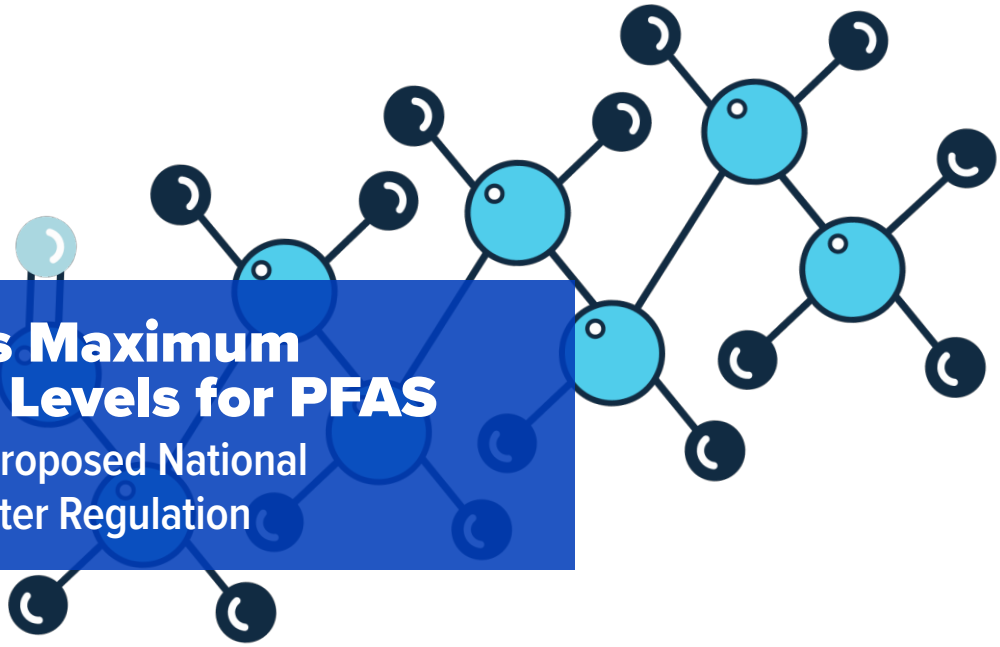

EPA Proposes Maximum Contaminant Levels for PFAS

Understanding the proposed National Primary Drinking Water Regulation

EPA has announced a proposed National Primary Drinking Water Regulation (NPDWR) for six per- and polyfluoroalkyl substances (PFAS). EPA anticipates finalizing the NPDWR by the end of 2023 and enforcing the regulation by 2026. Compliance is required within 3 years of when the regulation is finalized.

Proposed PFAS NPDWR

EPA is proposing to establish **legally-enforceable** Maximum Contaminant Levels (MCLs) for six PFAS in drinking water:

- PFOA and PFOS as individual contaminants at 4 ng/L each, and
- PFHxS, PFNA, PFBS, and HFPO-DA (GenX) as a PFAS mixture (see Hazard Index, below).

EPA is also proposing **health-based, non-enforceable** Maximum Contaminant Level Goals (MCLGs) for these six PFAS.

Utilities are not required to take any actions until the PFAS NPDWR is finalized.

Proposed requirements

The proposed rule would require public water systems to:

- Monitor for these PFAS.
- Notify the public of the levels of these PFAS.
- Reduce the levels of these PFAS in drinking water if they exceed the proposed standards.

Understanding the proposed Hazard Index (HI) Approach

The Hazard Index, or HI, is a commonly used risk management approach for mixtures of chemicals. The proposed HI is calculated as follows:

$$HI = \frac{[PFHxS]}{9\ ppt} + \frac{[Genx]}{10\ ppt} + \frac{[PFNA]}{10\ ppt} + \frac{[PFBS]}{2{,}000\ ppt}$$

An MCL violation (i.e., HI ≥ 1) can occur even if all the PFAS concentrations are below their individual Health Based Water Concentration reference values (shown in the denominators of the formula).

Monitoring Requirements

Public water systems must initially sample at all entry points to the distribution system based on the frequency outlined in the table below. Systems with appropriate, previously acquired monitoring data from UCMR5, state-led, or other applicable monitoring programs using EPA Methods 533 or 537.1, will not be required to conduct separate initial monitoring for regulated PFAS.

Based on the initial monitoring results, primacy agencies may then reduce compliance monitoring frequency if the monitoring results are below the rule trigger level (RTL). The RTL is one-third of the MCLs or HI (i.e., 1.3 ng/L for PFOA and PFOS, and an HI of 0.33).

For systems required to monitor quarterly, compliance will be determined by running annual averages at the sampling point. When calculating the running annual averages, if a sample result is less than the practical quantitation level for the monitored PFAS, EPA is proposing to use zero to calculate the average for compliance purposes.

PWS Type	Monitoring Frequency
All Surface Water Systems	Monitor regulated PFAS quarterly within a 12-month period
Groundwater Systems serving >10,000 persons	
Groundwater Systems serving ≤ 10,000 persons	Monitor regulated PFAS twice within a 12-month period, with sampling events conducted at least 90 days apart

Carollo Can Help You Prepare

With experience in every step from source evaluation through consumer compliance, we are ready to help you:

1. Develop a UCMR5 and MCL compliant PFAS monitoring plan and coordinate sampling.
2. Review your sampling data to characterize PFAS occurrence and identify compliance actions.
3. Locate potential PFAS sources and assess source mitigation opportunities.
4. Develop non-treatment and treatment alternatives to define the range of likely costs, using Carollo's advanced decision support tool – Blue Plan-it® -- to efficiently evaluate dozens of "what if" scenarios in a workshop setting.
5. If treatment is required:
   - » Conduct bench- and pilot-scale regulatory demonstrations or emerging technology evaluations, through our specialized Water Applied Research Center (Water ARC®).
   - » Design treatment facilities and develop residuals management strategies.
   - » Provide estimates of construction, operation, and maintenance costs.
6. Avoid potential impacts to finished water quality and maintain distribution system corrosion control.
7. Support public communication, interagency collaboration, and regulatory approval.
8. Identify and implement funding strategies.

For additional information on PFAS or the proposed regulation, contact Rosa Yu, PhD, at ryu@carollo.com.