



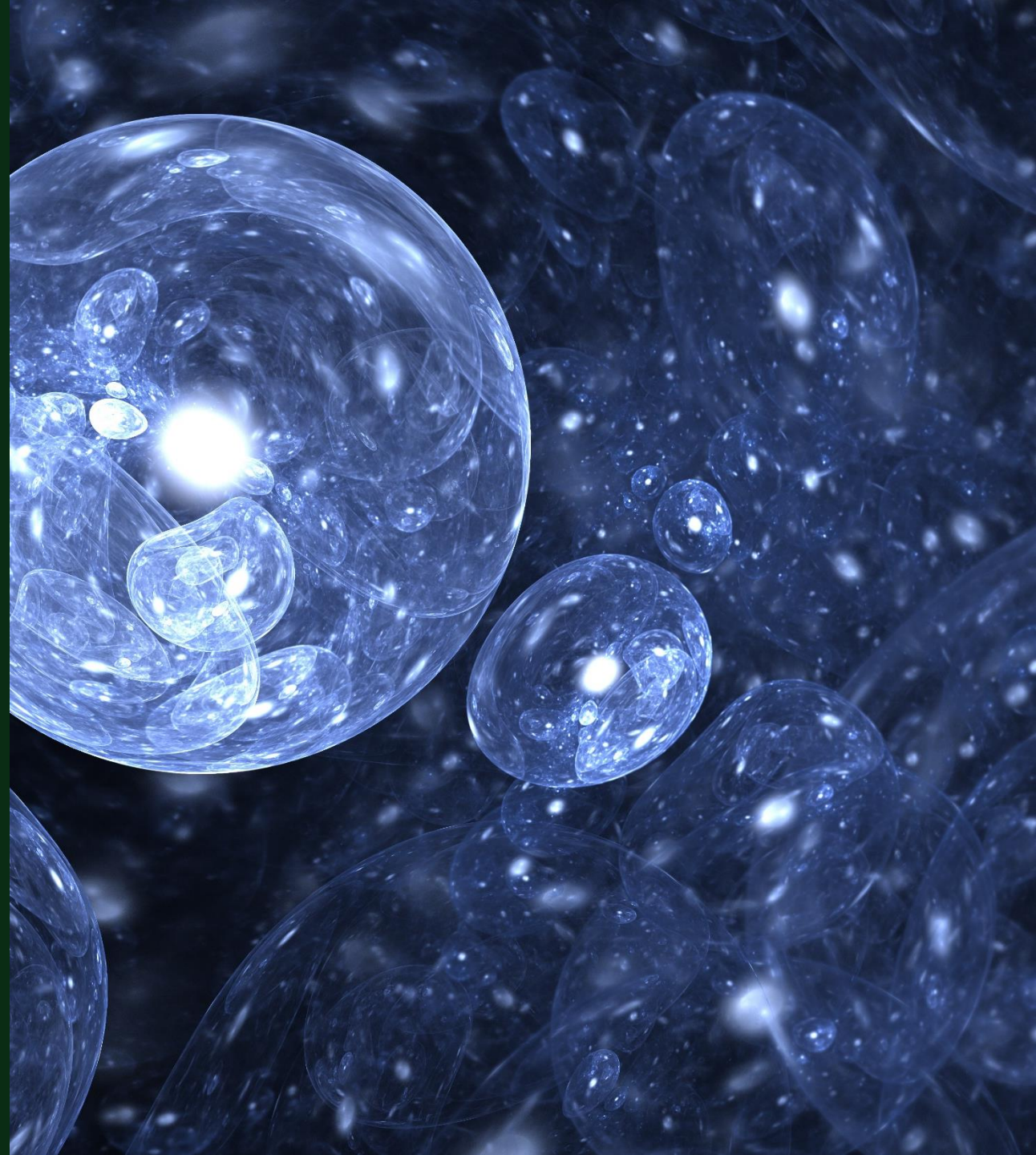
ERM WEBINAR SERIES: FAST FLUORINATED FACTS

PFAS in the News

FEBRUARY 27TH, 2025

Sustainability is our business

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Welcome Participants



Your **lines have been muted** to ensure our presenters are not distracted by background noise



Attendees are encouraged to **participate by using the chat/Q&A** via the chat box function – select “All Panelists and Attendees” or only “All Panelists”



A link to the **recording of this session & slides** will be provided in our follow-up email sent next week

Safety Moment

First and immediate assistance provided

Different types but generally performed by someone with basic training

Training often offered by employer or organization

- Preserve life
- Prevent further harm
- Promote recovery

Training often required at least every 2 years

Reflection questions:

- Am I trained?
- Do I remember my training?
- If something happened, would I know what to do?



New ERM Market Alert!

Reporting Obligations for PFAS:
Developments and Updates

[NA MarketAlert PFAS Updates Feb2025.pdf](#)

Reporting Obligations for PFAS: Developments and Updates

HOW COMPANIES ARE RESPONDING TO CHANGES
AND PREPARING FOR REPORTING



Agenda/ Contents

- 1 PFAS ROADMAP: WHERE DO WE STAND**
- 2 HUMAN HEALTH CRITERIA FOR PFOA, PFOS, PFBS EXPOSURE TO WATER AND ORGANISMS**
- 3 EPA BIOSOLIDS APPLICATION RISK ASSESSMENT**
- 4 NEW CHEMICAL REVIEW PROCESS FOR PFAS UNDER TSCA**

Speakers



Jesse Guillet

Managing Technical Consultant,
Scientist



Nadine Weinberg

Partner, Global Technical
Communities Director



Heather Usle

Managing Technical
Consultant, Geology



Kelly Mayo-Bean

Principal Technical Consultant,
Sustainable Product & Supply
Chain

PFAS ROADMAP: WHERE DO WE STAND

Jesse Guillet, PhD

PFAS Strategic Roadmap: 2024 Key Accomplishments

EPA released Progress Report on *PFAS Strategic Roadmap* in November 2024

EPA developed the original *PFAS Strategic Roadmap* in 2021 to chart the agency's activities, structured around three goals

- **Restrict** – Pursuing a comprehensive approach to proactively prevent PFAS from entering air, land, and water at levels that can adversely impact human health and the environment
- **Remediate** – Broadening and accelerating the cleanup of PFAS contamination to protect human health and ecological systems
- **Research** – Investing in research, development, and innovation to increase understanding of PFAS methods, human health and environmental risks, and technologies



EPA's PFAS Strategic Roadmap: Three Years of Progress

November 2024

“Since releasing its *PFAS Strategic Roadmap* three years ago, the Biden-Harris EPA has led efforts to provide national leadership, restore scientific integrity, and accelerate efforts at every level of government to tackle PFAS.”

2025: What direction are we going?

EPA touts 2024 accomplishments

- Protecting Drinking Water: MCLs established in April 2024, UCMR5 sampling ongoing
- Cleaning Up PFAS Contamination: PFOA and PFOS designated as hazardous substances under CERCLA, updated guidance on destruction and disposal of PFAS
- Understanding PFAS in our Nation's Waters: Finalized EPA Methods 1621 and 1633, finalized recommended water quality criteria for the protection of aquatic life in October 2024
- Pursuing Enforcement & Compliance: Under CERCLA, EPA's enforcement focus will be on significant contributors to PFAS contamination
- Advancing our Understanding: Proposed rule to require reporting on PFAS categories under TRI in October 2024

Uncertainty looms over EPA's direction under new administration

PFAS Strategic Roadmap Projections for 2025

- Release Draft Water Criteria for the Protection of Human Health – released in December 2024
- Release Draft Risk Assessment for PFOA and PFOS in Biosolids – released in January 2025
- Propose effluent discharge limits on PFAS for chemical manufacturing sector – **withdrawn from review by new administration**

Environmental groups are concerned that withdrawal of proposed discharge limits signal Trump EPA will slow progress of PFAS regulations.

Private litigation against PFAS manufacturers and users is expected to proceed at a rapid pace.

EPA has requested stay on litigation over MCL and CERCLA listing.

**HUMAN HEALTH CRITERIA FOR
PFOA, PFOS, PFBS EXPOSURE
TO WATER AND ORGANISMS**

Nadine Weinberg

Human Health Ambient Water Quality Criteria (HHC)

- Draft released Dec 26, 2024, comments due Feb 24, 2025
- HHC are recommendations to states to protect surface water quality under CWA. Developed to protect human health from consumption of water and fish/shellfish.
- HHC represent safe levels that, if not exceeded, will protect the general population
- EPA has developed HHC for 119 chemicals; last was in 2019
- Based on human health effects (both cancer and noncancer), exposure, and bioaccumulation potential
- Calculations assume 90th% drinking water and fish consumption
- EPA acknowledges that Method 1633 MDLs exceed the HHC
- States may adopt these criteria to protect designated uses of waters and control discharges of pollutants into waterbodies

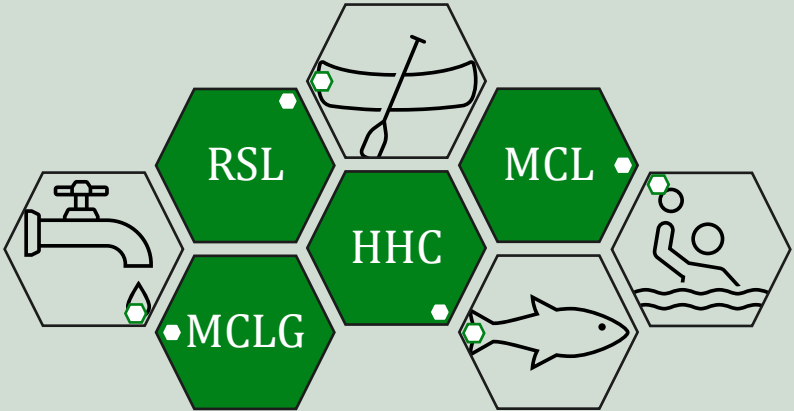
Comment period extended 60 days



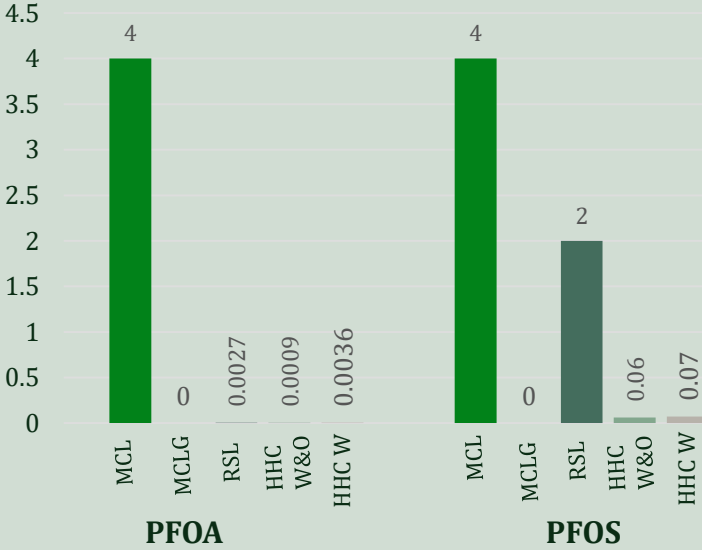
PFAS	Water + Organism (ng/L; ppt)	Organism Only (ng/L; ppt)
PFOA	0.0009	0.0036
PFOS	0.06	0.07
PFBS	400	500

Criteria Soup – Where Do The HHC Fit In?

Criteria	Media	Basis	Implementation	Implications
HHC	Surface water; fish	Risk	Not enforceable; recommendation to state	When adopted by states could lead to effluent testing and limitations
RSL	Drinking water	Risk	Site-screening, not de facto cleanup standards	Used at CERCLA and state cleanup sites
MCLG	Drinking water	Risk	Non-enforceable public health goal	Max level with no known health effects; could drive down screening level
MCL	Drinking water	Risk + Feasibility	Legally enforceable drinking water standards	To meet MCL, POTWs may request influent sampling, place limits on received wastewater



Criteria Comparison (ppt)



**EPA BIOSOLIDS
APPLICATION RISK
ASSESSMENT**

Heather Usle

EPA Biosolids Risk Assessment



No current federal limits to PFAS in biosolids

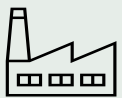
- EPA prepared a draft Risk Assessment (RA) under the Clean Water Act (CWA) [released for public comment on 14 January 2025 (webinar held 15 January 2025)].
- Evaluate the potential public health impacts in sewage sludge (“biosolids”) to inform future risk mitigation efforts, including potential regulation under the CWA.
- Limited disposal options which EPA found to pose some level of risk to human exposure.



Household



Agriculture



Manufacturing

How Biosolids Accumulate PFAS

- 1** PFAS enters waste streams from residential, commercial, and industrial discharges to wastewater treatment plants (WWTPs) where solid waste (sludge) is separated from liquid effluent.
- 2** Traditional treatment techniques do not address PFAS which tend to bind to organic matter and accumulate in the sludge due to their chemically stable nature.
- 3** When sludge undergoes stabilization processes (e.g., anaerobic digestion, composting, or thermal drying) to become biosolids, PFAS persist due to their high thermal and chemical stability.



Risk Assessment Approach

- Does not represent RA for general population or general food supply.
 - Utilized hypothetical, but allowable scenarios (on or near impacted sites)
 - Focused on consumers that eat from impacted sites
 - Specific narrow population (farmers)
- Two-phased approach to modeling PFAS risk.
 - Prior high-end risk (95th percentile) demonstrated elevated risk for multiple exposure pathways.
 - RA utilized median (50th percentile) exposure.
- Assumptions did not include:
 - Multiple exposure pathways (eggs & drinking water, dust & eggs)
 - Non-sewage sludge (consumer products)
 - Combined risk of PFOA & PFOS, or other chain lengths

EPA Biosolids Risk Assessment

Evaluated environmental risks associated with land application, surface disposal, and incineration of biosolids containing PFOA and PFOS.



Land Application

spraying, spreading, incorporation, or injection of sewage sludge into or onto the land

Modeled for:

- Pasture farm scenario; Crop farm scenario; Reclamation scenario



Surface Disposal

storing sewage sludge in piles, landfills or lagoons

Modeled for:

- Potential PFOA or PFOS exposures via groundwater to those living near a lined or unlined surface disposal site



Incineration

drying the biosolids then using combustion to separate the volatile fraction of the biosolid

Modeled for:

- Qualitative potential risks to communities living near a sewage sludge incinerator

Estimated Risk is Linear

The results of the draft risk assessment indicate **potential risks to human health to those living on or near impacted properties or primarily relying on their products from land application and surface disposal** of sewage sludge containing PFOA and PFOS and that risk is dependent on (1) the concentration of PFOA and PFOS in sewage sludge, (2) the specific type of management practice, and (3) the local environmental and geological conditions.

Risks are possible, though not quantified, from the incineration of PFOA and PFOS-containing sewage sludge.

*The draft risk assessment is **not an enforceable document**, but it may guide future regulatory actions. While **more than 50% of states have not enacted or proposed legislation** to specifically address PFAS in biosolids, states are increasingly scrutinizing biosolid management that could potentially spread PFAS contamination.*

**NEW CHEMICAL REVIEW
PROCESS FOR PFAS UNDER TSCA**

Kelly Mayo-Bean

Updates to New Chemicals Regulations for PFAS under TSCA

In December 2024, EPA published a final rule amending regulations that govern the review and approval of new chemicals.

The rule makes newly developed PFAS chemicals requiring US registration ineligible for approval through low volume exemptions (LVE) or low release/low exposure exemptions (LoREX).

TSCA Application Type	Registration Fee (USD)	Outcome
Premanufacture Notice (PMN)	\$37,000	Affirmative determination, most often resulting in reg action
LOREX	\$10,870	Grant/Deny (no subsequent reg action)
LVE	\$10,870	Grant/Deny (no subsequent reg action)

Addressing Previous Actions

- There are currently > 600 "PFAS" LVEs that have been approved under TSCA.
- EPA originally envisioned exemptions only for low hazard/low risk chemicals, but with no upfront data requirements under TSCA, potential risks can be difficult to quantify.
- EPA is not revoking previously granted LVEs, but acknowledged they may take future actions.
- EPA worked with companies to voluntarily withdraw 56 granted PFAS LVEs through the PFAS Low Volume Exemption Stewardship Program.

New Chemicals Rule Moving Forward



Petitions regarding the final New Chemical Rule have been filed by NGOs (EDF, Alaska Community Action on Toxics and United Auto Workers), but the basis for the scientific challenge is not clear and likely won't result in action.



The rule could be subject to the Congressional Review Act at this time, but it is unlikely the new administration will tackle this rule given other priorities. In practice, EPA implemented many of the actions long ago through policy updates.



Even if the US government scraps plans for information collection or regulatory changes associated with PFAS, the public, NGOs and consumers will still be pressuring companies to move away from PFAS chemistries.

Thank you

If further information is required, please contact
Nadine Weinberg at nadine.weinberg@erm.com