SWAG Meeting

September 20, 2023 | 6:30-8:30pm

Hybrid Meeting: Portsmouth City Hall Conference A and Zoom

Agenda

1. Welcome & Introductions - New member - Jim Hewitt
2. Seacoast Drinking Water Commission – Private Well Sampling Initiative - Amy Hudnor, M.S., Private Well Coordinator, NHDES Drinking Water & Groundwater Bureau
3. Water Supply Update
    - Master Plan Update
    - Water Quality Report
    - PFBA results
    - Pending PFAS MCLs
4. Lead Sampling Update
5. PFPrA Update
6. Recommendations to City Council by end of year
7. Public Comment

PFPrA Update

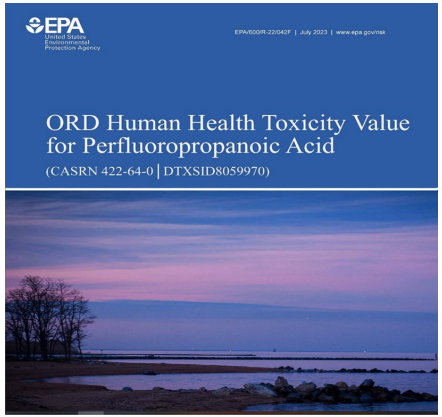
Current Update:

- 2 additional tap samples were collected and analyzed in April and June (paid for by NRDC and analyzed by Eurofins lab in California).
- Brian Goetz, Al Pratt, and Andrea Amico participated in a call in July 2023 with NRDC, EPA ORD, Eurofins, and NH DES to discuss the results
- No additional testing will be performed at this time
- EPA released a tox profile on PFPrA
  - PFPrA has been detected in surface and waste waters in or around manufacturing facilities
  - No human studies, 7 animal studies, 30 supplemental studies
  - A total uncertainty factor of 300 was applied

- Reverse osmosis is effective at filtering out PFPrA if individuals are concerned about this PFAS in their water

PFPrA results of City of Portsmouth tap water sampling

Date	PFPrA Results	Lab
June 2021	PFPrA = 35 ppt	Eurofins lab - CA
March 2022	PFPrA = 2.1 ppt	Eurofins lab - PA
March 2022	PFPrA = non detect	EPA ORD - NC
April 2023	PFPrA = 13 ppt	Eurofins lab - CA
June 2023	PFPrA = non detect *	Eurofins lab - CA



*** Non detect, but had an elevated reporting limit, nearby interference PFBA**

EPA PFPrA tox value document https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=358291&Lab=CPHEA

PFPrA Update

Cape Fear Public Utility Assoc resource paper published on 8/3/23 provides summary of PFPrA

CFPUA RESOURCE PAPER
8/3/2023

OVERVIEW OF PERFLUOROPROPANOIC ACID (PFPrA)

Description

Perfluoropropanoic acid (PFPrA) is an ultra-short-chain PFAS, which is defined as having three or fewer carbon atoms.

Per- and polyfluoroalkyl substances (PFAS) are a class of several thousand synthetic chemicals used widely in consumer and industrial products because of their stainproof, greaseproof, waterproof, non-stick and other properties.[1] A member of the perfluoroalkyl carboxylic acid subclass of PFAS[2], the molecular formula for PFPrA is C_3F_5COOH or $C_3HF_5O_2$, as shown in *Figure 1*. PFPrA is referenced under multiple names and identifiers, including pentafluoropropionic acid, perfluoropropionic acid, PPF Acid, and CAS registry number 422-64-0.[3] The safety data sheet for PFPrA indicates that in sufficient quantities it is corrosive, an irritant, and its label is to include the signal word "danger."[4]

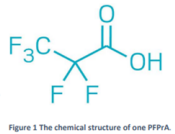


Figure 1 The chemical structure of one PFPrA.

Sources

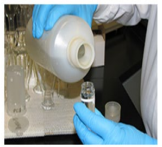
PFPrA is manufactured for use in various products. It is also a product of longer-chain PFAS decomposition and a byproduct of manufacturing.

Chemical manufacturers such as Fisher Scientific define PFPrA as "an efficient catalyst for the preparation of dibenzo[a,j] xanthenes by a condensation reaction of beta-naphthol with aryl aldehydes."[5] Xanthenes have a wide range of biological and pharmaceutical uses, including

Home › How do I...? › Learn About › Sweeney Treatment Enhancements Project › PFPRA and other Ultra-Short-Chain PFAS

PFPRA AND OTHER ULTRA-SHORT-CHAIN PFAS

CFPUA monitors raw and treated drinking water for 65 PFAS compounds. Some of these PFAS are known as "ultra-short-chain," classified by the number of carbon chains in the molecule. Ultra-short-chain are the smallest, with three or fewer carbon chains.



Smaller PFAS are often the hardest to remove during water treatment. Since bringing our new Granular Activated Carbon (GAC) filters online in 2022, CFPUA has seen some PFAS breaking through the filters, particularly two ultra-short-chain PFAS called PFMOAA and PFPrA.

This page provides an overview of CFPUA's ongoing work to remove these ultra-short-chain PFAS from drinking water. At the bottom of the page are definitions of some terms you may encounter to help you better understand this evolving, complicated topic. Watch this page for future updates.

WHAT'S GOING ON?

PFPrA Resource paper: https://www.cfpua.org/DocumentCenter/View/15390/PFPrA-White-Paper-8-3-23?bidId=
CFPUA website: https://www.cfpua.org/835/PFPRA-and-other-Ultra-Short-Chain-PFAS

Summary of key points:

- PFPrA is manufactured for use in various products. It is also a product of longer-chain PFAS decomposition and a byproduct of manufacturing.
- Research conducted in the United States and in other countries has detected PFPrA in drinking water and other media.
- While tests are available to detect PFPrA, no approved methodology exists, and challenges have been observed with testing accuracy and repeatability.
- More studies are needed to assess the spectrum of potential health risks. There is low confidence in recently published findings, which have been modified at least once.
- Research shows that, like other PFAS, PFPrA can travel from water to plants, leading to bioaccumulation in animals.
- Available information is insufficient to draw conclusions regarding the impact of PFPrA on drinking water at a national, state, or local level.

Recommendations to City Council by end of year

- Current council term ends at the end of this year
- Are there any recommendations the SWAG wants to make to the City Council?
- In 2021, the SWAG recommended…..

SWAG Recommendations to Portsmouth City Council

- Reinstate SWAG in 2022 with the new incoming City Council
- SWAG will host a community drinking water forum with Q&A in 2022 to during National Drinking Water week in May 2022
- Portsmouth DPW provide a quarterly newsletter to community members to combine all water related issues.
- SWAG will continue to monitor developments regarding contaminants of emerging concern.
- SWAG will continue to monitor for legislation at the State & Federal level that will help address water quality issues in the City.
- SWAG will collaborate with NH DES to identify and outreach private well owners in the City of Portsmouth to inform them on water testing recommendations and available labs.

SWAG Recommendations to Portsmouth City Council

- SWAG will monitor developments related to the PFPrA finding and additional samples planned by NH DES and US EPA
- City of Portsmouth needs to improve community education on PFAS and other contaminants of concern (e.g., lead) and on safe disposal of PFAS-containing items (e.g., water filters at their end life, Teflon pans, etc).
- SWAG should discuss the potential impacts on drinking water from Coakley Landfill in more depth at future meetings.
- City of Portsmouth should conduct PFAS testing of water running off the artificial turf at Community Campus to monitor for leaching into the surrounding wetlands and stormwater.

Public Comment