The PFAS Regulatory Coalition
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VIA ELECTRONIC MAIL
Environmental Quality Board
Rachel Carson State Office Building, 16th Floor
400 Market Street
Harrisburg, Pennsylvania 17101-2301
RegComments@pa.gov

Re: Comments of the PFAS Regulatory Coalition on the Proposal to Amend Chapter 109 Relating to Drinking Water

The PFAS Regulatory Coalition (Coalition) appreciates the opportunity to file comments regarding the Pennsylvania Environmental Quality Board's (Board) proposal to amend Chapter 109 relating to drinking water.

I. The Coalition's Interest

The Coalition is a group of industrial companies, municipal entities, agricultural parties, aviation representatives and trade associations, many of which have members or facilities in Pennsylvania that are directly affected by the State's development of policies and regulation related to per- and poly-fluoroalkyl substances (PFAS). Other members are concerned about the precedential impact that the Board action may have on other states' efforts to establish appropriate maximum contaminant level goals (MCLGs) and maximum contaminant levels (MCLs) in their states. Coalition membership includes entities in the automobile, airport, coke and coal chemicals, iron and steel, municipal, paper, petroleum, and other sectors. None of the Coalition members manufacture PFAS compounds. Coalition members, for purposes of these comments, include: Airports Council International – North America; American Coke and Coal Chemicals Institute; American Forest and Paper Association; American Fuel and Petrochemical Manufacturers; American Iron and Steel Institute; Barr Engineering; Brown & Caldwell; City of Lowell, MA; City of Pueblo, CO; Freeport-McMoRan Inc.; Gary Sanitary District (IN); HDR; Illinois Association of Wastewater Agencies; Trihydro; and Yucaipa Valley Water District (CA).

Coalition members support the State's efforts to identify potential sources of individual PFAS that pose risks to human health and the environment, and to prioritize the protection of drinking water sources, especially for vulnerable populations. In pursuing

such regulations, State regulators must ensure that final standards are scientifically supported, cost-effective, and achievable.

II. Proposed Rulemaking

The Board's proposed amendments to Chapter 109 establish maximum contaminant level goals (MCLG) and maximum contaminant levels (MCL) for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). The Board has proposed to set the MCLG for PFOA at 8 ppt, based on recommendation from the Drexel PFAS Advisory Group (DPAG), which reflects a chronic non-cancer value intended to protect infants and adults. The Board is proposing an MCL of 14 ppt based on health effects, the proposed MCLG, occurrence data, technical feasibility, and costs and benefits. For PFOS, the Board is proposing an MCLG of 14 ppt, which DPAG recommended based on chronic non-cancer value to protect infants and adults. The Board has proposed an MCL of 18 ppt PFOS.

III. Coalition Analysis and Recommendations

The Coalition appreciates the State's efforts and responsibility to protect Pennsylvania residents from possible health impacts from PFAS. We also appreciate the State's individual-compound approach to regulation, focusing on the two compounds for which the most scientific data is available. However, the Coalition opposes each state pursuing its own solution to PFAS regulation.

Many Coalition members have interests in multiple states, and uniformity and consistency among state standards are critical, not just for business operations but for risk communication to the general public, as well. USEPA is attempting to assert federal leadership on PFAS issues, and the Coalition recommends that states, including Pennsylvania, contribute by assisting USEPA to establish standards and defer setting individualized state standards before the federal government has an opportunity to do so.

Additionally, as outlined below, the Coalition supports Pennsylvania's efforts to evaluate the costs and benefits of promulgating MCLGs and MCLs. As to the benefits, however, the Coalition is concerned that some of the proposal's assumptions are resulting in overstated benefits and requests that the Board provide a basis for or reevaluate their calculation of the percentage increase in health protection resulting from the proposed MCLs. The Coalition is also concerned that the proposal understates the costs of compliance with the MCLs and fails to adequately consider how regulated entities will fund the costs and how the costs will impact ratepayers.

A. The Scientific Community Does Not Agree on Human Health Toxicity Values for PFAS

The lack of consensus in the scientific community on human health toxicity values for PFAS is evidenced, in part, by the numerous studies resulting in widely variable MCLGs and MCLs for PFOS and PFOA across the six states that that have already developed drinking water standards for one or more PFAS. The Coalition appreciates Pennsylvania's consideration of the data that other states have reviewed in setting MCLG and MCL values. Although the Board's proposal falls within the range of what other states have done, uniformity and consistency across the states are still lacking.

Toxicologists, whether they work for various state agencies, USEPA, international standards-setting organizations, academia, or in private practice, have not yet established specific methodologies, resources, or even agreed on which of the hundreds of studies of PFAS compounds are the appropriate or critical studies that must or should support appropriate regulatory "standards." Different methodologies, levels of experience, procedural prerequisites to standards-setting, and even local political pressures can lead and are leading to consideration of very different standards in various states or at USEPA. Accordingly, the Coalition urges states to work with one another and with USEPA to continue developing science and methodologies to inform and encourage a more uniform approach to federal and state PFAS regulatory mandates.

B. Federal Action on PFAS

Not only are states developing a patchwork of inconsistent drinking water values, but those values are often far more stringent than USEPA's Health Advisory (HAL) of 70 ppt (for PFOA and PFOS combined). Additionally, USEPA is focusing significant resources on developing appropriate regulatory mechanisms specific to various PFAS compounds. For example, USEPA has developed a comprehensive PFAS Strategic Roadmap detailing its commitments to action from 2021 through 2024. Those commitments include conducting nationwide monitoring for PFAS in drinking water and developing a National Primary Drinking Water Regulation (NPDWR) for PFOA and PFOS.

As to the nationwide monitoring, USEPA published the fifth Unregulated Contaminant Monitoring Rule (UCMR5) on December 27, 2021. UCMR5 requires sample collection for 30 contaminants, including PFOS and PFOA, between 2023 and 2025 using analytical methods developed by USEPA and consensus organizations. This action is intended to provide USEPA and other interested parties with scientifically valid data on the national occurrence of these contaminants in drinking water. Consistent with USEPA's PFAS Strategic Roadmap, UCMR5 will provide new data on the ocurrence of PFAS in the nation's drinking water systems and at what levels. According to USEPA, these data will ensure science-based decision-making and help prioritize protection of disadvantaged communities. Setting individual state standards before USEPA has an opportunity to

collect adequate data is premature and undermines the goal of ensuring science-based descision-making and regulatory action.

USEPA also is developing a proposed NPDWR for PFOS and PFOA in accordance with the requirements of the Safe Drinking Water Act (SDWA) and the PFAS Strategic Roadmap. USEPA has already begun soliciting input from stakeholders, and expects to issue a proposed regulation in the Fall of 2022, in advance of the Agency's statutory deadline of March 2023. The Agency anticipates issuing a final regulation in the Fall of 2023 after considering public comments on the proposal.

While we recognize that not all states and stakeholders can agree on specific priorities or approaches to PFAS regulations, USEPA's actions on PFAS represent signficant national developments that states should support through their contribution of expertise, resources, and efforts as the nation works to respond to PFAS exposure risks. Indeed, a patchwork of 50 different state solutions is unworkable and contrary to how the United States has previously addressed similar emerging contaminant issues. States have elected to utilize different methods and processes for communicating risks to their populations, but standards-setting should reflect a more national and uniform process. While some limited variations related to groundwater, surface water, or soil cleanup levels may be expected and appropriate, the highly variable regulatory health advisories, action levels, and drinking water standards currently being developed or under consideration across the country create unnecessary confusion and complexity for the public and the regulated community. All stakeholders must work to avoid the undesirable solution of 50 separate state rules, particularly with regard to drinking water standards.

Further, the Coalition can foresee challenges to states that choose to develop their own unique and varying drinking water standards. Many jurisdictions have existing laws or rules that prohibit the state from promulgating regulations that are more stringent than the federal rules. When USEPA does promulgate national primary drinking water regulations, such states may be in conflict with their legislature's clearly stated policy. These states may be required to amend their state-specific PFAS regulations when USEPA completes its work in this regard. And, state antibacksliding provisions may complicate their abilities to amend their standards to conform with federal rules.

Considering the above, implementation of any future federal standards likely will be more complex and resource-consuming for states that set their own limits in advance of federal action. The purpose of federal law is to protect against a patchwork of conflicting or inconsistent state laws. Accordingly, the Board should clearly articulate how forthcoming federal drinking water standards may impact this State-specific proposal, how the State will help to foster consistency and uniformity with neighboring states, and how the State will defer to federal standards or revise standards based on future federal action and improved scientific understanding about exposure, dose, and toxicology.

The Coalition urges the State to use its resources to support the development of sound science upon which USEPA can develop federal standards, heed the USEPA

recommended HAL of 70 ppt, and, ultimately, work to implement any forthcoming national primary drinking water standards. This will protect the State from expending resources on establishing and enforcing individual PFAS drinking water standards that are inconsistent both with other states and with the forthcoming federal science-based and peer-reviewed standards.

C. Testing Capabilities and Reliability

The Coalition urges the State to consider the capabilities and reliability of laboratories that test for PFAS. There is limited capacity nationally to perform all of the analytical laboratory work and limited reliability on any given sample result due to potential lab error, cross contamination, or other factor that could impact results in the very low parts per trillion levels being considered. There is little doubt that the closer the State sets a limit or standard to the detection limit, analytical sampling and related lab results become increasingly unreliable.

For example, Coalition members who have sent split samples to multiple laboratories report receiving highly variable results. Such anecdotal evidence demonstrates the potential difficulty and unreliability of performing testing at limits that approach the detection limit. Considering that the State can potentially impose fines, costly corrective action, or other penalties for failing to meet limits, the regulated community must have the ability to accurately measure PFAS to demonstrate compliance. Subjecting the regulated community to fines, corrective action, and other penalties based on potentially unreliable testing raises due process concerns. Accordingly, the Coalition urges the State to consider testing capabilities and set limits and impose a regulatory scheme that accounts for the variability in and limits of current laboratory testing.

D. Availability of Testing and Disposal

A limited number of established laboratories in the country have robust experience testing and reporting PFAS results. The State's rulemaking should account for the limited number of testing laboratories in the region. In its cost-benefit analysis, the proposal acknowledges that public water systems impacted by the amended regulations will require the services of a laboratory to analyze samples for PFOA and PFOS. The proposal requires that analyses be conducted by a laboratory accredited by the State, but does not discuss whether there are enough accredited labs to accommodate the monitoring required under this proposal. As to laboratory capacity, the proposal merely states that initial monitoring will be evenly split across two years "to ease laboratory capacity issues. . . ." The Coalition recommends, for example, that in regions where testing capacity is limited that the rule provide for a delayed effective date or phased implementation that allows for laboratories to develop the expertise necessary to reliably accommodate the increased testing that the rule will require.

Similarly, treatment technologies for PFAS are still being developed, and there is limited capacity for the disposal of byproducts from newly-developed technologies. For

example, technologies such as granular activated carbon (GAC), anion exchange (IX), and reverse osmosis (RO) are being evaluated as potential response measures to achieve compliance with new drinking water standards for PFAS. The regulated community will need to safely dispose of the byproducts of such treatment technologies used to treat PFAS in drinking water. This is another area where USEPA is taking action, both to expand research and accelerate deployment of treatment, remediation, destruction, disposal, and control technologies for PFAS. The State should await guidance from USEPA on these issues before taking actions that could stress limited PFAS treatment and disposal capacity.

E. The Board Should Consider the Rulemaking's True Costs and Benefits

The Coalition appreciates Pennsylvania's efforts to evaluate and quantify the costs of benefits of promulgated MCLGs and MCLs. The Coalition, however, is concerned that the benefits are overstated and the costs understated.

The Coalition seeks clarification as to the Board's conclusion that this proposal would result in a 90% improvement in health protection as compared to USEPA's HAL of 70 ppt. The State cites this 90% improvement figure numerous times throughout the proposal but does not adequately explain the basis for the figure. Notably, the State assumes a linear improvement in health protection between the USEPA HAL and the DPAG-recommended MCLG but provides no scientific support for assuming a linear improvement. Since 2016, USEPA has determined that drinking water concentrations of PFOA and PFOS of 70 ppt or lower offer a margin of protection for all individuals throughout their lives from adverse health effects resulting from exposure to PFOA and PFOS in drinking water. Pennsylvania has not identified any data or information demonstrating that increasingly stringent MCLs yield corresponding increases in health protection. The Board should carefully review available science and data regarding how increasingly stringent drinking water values affect health outcomes and reconsider its assumption of linear improvement.

Additionally, the proposal fails to take into account the developing nature of treatment technologies and availability of disposal or other treatment endpoints. The cost-benefit analysis in the proposal states that treatment costs were based not on costs for GAC, IX, or RO, but on a survey collecting information from systems in the State with existing PFAS treatment, PFAS treatment manufacturers, an American Water Works Association-published PFAS Case Study, and from members of the Association of State Drinking Water Administrators (ASDWA). The Board's cost estimate purports to include capital costs, monitoring, sampling, and annual operation and maintenance costs associated with the rulemaking but fails to fully explain the basis for these figures. Moreover, the proposal identifies a few sources of funding, but does not address whether the funding will be sufficient to enable public water systems to afford the costs. Notably, the proposal fails to address whether public water systems will need to make rate adjustments to accommodate the additional capital and operational costs or explain how rate adjustments will affect ratepayers.

The cost-benefit analysis ignores the effect that the drinking water standards can have on remediation sites under state law. For sites with impacted groundwater, these drinking water standards can become the remediation standards, unless it can be demonstrated that there is in fact no one drinking water and such exposure pathway is subject to an institutional control. Likewise, sites being remediated under federal programs, such as Superfund, could have to address the MCLs as applicable or relevant and appropriate requirements (ARARS) to meet as remediation standards. For Department of Defense (DOD) sites, the National Defense Authorization Act (NDAA) requires that cooperative agreements with states include that the DOD "shall meet or exceed the most stringent . . . standards for PFAS in any environmental media," including an enforceable drinking water standard. NDAA Sec. 332(a)(2).

The costs to remediate to these proposed MCLs is not included anywhere in the regulatory analysis. These are certainly substantial costs for the state, municipalities and private parties that are conducting these cleanups. There are many remediation projects underway in Pennsylvania and across the country with data that could be used to conduct this analysis. Without it, the regulatory analysis is significantly flawed. Before finalizing the MCLs, a more robust cost analysis must be conducted to account for the potential costs, including remediation costs and the range of possible disposal and ongoing operation and maintenance costs.

IV. Conclusion

The Coalition appreciates the opportunity to submit these comments concerning the proposal. We look forward to working closely with the State in its development of appropriate, reasonable, and scientifically-defensible standards. Please feel free to call or e-mail if you have any questions, or if you would like any additional information concerning the issues raised in these comments.

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