RECEIVED
Apr 26 2022
Independent Regulatory Review Commission

NAWC PENNSYLVANIA
National Association of Water Companies

MOVING WATER FORWARD

www.nawc.org

April 26, 2022

Environmental Quality Board
P.O. Box 8477
Harrisburg, PA 17105-8477
eComments
RegComments@pa.gov

RE: ***Regulation #7-569: Safe Drinking Water PFAS MCL Rule***

Dear Environmental Quality Board:

The National Association of Water Companies, PA Chapter (NAWC-PA) represents all aspects of the private water service industry including ownership of regulated drinking water and wastewater utilities. NAWC-PA member companies provide safe and adequate drinking water service to over 3.1 million Pennsylvanians in 492 communities in 39 counties. In addition, NAWC-PA member companies provide wastewater service to approximately 195,000 Pennsylvanians in 34 communities across nine counties.

The NAWC-PA **supports** the proposed rulemaking which will improve public health protection by setting maximum contaminant level goals (MCLG) and maximum contaminant levels (MCL) for two per- and polyfluoroalkyl substances (PFAS) – perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) (Proposed PFAS Rule).

The Proposed PFAS Rule is intended to protect public health by setting state MCLs for contaminants in drinking water that are currently unregulated at the federal level. If the Proposed PFAS Rule is adopted, Pennsylvania would move ahead of the federal Environmental Protection Agency (EPA) in addressing PFOA and PFOS in drinking water and join a small group of states that have set MCLs for select PFAS in drinking water.

It is also important to note that EPA is also moving forward with the MCL process as outlined in the federal Safe Drinking Water Act (SDWA) for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). EPA expects to publish a proposed rule by Fall 2022 with a final rule expected Fall 2023. Therefore, Pennsylvania may need to adjust the Proposed PFAS Rule if the EPA were to put forth its own rulemaking with conflicting or more stringent MCLs for PFOA and PFOS. At the very least, the development of the Proposed PFAS rule by EPA as well as existing PFAS MCL in nearby states has the potential to cause confusion amongst customers as to the quality of their water.

On July 29, 2021, a pre-draft version of the Proposed PFAS Rule was presented to the Public Water System Technical Assistance Center (TAC) Board, which includes representation from the NAWC-PA. The TAC unanimously voted to support the Department of Environmental Protection (DEP) moving forward in the rulemaking process to present the Proposed PFAS Rule to the EQB.[i]

Currently, EPA's health advisory limit (HAL) is 70 parts per trillion (ppt) for the combined concentrations of PFOS and PFOA. Since PFAS are unregulated, there is no MCL. However, our ability to detect has outpaced our ability to understand the significance.

DEP conducted a statewide sampling plan which began in June 2019. DEP identified 493 public water system sources as potential sampling sites because they met the criterion of being located within a half mile of a potential source of PFAS contamination, such as military bases, fire training sites, landfills, and manufacturing facilities.

Of those, DEP tested 372 targeted sites and 40 additional sites (412 total) that were not located within a half mile of a potential source of PFAS contamination to establish a baseline.

Of the PFAS chemicals sampled, PFOS and PFOA were most common, being detected at 103 and 112 sites, respectively. Of the sites with detections, only eight PFAS were detected. The eight PFAS that were detected are: PFOS, PFOA, Perfluorononanoic acid (PFNA), Perfluorohexane sulfonate (PFHxS), Perfluoroheptanoic acid (PFHpA), Perfluorobutane sulfonate (PFBS), Perfluorohexanoic acid (PFHxA), and Perfluoroundecanoic acid (PFUnA). The other 10 PFAS that were tested were not detected.

Of the 412 total samples, **two of the results** were above the EPA's HAL of 70 ppt for the combined concentrations of PFOS and PFOA: State of the Art, Inc. in Centre County, and Saegertown Borough in Crawford County.

The Proposed PFAS Rule includes a **proposed PFOA MCL of 14 ppt**, which represents a 90% improvement in health protection as compared to the current EPA HAL of 70 ppt.

In addition, the Proposed PFAS Rule includes a **proposed PFOS MCL of 18 ppt**, which represents a 93% improvement in health protection as compared to the current EPA HAL of 70 ppt.

Public water systems can treat source water with granular activated carbon (GAC), anion exchange (IX), and reverse osmosis (RO) (e.g., high-pressure membrane systems) to remove PFOS and PFOA from drinking water.

According to DEP's Table 16 (GAC Treatment Costs), "the average capital cost for the GAC treatment was $3,457,110 per million gallons per day (MGD) per entry point (EP) with an average annual operation and maintenance (O&M) cost of $171,970 per MGD per EP."[ii]

Moreover, as indicated on DEP's Table 17 (IX Treatment Costs), "the average capital cost for the IX treatment was $3,284,360 per MGD per EP with an average annual O&M cost of $155,666 per MGD per EP."[iii]

Based on the NAWC-PA's experience, the estimated costs are often understated and are a greater burden on smaller systems. For example, Aqua America and Veolia Water Pennsylvania have installed and operated GAC treatment systems for PFOA and PFOS. Aqua America provided the following cost information regarding treatment to remove PFAS:

Site #	Design Flow (MGD)	Treatment	$CAPX	$CAPX/MGD	Additional Annual OPEX	Annual additional OPEX/MGD
1*	0.576	GAC	$ 965,000	$1,675,347	$ 70,000	$ 121,528
2	0.317	GAC	$ 778,000	$2,454,259	$ 70,000	$ 220,820
3	0.360	GAC	$ 876,000	$2,433,333	$ 70,000	$ 194,444
* Sites 1 and 2 were designed and installed under one contract. CAPX costs may be skewed						

Veolia Water Pennsylvania provided the following cost information for its GAC treatment at its Newberry, PA sites 1 and 2:

- System – Four vessels located onsite with five-year service agreement – $239,990.
- Custom Manifolds – Supply and delivery of two 6" carbon steel 4-tier manifolds – $54,693.

- **NOTE**: This cost information does not include any of the building costs, pipework, etc. The numbers represent only the purchase of the carbon and vessels and include a price of change out per vessel, per year.

In addition to treatment costs, the Proposed PFAS Rule also imposes significant compliance monitoring costs. Specifically, the Proposed PFAS Rule requires initial quarterly monitoring for community and nontransient noncommunity systems serving a population of more than 350 persons beginning January 1, 2024. It also will require repeat compliance monitoring on a quarterly basis for any EPs at which either PFOA or PFOS is detected at a level above its respective minimum reporting limit (MRL), including those EPs at which one or both MCLs are exceeded. If the quarterly repeat monitoring results are reliably and consistently below the MCLs, the frequency of repeat monitoring may be reduced from quarterly monitoring to annual monitoring. Table 15 on page 35 of the Proposed PFAS Rule summarizes the overall cost estimates for compliance monitoring in each of the first four years of rule implementation. According to DEP, "the average annual monitoring costs over the first four years are $4,397,916."[iv]

Although DEP believes its assumptions will likely overestimate the compliance monitoring requirements and costs, it is the NAWC-PA's experience that such cost estimates for monitoring are usually understated. The NAWC-PA is concerned that the cost for monitoring and treatment will ultimately be much higher than those estimated for the proposed MCLs of 14 ppt for PFOA and 18 ppt for PFOS. We are concerned about this potential cost impact on community water systems, particularly small systems. Therefore, it is imperative that the Compliance Assistance Plan[v] referred to in the Proposed PFAS Rule, which would provide low-interest loans to eligible systems, be adequately funded to help community water systems offset the costs of the Proposed PFAS Rule.

With respect to Annex A, the NAWC-PA offers the following comments:

1. *109.301(16)(ix)(A) - For systems monitoring more than once per year, compliance with the MCL is determined by a running annual average of all samples taken at each entry point.*

Please clarify the compliance determination for systems that wish to collect more frequent samples than required by the regulation. For example, if a system is required to monitor quarterly but instead monitors monthly, will all samples collected be used in the running annual average calculation?

2. *109.301(16)(ix)(C) - If any sample result will cause the running annual average to exceed the MCL at any entry point, the system is out of compliance with the MCL immediately.*

Please clarify how the compliance determination will be performed during the first year of initial monitoring. For example, if the first sample collected exceeds the MCL, will the system fall out of compliance with the MCL or will that determination be made after the first four quarters of monitoring?

3. *109.302(16)(i) – Monitoring requirements for PFAS – Initial Monitoring.*

Fifth Unregulated Contaminant Monitoring Rule (UCMR5) sampling begins January 2023 for many water systems. We ask that the results of this sampling be accepted as initial monitoring with reduced monitoring, as appropriate, commencing upon the effective date of this regulation. Continuing quarterly sampling another year after UCMR5 is overly burdensome, costly, and redundant for those systems that do not detect PFAS or that have demonstrated, through UCMR5, to be reliably and consistently below the proposed MCL.

4. *109.304 – Analytical Requirements.*

With respect to the analytical method requirement to collect and analyze field reagent blanks (FRBs) per location sampled, we strongly recommend that DEP consider adopting a policy like that of the New Jersey DEP that will allow data to be reported in the absence of FRBs being analyzed. Water systems are aware the FRBs may be beneficial to them if background contamination was the source of the PFAS detected in the sample, but this can serve little value at locations where PFAS detection is known or expected. Requiring the collection and analyzing of FRBs doubles the cost and analytical workload and creates additional bottle wear and chemical reagent waste. This requirement adds $100k to the initial monitoring analytical costs in our systems across PA. If FRBs will be required with every sample, DEP must ensure that the cost calculations used to derive the proposed MCL have taken this into consideration.

5. *109.602(j) – Identified treatment technologies for PFAS treatment.*

GAC, IX, and RO have been identified as Best Available Technology (BAT) for PFAS treatment under the Proposed PFAS Rule. We understand that a certain amount of testing may be beneficial as part of the design process but ask DEP to confirm that piloting systems will not be required to have a construction permit accepted and reviewed by DEP. Requiring pilot systems that run for years to prove this BAT are costly, adding $100k-$125k to design costs per treatment

unit, and delay the installation of treatment with little overall value. If DEP plans to continue its requirement for piloting, DEP must ensure that the cost calculations used to derive the proposed MCL have taken this into consideration.

Consideration of these detailed comments is appreciated and necessary to finalize a rule that can be implemented consistently. To that end, we respectfully request that necessary technical guidance and, if appropriate, training be developed expeditiously so that water providers clearly understand how to comply with the final rule. Finally, while we may have concerns with the estimated costs, the NAWC-PA agrees with DEP that the Proposed PFAS Rule strikes a balance between public health protection and costs.

Respectfully submitted,

Erik A. Ross

Erik A. Ross
Governmental Relations

---

[i] Minutes of the July 29, 2021, Meeting – Public Water System Technical Assistance Center (TAC) Board https://files.dep.state.pa.us/PublicParticipation/Advisory%20Committees/AdvCommPortalFiles/TAC/2022/Draft_Minutes_Jul_29_2021_TAC_meeting.pdf

[ii] Proposed Rulemaking – Safe Drinking Water PFAS MCL Rule, pg. 36, Table 16. GAC Treatment Costs http://www.irrc.state.pa.us/docs/3334/AGENCY/3334PRO.pdf

[iii] Proposed Rulemaking – Safe Drinking Water PFAS MCL Rule, pg. 36-37, Table 17. IX Treatment Costs http://www.irrc.state.pa.us/docs/3334/AGENCY/3334PRO.pdf

[iv] Proposed Rulemaking – Safe Drinking Water PFAS MCL Rule, pg. 35, Table 15. Compliance Monitoring Costs http://www.irrc.state.pa.us/docs/3334/AGENCY/3334PRO.pdf

[v] Compliance Assistance Plan, page 38 http://www.irrc.state.pa.us/docs/3334/AGENCY/3334PRO.pdf