



CITY OF FLORENCE, ALABAMA

Florence Gas & Water / Wastewater Department

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EPA Finalizes PFAS National Primary Drinking Water Regulation

On April 10, 2024, the Environmental Protection Agency (EPA) formally announced its final National Primary Drinking Water Regulation (NPDWR) for six PFAS, including perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorononanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA, also known as Gen-X), perfluorohexane sulfonic acid (PFHxS), and perfluorobutane sulfonic acid (PFBS).

What are PFAS?

Per- and poly-fluoroalkyl substances (PFAS) are a large and diverse group of chemicals used in many commercial applications due to their unique properties, such as resistance to high and low temperatures, resistance to degradation, and nonstick characteristics. Although PFAS have been manufactured and used broadly in commerce since the 1940s, concern over potential adverse effects on human health grew in the early 2000s with the detection of PFOA and PFOS in human blood. Since that time, hundreds of different PFAS have been found in water, soil, and air.

Many PFAS, including PFOA and PFOS, are environmentally persistent, bio-accumulative, and remain in human bodies for a long time. It is for this reason that PFAS are commonly referred to as “forever chemicals.” According to the EPA, exposure to PFAS over a long period of time may lead to negative health effects, including an increased risk of cancer. Most uses of PFOA and PFOS were voluntarily phased out by U.S. manufacturers in the mid-2000s, although these chemicals remain in the environment due to their persistence and lack of degradation. In addition, some newer PFAS in use break down into PFOA and PFOS.

The NPDWR establishes legally enforceable limits, called Maximum Contaminant Levels (MCLs), for six PFAS in drinking water. PFOA, PFOS, PFHxS, PFNA, and HFPO-DA (Gen-X) will be regulated as individual contaminants. PFHxS, PFNA, PFBS, and HFPO-DA will also be regulated as a PFAS mixture. The NPDWR also establishes health-based, non-enforceable Maximum Contaminant Level Goals (MCLGs) for these six PFAS.

Compound	MCLG (health based goal)	MCL (enforceable levels)
PFOA	Zero	4.0 parts per trillion (ppt)
PFOS	Zero	4.0 ppt
PFHxS	10.0 ppt	10.0 ppt
PFNA	10.0 ppt	10.0 ppt
HFPO-DA	10.0 ppt	10.0 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1.0 (unitless) Hazard Index	1.0 (unitless) Hazard Index

An MCL is an enforceable water quality standard that protects public health by setting the maximum level that a contaminant may be present in drinking water delivered to users of a public water system. An MCLG, although not enforceable, is the maximum level of a contaminant in drinking water where there is no known or anticipated negative effect on an individual's health, allowing for a margin of safety.

The EPA’s finalized NPDWR for PFAS will require public water systems, like the City of Florence, to:

- Monitor for these PFAS;
- Notify the public of the levels of these PFAS in drinking water; and
- Reduce the levels of these PFAS in drinking water if they exceed the MCL or Hazard Index.

Public water systems with PFAS levels exceeding the MCL or Hazard Index will have up to five years to reduce the levels to below the required limit.

What is the EPA Doing About PFAS?

In 2005, the EPA levied its largest-ever civil administrative penalty against DuPont to settle claims that the company failed to disclose information about the risks associated with PFOA. In 2006, the 3M Company paid \$1.5 million to settle similar claims that the company had withheld information relating to PFOS and PFOA.

Based upon this new information, EPA announced the first-ever Health Advisory for PFOS and PFOA in drinking water in 2009. This Health Advisory recommended no more than 400 ppt PFOA and 200 ppt PFOS in drinking water. In 2016, after further research, the EPA announced new Lifetime Health Advisories for PFOS and PFOA, setting a recommended combined limit of 70 ppt for PFOS and PFOA. In 2022, EPA issued updated Lifetime Health Advisories for four PFAS, including PFOA and PFOS. The updated advisory levels were well below what were previously nondetectable levels.

On March 14, 2023, EPA announced the proposed NPDWR to establish legally enforceable levels for six PFAS in drinking water. On April 10, 2024, the EPA finalized its proposed NPDWR, and announced its expectation that “over many years the final rule will prevent PFAS exposure in drinking water for approximately 100 million people, prevent thousands of deaths, and reduce tens of thousands of serious PFAS-attributable illnesses.”

What levels are in my water?

The City of Florence Water Department’s most current PFAS test results sampled on 01/26/2024 referenced in the EPA’s Health Advisories and the new NPDWR are as follows:

PFAS	2016 HA	2022 HA	MCL	MCLG	Your Water
PFOA	70 ppt	.004 ppt	4.0 ppt	Zero	4.8 ppt
PFOS	70 ppt	.02 ppt	4.0 ppt	Zero	11.0 ppt
PFNA	N/A	N/A	10.0 ppt	10.0 ppt	ND
PFHxS	N/A	N/A	10.0 ppt	10.0 ppt	ND
HFPO-DA	N/A	10 ppt	10.0 ppt	10.0 ppt	ND
PFBS	N/A	2000 ppt			5.0 ppt

What is the City of Florence Water Department doing about PFAS?

Although the EPA’s new regulation provides up to a five-year period for public water systems to reach full compliance, Florence Water has begun evaluating alternative technologies and will be implementing pilot

studies in the next sixty to ninety days to determine the best method to reduce PFAS in our drinking water. The City of Florence Water Department does not believe that the past, present, and future capital costs and increased operational expenses associated with the removal of PFAS from our water supply is the responsibility of our ratepayers. We are engaged in a class action lawsuit against the PFAS chemical manufacturers and others responsible for the PFAS contamination of our water supply. While we cannot comment on the pending litigation, our goal is to hold those that contaminated our water supply with PFAS responsible for the aforementioned costs.

Where can I learn more about PFAS and EPA's new regulation?

For more information about how EPA is regulating PFAS in drinking water, please click [here](#).

