

U.S. EPA Update on Recent PFAS Research and Regulatory Actions

SEMI Webinar

January 16, 2024

1:00-2:00pm (EST)

Introduction and Welcome

Dr. Michal Freedhoff
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EPA's PFAS Strategic Roadmap and Federal Coordination

Matt Klasen
PFAS Council Manager

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

- EPA Administrator Michael Regan established the EPA Council on PFAS in April 2021.
- The Council developed the PFAS Strategic Roadmap, released in October 2021 – a strategic, whole-of-EPA approach to protect public health and the environment from PFAS.
- The Roadmap:
 - Includes timelines for concrete actions from 2021-2024;
 - Fills a critical gap in federal leadership;
 - Supports states' ongoing efforts; and
 - Builds on the Biden-Harris Administration's commitment to restore scientific integrity.



EPA's Goals in the Strategic Roadmap

RESTRICT

Pursue 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

Broaden and accelerate the cleanup of PFAS contamination to protect human health and ecological systems.

RESEARCH

Invest in research, development, and innovation to increase understanding of

- Methods for measuring PFAS in the environment
- Assessing human health and environmental risks
- Evaluating and developing technologies for reducing PFAS

Key PFAS Roadmap Accomplishments: 2023



EPA's PFAS Strategic Roadmap: Second Annual Progress Report

December 2023

- **Making PFAS use safer** through robust chemical reviews and improving data
- **Holding polluters accountable** through enforcement and compliance and hazardous-substance designations
- **Protecting America's drinking water** through national drinking water standards and nationwide monitoring
- **Deploying Bipartisan Infrastructure Law funding** to address PFAS in water
- **Turning off the tap for industrial polluters** using Clean Water Act authorities
- **Advancing the science** of PFAS toxicity, exposures, and methods
- **Incorporating equity and environmental justice** through analyses, funding, data, and tools
- **Listening to and learning from communities**



U.S. Government Coordinated PFAS Approach

**Interagency Policy Committee on
PFAS** (Council on Environmental Quality)

PFAS R&D Strategy Team
(Office of Science & Technology Policy)

THE WHITE HOUSE



OCTOBER 18, 2021

**FACT SHEET: Biden-Harris
Administration Launches Plan to Combat
PFAS Pollution**



▶ [BRIEFING ROOM](#)

▶ [STATEMENTS AND RELEASES](#)

Recent PFAS Research and Development Activities

Dr. Susan Burden
PFAS Executive Lead
Office of Research and Development

Status of EPA Methods

Method*	Matrix	Status
Method 533	Drinking water	Final (2019)
Method 537.1	Drinking water	Final (2020)
SW-846 Methods 3512 and 8327	Surface water, groundwater, wastewater	Final (2021)
Draft Method 1633 (in partnership with DoD)	Surface water, groundwater, wastewater, soil, biosolids, sediment, landfill leachate, fish tissue	<ul style="list-style-type: none"> Multi-lab validation study completed for aqueous matrices (4th draft) Final method anticipated soon
Draft Method 1621 (adsorbable organic fluorine)	Surface water, wastewater	<ul style="list-style-type: none"> Multi-lab validation study anticipated soon
OTM-45 (polar, semivolatile PFAS)	Air emissions	<ul style="list-style-type: none"> Version 0 (2021) Updates anticipated soon
OTM-50 (nonpolar, volatile PFAS)	Air emissions	Anticipated soon

* [Terms Used to Describe the Standing of US EPA Methods](#) (2023)

Laboratory Methods: Research Underway

Aqueous	Solids	Air
<ul style="list-style-type: none">• FTOHs and related PFAS precursors in surface water, groundwater, wastewater, landfill leachate• Total oxidizable precursors assay for inclusion in SW-846• Extractable organic fluorine for drinking water	<ul style="list-style-type: none">• Leaching Environmental Assessment Framework (LEAF) for PFAS	<ul style="list-style-type: none">• Nonpolar, semivolatile PFAS in air emissions• FTOHs in indoor air

Non-Targeted Analysis Methods

- Advancing tools and resources for non-targeted analysis
 - [Best practices for non-targeted analysis \(BP4NTA\)](#)
 - [Practical application guide for the discovery of novel PFAS in environmental samples using high resolution mass spectrometry](#) (2023)
- Increasing technology transfer to states and EPA regional labs

2023 Research Highlights

Environmental Fate and Transport

- [Subsurface PFAS distribution at two contaminated sites](#)
- [Distribution of select PFAS at a chemical manufacturing plant](#)
- [Predictions of PFAS regional-scale atmospheric deposition and ambient air exposure](#)

Destruction and Disposal

- [A critical review of PFAS landfill disposal in the United States](#)
- [Pilot-scale thermal destruction of PFAS in a legacy AFFF](#)
- [Recent advances on PFAS degradation via thermal and nonthermal methods](#)

Human Health Toxicity Assessments

- Final: [PFPrA](#), [PFBA](#), [PFBS](#), [PFHxA](#), [GenX chemicals](#), [HQ-115/TFSI](#)

Reporting Rules under TSCA and TRI

Stephanie Griffin, Team Lead
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics

TSCA 8(a)(7) PFAS Reporting Rule

- Any person who's manufactured a PFAS for commercial purposes in any year since 2011 must report
- Finalized on October 11 (**40 CFR 705**)
- SEMI submitted public comments on the proposed rule, so to highlight some of the changes from the proposal:
 - Definition of "PFAS" includes 3 sub-structures
 - Reporting timeframe:
 - Most submitters have until **May 8, 2025** to report
 - Small article importers have until **November 10, 2025** to report
 - Two streamlined reporting forms:
 - Article importers
 - Manufacturers of R&D substances (<10 kg/year)

TSCA 8(a)(7) PFAS Reporting Rule – CBI Requirements

In addition to CBI claim requirements from 2016 Lautenberg Act and 2023 TSCA CBI procedural rule, the 8(a)(7) rule stipulated the following:

- Generic names/descriptions for PFAS chemical identities need to contain “fluor”
- Article importers are not required to assert or substantiate CBI claims for chemical identity
 - EPA will not make CBI claim determination for chemical identity based on article importer reports
- Joint submission requirements
 - Manufacturers (other than article importers) who do not know the specific PFAS identity (i.e., CAS name, CASRN, Accession number or LVE number) must initiate a joint submission with their supplier or other entity who is able to identify the specific PFAS and assert and substantiate a CBI claim as appropriate
 - If any entity (other than article importer) reporting the specific PFAS identity fails to assert and substantiate a chemical identity as CBI, EPA intends to start the process of moving that chemical identity to the public portion of the TSCA Inventory, following public notification via EPA’s website of the Accession numbers of PFAS that EPA intends to move to the public Inventory

PFAS as TRI Chemicals of Special Concern Rule

- Finalized on October 31 (updated **40 CFR 372**)
- Changes are effective with Reporting Year 2024, for data due by July 1, 2025
- Two major updates:
 1. All PFAS added to TRI due to FY 2020 NDAA are on the list of chemicals of special concern (40 CFR 372.28)
 - Facilities can't use the *de minimis* exemption for TRI reporting threshold & release calculations
 - Facilities cannot use the Form A Certification Statement for PFAS reporting
 - Form R range reporting options are limited
 2. For all chemicals of special concern (i.e., PFAS and PBTs), the *de minimis* exemption for supplier notification purposes is no longer available

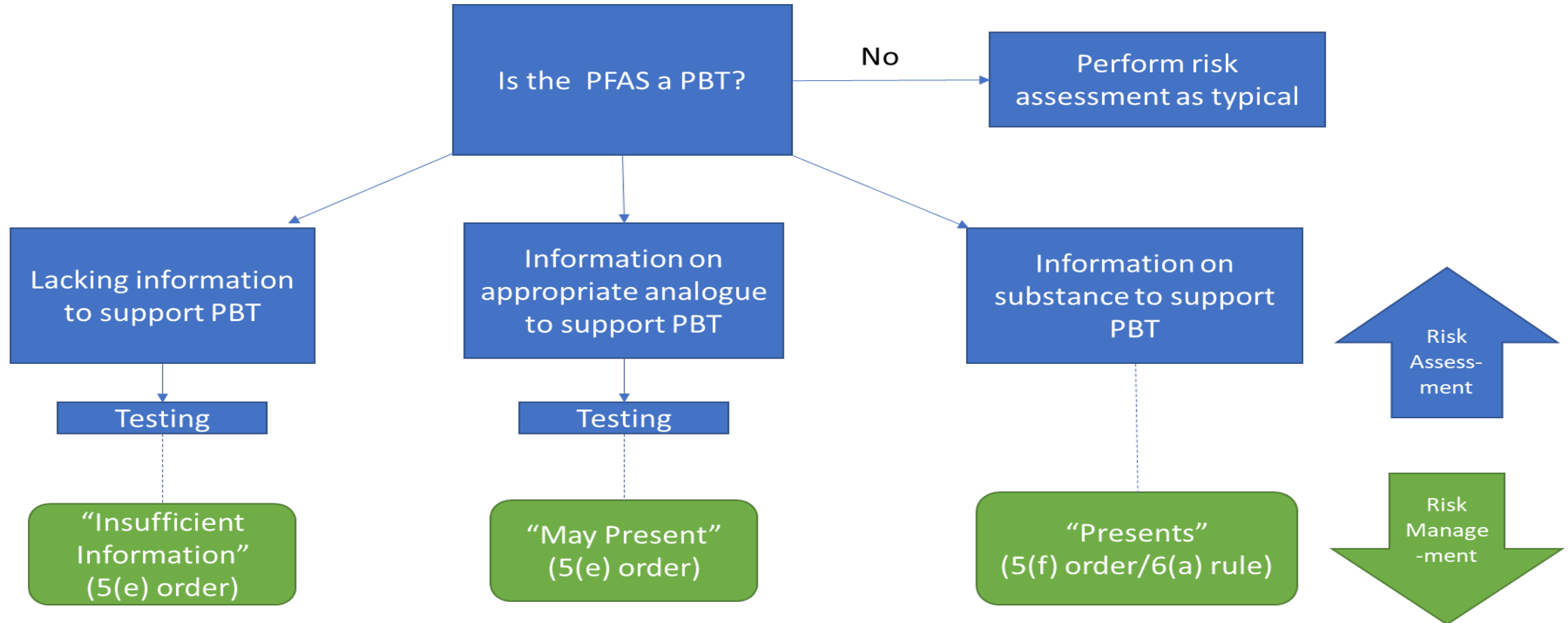
TRI Supplier Notification Reminders

- Supplier notifications must include:
 - Statement that a mixture/product contains a TRI chemical
 - Name & CASRN (or TRI chemical category ID) for each
 - Wt % of each TRI chemical in the mixture/product
- Notifications must be provided at least annually, in writing
 - If an SDS is required, supplier notification should be included in or attached to the SDS
 - New or revised notifications required if a mixture/product's composition changes w/r/t the TRI chemical(s), or if previous notification incorrectly identified the chemical(s) or weight
- Facilities/suppliers may be required to provide supplier notifications even if they aren't required to report to TRI
- Updates to the supplier notification requirement (i.e., no *de minimis* for chemicals of special concern) are in effect for 2024 shipments

Review and Management of New PFAS under TSCA

Shari Barash, Acting Director
Tyler Lloyd, Team Leader
New Chemicals Division
Office of Pollution Prevention and Toxics

New Chemicals PFAS Framework



New Chemicals PFAS Framework

Scenario A – “Negligible”

- PBT PFAS fully captured/negligible environmental release –e.g., all processes are fully enclosed
- Worker exposure fully mitigated – e.g., worker inhalation exposure is not expected (or is only negligible/non-quantifiable) under normal operations
- All waste is captured and disposed of in accordance with OLEM guidance
- No consumer exposures

Scenario B – “Low”

- All cases that don't fit into scenarios A or C
- No consumer exposures

Scenario C – “Expected”

- Release is essential to the use (e.g., traditional fire-fighting foams) or unavoidable due to the nature of the use

or

- Consumer exposure expected based on intended use

Updates to New Chemicals Regulations

- On May 26, 2023, EPA proposed amendments to the new chemicals procedural regulations under TSCA
- In the rule, EPA proposed to make PFAS categorically ineligible for low volume exemptions (LVEs) and low release and exposure exemptions (LoREXs)
- For the purposes of the rule, EPA proposed to define “PFAS” using a structural definition
 - The same definition was proposed for the Inactive PFAS SNUR and finalized in the 8(a)(7) rule

Updates to New Chemicals Regulations

- EPA did not propose any revocations as part of the proposed rule
- EPA solicited comment on revoking previously granted LVEs for PFAS pursuant to the existing process set forth in 40 CFR 723.50(h)(2)
- If finalized as proposed, the amendments to the exemption regulations would require all new PFAS to be reviewed through the PMN process
- EPA is reviewing public comments received on the rule
- EPA expects to finalize this rulemaking in the spring of this year

Questions