

EPA's Draft Contaminant Candidate List Triggers Regulatory Considerations and Opportunities for Drinking Water Treatment Technologies

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Last month, the U.S. Environmental Protection Agency (EPA) announced the draft Sixth Contaminant Candidate List (CCL 6) under the Safe Drinking Water Act (SDWA) and released it for public comment. CCL 6 identifies contaminants that are not yet regulated but are known or anticipated to occur in public water systems and may require future regulation. The draft list includes four contaminant groups — microplastics, pharmaceuticals, per- and polyfluoroalkyl substances (PFAS), and disinfection byproducts — along with 75 individual chemicals and nine microbes that may be found in drinking water. Although PFAS were included on prior lists, this is the first time the EPA has designated microplastics or pharmaceuticals as priority contaminant groups. Inclusion on the draft CCL 6 signals an emerging concern about these new contaminant groups and the potential for future regulatory action.

WHAT IS A CONTAMINANT CANDIDATE LIST?

Under the SDWA, the EPA must publish a Contaminant Candidate List (CCL) every five years. Each CCL is a list of contaminants that:

- Are not currently subject to a national primary drinking water regulation;
- Are known or anticipated to occur in public water systems; and
- May require regulation based on potential health risks.

The CCL is merely the first step in the SDWA regulatory process, but it serves as the main starting point for the EPA's decision whether to regulate new contaminants. Contaminants identified on the list are prioritized for research, funding, and information collection to better understand health risks and treatment options. These contaminants may be further monitored under EPA's Unregulated Contaminant Monitoring Rule (UCMR).

THE CCL 6 CREATES A 'WATCH LIST' OF CONTAMINANTS THAT MAY BE FEATURED IN FUTURE EPA REGULATIONS

Once a CCL is finalized, the EPA uses it to monitor occurrence frequency (and therefore level of concern) and to make regulatory determinations.

The EPA Gathers Data Through the Unregulated Contaminant Monitoring Rule (UCMR)

The final CCL is used to decide which contaminants to monitor under the UCMR. The EPA selects certain contaminants from the CCL for nationwide monitoring to generate high-quality data on how frequently they

occur in public water systems and at what levels. Stated differently, the CCL 6 identifies the “watch list,” and the UCMR is how the EPA gathers the data it needs to decide which contaminants on that watch list move on to formal regulation.

The EPA Uses This Data to Determine Which Contaminants Should Be Regulated

Once the EPA has sufficient data on the contaminants featured on the final CCL 6, it will decide whether to include them in a national drinking water regulation (NDWR). Under the SDWA, the EPA considers three criteria: (1) whether the contaminant may have adverse health effects; (2) whether it is found, or is substantially likely to be found, in public water systems with a frequency and at levels of concern; and (3) whether, in the administrator’s judgment, there is a meaningful opportunity for health risk reduction through a national drinking water regulation. If the EPA determines that the contaminant is a good candidate for regulation, it issues a preliminary regulatory determination for public comment and, ultimately, a final determination. Contaminants regulated by a NDWR typically have a legally enforceable Maximum Contaminant Level (MCL) permitted in public drinking water.

WHY THIS MATTERS TO THOSE IN THE WATER TREATMENT INDUSTRY

For clients that design, manufacture, or market drinking water treatment technologies, the release of draft CCL 6 can be strategically important.

- **Early Indicator of Future Regulatory Requirements**

Inclusion on CCL 6 is a strong signal that EPA will be focusing research, monitoring, and policy development on those contaminants. Many of these are likely candidates for future MCLs or other regulatory standards.

- **Market Drivers for Treatment Technologies**

As the EPA moves from CCL 6 to UCMR monitoring and ultimately to potential regulation, public water systems will face pressure to demonstrate control of these contaminants. Even the threat of regulation can drive demand for technologies capable of:

- Removing or reducing microplastics, PFAS, pharmaceuticals, and disinfection byproducts;
- Providing validated performance data that aligns with the EPA’s monitoring and analytical methods.

- **Product Development and R&D Planning**

CCL 6 gives an actionable roadmap for where the regulatory and market needs are headed. Technology developers can:

- Prioritize R&D on treatment performance for contaminants and groups highlighted on CCL 6;
- Begin generating internal performance, pilot, and occurrence data that can be used in marketing to utilities and in technical discussions with regulators.

In short, CCL 6 is both a regulatory roadmap and a market signal. Clients in the drinking water treatment space should view this announcement as an opportunity to engage early in the regulatory development process. They should also consider aligning their product portfolios, R&D investments, and marketing materials with the contaminants EPA has now elevated as national priorities, particularly microplastics, pharmaceuticals, PFAS, and disinfection byproducts.

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