
RHODE ISLAND
DEPARTMENT OF HEALTH


ACCREDITED HEALTH DEPARTMENT
PHAB
Advancing public health performance
PUBLIC HEALTH ACCREDITATION BOARD

Per- and Polyfluoroalkyl Substances in Drinking Water

August 16, 2023

Exeter Town Council

Agenda

- Introduction
- Overview of PFAS
- Rhode Island State Law Requirements
- Findings of Testing in Rhode Island
- Findings of Testing in Exeter
- Next Steps
- Q&A

PFAS Sources

- PFAS have been widely used to make products oil, water, and stain-resistant for decades
- They can enter the environment from manufacturing wastewater and air pollution, use of PFAS-containing firefighting foam, and when PFAS-containing products break down.
- PFAS build up in the environment.

PFAS Exposure

People are exposed to PFAS through food, water, and air

- PFAS are not easily absorbed through the skin.
- Drinking water is a source of exposure.
- People may eat PFAS if the food was packaged in PFAS-containing material or was grown in an environment with PFAS.
- Rhode Island doesn't have much industrial PFAS air pollution, but inhalation of PFAS from consumer products is possible.

PFAS Health Effects

PFAS build up in the body and cause health effects.

- Exposure to PFAS has been linked with a variety of health effects, including
  - higher cholesterol levels,
  - lower infant birth weights,
  - weakened immune response, and
  - increased risk of some cancers, including kidney cancer.
- Lowering PFAS exposure is important.

PFAS Health Effects

Health risks from PFAS are a major concern when applied over large numbers of people.

- People exposed to PFAS can take steps to protect themselves from health effects, including
  - Nutrition, prenatal vitamins,
  - Physical activity, and
  - Managing cholesterol.
- Individuals should discuss their concerns with their healthcare provider.

Lowering PFAS Exposure

- Water with PFAS greater than 70 ppt should not be consumed.
- Treatment can remove PFAS and lower the amount in the water.
  - It needs to be maintained frequently.
  - Make sure treatment is certified by the National Sanitation Foundation.
- Whenever possible, water with very low levels of PFAS should be used for drinking, preparing food, cooking, brushing teeth, and any activity that might result in swallowing water.
- Boiling water for drinking will not reduce PFAS exposures. It will concentrate (increase the level of) these chemicals in the boiled water.

Lowering PFAS Exposure

- Bottled water is not required by the Food and Drug Administration to be tested for PFAS, but many do.
  - Contact bottled water manufacturers to ask about PFAS results in bottled water prior to using bottled water to replace drinking water with high PFAS levels.
- RIDOH also recommends taking the following steps to minimize PFAS exposures from other sources:
  - Avoid grease-resistant food packaging, such as microwave popcorn bags.
  - Avoid products such as stain-resistant carpet and waterproof clothing. When possible, avoid purchasing products advertised as water, grease, and stain-resistant.

Overview of Rhode Island Law Requirements

- Established an interim drinking water standard of 20 ppt for sum of six PFAS.
  - PFOA, PFOS, PFDA, PFNA, PFHxS, PFHpA
- Required community and non-transient, non-community public water systems to sample for PFAS by July 1, 2023.
  - Subsequent sampling schedules depend on initial results.
- Public water systems > 20 ppt are required to enter into a consent agreement with RIDOH within 180 days of being notified.
  - Consent agreements to document a system's plan of action to come into compliance by an achievable deadline.

Findings of PFAS Testing in Rhode Island

- RIDOH has received results of PFAS testing from 168/170 public water systems that were required to test.
- Most public water systems had PFAS < 20 ppt or did not detect PFAS.
- 3 public water systems had PFAS > 70 ppt, requiring a Do Not Drink
- 8 additional public water systems had PFAS > 20 ppt
  - 2 additional public water systems are pending a confirmation sample

Findings of PFAS Testing in Rhode Island

Exceeded 70 part per trillion (ppt)		
Water system name	**City or town location**	**PFAS level (ppt)**
Ladd Center	Exeter	314 ppt
Exeter Job Corps	Exeter	198 ppt
Bruin Plastics	Glendale	129 ppt
Exceeded 20 part per trillion (ppt)		
Water system name	**City or town location**	**PFAS level (ppt)**
West Glocester Elementary School	Glocester	44 ppt
Captain Isaac Paine School	Foster	42 ppt
North Smithfield Jr_Sr High School	North Smithfield	31 ppt
Carousel Industries	Exeter	55 ppt
Wrights Farm	Burrillville	22 ppt
Coventry Air National Guard	Coventry	84* ppt/18 ppt
Wood River Health Services	Hope Valley	28 ppt
URI	South Kingstown	43* ppt/39 ppt
* This well was turned off after this sample was taken and is no longer used. The second highest result is also shown.		

Findings of PFAS Testing in Exeter

- Ladd Center: 314 ppt
- Exeter Job Corps: 198 ppt
  - Exeter Job Corps is connected to Ladd Center's Water System.
- Carousel Industries: 55 ppt

Next Steps

- Investigation of sources
- Letters to private well owners
- Ladd Center will be required to enter into consent agreement with RIDOH within 180 days (date TBD).
- Ladd Center is required to monitor quarterly and notify Exeter Job Corps of results. Both systems are required to provide continuous updated public notice to consumers until compliance is achieved.

PFAS Testing for Private Wells

- PFAS testing should be done by a certified laboratory.
- RIDOH's PFAS Testing Guidelines includes additional information.
- Cost estimate: $200-300 per analysis

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