



## Fire Fighting Foam Coalition

June 2024

Fact Sheet

# PFAS National Primary Drinking Water Regulation

Reference: <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas#General>

## Introduction

Safe drinking water is an expectation we all have and is fundamental to a healthy life and people leading to thriving communities. The current administration has made it a priority to create a regulation to enable the US population to have access to clean, safe drinking water. The chemicals of focus for this regulation are a category of fluorinated compounds called PFAS (described below). These chemicals have made their way into many of the drinking water systems in the United States from the use of these PFAS chemicals and products containing them as well as from PFAS manufacturing facilities.

## What is this US EPA SDWA?

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources—rivers, lakes, reservoirs, springs, and ground water wells. The SDWA authorizes the United States Environmental Protection Agency (EPA) to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water.

## What is the PFAS NPDWR

The PFAS National Primary Drinking Water Regulation (NPDWR) became final on April 10, 2024, after years of discussion and use of multiple water health advisory levels prior to April 2024. It sets Maximum Contaminant Levels (MCLs) for six separate PFAS which will be described in more detail below. The PFAS NPDWR pertains only to drinking water in the United States.

## What are PFAS chemicals?

PFAS chemicals are a category of fluorinated chemicals called per- and polyfluorinated alkyl substances (PFAS). They became commercially available in the late 1940's/1950's and are used in numerous industries across the United States (and globally). Some of these industries include aerospace, automotive, medical devices, military, semiconductors, electronics, textiles, paper products, firefighting (AFFF and AR-AFFF), cleaning products and so on.

## What target PFAS compounds does this regulation cover?

This regulation covers six PFAS chemicals: PFOA, PFOS, PFNA, PFHxS, HFPO-DA (known as GenX chemicals) and mixture of two or more of the following PFAS chemicals – PFNA, PFHxS, HFPO-DA and PFBS.

## **What target limits did EPA set relative to individual compounds and mixtures?**

The EPA set enforceable MCLs for PFOA and PFOS at 4 ppt (part per trillion) and MCLs for PFNA, PFHxS and HFPO-DA at 10 ppt. In addition, a maximum Hazard Index of 1 was set for the mixture of two or more of the following PFAS chemicals – PFNA, PFHxS, HFPO-DA and PFBS.

The EPA also set a non-enforceable Maximum Contaminant Level Goal (MCLG) of zero for both PFOA and PFOS.

## **What is the Hazard Index and how does one measure/calculate this value?**

The Hazard Index is a long-established tool and/or approach that helps measure health risk associated with exposure to chemical mixtures. The Hazard Index is made up of a sum of fractions which compares the level of each PFAS measured in water to the “highest level below which there is no risk of health effects.” EPA does provide an example of how the calculation is done on their website:

[https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr\\_fact-sheet\\_hazard-index\\_4.8.24.pdf](https://www.epa.gov/system/files/documents/2024-04/pfas-npdwr_fact-sheet_hazard-index_4.8.24.pdf)

## **Who does the PFAS NPDWR pertain to?**

This new regulation pertains to the approximate 66,000 public water utilities in the United States and larger drinking water well systems.

## **How does this new rule impact manufacturers of AFFF and fluorine-free foams?**

The PFAS NPDWR pertains to suppliers of drinking water such as public water utilities. It does not directly pertain to those making or using firefighting foams – either AFFF or fluorine-free foams. And it does not pertain directly to firefighting foam agents and related equipment on the market.

## **Are there limits on PFAS in firefighting foam products?**

Yes. The US military specification for AFFF (MIL-PRF-24385F) sets a limit on PFOS and PFOA of 800 part per billion (ppb), while the US military specification for fluorine-free foam (MIL-PRF-32725) sets a limit on PFAS of 1 ppb. European Union (EU) regulations set a limit on PFOA of 25 ppb in products, including firefighting foams. A proposed EU regulation on PFAS in firefighting foam would set a limit for total PFAS of 1,000 ppb. Links to these limits are provided below.

[https://quicksearch.dla.mil/qsDocDetails.aspx?ident\\_number=17270](https://quicksearch.dla.mil/qsDocDetails.aspx?ident_number=17270)

[https://quicksearch.dla.mil/qsDocDetails.aspx?ident\\_number=285047](https://quicksearch.dla.mil/qsDocDetails.aspx?ident_number=285047)

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1000>

<https://echa.europa.eu/documents/10162/897b2ca5-e15b-e6c5-a2ef-c7af4f1110a1>

It is critically important to understand that these limits are in products and do not pertain to drinking water. It is generally understood that products are significantly more complex matrices (a “dirty matrix”) that have inherent interferences when trying to conduct analytical measurements. Drinking water on the other hand is essentially a “clean matrix” with no expected general analytical interferences thus allowing measurements at the single digit part per trillion levels (ppt).

## **Have any analytical methods been developed to measure PFAS compounds like PFOA in firefighting foams?**

Yes, there are methods to measure PFAS compounds in products, specifically firefighting foam products such as AFFF. In 2018-2019 FFFC worked with SGS-AXYS in conjunction with the US Navy to develop an analytical method for 29 PFAS compounds in both AFFF and AR-AFFF. This method has a nominal reporting/quantitation limit of 10 ppb for PFOA in firefighting products. A link to the FFFC website where the method is described is given below:

[https://www.ffc.org/files/ugd/331cad\\_4eb7dca6a804487cb21943d26f27bf34.pdf](https://www.ffc.org/files/ugd/331cad_4eb7dca6a804487cb21943d26f27bf34.pdf)

The FFFC/SGS-AXYS method has since been expanded to cover additional PFAS substances and has been incorporated into EPA Draft Method 1633.

[https://www.epa.gov/system/files/documents/2021-09/method\\_1633\\_draft\\_aug-2021.pdf](https://www.epa.gov/system/files/documents/2021-09/method_1633_draft_aug-2021.pdf)

## **Does this new drinking water regulation pertain to levels of PFAS in AFFF products, to equipment cleanouts and wastewater from these cleanouts?**

No. This new drinking water regulation pertains only to drinking water from public utilities. It does not pertain to equipment clean ups and rinse water levels, to product manufacture and PFAS levels in products, to PFAS levels pertaining to site clean ups and so on.

## **How does this drinking water regulation affect the transition from AFFF to fluorine-free foams as well as the expected equipment clean out process?**

This new drinking water regulation does not directly pertain to the transition that is occurring globally from AFFF to fluorine-free foams for many of the prior end-uses in class B foams. The goal of the transition, however, is to lower the potential environmental exposure from releases of AFFF while fighting certain class B fires. All manufacturers of firefighting foams will need to be especially sensitive to how the foam concentrates are formulated, what quality of water is used and how clean the equipment is that is used for the manufacturing/formulation steps.

## **When does this drinking water rule become effective?**

The EPA's PFAS NPDWR gives the public water utilities 5 years to be in compliance with the new enforceable PFAS limits. In years 1-3 the utilities are given time to assess whether they are in or out of compliance with the limits. And then they are provided 2 more years to install whatever equipment they need to ensure their drinking water is in compliance with the new regulation and its PFAS limits. The public utilities can install whatever equipment they choose at any time during this 5-year compliance period.

## **How will the public drinking water utilities measure for these six target compounds?**

The US EPA has two final drinking water methods that are capable of measuring the specific PFAS at the MCL limits. These methods are Method 533 and Method 537.1.

## **Is this water measurement method the same as used for measuring PFAS in firefighting foam products?**

The US EPA Methods 533 and 537.1 are for drinking water. For non-potable water, solids and for firefighting foam products, users will use EPA Draft Method 1633. As an example, the new MilSpec MIL-PRF-32725 for fluorine-free foams has specified the Draft Method 1633.

## **How much will this new rule cost each year?**

The US EPA estimates that implementation of this rule will cost approximately \$1.5B each year. And this estimated cost does include monitoring of the water systems, outreach to consumers, and installing and maintaining treatment technologies suitable for the public utility in question. These estimated costs may also include the need to obtain a new water supply.

## **Who will pay for this new rule and its ongoing costs?**

The payments for these improvements and compliance with the SDWA will come from a variety of sources. EPA calls out a significant amount of funding from the Bipartisan Infrastructure Law and its components. Nearly \$21B is called out in this Law. Other funding sources could include grants, loans and raising consumer water rates.

## **Why did the US EPA promulgate this new rule?**

The US EPA enacted this new SDWA regulation to help provide the US population with cleaner and safer drinking water. Specifically, the Regulation focuses on 6 specific PFAS chemicals and ensuring that these chemical levels in water are at or below the new MCLs within 5 years from water provided by public utilities.

## **Does this new rule apply to PFAS levels in soil, sediment, sludge, storm water, biosolids, landfill leachate and so on?**

The PFAS NPDWR only applies to drinking water supplied by public utilities and large well systems. It does not apply to other matrices such as those noted above.

### **How does this new rule impact consumers?**

The goal of this new rule by the US EPA is to lower the potential exposure of the general public (>100,000,000 consumers) to these six target PFAS chemicals and their mixtures. And by doing so, the public will then have a decreased risks of potential significant health effects through lower exposure to these specific PFAS chemicals.

### **How many public utilities does this new rule cover?**

The US EPA estimates this new regulation will apply to approximately 66,000 public utilities.

### **How were these PFAS limits set?**

According to EPA, the MCL goals were set “based only on health data and the potential impacts to the public.” These MCLs are used for compliance (enforceable) and are set at the concentrations noted that many laboratories can measure with a high degree of certainty.

### **Are drinking water wells covered by this new regulation?**

The PFAS NPDWR does not apply to individual homeowners with wells. The EPA suggests having your own wells tested if there is a concern for PFAS contamination. The rule does apply to larger well systems supplying over 25 persons.

### **Some states and jurisdictions already have PFAS limits on some of the target PFAS cited in the EPA regulation. Which limits need to be followed?**

While some states and jurisdictions have promulgated their own drinking water limits prior to this 10 April regulation, everyone will need to comply with the US EPAs MCL limits once the coming 5-year implementation period elapses. A jurisdiction or state regulation PFAS limit can be lower but cannot be higher than the MCLs.

### **Is this PFAS NPDWR regulation the same as the regulation EPA announced on 19 April on PFOA and PFOA and their CERCLA designation?**

The PFAS NPDWR regulation is not the same as the CERCLA designation for PFOA and PFOS. This EPA action designates two widely used PFAS (PFOA/PFOS) as hazardous substances under the Superfund law, improving transparency and accountability to clean up PFAS contamination in communities.

<https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-critical-rule-clean-pfas-contamination-protect>