PFAS Issue Background and Advocacy Asks

by NACWA & WEF

Issue

Per- and polyfluoroalkyl substances (PFAS) have been detected in high concentrations in some water resources throughout the country, especially in groundwater drinking wells near airports, military bases, and manufacturing sites. These synthetic substances, of which there are more than 3,000 known chemical varieties, are found in numerous products used in everyday life such as paper food packaging, non-stick coating materials, and stain resistant fabrics. They are also found in aqueous film forming foam (AFFF) products that are used to suppress high-intensity fuel fires. Because of their strong chemical bonds, PFAS are persistent and stable in the environment, making these chemicals extremely difficult to remove even if they were to be completely eliminated from production and use.

Current Advisories

Analytical monitoring techniques have advanced over the years, allowing PFAS compounds to be detected at extremely small concentrations. To date, the US Environmental Protection Agency (EPA) has issued drinking water health advisories (HAs) for two of the more prominently found PFAS constituents—polyfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) at 70 parts per trillion (ppt) or 70 ng/L. HAs provide information on potential public health effects and offer a benchmark for evaluating when exposure to PFOA and PFOS in drinking water may present a risk. HAs are, however, non-regulatory and are not enforceable.

Some states, concerned with the absence of federal regulatory action, are moving forward with establishing state-specific regulations, including maximum contaminant levels (MCLs) for drinking water that are more stringent than EPA's HAs.

Impacts on Clean Water Agencies

Public clean water utilities receive and treat a broad range of influent from heterogenous sources including domestic, industrial, and commercial sources. This influent, which is not generated by the utility, but which the utility is responsible for treating, may contain PFAS constituents ranging from trace to higher concentrations based on the nature of the dischargers connected to the sewer system. NACWA and WEF's members are the primary implementers of the National Pretreatment Program, charged with controlling commercial and industrial discharges to the sewer, and have been involved in EPA and state efforts to address PFAS contamination. NACWA and WEF have both submitted comment letters urging the EPA to develop a federal response that appropriately reflects the risks posed by PFAS, close the unresolved scientific gaps—including fate, transport, and toxicity of PFAS using a science based approach—and evaluate the appropriate regulatory response to target the sources of PFAS and the responsible disposal of contaminated concentrate.

EPA Action Plan

On February 14, 2019, EPA published its Action Plan on PFAS. Relevant to the water sector, below are the most immediate and long-term aspects of EPA's Action Plan:

Immediate Initiatives Pertinent to Clean Water:

- Initiate the regulatory rulemaking process for developing MCLs for two of the most common PFAS substances, PFOA and PFOS (*expected* 2019)
- Designate PFOA/PFOS as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (*expected* 2019)
- Expand analytical methods to test for PFAS (*expected* 2019)
- Develop cleanup recommendations to address groundwater contamination of PFOA/PFOS (*anticipated* 2019)

Ongoing/Long-Term Initiatives Pertinent to Clean Water:

- Expand knowledge on PFAS chemicals entering commerce under the Toxic Substances Control Act (TSCA) (*ongoing*)
- Explore industrial sources that may warrant regulation through effluent limitation guidelines (ELGs) (*start* 2019)
- Develop and validate methods for testing PFAS in sources other than drinking water (e.g., wastewater, biosolids, fish tissue, stack emissions) (*expected* 2019-2021)
- Reduce PFAS releases into ambient waters and sources of drinking water by establishing ambient water quality criteria under the Clean Water Act, if data permits (*expected* 2021)

Potential for Unintended Consequences from the Response to PFAS

EPA's actions to designate PFOA and PFOS as hazardous substances under CERCLA provides a mechanism for leveraging federal remediation dollars for existing contamination. The US House and Senate (H.R. 535/S. 638) have also introduced companion bills requiring EPA to designate *all* PFAS chemicals—not limited to PFOA and PFOS—as hazardous substances under CERCLA. With a CERCLA hazardous substance designation, there could be *unintended consequences* that hold public utilities potentially liable for cleanup costs, particularly where biosolids from the treatment process containing low levels of PFAS have been beneficially land applied for their fertilizer value. Removing these chemicals from wastewater influent/effluent requires advanced treatment techniques such as granular activated carbon (GAC), ion exchange (IX) or reverse osmosis (RO). These treatment methods are prohibitively expensive for the volume that needs to be treated, and it remains unanswered how and where to dispose of the PFAS contaminated concentrate generated from these processes.

Asks

- **Support adding protections against PFAS contamination to TSCA requirements.** Develop better source control strategies and better use existing statutory authority to control PFAS at its source. Municipal wastewater treatment systems and biosolids land application are *not sources* of PFAS contamination, and clean water utilities should not bear the cost of removal alone.
- **Empower the CWA pretreatment program.** Identify and address high-priority PFAS discharges to municipal wastewater facilities and provide utilities with any additional authorities necessary to prevent the pass-through of these constituents and interference with the treatment process.
- **Consider unintended consequences.** Based on toxicity information and relative risk, clearly exclude wastewater effluent and biosolids containing low levels of PFAS from CERCLA liability. While low levels of PFAS can be detected with advanced analytical techniques, the amounts may be well below background levels or amounts found in everyday household items.
- **Close the scientific gaps.** Give EPA the resources it needs to address PFAS chemicals. There is limited laboratory capacity to conduct adequate sampling and analysis. It is imperative to gain a better understanding of the concentrations of these chemicals, either individually or aggregated, that pose an *actual risk* to public health and the environment as well as understand the fate and transport pathways by which these chemicals move in the environment.

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