

FAST NEWS ON PFAS

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FAST NEWS ON PFAS NEWSLETTER

In the fast-paced news cycle of PFAS, discerning priorities can be a challenge. Weston's PFAS newsletter takes you out of the minutia and into the big picture. We have assembled key regulatory highlights, expert input, and state-of-the-science facts, and distilled them to the essentials of what you need to know, why it matters, and how it could impact you. Make this quick quarterly newsletter your starting point to understanding the latest information on PFAS.

In this issue:

- Updating Categorical Effluent Limitations Guidelines for PFAS
- PFAS in Indoor Air: A Standard Guide by ASTM International
- Revised Consumer Confidence Report Rule

UPDATING CATEGORICAL EFFLUENT LIMITATIONS GUIDELINES FOR PFAS

On May 9, 2024, EPA published a Final Rule in the Federal Register revising certain technology-based Effluent Limitations Guidelines (ELGs) for existing sources in the steam electric power generating point source category that apply to four different types of wastewater at new and existing sources (US EPA, 2024b). Although EPA did not initially identify the steam electric power sector as one of the top sources of PFAS dischargers through the National Pollutant Discharge Elimination System (NPDES) permitting process, they cite work from the State of Wisconsin as the reason for its inclusion in this update to the ELGs. The Wisconsin study identified perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) in cooling water at eight such facilities. Further, EPA noted that firefighting foam used at these facilities may contain PFAS and could result in unwanted discharges.



What you need to know: This Final Rule applies to two industrial category "electric power generation facilities," including electric power generation and fossil fuel electric power generation facilities under North American Industry Classification System (NAICS) codes 22111 and 221112 (US EPA, 2024a). However, industries not under those NAICS codes are directed to review 40 Code of Federal Regulation §423.10 and §423.11 that ultimately define applicable parties as those whose principal reason for operating is to generate electricity via fossil-type fuels, fossil fuels, or nuclear fuels. The Final Rule applies to three specific sub-classifications of sources:

- flue gas desulfurization wastewater;
- bottom ash transport water and legacy wastewater; and
- combustion residual leachate.

Further, in the rulemaking, EPA suggested that NPDES permitting authorities should consider whether monitoring for PFAS and implementation of best management practices may be appropriate at a given power generation facility. For consideration, the maximum PFOS and PFOA concentrations were 28 parts per trillion (ppt) and 35 ppt, respectively, in the data provided by the State of Wisconsin.

Impact: In their 2023 document Effluent Guidelines Program Plan 15 (Plan 15), EPA indicated that they intended to update the categorical ELGs to note which industries are likely to be sources of PFAS (US EPA, 2023). While this Final Rule does not evaluate all categorical ELGs, it does point to the possibility that EPA will continue to revise the ELGs as they progress through various rulemaking processes and not necessarily all at once. With the release of this Final Rule, we are also given notice that EPA may determine that PFAS are concerning for other categories not otherwise considered in Plan 15. As such, it is incumbent upon the regulated community to be prepared with early and frequent communication with NPDES permitting authorities as their permits near renewal.

PFAS IN INDOOR AIR: A STANDARD GUIDE BY ASTM INTERNATIONAL

ASTM International has developed a new *Standard Guide for Determination of Airborne PFAS in the Indoor Air Environment (Guide), D8560-24* (ASTM International, 2024). Designed for regulatory bodies and analytical laboratories, the guide provides a comprehensive review of technologies and methods for measuring PFAS across gaseous and particulate phases. While not exhaustive, the guide will likely undergo frequent updates. It offers users an overview of the types of PFAS detectable in air and the range and applicability of published methods.

What you need to know: ASTM's Guide did not assess the effectiveness or equivalency of each of the methods it discusses. It specifies that the included sorbent sampling methods are suitable for PFAS with a molecular weight of at least 200 grams per mol, whereas degradation products may be better analyzed by real-time analytical methods. While useful for indoor air, the methods evaluated in the Guide were not applied to or verified for other gaseous environments like soil pore vapor, stack samples, or ambient outdoor conditions.

The Guide includes several helpful tables that describe relevant chemical properties, observational concentrations of PFAS in indoor air, the pros and cons of different methods, and extraction and analytical methods.

TABLE 1: EXCERPT FROM ASTM D8560-24 "PASSIVE SAMPLING METHODS FOR PFAS IN AIR: ADVANTAGES AND DISADVANTAGES"

Sampling Media	Targeted Phase	Time of Deployment	Published Equivalent Sampling Rates or Volumes	Commercially Available
Polyurethane foam (PUF) disks	Gas phase (GP), particulate matter (PM)	17-120 days	Yes	Yes, some assembly required
Sorbent-impregnated PUF disks	GP	14-83 days	Yes	No, assembly challenging
Activated carbon fiber felts	GP, PM	7-21 days	Yes	Yes, some assembly required
Polyethylene sheets	GP, PM	14-28 days	Yes	Yes, some assembly required
Glass or quartz fiber filters	PM	17 days	Limited	Yes, minimal assembly required

Notes: Table adapted from ASTM D8560-24 Table 3 which includes more detailed information not presented here.

Impact: Guide D8560-24 provides a key resource for measurement techniques in indoor air. It offers a thorough analysis of the methods, equipping users with the knowledge to select the most appropriate approach. Additionally, the Guide includes applicable references for exploration of specific topics. As awareness of PFAS in indoor environments grows, this Guide proves to be an indispensable tool. One of the salient points to take away from the Guide is that there is not one method that is adequate for all PFAS of interest, and it will take multiple methods to get a more complete picture of PFAS risk based upon indoor air detected concentrations.

REVISED CONSUMER CONFIDENCE REPORT RULE

On May 24, 2024, EPA published the Final Rule revising the Consumer Confidence Report (CCR) Rule in accordance with the America's Water Infrastructure Act of 2018 (US EPA, 2024c). The revisions improve the readability, clarity, understandability, and accuracy of CCRs, sometimes referred to as Drinking Water Quality Reports. States, tribes, and territories are required to report compliance monitoring data (CMD) to the EPA, and systems serving more than 10,000 people must now provide CCRs to customers twice per year.



What you need to know: This rule mandates that Community Water Systems (CWS), serving either 15 year-round connections or at least 25 year-round residents, submit CMD to the EPA within specific timeframes. For contaminants subject to Maximum Contaminant Levels (MCLs) like PFAS, CWS must report the highest contaminant level used to determine compliance with the applicable National Primary Drinking Water Regulation (NPDWR) as well as the range of detected levels.

As it relates to PFAS NPDWR, EPA is giving states, tribes, and territories until January 1, 2027 (reporting 2026 data) to achieve compliance with the CCR.

Impact: The rule is expected to enhance environmental protection and risk management strategies by improving data on PFAS sources and quantities. For consumers, this increased transparency can lead to better awareness and understanding of PFAS-related risks. For CWS, compliance with the rule ensures responsible handling of these risks.

WESTON PRACTITIONER SPOTLIGHT

GRETCHEN FODOR

B.S. CHEMISTRY; M.S. ENVIRONMENTAL STUDIES 22+ YEARS WITH WESTON

Gretchen's 37-year career as an environmental chemist/environmental scientist includes 22+ years at Weston. She joined Weston after 10 years of working in an environmental laboratory and spent 8 years working for the EPA Region 1 START contract procuring analytical services; validating CLP data under EPA Region 1's data validation guidelines; collecting soil, surface water, and groundwater samples; working on contingency plans; leading EPA Brownfields site investigations; supporting EPA emergency responses; and was a member of Weston's START Region 1 Level A Response Team. While working on Region 1 START, she completed her Master of Science Degree and also qualified as a Certified Hazardous Materials Manager (CHMM), a certification that she carried for 15 years. After Region 1 START, she subsequently expanded her experience by performing over 200 ASTM Phase I Environmental Site Assessments; validating analytical data under CERCLA RAC, START, and ESAT contracts; working on Massachusetts Contingency Plan (MCP) remediation sites; becoming a licensed Asbestos Inspector; and collecting building material and wipe samples for pre-demolition building characterization projects. She returned to Weston to support the EPA Region 3 START contract and other DoD projects, providing oversight for analytical procurements from qualified laboratories; drafting analytical sections of EPA and DoD Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPPs) and Data Usability Assessments; and working with sampling teams and subcontract laboratories to ensure that field samplers met quality assurance/quality control (QA/QC) goals in accordance with EPA sampling plans, Quality Assurance Project Plans (QAPPs), and the DoD Quality Systems Manual (QSM). She has provided chemistry support for hundreds of projects under CERCLA [Preliminary Assessment/Site Investigation (PA/SI), Expanded Site Inspection (ESI), Remedial Investigation/Feasibility Study (RI/FS), and Remedial Design (RD)] and state regulatory requirements for traditional organic and inorganic analysis as well as emerging contaminants such as perchlorate, hexavalent chromium, and PFAS.

Prior to starting down the environmental path, I was a high school science teacher. When I started working at a CLP laboratory during the early days of Superfund, I realized that I loved environmental chemistry. Ten years later, I started with Weston and shortly afterward completed my master's degree at the Civil Engineering Department at UMass Lowell. Graduate school courses gave me the deep background for understanding my work at Superfund assessment, removal, and remediation sites. The professional opportunities that I have had at Weston and the wonderful coworkers I work with daily are making it difficult for me to retire! My job makes me feel that I am making a difference in making the world a better place to live. Now I am sharing my knowledge with our new chemists to help them in their careers.

LET'S MEET UP!



WEFTEC, Leading the Future of Water



RemTec/Emerging Contaminants Summit



Great Lakes PFAS Summit



Department of Defense's Energy and Environment Innovation Symposium

About:

Subscriptions and topic ideas may be submitted to: pfas@westonsolutions.com

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