PFAS: The Latest on an Ever Evolving Regulatory Landscape

Federal Regulatory & Legislative Information & Updates

Mary Baker, Executive Director, Mid-Atlantic Biosolids Association



PFAS - Feeling "Verklempt"?

What EPA Has Learned So Far

(https://www.epa.gov/pfas/pfas-explained)

- PFAS are widely used, long lasting chemicals, components of which break down very slowly over time.
- Because of their widespread use and their persistence in the environment, many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment.
- PFAS are found in water, air, fish, and soil at locations across the nation and the globe.
- Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals.
- There are thousands of PFAS chemicals, and they are found in many different consumer, commercial, and industrial products. This makes it challenging to study and assess the potential human health and environmental risks.





PFAS - Let's "Discuss"

- EPA PFAS Strategic Roadmap: Finalize risk assessment for PFOA and PFOS in biosolids.
 Expected Winter 2024
- EPA Designation of Perfluorooctanoic Acid (PFOA)
 and Perfluorooctanesulfonic Acid (PFOS) as CERCLA
 Hazardous Substances Proposed April 2023,
 comments closed August 2023, Finalized April 2024
- Senate EPW Committee continues development of bipartisan PFAS legislation following stakeholder comment period - hearing March 2024
- National Collaborative PFAS Study led by Dr. lan Pepper at the University of Arizona, entering second year and phase in 2024





EPA PFAS Strategic Roadmap

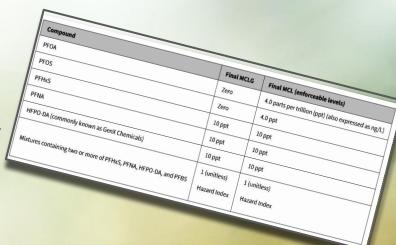
PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024

 April 10, 2024, EPA announced the final National Primary Drinking Water Regulation (NPDWR) for six PFAS

The final rule requires:

- Public water systems must monitor for these PFAS and have three years to complete initial monitoring (by 2027), followed by ongoing compliance monitoring. Water systems must provide the public with information on the levels of these PFAS in their drinking water beginning in 2027.
- Public water systems have five years (by 2029) to implement solutions to reduce these PFAS if monitoring shows that drinking water levels exceed these MCLs.
- Beginning in five years (2029), public water systems that have PFAS in drinking water which violates one or more of these MCLs must take action to reduce levels of these PFAS in their drinking water and must provide notification to the public of the violation.

PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024





EPA PFAS Strategic Roadmap

Finalize risk assessment for PFOA and PFOS in biosolids. Expected Winter 2024

 See Risk Assessment of Pollutants in Biosolids -<u>https://www.epa.gov/biosolids/risk-assessment-pollutants-biosolids</u>

What does the EPA mean by risk?

The EPA considers risk to be the chance of harmful effects to human health or to ecological systems resulting from exposure to an environmental stressor. A stressor is any physical (e.g., radiation), chemical (e.g., pesticides), or biological entity (e.g., microbes) that can induce an adverse response. EPA uses risk assessments to characterize the nature and magnitude of health risks to humans and ecological receptors (e.g., plants and animals) from chemical contaminants and other stressors.

See A Guide to the Biosolids Risk Assessments for the EPA
 Part 503 Rule -

https://www.epa.gov/biosolids/guide-biosolids-risk-assessme hts-epa-part-503-rule

Generalized Risk Assessment Framework · Define the purpose, scope and technical approaches for the risk assessment. Planning & Scoping · Helps answer these questions: · Who/What/Where is (at) risk? · What is the hazard of concern? Problem · How does exposure occur? Formulation · Evaluate the potential for risk of adverse effects in humans, plants, and animals. This phase can include hazard identification. **Analysis** dose-response and exposure assessments. Use the analysis to estimate the risk of health problems in the exposed population and identify uncertainties. Characterization



EPA PFAS Strategic Roadmap

Important to differentiate between "risk assessment" and "risk management"

 See EPA Risk Management -<u>https://www.epa.gov/risk/risk-management</u>

Ittps://www.epa.gov/risk/risk-management

What does the EPA recommend in the interim?

- See EPA Issues Guidance to States to Reduce Harmful PFAS Pollution
 - https://www.epa.gov/newsreleases/epa-issues-guidance-st ates-reduce-harmful-pfas-pollution
- The memo recommends that states use the most current sampling and analysis methods in their NPDES programs to identify known or suspected sources of PFAS and to take actions using their pretreatment and permitting authorities, such as imposing technology-based limits on sources of PFAS discharges.

Risk Management

Risk Management is a distinctly different process from risk assessment. Risk assessment establishes whether a risk is present and, if so, the range or magnitude of that risk. In the risk management process, the results of the risk assessment are integrated with other considerations, such as economic or legal concerns, to reach decisions regarding the need for and practicability of implementing various risk reduction activities. Risk managers also use risk assessment results as a basis for communicating risks to interested parties and the general public.



Room Check: Are we feeling any less "Verklempt"?





What is CERCLA (or Superfund)?

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980.

- It allows EPA to clean up contaminated sites.
- It also forces the parties responsible for the contamination to either perform cleanups or reimburse the government for EPA-led cleanup work.





PFAS CERCLA designation - Regulatory Perspective

In April 2024, EPA finalized a critical rule to designate two widely used PFAS – PFOA and PFOS – as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund.

In addition to the final rule, EPA issued a separate CERCLA enforcement discretion policy that makes clear that EPA will focus enforcement on parties who significantly contributed to the release of PFAS chemicals into the environment.

 See Key EPA Actions to Address PFAS https://www.epa.gov/pfas/key-epa-actions-address-pf





PFAS CERCLA designation - Legislative Perspective

Senate EPW Committee:

- See Stakeholder Comment on Draft PFAS Legislation https://www.epw.senate.gov/public/index.cfm/2023/6/stakeholder-comment-on-draft-pfas-legislation
- See September 2023, Senator Capito Opening Statement at Hearing on Implementation of Drinking Water and Wastewater Infrastructure Act https://www.epw.senate.gov/public/index.cfm/2023/9/ranking-member-capito-opening-statement-at-hearing-on-implementation-of-drinking-water-and-wastewater-infrastructure-act
- See March 20, 2024 EPW Hearing Examining PFAS as Hazardous Substances -

https://www.epw.senate.gov/public/index.cfm/hearings?ID=6E83270F-EF61-4B3E-919C-B 1AF5AA601B7

Other legislation

• HR 7944 - Water Systems PFAS Liability Protection Act





PFAS CERCLA designation - Legislative Perspective

What can be done?

Outreach

- Passive receiver protection
 - **US Senate Committee on Environment and Public** Works - https://www.epw.senate.gov/public/
 - Find your Members in the US Congress https://www.congress.gov/members/find-your-membe
- Protection and prohibition of the use of PFAS in certain products
 - PA 2238 Consumer Product Per- and Polyfluoroalkyl Chemicals (PFAS) Chemical Ban https://www.legis.state.pa.us/cfdocs/billinfo/billinfo.cf m?syear=2023&sind=0&body=H&type=B&bn=2238



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To: The Pennsylvania House Environmental Resources and Energy

From: Mary Baker, Executive Director of the Mid-Atlantic Biosolids Association, mbaker@mabiosolids.org

RE: Support for House Bill 2238 - Prohibiting PFAS Chemicals in

Dear Honorable Members of the Pennsylvania House of

The Mid-Atlantic Biosolids Association (MABA), founded in 1997, is a non-profit organization devoted to ensuring that biosolids are recognized everywhere as a valuable community resource through the communication of the benefits of biosolids resources within the wastewater community and the communities we serve.

MABA is committed to promoting sustainable resource recovery and environmental stewardship. We write to express our strong support for House Bill 2238, which aims to limit the use of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in certain consumer products.

PFAS chemicals, commonly known as "forever chemicals," pose significant risks to human health and the environment. These persistent compounds have been detected in biosolids - the nutrient-rich organic materials derived from wastewater treatment due to their widespread use in various industrial and household products. As per our PFAS Position Statement, MABA recommends that regulatory and legislative groups work to contain PFAS releases at their source, through use of the industrial pretreatment program. product bans, and other preventive measures, not after their escape

Biosolids recycling plays a crucial role in sustainable waste management and the promotion of a circular economy. By converting wastewater residuals into valuable resources, we reduce landfill disposal, conserve energy, and enhance soil health. Biosolids provide essential nutrients to crops, improving agricultural productivity and reducing the need for chemical fertilizers.



Another Room Check: Are we feeling any less "Verklempt"?





National Collaborative PFAS Study

The largest US data set on incidence and distribution of biosolid derived PFAS to date

https://west.arizona.edu/research/national-collaborative -pfas-project

To evaluate whether or not land application of biosolids is a significant public health route of exposure to PFAS

 Phase 1 - Soil samples at land application sites and controls from 23 sites within 17 states have been collected at 1, 3, and 6 feet soil depths.



Figure 1. States with a site(s) included in the PFAS National Collaborative Study



National Collaborative PFAS Study

What have they determined so far?

Table 2. Median Soil Concentrations of EPA Regulated Compounds Based on Analyses of 14 of the 23 National Sites

Compound	Soil Median Concentration (ppb)			EPA Drinking
	Control	Low Biosolids	High Biosolids	Water MLC (ppt)
PFOA	0.074	0.180	0.274	4.0
PFOS	0.023	0.419	0.470	4.0
PFHxS	0.040	0.072	0.125	10
PFNA	0.027	0.085	0.061	10
HFPO-DA (GenX)	Not analyzed	Not analyzed	Not analyzed	10

Examination of Table 2 shows that the median concentrations of PFAS analytes in the Low and High Biosolids Plots are remarkably low, and all less than 0.5ppb. Values for corresponding Control Plots are even lower. However, it is notable that these compounds are detected in Control Plots with no biosolids, and no obvious source of PFAS contamination.

> Biosolids Association

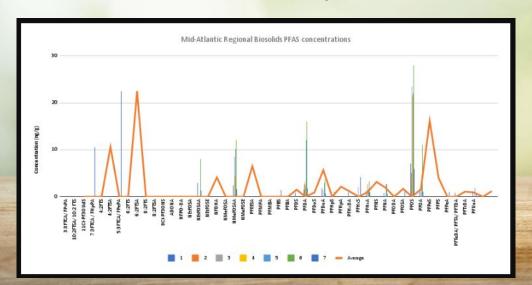
Phase 2 - Establish a similar national network of plant uptake data across the country by Mid-Atlantic analyzing PFAS in crops grown on the land application plots already studied

Additional Research & Results Sharing

Other study of note: WRF Unregulated Organic Chemicals in Biosolids: Prioritization, Fate and Risk Evaluation for Land Application - Project #5125 -

https://www.waterrf.org/unregulated-organic-chemicals-biosolids-prioritization-fate-and-risk-evaluation-land-applications

The MABA PFAS Focus Group is working to create an extensive dataset of anonymous PFAS test results for the region. This dataset is available to MABA members as a tool to allow POTWs to have a better perspective of how their PFAS results compare to those results of other facilities in the region.





The Value of Research

Why is it so important? Why should it be supported?

Proactive:

 The Biosolids community is an engaged community seeking to inform and protect the community

Risk Assessment/Risk Management Preparation:

 The National Collaborative PFAS Study will provide a national set of real-world data with identical research methodology at each site





Final Room Check: Less "Verklempt"?





PFAS: Federal Reg/Leg Information & Updates

Questions?

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