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Submitted via www.regulations.gov

May 22, 2023

Dr. Jennifer L. McLain Director, Office of Ground Water and Drinking Water U.S. Environmental Protection Agency 1201 Constitution Ave NW Washington, DC 20004

Re: Docket No. EPA-HQ-OW-2022-0114, "Per- and polyfluoroalkyl substances (PFAS): Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) National Primary Drinking Water Regulation Rulemaking

On behalf of First Focus on Children, thank you for the opportunity to comment on the proposed rule concerning Per- and polyfluoroalkyl substances (PFAS): Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS) National Primary Drinking Water Regulation Rulemaking. First Focus on Children is a bipartisan children's advocacy organization dedicated to ensuring children and families are a priority in federal policy and budget decisions. We commend the U.S. Environmental Protection Agency (EPA) for putting children's health and well-being at the forefront of their policy making. Under the proposed rule, EPA thoughtfully advances its commitment to ensuring children have access to clean, safe drinking water as they develop. We further applaud EPA for implementing enforceable limits on PFAS levels in our drinking water.

EPA's proposal takes much needed steps to reduce our children's exposure to PFAS. This rule creates a National Primary Drinking Water Regulation (NPDWR) that would establish Maximum Contaminant Levels (MCLs) for six types PFAS in drinking water, as well as Maximum Contaminant Level Goals (MCLGs). These MCLs are legally enforceable and will apply to perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) as individual chemicals and perfluorononanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA, or GenX Chemicals), perfluorohexane sulfonic acid (PFHxS), and perfluorobutane sulfonic acid (PFBS) as a combined mixture. Additionally the MCLGs, while not legally enforceable, require that municipalities alert the public if PFAS levels are above the required threshold.

PFAS, otherwise known as "forever chemicals," pose serious risks to human health, but even more so to children's health. PFAS are man-made chemicals that are used in products that repel grease, water, and oil like water-resistant clothing or non-stick cookware. During and after production these chemicals leach into the air, water, and soil. Their strong chemical bonds mean that they don't break down in the environment or in the human body, meaning that PFAS levels in our blood will continue to increase over time with exposure.

The potential health complications from PFAS exposure are more severe for children, who consume more water in relation to their body mass in comparison to adults. Exposure at a young age also means that the chemicals will remain in their systems for the entirety of their lives. The CDC links increased PFAS exposure with changes in cholesterol, liver damage, and an increased risk of certain cancers. Studies also show a clear link to a number of children's health issues.

## **Endocrine System Disruptions**

PFAS are endocrine disruptors, meaning that they impact the body's hormonal regulation systems and may alter their function. Studies show that they may impair the production of developmental hormones like progesterone and testosterone, which are crucial for healthy development.<sup>2</sup> Children, who are rapidly developing before, during, and after puberty, rely on appropriate hormonal balances to reach critical milestones in their development. Studies suggest that PFAS may impact thyroid function, which is linked to irregular menstruation and infertility in girls.<sup>3</sup> For both boys and girls, exposures to PFAS are shown to alter pubertal timing.<sup>4</sup>

## **Immune System Disruptions**

PFAS may also inhibit immune system development, which is crucial during childhood. During the first years of life children develop their adaptive immune system and create antibodies that repeatedly recognize and attack foreign cells. This adaptive system is crucial for fighting infections and is the key to successful protection from disease via immunizations. However, exposure to PFAS is linked with immunosuppression in childhood. Research shows that PFAS suppress the immune system's response to vaccinations, leading to a decreased presence in antibodies in children with greater PFAS exposure.<sup>5</sup> Additionally, with antibodies diminished, new evidence suggests that exposure to PFAS, specifically PFOS, may lead to an increased risk of infectious disease during childhood.<sup>6</sup>

<sup>&</sup>lt;sup>1</sup> "What are the health effects of PFAS?" Agency for Toxic Substances and Disease Registry, Centers for Disease Control and Prevention. November 1, 2022. <a href="https://www.atsdr.cdc.gov/pfas/health-effects/index.html">https://www.atsdr.cdc.gov/pfas/health-effects/index.html</a>.

<sup>&</sup>lt;sup>2</sup> Rickard, Brittany P., Rizvi, Imran, and Fenton, Suzanne E. "Per- and poly-fluoroalkyl substances (PFAS) and female reproductive outcomes: PFAS elimination, endocrine-mediated effects, and disease." Toxicology, Vol. 465. January 15, 2022. <a href="https://www.sciencedirect.com/science/article/pii/S0300483X2100353X">https://www.sciencedirect.com/science/article/pii/S0300483X2100353X</a>.

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Ibid.

<sup>&</sup>lt;sup>5</sup> von Holst, Haley, et al. "Perfluoroalkyl substances exposure and immunity, allergic response, infection, and asthma in children: review of epidemiologic studies." Heliyon, Vol. 7(10). October 12, 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8529509/.

<sup>&</sup>lt;sup>6</sup> Ibid.

As with many instances of water contamination, not all communities bear this burden equally. Children in low-income communities and communities of color are far more likely to be exposed to PFAS due to the greater presence of industrial manufacturing plants and lack of access to adequate healthcare. <sup>7</sup> By regulating PFAS, EPA eases the already taxing environmental toll that children in these communities face and makes strides to advance equity across the country.

## Conclusion

Thank you for the opportunity to submit comments to this proposed rule. We are grateful that EPA is taking responsible steps to manage PFAS contamination and provide safe, clean drinking water for all. Please reach out to Abbie Malloy, Director, Health, Environmental, and Nutrition Policy, at abbiem@firstfocus.org with any questions.

Sincerely,

Bruce Lesley
Bruce Lesley

President, First Focus on Children

<sup>&</sup>lt;sup>7</sup> National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Division on Earth and Life Studies; Board on Population Health and Public Health Practice; Board on Environmental Studies and Toxicology; Committee on the Guidance on PFAS Testing and Health Outcomes. "Guidance on PFAS exposure, testing, and clinical follow up." National Academies Press (US). July 28, 2022. <a href="https://www.ncbi.nlm.nih.gov/books/NBK584707/">https://www.ncbi.nlm.nih.gov/books/NBK584707/</a>.