, it was assumed that approximately half of all water systems will collect their own samples and half will utilize sample collection services provided by the laboratory. Therefore, an average cost of $616 per sample was used in the following compliance monitoring cost estimate calculations.

If a PWS has an entry point (EP) with results over the MCL, quarterly monitoring will be required to establish the contaminant levels over time. Compliance with the MCL is based on a running annual average of the quarterly results. Systems with MCL violations may resolve the issue by taking the affected source(s) off-line, blending the affected source(s) with other sources to lower the levels detected at the EP or by installing treatment.

Q: Do you know generally how expensive is it if a PWS exceeds MCLs?

A: Treatment costs will also depend on several different factors:

- what contaminants are being treated
- the level of the contaminant being treated
- the level of other PFAS that may affect treatment efficacy
- the volume of water being treated

Treatment costs estimates are also included in Section G of the preamble and are based on treating an average of 1 MGD. Sources that are rated for more than 1 MGD may have higher treatment costs; sources rated for less than 1 MGD may have lower costs.

Bottled, Vended, Retail, and Bulk (BVRB) Water Systems

Q: PFAS analyses will be required for any assigned BVRB EPs starting in the first quarter of 2024, correct?

A: Correct

Q: PFAS analyses will be required for any new BVRB sources or products for which approval is sought after 01/14/23 and will be required of products for four consecutive quarters once approved, correct?

A: The first part is correct in that new source sampling conducted as part of the permitting process now needs to include analysis of PFAS. Any new products (EPs) permitted this year will not begin initial quarterly monitoring until the first calendar quarter of 2024, UNLESS new source sampling results indicate that monitoring is necessary sooner.

Q: Is there any monitoring exemption for PBR systems?

A: Vended systems that do NOT qualify for permit by rule are required to monitoring according to § 109.1003(a)(1).

However, vended systems that DO qualify for permit by rule are required to monitor according to § 109.1003(a)(2):

> (2) Vended water systems shall monitor in accordance with paragraph (1) except that vended water systems qualifying for permit by rule under § 109.1005(b), for each entry point shall:
>
> (i) Monitor monthly for microbiological contaminants.
>
> (ii) Monitor annually for total dissolved solids, lead and cadmium.
>
> (iii) Conduct special monitoring as required by the Department.

(iv) Beginning April 28, 2018, a system that obtains finished water from another permitted public water system using surface water or GUDI sources shall also monitor in accordance with paragraph (1)(xiv).

Q: What about BVRBs that are consecutive, but the selling system does not monitor at least annually?

A: Per § 109.1003(a)(1)(xv)(A): "Systems that obtain finished water from another permitted public water system are exempt from conducting monitoring for PFAS if the public water system supplying the finished water performs the required monitoring at least annually and a copy of the analytical reports are received by the Department." If the selling water system does not monitor at least annually, the consecutive BVRB system must monitor according to § 109.1003(a)(1)(xv)(B) through (D).

Q: What about a BVRB that has a source in another state?

A: Monitoring is required for PFAS if the selling system is not conducting monitoring at least annually, as noted above.

Treatment and Permitting

Q: What is Pennsylvania's pilot study policy for installing PFAS treatment?

A: We are requiring pilot studies on a case-by-case scenario. If the technology has been demonstrated effective on similar raw water qualities, we may not require a pilot. However, we strongly encourage all systems to pilot.

Q: What is the frequency of sampling for PFAS during the pilot study? Where are the sampling locations? If there are filters in series, is there a sampling point in between the filters and post-filters?

A: DEP does not yet have official guidance on pilot study sampling frequency and locations for PFAS treatment. We are currently recommending weekly samples of the raw water, midpoint between pilot columns, and pilot effluent, to be analyzed for PFOA and PFOS.

Q: If a PWS already has a permit allowing for multiple sources at one EP, with no blending rates specified, and they want to blend sources at a specific blending rate in order to meet the PFAS MCL, would that require a major or minor permit amendment?

A: This would be a minor amendment, as we don't consider blending to be treatment and the special conditions for treatment would not be applicable for blending. We would need to set different conditions to ensure the blended water is consistently under the MCL.

Q: If a PWS installs ion exchange treatment for PFAS, would their monitoring frequency for lead and copper need to be reset to six-months initial monitoring? In other words, is ion exchange treatment likely to change the chemistry of the water leaving the treatment plant if they don't have some form of CCT?

A: Ion exchange treatment temporarily alters the water chemistry just after the resin is newly installed, but it doesn't permanently alter water chemistry. The resin has chloride ions that are initially replaced by other anions in the water that are at much higher concentrations than PFAS. Gradually those other anions are displaced by PFAS. When the resin is newly installed, it

loses a lot of chloride ions initially as they are replaced by the other anions and the pH goes down as a result. The PWS would need to filter-to-waste until the pH stabilizes after new media is installed. We have a special condition to monitor effluent pH in order to capture this effect. There is an alternative resin available from one vendor that is buffered (i.e. it's already had the chloride ions replaced with typical anions that are in source water) and this minimizes filter-to-waste time.

This potential pH change is a temporary effect that is addressed by the filter-to-waste requirement in the operations permit conditions, so it should not affect water chemistry in the distribution system. Therefore, there should not be a need to reset the Pb/Cu tap monitoring frequency to every 6-months *unless* an issue was identified during the simultaneous compliance evaluation that was completed during the permitting process.

Q: Are there any distribution system components that may contribute to elevated PFAS levels in the distribution system?

A: NSF 61 does include PFOA and PFOS, and it is unlikely that HDPE or PVC pipe would be a source for PFAS.

Consumer Confidence Reports (CCR)

Q: Is there any CCR specific language to be used in 2022 CCRs for PFAS contaminants now that the MCLs have been established in PA?

A: When reporting PFAS data for calendar year 2022 in the 2022 CCR (delivered in 2023), you should report that monitoring was done for PFAS that were not regulated in 2022 and the results were _____. You could add a footnote that the PA MCLs were finalized in January 2023, so moving forward there will be enforceable regulatory standards for PFOA and PFOS.

CCR language is defined in the new rule in 109.416(3.1) for future CCR years.

Q: Now that PA DEP has published the "PFAS MCL Rule", should we still include language about the EPA interim health advisory levels? Currently I have PFAS language for both contained in the template.

A: Our recommendation when reporting PFAS data for CY 2022 in the CCR delivered in 2023, is to not provide a comparative number. You should report that monitoring was done for PFAS that were not regulated in 2022 and the results were ------. You could add a footnote that the PA MCLs were finalized in January 2023, so moving forward there will be enforceable limits for PFOA & PFOS.

The 2016 EPA Health Advisory HA level was superseded by interim HA values that are not technically feasible and are based on supporting documents that (to my knowledge) have not been finalized, so the risk communication message is challenging.