

PUBLIC SUBMISSION

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Docket: ATSDR-2018-0002

Exposure Assessments for Per- or Polyfluoroalkyl Substances (PFAS) 0923-18AJK

Comment On: ATSDR-2018-0002-0001

Per or Polyfluoroalkyl Substances PFAS Exposure Assessments_60day 18AJK

Document: ATSDR-2018-0002-0003

Comment on FR Doc # 2018-15437 Vicki Quint

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General Comment

See attached file(s)

Attachments

ATSDR Comments 08 17 2018 Final

Agency for Toxic Substances and Disease Registry (ATSDR)

Docket #: ATSDR-2015-0004

Submitted by: Vicki Quint, Brookfield, Wisconsin, August 17, 2018



Top Concerns:

Safe Drinking Water - MCL PFAS standard

First Responder Exposures to PFAS

Background:

Observed Deficiencies and Inequities in Drinking Water and Groundwater Testing for PFAS

First responder exposures to firefighting foam and PFAS in bunker gear

Examples of Areas of Immediate Concern:

- Harmful exposures to PFAS are occurring NOW via drinking water and other direct routes of exposure.
- Miscommunication and underestimation of risk, i.e. wells tested for as little as 2 PFAS analytes and deemed “safe.”
- Lack of transparency. Industry is shielded from disclosing PFAS content, arguing it is proprietary.
- Disadvantaged and rural communities are not monitored, tested or investigated equitably.
- The Department of Defense is still requiring the use of fluorinated products.
- First responders nationwide who are not provided with basic adequate information on PFAS.

COMMUNITY PRIORITIES AND OBJECTIVES:

1. **TOTAL PFAS** rather than limited compound-specific testing should be established as the preferred screening method.
2. **When off-site contamination is discovered or suspected, the military and responsible parties will no longer be shielded from disclosing PFAS content, to include all firefighting foam manufacturers.**
3. **Congress should mandate, by a date certain, that the Department of Defense (DoD) convert to all non-fluorinated alternatives.** DoD is the appropriate place to start as 75% of known PFAS sites are military and significant federal funding is currently being directed to DoD. Technological advancements made by DoD will benefit industry and communities alike.
4. **All communities will receive immediate and commensurate protection and analysis.** Presently drinking water wells for community populations of less than 10,000 are not currently included in UCMR monitoring.
5. **Affected communities should be empowered and engaged by designating a percentage of federal funding** for communities to hire INDEPENDENT scientific, technical and health consults. In order to remove the burden of administering federal funds, partnerships with ITRC, universities or others could be considered.
6. **Environmental test methods will achieve the lowest possible level of detection.**
7. **PFAS clean-up methods and remedies should be fully protective** of human and ecological health, prevent toxic emissions, be ready and effectively monitored.
8. **Responsible parties will be held accountable for life-time costs associated with selected remedies.**
9. **First responder safety.** Lack of accurate facts and transparency issues.

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Safe drinking water affects everyone. "At present up to 110 million Americans could have PFAS-contaminated drinking water."(1) A standard measure for "safe" drinking water with PFAS should be established immediately. "Measurable amounts of PFOA have been found in drinking water in at least 29 states."(2) PFAS problems have been firmly established throughout the US.(3)

First responders are still being directly exposed to PFAS on a daily basis. Fire Chief Michael H. Quint, EFO, my late husband, died on December 11, 2012 of multiple cancers due to career firefighting exposures. Chief Quint had been the Overall Incident Commander for a massive tire fire that occurred in July 2005 at a tire recycling facility in Watertown, Wisconsin.

On the first day of the tire fire incident, the smoke plume extended 93 miles to the Southeast, stretching across Milwaukee and over central Lake Michigan. "More than 637 square miles were covered by the plume, including 290 square miles of Lake Michigan."(4) Firefighting foam was used at this incident for over two and one half days. This incident is still considered the largest, coordinated emergency incident in Wisconsin state history since it involved 106 fire departments with 920 firefighters.

In September 2017, the first Fire Service Occupational Cancer Symposium was held in Phoenix, Arizona with over 500 other concerned members of the fire service. The increasingly large number of firefighter cancer deaths is receiving international attention. This has been further evidenced by the recent legislation establishing the Firefighter Cancer Registry Act of 2018 (H.R. 931) by the U.S. Congress and signed into law by President Trump on July 9, 2018. The 188 congressional co-sponsors is an indication of the seriousness of this issue.

The Emerging Contaminants 2018 Summit held in March 2018 focused on PFAS. The PFAS issues are a high priority as evidenced by over 500+ attendees. There is already significant scientific and environmental demand for establishing a PFAS standard limit. The scientists, professors, chemists and engineers I spoke with individually believed that the PFAS chemical class needs to be regulated as one, not the three to five thousand individual chemicals that are now estimated.

Frustration within the science community has been manifested in hundreds of scientific publications such as, "A Never-Ending Story of Per- and Polyfluoroalkyl Substances (PFASs)?"(5) "Another key point of the discussion is the likelihood that any or all members of PFAS groups have

the ability to transform to the long-chain perfluorinated acids, provided, of course, that they have a long enough perfluoroalkyl moiety.”(6)

According to the National Fire Protection Association (NFPA), in 2015 there were approximately 1,160,450 firefighters in the US, of which 30% (345,600) were career and 70% (814,850) were volunteer firefighters.(7) Firefighting foam has been used for decades without any disclosure or proper notice to first responders while putting them at substantial risk.

PFAS chemicals are used in first responder bunker gear. There is no notice to the end users. Industry is exempt from PFAS content disclosure because it is considered “proprietary.” MSDS materials are incomplete and unclear. The true toxicity is withheld from the end users.

“There is no foam with zero effect on the environment. All fire fighting foams whether AFFF-type or fluorine-free have an undesirable effect in the environment to a great or lesser extent.”(8) The NFPA categorizes different types of firefighting foam whereas scientists do not.

According to the Fire Protection Research Foundation:

“Of particular concern is the incompleteness of published information and scientific knowledge in regards to the identity, properties and environmental and human health effects of fluorinated chemicals used in firefighting foams. Overall, it can be said available information is severely limited for the great majority of foams in terms of declaring what compounds are present, assurances of their safety and their potential to have adverse human health or environmental impacts. However, there are indications, emerging evidence and significant evidence that adverse effects have or may well occur.” (“The Fire Protection Research Foundation, Evaluation of Water Additives for Fire Control and Vapor Mitigation, Phase I, Final Report,” Scheffey, J., et al., June 2013, p. 8)

“A diverse range of several hundred fluorinated organic compounds (FOCs/PFCs) are now known to occur in fluorinated firefighting foam and associated wastes including a range of perfluorinated and polyfluorinated substances, such as fluorotelomers, fluoropolymers, PFCAs or PFSAAs as well as siloxanes and complexes with fluorinated side chains ranging in length from C4 to C20. (ibid, p. 52)

“All firefighting foams have the potential to cause adverse health and environmental impacts and must be managed proactively.” (ibid, p. 54)

According to numerous scientific resources, all foaming agents have an environmental impact.

“All firefighting foams are of concern if they are released to the environment; there is no such thing as a completely “*environmentally friendly*” foam as espoused in some marketing brochures. Firefighting foams depend on a variety of compounds and formulations for their characteristics and effectiveness. Some of the compounds and formulations can have adverse short and longterm impacts on the environment, human health and other values if released.” (Environmental Management of Firefighting Foam Policy Explanatory Notes, State of Queensland, Rev. 2.2, July 2016, <https://www.ehp.qld.gov.au/assets/documents/regulation/firefighting-foam-policy-notes.pdf>, p. 13)

First responders have not been provided with the basic facts and correct information in order to take a necessary measure of the dangers involved with PFAS. Vital toxicity information has been withheld. Risk managers have failed to accurately assess the full effects of PFAS compounds.

EPA has acknowledged risks posed by the entire family of PFAS in the “Long-Chain Perfluorinated Chemicals (PFCs) Action Plan” released over seven years ago. In the 2000’s, EPA depended upon voluntary compliance from the larger manufacturers. (Technical Fact Sheet – Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA), November 2017, <https://www.epa.gov/fedfac/technical-fact-sheet-perfluorooctane-sulfonate-pfos-and-perfluorooctanoic-acid-pfoa-0>, accessed 4/1/2018) Not all companies participated.

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In studying numerous Canadian and EPA research reports on PFAS, I believe the Great Lakes may contain PFAS contamination from the Watertown tire fire incident. “After Hu, et al, 2016” shows PFAS contamination of municipal water supplies within the continental United States and south central Wisconsin is noted on their map as well as western Michigan state. Since the smoke plume from the tire fire covered 290 square miles of Lake Michigan, it appears to have been carried over into Michigan.

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- 10 https://en.wikipedia.org/wiki/Lake_Michigan
- 11 <https://www.glerl.noaa.gov/education/ourlakes/facts.html>
- 12 <https://www.epa.gov/greatlakes/great-lakes-facts-and-figures>



*Assistant Fire Chief Michael Quint,
far left, Watertown tire fire,
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Photo by John Hart,
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