EPA FACT SHEET

PFAS National Primary Drinking Water Regulation

Introduction

Safe drinking water is fundamental to healthy people and thriving communities. President Biden believes that all people in the United States should have access to clean, safe drinking water. Since the beginning of the Biden-Harris Administration, EPA has been delivering on the promise to protect communities from the harmful effects of toxic substances, including carcinogens. PFAS are a series of man-made chemical compounds that persist in the environment for long periods of time. They are often called "forever chemicals." For decades PFAS chemicals have been used in industry and consumer products such as nonstick cookware, waterproof clothing, and stain resistant furniture. These chemicals have been important for certain industries and uses. And the latest science shows that these chemicals are harmful to our health.

PFAS exposure over a long period of time can cause cancer and other serious illnesses that decrease quality of life or result in death. PFAS exposure during critical life stages such as pregnancy or early childhood can also result in adverse health impacts. EPA's responsibility through the Safe Drinking Water Act is to protect people's drinking water, and the Biden-Harris Administration is taking action to protect public health by establishing nationwide, legally enforceable drinking water limits for several well-researched PFAS chemicals and reduce PFAS exposure for approximately 100 million Americans served by public drinking water systems.

The Rule

As the lead federal agency responsible for protecting America's drinking water, EPA is using the best available science on PFAS to set national standards. PFAS can often be found together in water and in varying combinations as mixtures. Decades of research shows mixtures of different chemicals can have additive health effects, even if the individual chemicals are each present at lower levels.

In this final rule, EPA is setting limits for five individual PFAS: PFOA, PFOS, PFNA, PFHxS, and HFPO-DA (known as GenX Chemicals). And EPA is also setting a Hazard Index level for two or more of four PFAS as a mixture: PFNA, PFHxS, HFPO-DA, and PFBS.

Chemical	Maximum Contaminant Level Goal (MCLG)	Maximum Contaminant Level (MCL)
PFOA	0	4.0 ppt
PFOS	0	4.0 ppt
PFNA	10 ppt	10 ppt
PFHxS	10 ppt	10 ppt
HFPO-DA (GenX chemicals)	10 ppt	10 ppt
Mixture of two or more: PFNA, PFHxS, HFPO-DA, and PFBS	Hazard Index of 1	Hazard Index of 1
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals.		

Please note that PFAS was detected. These results are **below** the U.S. Environmental Protection Agency (EPA) proposed Maximum Concentration Level (MCL) and/or Hazard Index (HI) for PFAS in drinking water. The analytical results for the six PFAS compounds that currently have proposed MCLs are listed below:

Compounds	PFAS Results EPDS002 (PPT) or HI Value EPA Method 533	PFAS Results EPDS002 (PPT) or HI Value EPA Method 537.1	Proposed MCL (PPT) or HI Value
PFOA	0.00	2.78	4
PFOS	0.00	0.00	4
PFNA	0.002	0.001	1
PFHxS			
GenX Chemicals			
PFBS			

Compounds	PFAS Results EPDS003 (PPT) or HI Value EPA Method 533	PFAS Results EPDS003 (PPT) or HI Value EPA Method 537.1	Proposed MCL (PPT) or HI Value
PFOA	0.00	2.70	4
PFOS	0.00	0.00	4
PFNA	0.000	0.002	1
PFHxS			
GenX Chemicals			
PFBS			

Compounds	PFAS Results EPDS004 (PPT) or HI Value EPA Method 533	PFAS Results EPDS004 (PPT) or HI Value EPA Method 537.1	Proposed MCL (PPT) or HI Value
PFOA	0.00	0.00	4
PFOS	0.00	0.00	4
PFNA	0.000	0.000	1
PFHxS			
GenX Chemicals			
PFBS			

ADEQ Arizona Department of Environmental Quality

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PFAS 101

What are PFAS?

PFAS stands for per- and polyfluoroalkyl substances. PFAS are man-made chemicals that are resistant to heat, water, and oil. They have been used since the 1940s to manufacture various consumer products, including fire-fighting foam and stain-resistant, water-resistant, and nonstick items.

Many PFAS do not break down easily and can build up in people, animals, and the environment over time. This is why they are often referred to as "forever chemicals".

Scientific studies have shown that exposure to certain PFAS can be harmful to people and animals, depending on the level and duration of exposure.

Pending PFAS Regulation

PFAS are not currently regulated nationally or in Arizona. The U.S. Environmental Protection Agency (EPA) has proposed a national regulation for PFAS in drinking water. The proposed regulation includes "Maximum Contaminant Levels" for six common PFAS, which are based on long-term, chronic exposure to low levels. EPA expects to finalize the drinking water regulation by 2024, and then water systems will be given three years to address PFAS contamination.

In addition to PFAS drinking water regulations, EPA has proposed other actions like designating some PFAS as hazardous substances, which would allow the state and federal government to hold polluters accountable. EPA also proposed aquatic life standards to help protect wildlife in our streams and rivers.

What We Are Doing to Protect Public Health:

ADEQ has conducted targeted testing since 2018 to understand the impact of PFAS in Arizona. This testing has included drinking water, groundwater, wastewater, and biosolids.

To prevent PFAS from entering the environment, we launched a pilot program to help fire departments stop using PFAS-containing aqueous film-forming foams. We have worked with 52 fire departments across Arizona to replace and safely discard almost 10,000 gallons of foam to date.

Testing Arizona's Drinking Water

EPA is requiring that public water systems serving 3,300 people or more test their drinking water for PFAS. However, most systems in Arizona serve fewer than 3,300 people. Therefore,

we are testing the smaller water systems even though the EPA does not require it. Our goal is to make sure that all regulated water systems are tested for PFAS as soon as possible.

What Happens if PFAS are Detected?

If PFAS are detected, we ask systems to follow EPA recommendations to inform customers, examine steps to limit exposure, and take more samples to assess the level, scope, and source of contamination. When a system's PFAS concentrations exceed EPA's proposed limits, we help the systems perform additional testing, begin exploring potential solutions and even apply for federal funding, if needed. We also provide systems with a PFAS Toolkit to help them meet the challenges. The toolkit includes information about funding, customer communication and next steps.

Benefits of ADEQ's Drinking Water Testing Program

ADEQ's PFAS drinking water testing program offers several benefits to small drinking water systems and their customers. It provides free PFAS testing to these systems, potentially saving them significant costs. It also offers assistance with next steps if PFAS are detected. With many systems across the country facing similar challenges, it is important that Arizona's drinking water systems begin planning to meet the new rules as soon as possible.

Want to learn more?

Visit **azdeq.gov/PFAS-Resources** to:

- Contact us
- Watch our *Intro to PFAS in Arizona* video
- Explore other resources

You can also find our PFAS Interactive Data Map at **bit.ly/myPFASmap** to see results from our testing since 2018.

PFAS

Per and Polyfluoroalkyl Substances

A group of man-made chemicals used in industry and consumer products because of their resistance to heat, water, and stains

ADHS

COMMON SOURCES OF PFAS

Water Resistant Clothing

Nonstick Cookware

Stain Resistant Carpets

Food Packaging Material

Firefighting Foam

People may be exposed to PFAS from using consumer products or from drinking water and eating food contaminated with PFAS.

What is the concern?

PFAS are hard to break down and stick around in the environment for a very long time. Some PFAS, such as PFOS and PFOA, may be bad for your health. Some examples of PFAS are:

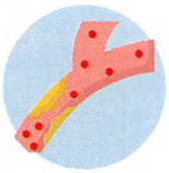
- Perfluorooacatanoic acid (PFOA)
- Perfluorooctane sulfonic acid (PFOS)
- Perfluorobutane sulfonic acid (PFBS)
- Perfluorononanoic acid (PFNA)
- Perfluorohexane sulfonic acid (PFHxS)
- GenX chemicals

How can PFAS affect my health?

The health effects of PFAS are not fully understood. There are many different kinds of PFAS, and they do not all have the same health effects. Talk to your healthcare provider if you have medical concerns.

Possible Health Effects

Increased risk of kidney and testicular cancer



Increased cholesterol levels

Reduced immune response

Increased high blood pressure in pregnant women

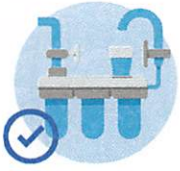
Negative impacts on child growth, learning, and behavior

How can I reduce my exposure?

- Avoid using consumer products that contain PFAS
- Install a water filtration system

Dos and Don'ts of PFAS Water Treatment

Granulated Carbon Filter



Reverse Osmosis

Boiling water will **NOT** remove PFAS

PFAS testing is **NOT** required for bottled water

How are PFAS regulated in Arizona?

There are no state regulatory limits for PFAS in Arizona. The U.S. Environmental Protection Agency (EPA) is proposing Maximum Contaminant Levels (MCLs) for six PFAS. An MCL is the maximum amount of a particular contaminant allowed in drinking water. These values are based on multiple safety factors to protect the most vulnerable populations and consider other potential sources of exposure (e.g., food, consumer products, air, drinking water, etc.)

EPA is proposing the new MCL to be 4 parts per trillion (ppt) for PFOA and 4 ppt for PFOS. EPA is also proposing to evaluate the mixture of PFNA, PFHxS, PFBS, and GenX as a group, using a calculated Hazard Index (HI). The HI should not exceed 1. This approach takes account for the increased risk from the PFAS mixture.

What can I use my water for if it has levels of PFAS above the proposed EPA MCL levels?

For more information please visit:

- ADEQ (Arizona Department of Environmental Quality)
  http://www.azdeq.gov/PFOA/PFOS
- ADHS (Arizona Department of Health Services)
  http://www.azdhs.gov/epht
- Certified Drinking Water Testing Labs
  http://www.azhealth.gov/labs4h2o
- ATSDR (Agency for Toxic Substances and Disease Registry)
  https://www.atsdr.cdc.gov/pfas/index.html
- US EPA (United States Environmental Protection Agency)
  https://www.epa.gov/pfas
- US FDA (U.S. Food and Drug Administration)
  https://www.fda.gov/food/chemical- contaminants-food/questions-and-answers-pfas-food