



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
WATER

Thomas S. Burack
Department of Environmental Services
State of New Hampshire
P.O. Box 95
29 Hazen Drive
Concord, New Hampshire 03302-0095

Dear Commissioner Burack:

Thank you for your June 20, 2016 letter to the Environmental Protection Agency (EPA) Office of Water regarding the detection of perfluorinated compounds (PFCs) in samples of drinking water collected in New Hampshire. As you are aware, the EPA published drinking water health advisories of 70 parts per trillion for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) in May 2016. When both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS should be compared with the 70 parts per trillion health advisory level. The EPA established these health advisories based on the agency's assessment of the latest peer-reviewed science to provide drinking water system operators, and state, tribal and local officials who have the primary responsibility for overseeing these systems, with information on the health risks of these chemicals, so they can take the appropriate actions to protect their residents.

We appreciate your concern that the public may be exposed to additional PFCs whose toxicity has not been determined. The EPA Office of Water has not conducted a full quantitative risk assessment for other PFCs because these compounds have much less human and animal toxicity data available. Our focus to date has been on the PFAS chemicals that have much larger data sets (i.e., PFOA and PFOS) on which to gauge the potential impact on human health. The few available animal toxicology studies suggest that other PFCs may have similar health effects as PFOA and PFOS, but for specific compounds effects may differ. In some epidemiology studies, there are significant associations between monitored health outcomes and human serum levels of some of the compounds with shorter and longer chain lengths than PFOA and PFOS. However, the results vary across the studies and are not always consistent with the outcomes for PFOA and/or PFOS. The EPA does not have adequate data or information at this time on the basis of which to recommend that detected levels of PFASs other than PFOA and PFOS be considered in comparison to the PFOS and PFOA health advisory levels.

As described in the PFOS Health Advisory document (https://www.epa.gov/sites/production/files/2016-05/documents/pfos_health_advisory_final_508.pdf), other international authorities have established guidelines for mixtures of PFCs. One authority, the Swedish National Food Agency, identified a mixture of seven PFCs (including PFHxS) and recommended precautionary actions be taken when the total level exceeds their guideline value for the mixture. We are providing this information on possible health effects and examples of precautionary actions for your discretion only, as EPA's Office of Water has not conducted a peer-reviewed assessment for these other compounds.

The Office of Water is awaiting the IRIS review (see below) to provide information on these other PFCs. The Agency is continuing to gather information about other PFCs. In addition to monitoring for PFOA and PFOS under EPA's third Unregulated Contaminant Monitoring Rule (UCMR 3), systems also monitored for four other PFCs. Results of this monitoring effort can be found on the publicly-available National Contaminant Occurrence Database (NCOD). EPA updates the information approximately quarterly. The last update reflects results received as of April 1, 2016. The EPA expects to post the next UCMR 3 Data Summary, reflecting results received as of July, in August 2016. Visit the NCOD here: <https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule#3>.

The EPA Office of Pollution Prevention and Toxics continues to evaluate risks associated with a variety of PFASs as submitted to our Toxic Substances Control Act New Chemicals Program. A variety of testing (fate, toxicity, ecotoxicity) may be requested as deemed appropriate to reduce uncertainties associated with assessing risks to these new chemicals. In addition, the EPA Office of Research and Development plans to begin a separate effort to determine the range of PFCs for which an Integrated Risk Information System (IRIS) assessment is needed. The IRIS Program identifies and characterizes the health hazards of chemicals found in the environment. IRIS assessments inform the first two steps of the risk assessment process: hazard identification and dose-response. As indicated in the 2015 IRIS Multi-Year Agenda, the IRIS Program will be working with other EPA offices to determine the range of PFCs and the scope of assessment required to best meet Agency needs. More about this effort can be found at <https://www.epa.gov/iris/iris-agenda>.

EPA appreciates the steps taken by the New Hampshire Department of Environmental Services to investigate and address PFC contamination of ground water. As part of EPA's continued support, we hope that this information will be helpful in your assessment of steps that will be taken, at the state's discretion, to protect public health. If you have questions about EPA's ongoing efforts to evaluate the health effects of PFCs, please contact Betsy Behl, Director of the Health and Ecological Criteria Division, at 202-566-0788 or behl.betsy@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Beauvais", written in a cursive style.

Joel Beauvais
Deputy Assistant Administrator