



pennsylvania  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Safe Drinking Water

**Note: This webinar is being recorded.**

# **PFAS MCL Rule and UCMR 5: Monitoring Overlap Implications**

January 31, 2023 @ 10:00 am

February 1, 2023 @ 2:00 pm

Josh Shapiro, Governor

Rich Negrin, Acting Secretary

# Webinar Agenda

- PFAS Rule Brief Overview
- UCMR 5 Brief Overview
- Overlap between rules and monitoring options
- Note: more detailed and comprehensive rule training will be available later in 2023

# PFAS Background

What are PFAS?

- Per- and polyfluoroalkyl substances (PFAS) are a class of synthetic chemicals that have been manufactured and in use since the 1940s.
- PFAS are used to make products resistant to water, heat and stains
- PFAS have unique chemical properties because they readily dissolve in water and are mobile, are highly persistent in the environment, and bioaccumulate.



# PFAS Background

- PFAS are considered emerging contaminants - research is ongoing to better understand PFAS and the potential impacts to human health.
- The two PFAS targeted by this rule are linked to adverse health effects:
  - Perfluorooctanoic acid (PFOA) is linked to adverse developmental effects (neurobehavioral and skeletal effects)
  - Perfluorooctanesulfonic acid (PFOS) is linked to adverse immune system effects (including immune suppression)

# PFAS Rulemaking

- Pennsylvania's PFAS Action Team – formed in 2018
  - Action Team Initial Report released in December 2019
  - One of the Action Team's recommendations is for DEP to establish drinking water standards for PFAS
- PFAS MCL Rule
  - Published as Draft in *PA Bulletin* on February 26, 2022, with 60-day comment period
  - Published as Final in *PA Bulletin* on January 14, 2023
- PFAS MCL Rule website:
  - <https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/DrinkingWaterMgmt/Regulations/Pages/PFAS-MCL-Rule.aspx>

# PFAS MCL Rule Key Provisions

- Establishes MCLs and MCLGs for 2 PFAS: PFOA and PFOS

	MCLG (ng/L)	MCL (ng/L)
PFOA	8	<b>14</b>
PFOS	14	<b>18</b>

- MCLs are applicable to ALL PWSs
- MCL Compliance:
  - Based on a running annual average (RAA) for each EP
  - If any quarterly result causes the RAA to exceed the MCL, a violation is generated for that quarter

MCL = maximum contaminant level

MCLG = maximum contaminant level goal

ng/L = nanograms per liter = parts per trillion (ppt)

EP = entry point

# PFAS MCL Rule Key Provisions

- Monitoring requirements
  - Applies to all community, nontransient noncommunity, bottled, vended, retail and bulk hauling water systems.
  - Initial monitoring is quarterly at each EP (based on CMP).
  - Initial compliance monitoring begin dates:
    - January 1, 2024, for PWSs serving more than 350 and BVRBs
    - January 1, 2025, for PWSs serving 350 or fewer
  - Follow up monitoring frequencies are dependent on whether PFOA or PFOS is detected and at what level during initial monitoring.

# PFAS MCL Rule Key Provisions

- Tier 2 public notice (PN) is required for MCL violations.
- Detected results must be reported in the annual Consumer Confidence Report.
- Analysis:
  - Samples must be analyzed by an accredited lab using an approved method (EPA Methods 533, 537.1, 537 version 1.1)
  - Labs must achieve reporting limit of 5 ng/L
- Treatment:
  - Approved technologies are Granular Activated Carbon (GAC), Ion Exchange or Reverse Osmosis
  - Other technologies approved by DEP



# UCMR 5 Overview

- EPA's Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published in the Federal Register on December 27, 2021
- UCMR is direct implementation
- Applicable to all CWSs and NTNCWSs serving 3,300 or more, plus a random subset of 800 smaller PWSs
- Requires monitoring for 29 PFAS and lithium, using a method specified by UCMR 5 *and* an EPA approved laboratory
  - EPA Method 533: 25 PFAS (including PFOA and PFOS)
  - EPA Method 537.1: 4 PFAS
  - 4 approved methods for lithium
- Sample collection is at the EP

# UCMR 5 Overview

- Sample collection is between 2023-2025
  - GW: monitor 2x during consec. 12-month period, 5-7 months apart
  - SW: monitor 4x during consec. 12-month period, 3 months apart
- Systems serving over 10,000:
  - Select a UCMR 5 approved lab of their choice
  - Pay for their own sample shipment and analysis
- Systems serving 10,000 or fewer:
  - EPA selects a UCMR 5 laboratory
  - EPA sends sample kits to the PWS
  - EPA pays for sample shipment and analysis

# Rule Overlap

	PFAS MCL Rule	UCMR 5
Monitoring period:	Initial compliance monitoring in <b>2024 or 2025</b>	<b>2023-2025</b>
Contaminants:	<b>PFOA and PFOS</b>	29 PFAS, <i>including</i> <b>PFOA and PFOS</b>
Analytical methods:	<b>EPA Method 533</b> , EPA Method 537 version 1.1, and EPA Method 537.1	<b>EPA Method 533</b> for PFOA and PFOS
Monitoring frequency:	<b>Quarterly</b> initial compliance monitoring	SW: 4x in 12 months GW: 2x in 12 months
Location and number of samples:	Monitoring required at each <b>EP</b> : # of samples required according to CMP	Monitoring at the <b>EP</b> , one sample per EP

# Rule Overlap

- Received comments during public comment period that we should allow the same set of data to be used for both purposes
- We agree and can potentially accept ‘dual purpose’ data for PA initial compliance monitoring **IF ALL REQUIREMENTS ARE MET**
  - Samples collected within required time frame and with required number of samples
  - Samples analyzed using an approved method
  - Samples analyzed by an accredited laboratory
  - Samples reported appropriately and on time
- *Note:* Must also meet all UCMR 5 requirements to be used for both purposes

# Rule Requirements

- Samples must be collected **within the required time frame** and with the **required number of samples**
  - If the initial compliance monitoring schedule for PA is different than the schedule for UCMR 5, options include:
    1. Monitor twice / separately for each rule
    2. Modify UCMR 5 schedule to align with PA initial monitoring\*
    3. Modify PA initial monitoring schedule to align with UCMR 5 schedule\*
  - Remember that PA initial monitoring is **quarterly**, even though GW systems only need to monitor 2x in a 12-month period for UCMR 5
  - The number of samples required for PA initial monitoring may be more, according to the PWS's Comprehensive Monitoring Plan (CMP)

***\*IF a PWS wishes to utilize one of these options, it is the responsibility of the PWS to ensure that the schedules align.***

# Rule Requirements

- Samples must be analyzed using one of the approved methods
  - PFAS MCL Rule includes 3 approved methods: EPA Method 533, EPA Method 537.1, EPA Method 537 version 1.1
  - UCMR 5 specifies that PFOA and PFOS must be analyzed by EPA Method 533
  - **EPA Method 533** is both the UCMR 5 method for PFOA and PFOS and an approved method under the PFAS MCL Rule

# Rule Requirements

- Samples must be analyzed by a laboratory accredited in PA
  - Laboratory must be accredited for the specific method (i.e., EPA 533)
  - Laboratory must also be EPA approved for UCMR 5 in order for EPA to accept the data
  - As of January 2023, there are 6 labs approved for both (all 6 are out of state)
  - To find PA accredited labs:
    - [http://cedatareporting.pa.gov/Reportserver/Pages/ReportViewer.aspx?/Public/DEP/Labs/SSRS/Lab\\_Certification](http://cedatareporting.pa.gov/Reportserver/Pages/ReportViewer.aspx?/Public/DEP/Labs/SSRS/Lab_Certification)
  - To find EPA approved labs for UCMR 5:
    - <https://www.epa.gov/dwucmr/list-laboratories-approved-epa-fifth-unregulated-contaminant-monitoring-rule-ucmr-5>

# Rule Requirements

- Samples must be reported appropriately and on time
  - Reported via DWELR by the 10<sup>th</sup> of the month
  - Contaminant codes:

2805	Perfluorooctanesulfonic Acid	PFOS
2806	Perfluorooctanoic Acid	PFOA

- Method codes:

239	EPA Method 537 Rev 1.1 and EPA Method 537.1
241	EPA Method 533

- Units: ng/L (ppt)
- Sample type and location ID
- Reporting instructions will be available



# Monitoring Options

- If the initial compliance monitoring schedule for PA is different than the schedule for UCMR 5, options include:
  1. Monitor twice / separately for each rule
  2. Modify UCMR 5 schedule to align with PA initial monitoring
  3. Modify PA initial monitoring schedule to align with UCMR 5 schedule
- Remember: this is only one consideration for dual purpose monitoring; all other requirements must also be met!

# Option 1: Monitor twice / separately

- Systems  $\leq 10,000$ 
  - PA initial compliance monitoring begins January 1, 2024 (if  $>350$ ) or January 1, 2025 (if  $\leq 350$ ), depending on population
  - EPA selects the EPA-approved UCMR 5 laboratory and sends a sampling kit to the PWS for sample collection and submission to the lab. There is no guarantee whether the lab will or will not also be PA-accredited.
  - EPA pays for UCMR 5 monitoring, including sample shipment and analysis, making EPA the client of the laboratory for the results.
  - Since EPA is the client of the lab, the PWS would not be able to request that the results are also reported to PA.

# ▶ Option 1: Monitor twice / separately

- Systems  $\leq$  10,000 (cont.)
  - For these reasons, **monitoring twice / separately is likely to be the only feasible option for systems  $\leq$  10,000**. Even if monitoring schedules align, the lab selection and reporting of UCMR 5 data to PA are complicating factors making it a challenge for these systems to be able to use the same data for both purposes.

# ▶ Option 1: Monitor twice / separately

- Systems > 10,000
  - PA initial compliance monitoring begins January 1, 2024 (all >350)
  - PWS selects their own EPA-approved UCMR 5 laboratory.
  - PWS pays for UCMR 5 monitoring, including sample shipment and analysis.
  - If the schedules do not align, the PWS would select an EPA-approved lab for UCMR 5 monitoring according to that schedule, and will also separately select a PA-accredited lab for PA initial compliance monitoring, beginning January 1, 2024

# Option 1: Monitor twice / separately

- Systems > 10,000 (cont.)
  - Example: Large SW system with UCMR 5 start date of February 2023
    - PWS monitors for UCMR 5 in February 2023, May 2023, August 2023, and November 2023, using an EPA approved lab and according to requirements of UCMR 5
    - PWS monitors for PA initial compliance in 1<sup>st</sup> quarter 2024, 2<sup>nd</sup> quarter 2024, 3<sup>rd</sup> quarter 2024, and 4<sup>th</sup> quarter 2024, using a PA accredited lab and according to requirements of the PFAS MCL Rule

# Option 2: Modify UCMR 5 schedule

- Systems  $\leq 10,000$ 
  - For the reasons already discussed, conducting dual purpose monitoring to satisfy both rules may not be a feasible option for systems  $\leq 10,000$ .
  - However, if a small/medium system wishes to change their UCMR 5 schedule *for any reason*, here is how to do that:
    - Contact the EPA contractor for UCMR 5, Great Lakes Environmental Center (GLEC), at [UCMR5@glec.com](mailto:UCMR5@glec.com) or 1-800-949-1581 for schedule changes

# Option 2: Modify UCMR 5 schedule

- Systems > 10,000
  - PA initial compliance monitoring begins January 1, 2024 (all >350)
  - May opt to *modify their UCMR 5 schedule to a begin date of January 1, 2024*, to align with PA initial compliance monitoring.
  - To modify the UCMR 5 schedule:
    - Email [UCMR\\_Sampling\\_Coordinator@epa.gov](mailto:UCMR_Sampling_Coordinator@epa.gov)
    - Provide PWSID, proposed start month/year, and reason for request

# Option 2: Modify UCMR 5 schedule

- Systems > 10,000 (cont.)
  - Example: Large GW system with UCMR 5 start date of January 2023
    - PWS requests to modify their UCMR 5 schedule to a start date of January 2024 to align with PA initial compliance monitoring per the above method.
    - PWS monitors QUARTERLY in 2024 according to requirements of BOTH rules as already noted. Monitoring occurs in January 2024 (reported for both), April 2024 (reported just to PA), July 2024 (reported for both), October 2024 (reported just to PA).



# Option 3: Modify PA schedule

- In response to comments received and to provide another option for PWSs, the PFAS initial compliance monitoring start date (1/1/24 or 1/1/25) may be modified.
- § 109.301(16)(i)(C) was added to the final rulemaking to allow PWSs to submit a request to DEP, with approval granted in writing, to modify the initial monitoring start date
- A form was developed to serve as request submission
  - PFAS Initial Compliance Monitoring Schedule Change Request Form and Instructions
  - Document ID 3930-FM-BSDW0051 in [DEP eLibrary](#)
- **IMPORTANT: Approval must be granted in writing** (i.e., via letterhead) – if not approved in writing, PWS must follow default schedule

# Option 3: Modify PA schedule

3930-FM-BSDW0051 1/2023

Form



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF SAFE DRINKING WATER

## PFAS INITIAL COMPLIANCE MONITORING SCHEDULE CHANGE REQUEST FORM

### I. GENERAL INFORMATION

PWS Name:		PWSID:	
Responsible Official:		Phone Number:	
PWS Address:			
Name of individual(s) completing this form:		E-mail:	
Date Completed:			

### II. COMPLIANCE MONITORING START DATE

Population:	UCMR 5 monitoring start date:
PA Initial Compliance Monitoring Start Date:	Requested PA Initial Compliance Monitoring Start Date:

### III. VERIFICATION

I hereby certify that the information contained herein is true and correct to the best of my knowledge, information and belief.

Responsible Official Signature:	Date:
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- Review form and instructions
  - Info needed for request
  - Submit to DEP at PO Box in form instructions
  - Submit at least 30 days prior to the requested start date



# Option 3: Modify PA schedule

- Systems > 10,000
  - If so desired, may request to modify PA initial compliance monitoring schedule to align with UCMR 5 schedule
  - Quarterly monitoring required for PA (even if not required for UCMR 5)
  - To modify the PA initial monitoring schedule:
    - Submit the schedule change form
    - Receive a letter documenting approval to modify start date

# Option 3: Modify PA schedule

- Systems > 10,000 (cont.)
  - Example: Large GW system with UCMR 5 start date of January 2025
    - PWS requests to modify their PA start date from January 1, 2024, to January 1, 2025, by submitting form, and receives written approval from DEP.
    - PWS monitors QUARTERLY in 2025 according to requirements of BOTH rules as already noted. Monitoring occurs in January 2025 (reported for both), April 2025 (reported just to PA), July 2025 (reported for both), October 2025 (reported just to PA).

# What about 2023 monitoring?

How does this impact PWSs scheduled to monitor for UCMR 5 in 2023?

- Still have the same 3 options: monitor separately, modify UCMR 5 schedule, or modify PA initial compliance monitoring schedule
- If chose option 3 (modify PA schedule), timing is everything!
  - Form indicates need to submit request at least 30 days prior to requested start date
  - Can submit now for 2<sup>nd</sup> quarter start (April 1, 2023)
  - We will also accept requests for first quarter start date to include 1<sup>st</sup> quarter monitoring start, provided monitoring was not conducted prior to January 14, 2023 (publication date of rule) – *submit ASAP if requesting to start in first quarter 2023*

# Key Points

- The PFAS MCL Rule was published in the PA Bulletin on January 14, 2023 and sets MCLs and monitoring requirements for PFOA and PFOS.
- The Federal UCMR 5 requires monitoring for 29 PFAS, including PFOA and PFOS, between 2023 and 2025.
- There is some overlap between the monitoring requirements of the PFAS MCL Rule and UCMR 5.
- PWSs may have the option to report the same set of data for both rule, IF ALL REQUIREMENTS ARE MET:
  - ❖ Samples collected within required time frame and with required number of samples
  - ❖ Samples analyzed using an approved method
  - ❖ Samples analyzed by an accredited laboratory
  - ❖ Samples reported appropriately and on time

# Key Points

- If the initial compliance monitoring schedule for PA is different than the schedule for UCMR 5, options include:
  1. Monitor twice / separately for each rule
  2. Modify UCMR 5 schedule to align with PA initial monitoring\*
  3. Modify PA initial monitoring schedule to align with UCMR 5 schedule\*
- If a PWS wishes to modify a monitoring schedule for either rule, it is the responsibility of the PWS to ensure that the schedules align.
- Check the PFAS MCL Rule website for information and updates, including the recording of this webinar and information on rule training in 2023:

<https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/DrinkingWaterMgmt/Regulations/Pages/PFAS-MCL-Rule.aspx>

# Questions?

- Thank you for attending our webinar!
- A copy of the recording will be made available on our PFAS MCL Rule website at:  
<https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/DrinkingWaterMgmt/Regulations/Pages/PFAS-MCL-Rule.aspx>
- Additional questions may be submitted to our resource account at [RA-EPSDWTECHSUPPORT@pa.gov](mailto:RA-EPSDWTECHSUPPORT@pa.gov)