ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
Office of the Director

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May 26, 2023

Ms. Radhika Fox
Assistant Administrator
Office of Water - U.S. Environmental Protection Agency
EPA Docket Center
Office of Ground and Drinking Water Docket
Mail Code 2822IT
1200 Pennsylvania Avenue
Washington, D.C. 20460

Re: Docket ID No. EPA-HQ-OW-2022-0114
PFAS National Primary Drinking Water Regulation Rulemaking

Dear Assistant Administrator Fox:

Arlington County operates a public water and sewer utility that serves daily 230,000 residents, 160,000 workers, tens of thousands of visitors, and some of the Federal Government's most critical facilities to include the National Foreign Affairs Training Center, Joint Base Myer Henderson Hall, and Arlington National Cemetery. We purchase our drinking water from the Washington Aqueduct Division (WAD)of the Army Corps of Engineers. Along with our partners, DC Water and Fairfax Water, we serve on the wholesale Customer Board which is responsible for providing and allocating all operational and capital costs at the WAD. In addition to the important customers described previously, the WAD is the sole or primary provider for the White House, Pentagon, Reagan National Airport, US Capitol grounds, Central Intelligence Agency, and every other Federal installation in Washington DC, Arlington, and much of Fairfax County.

Arlington County understands and fundamentally supports the EPA's interest in regulating this family of chemical compounds. However, we believe that there are numerous challenges with the proposed NPDWR regulations which will not further our shared goals of protecting public welfare.

Our concerns, detailed in the following paragraphs can be summarized as:

1. The proposed enforceable Maximum Contaminant Level (MCL) is imprudent
2. The regulation as proposed cannot be implemented by the industry
3. The Economic Analysis underestimates actual costs, and even as presented does not provide convincing justification of this proposed rule making
4. The regulation as proposed inappropriately places the extraordinary financial burden of PFAS on rate payers, who were unwitting consumers of these compounds – the financial burden needs to fall on the companies that profited from the manufacture of these compounds

Proposed MCL Level

The proposed regulatory levels for the 6 PFAS compounds in drinking water are far more stringent than respected international health organizations and are orders of magnitude below levels which are observed in other exposure pathways.

The World Health Organization in September of 2022 set a provisional guidance value of 100 ppt for PFOA & PFAS, a value 25 times higher than the EPA's proposed MCL. The European Union and UK have established a regulatory framework of 100 ppt mandating response, with levels below 10 ppt deemed non-issues.

Australia and Japan have likewise established limits that are substantially higher than the EPA's proposed 4 ppt.

Further, PFAS has been widely reported in organic pasta sauce at levels 5,000 times the proposed regulatory limit, plus similar or higher level in many common food packaging materials. Similarly, sampling of interior dust consistently finds levels of PFAS several orders of magnitude higher than the level proposed in drinking water.

There is currently insufficient science to understand the relative importance of various ingestion paths such as inhalation, food consumption, drinking water, and transdermal methods. However, the available science indicates that the concentrations of PFAS in dust, food and food packaging, and household products are several orders of magnitude greater than the levels proposed for drinking water.

By setting regulatory limits drastically below those of respected international health agencies and magnitudes lower than what consumers are exposed to in their environments, the proposed regulation will lead consumers to develop a misleading sense of the exposure and risks associated with PFAS from drinking water. Such confusion will serve to undermine confidence in public drinking water systems, which are recognized as pillars of public health.

Proposed Implementation Timeline & Limits

As proposed, the regulation would provide a 3-year window for water utilities across the country to achieve treatment levels which are at the limits of current technology. The regulations would be implemented while we still have limited knowledge regarding the transmission and behavior of PFAS in the built and natural environment and water utility systems.

Our limited knowledge of PFAS prevalence and behavior combined with such a severe and aggressive enforceable level will drive many water utilities to initiate costly and complicated treatment upgrades to ensure future compliance, even though existing testing has not exceeded the proposed MCL.

By establishing such an aggressive implementation level and timeline, the proposed regulation will compel reactive upgrades and investments at hundreds or thousands of utilities – many of which will ultimately be demonstrated to have been unnecessary or imprudent. In addition to diverting investment from more impactful upgrades (infrastructure renewal, corrosion control, source water supply & protection, infrastructure security, etc.), the aggressive level and schedule will serve to distort and likely overwhelm several sectors of the utility engineering and consulting industry.

Alternatively, a graduated approach to drinking water levels combined with source control research and regulation would enable more informed and responsible management of PFAS exposure. Instead of racing to a regulatory limit at the threshold of technology and drastically below other nations, EPA should focus immediate resources on those systems with excessive exposures, and on researching and regulating sources of PFAS. Such an approach would steer limited resources to the greatest needs and would demonstrate some adherence to the "polluter should pay" principle.

Finally, a 3-year (or even 5-year process if a 2-year extension is assumed) implementation is infeasible to implement the necessary capital improvements at most large drinking water plants. Such upgrades typically require capital planning to include extensive public engagement and legislative actions around rate increases. Further, new treatment processes at large drinking water plants require extensive planning, design, and importantly bench-scale piloting. Failure to adequately analyze process impacts and water chemistry changes through such pilot studies can have calamitous side effects – as occurred in Flint Michigan. In addition to the extensive planning, design, testing, and financial processes, water treatment plants are subject to extensive State and local regulatory requirements, including local land-use

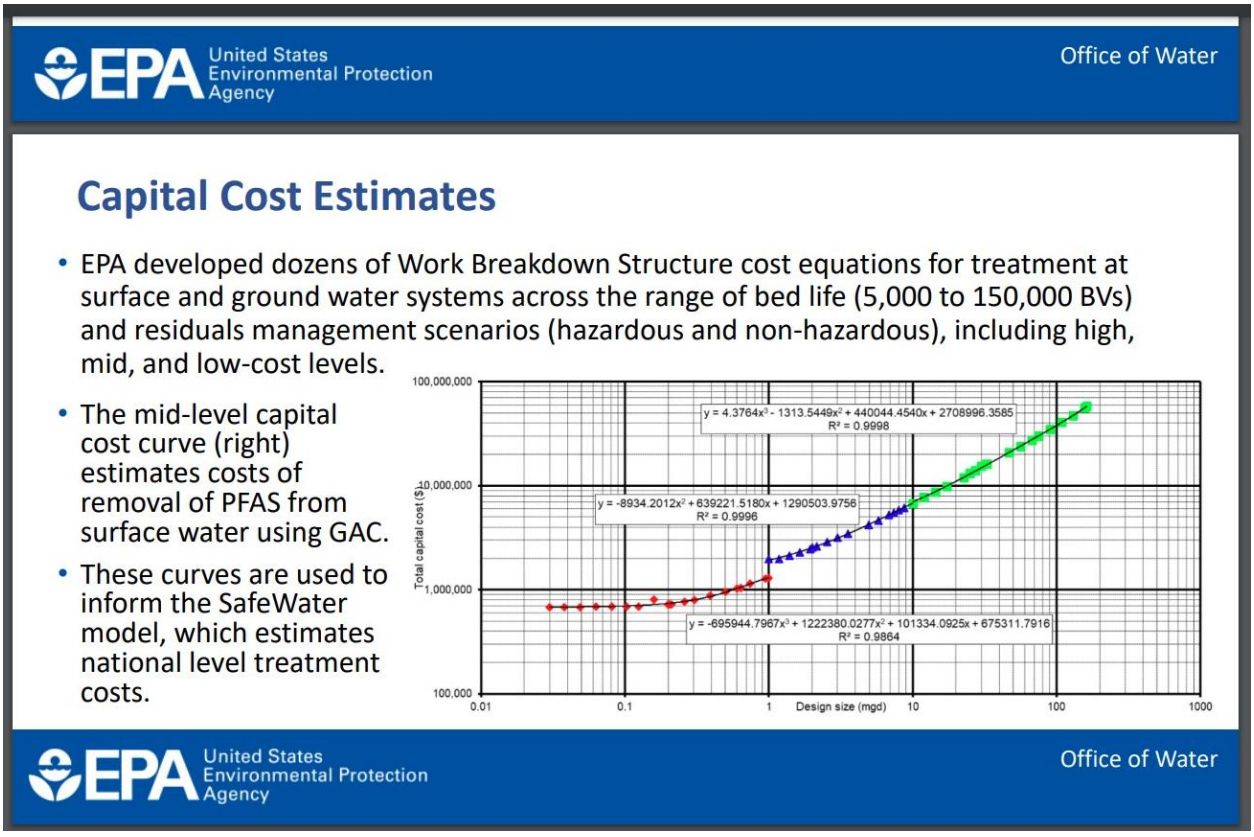
regulations. In an urban area such as the National Capital region, local permitting requirements alone will require several years of process.

Economic Analysis

As required by law, EPA has developed an Economic Analysis of the proposed regulation. Our understanding of the Economic Analysis raises several concerns that bring into question the justification for the proposed rule. First, we interpret the published Cost/Benefit analysis as demonstrating an ambiguous case for the rule as proposed. Second, the assumptions on costs of the proposed rule seem to be drastically under-estimated. Third, implementation of the rule will exceed the capacity of the engineering, construction, and material markets – generating unpredictable inflation.

1. The Cost-Benefit analysis of the proposed rule utilized two different discount values (3% and 7%) and ran Monte Carlo simulations to capture the wide range of uncertainties in both the Costs and Benefits of the proposed rule. The Cost Benefit analysis then presented 6 different scenarios (5th, 50th, and 95th percentile at the 3% and 7% discount rates). ***Remarkably, 3 of the 6 scenarios presented indicate a net cost of the rule as proposed.***

2. Review of the cost modeling indicates significant misalignment between the report's assumption and our experiences with capital improvements and operating costs. For example, the EPA cost model utilizes the curve below to estimate the capital costs for Granular Activated Carbon. For our water provider, the Washington Aqueduct (WAD), the model as illustrated estimates a capital cost of $126.7M to install GAC.



GAC was considered as a potential treatment upgrade at the WAD in 2013, and the capital cost of GAC at our two plants at that time was estimated at $200M. Utilizing a conservative inflationary

estimate of 58%[1] indicates a present value of $316.6M, or a factor of 2.5 times the EPA's estimated cost of $126.7M.

We find a similar discrepancy in the estimated O&M costs for GAC, with our inflation adjusted annual O&M cost estimated at $31.6M as compared to the EPA model estimate of $10.1M. We were not able to find the comparable EPA cost curves for the other two recognized treatment processes (RO and IX), but we have 2013 estimates for the capital improvements and annual O&M cost for those technologies at our treatment plants and would welcome an opportunity to compare our estimates with the EPA model.

3. It seems unlikely that sufficient consulting engineers, utility contractors, equipment and material suppliers, and State regulators exist or can grow to meet the demand to shepherd the thousands of major capital upgrade projects which will be triggered by the proposed regulation to completion within the proposed 3-year timeframe. Such distortion of the market will presumably instigate concentrated and excessive inflation far exceeding general benchmarks. We do not see any consideration of focused and acute inflationary impacts in the economic analysis.

To summarize, it appears to us that the costs (both capital and operating) assumed in the EPA's economic analysis appear to be off by a factor of 2 to 3. We believe that the EPA's assumptions about number of utilities affected are also too conservative, and that the proposed regulation will exceed the market capacity resulting in unpredictable, but extraordinary, inflation in this sector. Finally, even with the EPA's most favorable assumptions, the cost-benefit analysis can best be characterized as ambivalent.

Cost Burden

It is widely acknowledged that the presence of PFAS in source water systems (and nearly everything else) is a consequence of decades of manufacturing and commercial endeavors. The production of PFAS continues largely unabated today, and they therefore continue to accumulate in the environment. Water utilities bear no responsibility for the prevalence of PFAS, yet the proposed regulations place the entirety of the burden for removal upon water utilities and their customers.

Further, it is water utilities that will now face the tarnish of violating EPA regulations, which exposes us to additional financial penalties, but even more damaging will be the resultant erosion of public confidence in the public water systems. Our public water systems are among the most important and impactful public health systems and also play an important role in preserving our environment by reducing industrial bottled water consumption. The proposed regulations will undermine confidence in these systems by imposing extraordinary rate increases and confusing consumers with inordinately low levels of PFAS exposure in water while other ingestion media, to include food, have been found to contain PFAS at levels thousands of times higher than the proposed regulatory standard for water.

Conclusion

For the reasons described herein, we are not supportive of the proposed regulations at the levels being set. We understand both the public interest in, and justification for, regulating these chemicals. However, we believe that focusing the regulatory burden predominantly upon the water industry is misguided. Further, we believe that the remarkably aggressive stance – in terms of MCL levels and timeline - is unwarranted and misleading for consumers. PFAS will continue to exist in the products which our customers purchase and in the environments they inhabit at levels hundreds and thousands of times higher than the levels which are being established for drinking water. In fact, absent complex producer regulations, of which we

[1] Using the Census.gov Multifamily Housing Construction Index 2005-2022

are unaware, PFAS presence in products and the environment will likely continue to increase even while drinking water levels are driven to the limits of measurable technology.

We would recommend a more measured approach where resources are directed to the pathways which do exhibit exceptionally high levels of PFAS. This should include restrictions on introduction of additional harmful chemicals to the consumer product stream, as well as a more measured approach to regulation in the drinking water industry. Such a regulatory framework in the drinking water industry should focus the limited resources available upon drinking water systems with excessive levels of PFAS, and MCL levels should be increased to focus investments in these communities while studies proceed to better understand the relative impact of PFAS ingestion in humans amongst the many pathways that have been identified. It is also recommended that we continue the UCMR5 monitoring requirements for PFAS elements to gather data from water systems which will provide better insight into the characteristics of PFAS in our water infrastructure.

Such a graduated approach would allow for more intelligent and effective utilization of limited resources in research, engineering, construction, equipment, manufacturing, regulatory capacity, and public and private funding.

Sincerely,

Greg Emanuel, P.E.
Director, Department of Environmental Services
Arlington County

PFAS-Water-Rulemaking-May-2023 - UPDATED

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