



VERMONT

Vermont Department of Environmental Conservation
Commissioner's Office

Agency of Natural Resources

MEMORANDUM

Background

Perfluorooctanoic Acid (PFOA) is a fully fluorinated, organic compound and is one of the two perfluorinated chemicals (PFCs) that have been produced in the largest amounts within the United States. PFCs were used in a wide variety of industrial and commercial products such as textiles and leather products, metal plating, the photographic industry, photolithography, semi-conductors, paper and packaging, coating additives, cleaning products and pesticides. Because of their chemical structure, PFCs, including and PFOA, are chemically and biologically stable in the environment and resist typical environmental degradation processes, including atmospheric photooxidation, direct photolysis and hydrolysis. As a result, these chemicals are extremely persistent in the environment. PFOA is suspected to result in both cancer and noncancer endpoints.

As a result of the discovery of PFOA in potable water supply wells the Agency requested that the Vermont Department of Health develop a Health Advisory for PFOA in groundwater. A copy of the VDH Health Advisory is attached to this memorandum.

Designation of interim groundwater enforcement standard of 20 parts per trillion for PFOA.

Pursuant to § 12-702(2) of the Groundwater Protection Rule and Strategy, the Secretary of Natural Resources has determined that a groundwater quality enforcement standard does not exist for PFOA, and has worked in collaboration with the Vermont Department of Health to develop a Health Advisory of 20 parts per trillion. This Health Advisory shall serve as an interim groundwater enforcement standard until such time as the Agency of Natural Resources amends the Groundwater Protection Rule and Strategy to include this Health Advisory as a final standard.

The effect of this designation is that for purposes of the Investigation and Remediation of Contaminated Properties Procedure, the 20 ppt is a remedial standard for groundwater cleanup for any release of PFC compounds that result in groundwater contamination of PFOA.

This designation is a final act of the Agency of Natural Resources and is appealable to the Vermont Superior Court, Environmental Division within 30 days of the date of this decision pursuant to 10 V.S.A. Chapter 220.

3/16/16

March 16, 2016


Alyssa B. Schuren, Commissioner
Department of Environmental Conservation

Department of Health

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Agency of Human Services

MEMORANDUM

TO: Chuck Schwer, Director Waste Management, DEC

CC: Matt Chapman, General Counsel, DEC
David Englander, Senior Policy and Legal Advisor, VDH

FROM: Sarah Vose, State Toxicologist

SUBJECT: Perfluorooctanoic acid (PFOA) Vermont Health Advisory

DATE: March 7, 2016

The Department of Health has derived a drinking water health advisory for PFOA of 0.02 ppb, or 20 ppt. This value was initially provided to DEC on February 9, 2016, for the investigation in North Bennington, Vermont.

The advisory is based on the oral reference dose of 0.00002 mg/kg/day provided in EPA's draft 2014 Health Effects Document for PFOA¹. This document is currently under review within EPA and is not yet finalized. The Department has no indication that the oral reference dose provided in this draft document will change. If a different oral reference dose, revised cancer toxicity value, or additional toxicity values are provided in the final EPA Health Effects Document for PFOA, the Department will examine the new information and potentially re-evaluate the proposed health advisory.

The health advisory for PFOA is consistent with the Department's Drinking Water Guidance and is based on the most sensitive receptor, a child 0-1 year old. The proposed health advisory is based on the non-cancer endpoint. The Department looked at the cancer endpoint based on the information provided in EPA's 2014 draft and determined that derivation of the proposed value based on the noncancer endpoint is most protective. The proposed value is based on ingestion only, with a relative source contribution of 20% incorporated to account for potential exposure to PFOA from other sources.

The Department of Health requests this health advisory for PFOA be added to the list of interim groundwater quality standards² found on your website until the Groundwater Protection Rule and Strategy incorporates this value. Vermont's health advisories are found on the Department's website.³

¹ [https://peerreview.versar.com/epa/pfoa/pdf/Health-Effects-Document-for-Perfluorooctanoic-Acid-\(PFOA\).pdf](https://peerreview.versar.com/epa/pfoa/pdf/Health-Effects-Document-for-Perfluorooctanoic-Acid-(PFOA).pdf)

² <http://www.drinkingwater.vt.gov/dwrules/pdf/interimgwgstandards2015.pdf>

³ http://healthvermont.gov/enviro/water/documents/drinking_water_guidance.pdf

