Testimony of Jane C. Luxton

Hearing on "The Devil They Knew – PFAS Contamination and the Need for Corporate Accountability"

Before the House Subcommittee on Environment of the Committee on Oversight and Reform

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I. Introduction

Chairman Rouda, Ranking Member Comer, thank you for inviting me to testify today on issues relating to per- and poly-fluorinated substances ("PFAS"). My name is Jane Luxton. I am a partner in the Washington, DC, office of the law firm Lewis Brisbois. I co-chair the firm's Environmental and Administrative Law Practice.

I have practiced in the fields of environmental and administrative law for more than thirty years, in both the public and private sectors. My government service includes appointments as a trial attorney and senior trial attorney at the U.S. Department of Justice and as General Counsel of the National Oceanic and Atmospheric Administration, where I was responsible for implementing and enforcing numerous environmental and natural resource laws. My work as a private practitioner has covered a broad spectrum of federal environmental statutes. For my service at NOAA and the Department of Justice, I received the highest awards of the Commerce Department (Gold Medal Award, twice) and the Justice Department (Attorney General's Award). My curriculum vitae lists other professional recognition I have received during my career. I am a graduate of Harvard University (with honors), and Cornell Law School.

I am testifying today on my own behalf, as an environmental and administrative law practitioner who has a strong interest in science policy issues, which has led me to follow developments relating to PFAS compounds and their regulation. My colleagues and I at Lewis Brisbois have written numerous articles and commentaries on PFAS science regulatory issues, which are noted in my CV. I am not representing any client on PFAS issues.

Today I would like to speak to the broader issue of the challenges surrounding the effective regulation and management of PFAS chemicals.

II. PFAS Chemicals

PFAS compounds are a large family of chemicals consisting of 3,000 to 5,000 individual chemical compounds, of which perfuorooctanoic acid ("PFOA") and perfluorooctane sulfonate ("PFOS")

are two of the best known. PFAS have historically been used for a wide variety of purposes, including in the manufacture of goods such as textiles, paper, packaging materials, cleaning solutions, firefighting foam, and products using water or grease resistance coatings. A recent publication from the Congressional Research Service provides a good background summary on PFAS chemicals and uses.[1]

III. While there has been a significant amount of initial research done on PFAS, much of this research remains incomplete and more needs to be done to adequately understand the potential health effects of PFAS chemicals

PFAS compounds have been manufactured since the 1940s, and because of their properties, have been widely used in product manufacturing and subsequently dispersed in the environment. These chemicals are persistent in the environment, as they do not readily degrade. Scientific studies of PFAS compounds have primarily concentrated on PFOA and PFOS, which are no longer manufactured in the United States, and much less is known about the thousands of other PFAS chemicals. PFAS compounds vary in terms of specific chemical structure, chain length, and composition, and these differences appear to matter significantly in terms of fate and degradation in the environment, as well as toxicity, uptake, and retention in humans, animals, and plants. Dr. Linda Birnbaum, Director of the National Institute of Environmental Health Sciences and the National Toxicology Program, testified last fall before the Senate Committee on Homeland Security and Governmental Affairs, Subcommittee on Federal Spending Oversight and Emergency Management that "we do not have strong data on which to base conclusions for the great majority of thousands of PFAS and we have only limited findings that support [particular] adverse health effects."[2]

Another leading scientific agency, the Agency for Toxic Substances Disease Registry ("ATSDR"), voiced similar concerns: "The toxicity of perflluoroalkyl compounds, particularly PFOA and PFOS, has been extensively evaluated in humans and laboratory animals. However, comparison of the toxicity of perfluoroalkyls across species is problematic because of the differences in elimination of half-lives, lack of mechanistic data, species differences in the mechanism of

[1] Congressional Research Service, "Regulating Drinking Water Contaminants: EPA PFAS Actions," July 3, 2019, at 1, available at https://fas.org/sgp/crs/misc/IF11219.pdf.

[2] Hearing on "The Federal Role in the Toxic PFAS Chemical Crisis," Testimony before the Senate Committee on Homeland Security and Governmental Affairs Subcommittee on Federal Spending Oversight and Emergency Management, Linda S. Birnbaum, Ph.D., D.A.B.T., A.T.S., Director, National Institute of Environmental Health Sciences and National Toxicology Program National Institutes of Health, at 5 (Sept. 26, 2018), available at https://www.hsgac.senate.gov/imo/media/doc/Birnbaum%20Testimony.pdf.

toxicity for some endpoints, and differences in measurement of exposure levels between epidemiology and experimental studies. Substantial differences in the rate of elimination of perfluoroalkyls exist across species…. The mechanisms of toxicity of perfluoroalkyls have not been fully elucidated."[3] In its report, the ATSDR was able to propose drinking water reference doses for only four of the fourteen best-studied PFAS compounds.

A great deal of academic and governmental research is currently underway to determine the extent of causal links between PFOA, PFOS, and the many other PFAS compounds and specific health effects in humans. Additional work is focusing on ways to group PFAS compounds into classes or subclasses with similar physical, chemical, and toxicological risk factors, to expedite the process and minimize costs of regulating the less well known PFAS chemicals.[4] There is no doubt that more research is needed, or that coordinating this work efficiently is necessary to develop well-supported, scientifically based conclusions as quickly as possible. Rigorous, data-driven research is critical to ensuring that regulatory resources are properly focused on addressing the highest priority risks.

IV. Federal and State Regulatory Efforts

Federal regulatory efforts have been directed primarily at drinking water supplies and sources, and the Environmental Protection Agency's February 2019 PFAS Action Plan[5] identified the steps the agency is taking under the Safe Drinking Water Act ("SDWA") to develop Maximum Contaminant Level standards for PFAS compounds. This process takes time, but EPA has committed to propose preliminary regulatory determinations for PFOA and PFOS by the end of 2019 and to make final determinations by the end of 2020.

EPA has also announced it will release proposed hazardous substance listings for PFOA and PFOS by October 2019, which would give EPA additional power to require responsible parties to undertake and/or pay for remediation of contaminated sites. Other EPA commitments include developing new analytical test methods to support monitoring of more PFAS compounds and at

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[3] ATSDR,*Toxicological Profile for Perfluoroalkyls,Draft for Public Comment*, at 4 (June 2018), available at https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf.

[4] The National Academy of Sciences' recent report, "A Class Approach to Hazard Assessment of Organohalogen Flame Retardants" (May 2019), provides potentially useful approaches for this effort. The report is available at https://www.nap.edu/download/25412.

[5] EPA, *EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan*, EPA 823R18004 (Feb. 2019), available at https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf.

lower levels than was previously feasible, expanding PFAS toxicity information, and providing more information about PFAS treatment.

The 116th Congress has already passed legislation that would direct additional federal regulatory initiatives as well as facilitate research and provide grants for drinking water systems. The House- and Senate-passed bills differ, but with bipartisan support for Congressional action, amendments to the National Defense Authorization Act that impose new requirements are very likely to be enacted.

A number of states have been very active in establishing PFAS sampling requirements and drinking water limits. The drinking water standards vary significantly among the states both in terms of concentration limits and coverage of PFAS compounds; several have set limits well below the current EPA drinking water advisory level of 70 parts per trillion. While these responses are well-intentioned and reflect the sense of urgency of this issue, water systems have raised concerns about differing standards, as well as technical and economic feasibility considerations, including implications for the water utilities' ability to meet other priority public health-based drinking water obligations.[6]

V. Conclusion

States, federal agencies, and the scientific community are working vigorously to address PFAS issues against a backdrop of limited scientific knowledge, complexity, economic realities, and competing public health priorities. While pressure is strong for expedited action, truly effective regulation and management of PFAS chemicals must be based on the best scientific evidence available, using legally defensible processes that will stand up under judicial review.

[6] See, *e.g.*, Testimony of G. Tracy Mehan, III, before the Senate Committee on Environment and Public Works, Hearing on Examining Legislation to Address the Risks Associated with Per- and Polyfluoroalkyl Substances (PFAS) (May 22, 2019), available at https://www.epw.senate.gov/public/_cache/files/7/f/7f0cb0a7-4f5c-4543-97e6-4ea594581e97/F94E5B414B367898EBB03D4977CDA761.mehan-testimony-05.22.2019.pdf.