

Helpful information before you start

This series “*Fast Fluorinated Facts – PFAS in the News*” is a reoccurring series of 30-minute webinars that condense the rapidly evolving world of PFAS into what clients need to know and why they need to know it.

For each agenda topic (4 total), the presenter assigned will prepare + share 1-2 slides and have 5 minutes to present on their topic.

The key elements/slides of each agenda topic are:

1. **What happened?** – Regulatory update? News story?
2. **Why does it matter?** – How does this effect the client, what are the factors creating urgency around this topic? Is there a timeline of projected changes the client should be aware of... how can we graphically show that?

All slides that are not included within the “Default Section” will be deleted before presenting/sharing with clients.

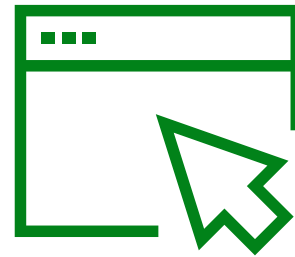
Note

- We want to keep this slide deck short and punchy (~12 slides); please add additional detail to an annex.
- You are also welcome to use the Graphics Library provided below to better articulate your message/thoughts.
- Guidance text is provided on each slide and should be removed before finalizing.
- **When providing me (Zach) with your final slides, please also include any links or attachments you would like to be provided to the attendees post webinar or that you would like me to share during your section within the webinar platform’s chat feature. Please clearly specify those details.**

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



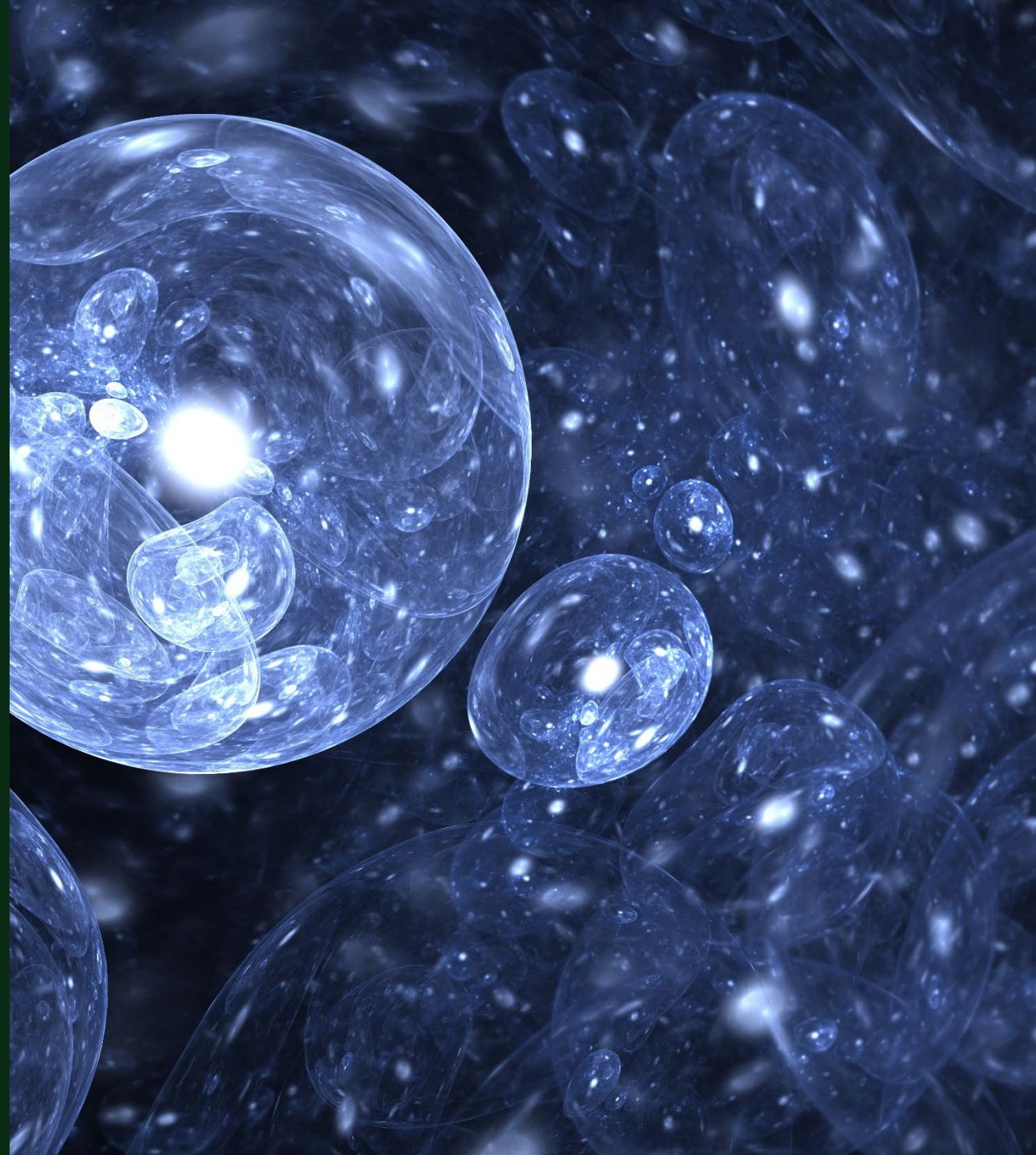
ERM WEBINAR SERIES: FAST FLUORINATED FACTS

PFAS in the News

FEBRUARY 7TH, 2024

Sustainability is our business

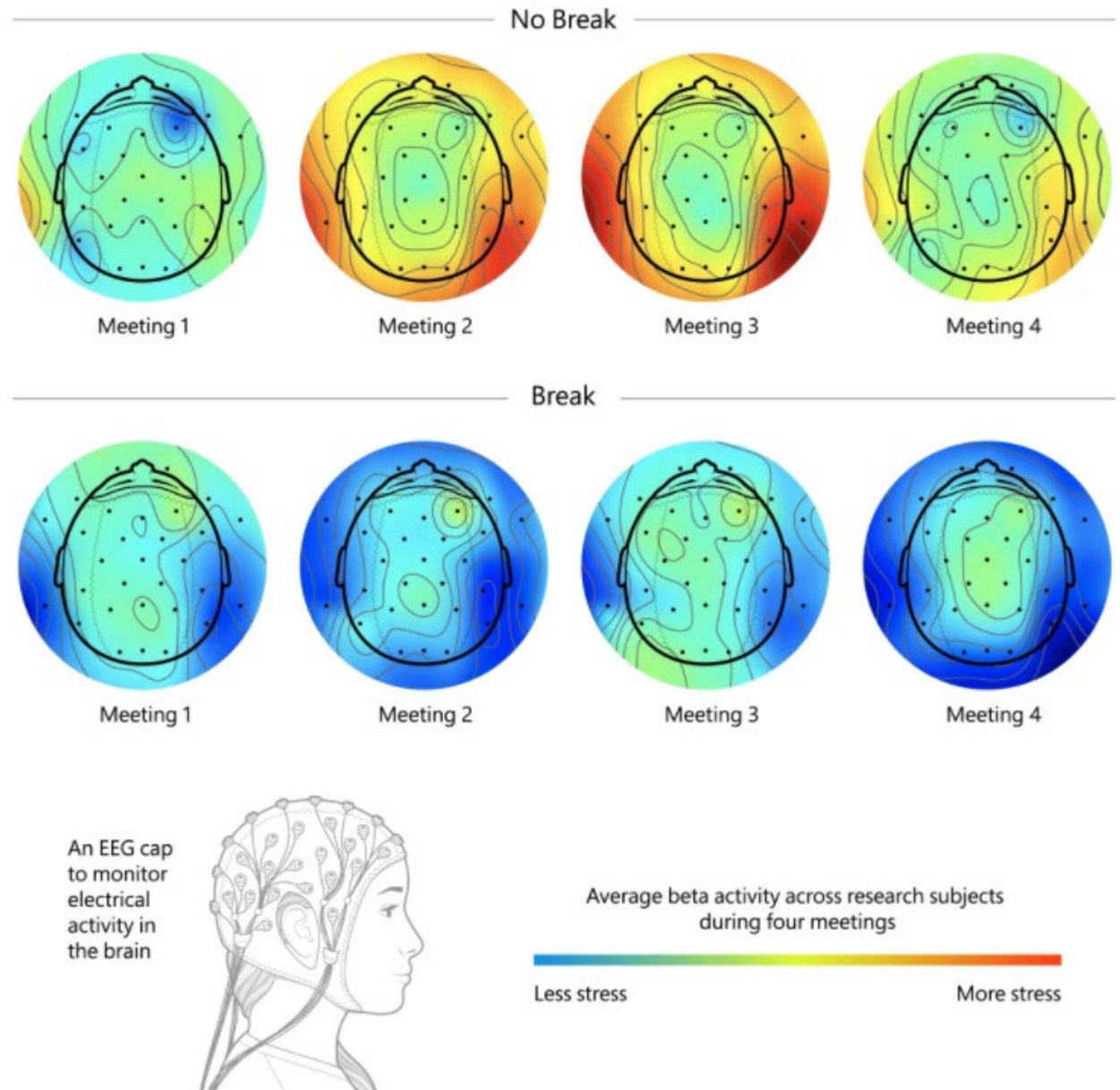
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Safety Moment

Meeting Management

- Breaks between meetings allow the brain to “reset,” reducing a cumulative buildup of stress across meetings
- Transitioning between meetings can be a source of high stress
- Back-to-back meetings can decrease your ability to focus and engage



Agenda/ Contents

- 1 IARC's reclassification of PFOA/PFOS as a carcinogen/possible carcinogen
- 2 USEPA's Recent Recommendation to Consider PFAS when Assessing Vapor Intrusion
- 3 TSCA Section 8(a)(7)
- 4 Critical EPA TRI Reporting Rule Change for PFAS

Speakers



Dr. Mark Lafranconi

Principal Technical
Consultant, Toxicologist



Dr. Jason Hnatko

Principal Technical
Consultant, Engineer



Kelly Mayo-Bean

Principal Technical
Consultant, Sustainable
Product & Supply Chain



Lori Dinkelman

Partner & TRI SME

IARC CLASSIFICATION OF PFOA & PFOS

Mark Lafranconi, PhD, DABT

IARC Classification of PFOA & PFOS

Results of November 2023 Meeting

International Agency for Cancer Research (IARC) evaluated the evidence that PFOA and PFOS cause cancer

- PFOA Carcinogenic to humans (Cat 1)
 - Strong mechanistic evidence
 - Sufficient evidence in animals
 - Limited evidence in humans
- PFOS Possibly carcinogenic to humans (Cat 2B)
 - Strong mechanistic evidence
 - Limited evidence in animals
 - Inadequate evidence in humans

International Agency
Research on Cancer



IARC MONOGRAPHS ON THE IDENTIFICATION
OF CARCINOGENIC HAZARDS TO HUMANS

**Volume 135: Perfluorooctanoic acid
and perfluorooctanesulfonic acid**

Lancet 2024 v25(1)p16

Consequences

PFOA & PFOS IARC Classification

Primarily indirect effects

- May influence future regulatory activity
- Public Perception
- Litigation



USEPA REPORT ON PFAS VAPOR INTRUSION

Jason Hnatko

EPA Report on PFAS Vapor Intrusion

What USEPA Reported

- Fluorotelomer alcohols (FTOHs) have vapor pressures (>1mm Hg) sufficient to be designated as vapor forming chemicals
- Studied two sites where volatile PFAS were in soil and upper groundwater
 - Fluoroelastomer production facility
 - Unlined municipal solid waste landfill
- Analyzed soil, soil gas, and groundwater (no indoor air)
- FTOHs found in subslab soil gas, especially near presumed source
 - FTOHs not detected in groundwater, likely migrated with soil gas
- PFCAs (PFBA, PFHxA, PFHpA, PFOA) also found in soil gas
 - Attributed to transport in water vapor, particulates, or transformation of FTOHs rather than gas migration
 - Also detected in groundwater and at depth





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Distribution of select per- and polyfluoroalkyl substances at a chemical manufacturing plant

[Brian A. Schumacher](#)^a  , [John H. Zimmerman](#)^b, [Alan C. Williams](#)^b, [Christopher C. Lutes](#)^c, [Chase W. Holton](#)^{d 1}, [Elsy Escobar](#)^e, [Heidi Hayes](#)^f, [Rohit Warriar](#)^g

“The vapor intrusion of volatile PFAS may pose health risks to building occupants and should, therefore, warrant consideration during vapor intrusion assessments at facilities where high concentrations are present in groundwater”

EPA Report on PFAS Vapor Intrusion

What does this mean for me?

This does not mean that vapor intrusion is a defined pathway or risk and vapor intrusion investigation and sampling is not warranted

- The study did not include indoor air sampling to demonstrate a complete pathway: “concurrent indoor air measurements would be needed to confirm a complete VI pathway.”
- There are no defined risks or screening levels for FTOHs and there are no soil vapor or indoor air screening levels for PFCAs
- The paper did not define “high concentrations” that would warrant consideration of VI

Other concerns:

- Commercially available analytical methods do not measure FTOHs
- Detections of PFCAs in soil gas are drawing attention but the authors explained that they are unlikely to migrate in soil gas due to their low volatility
 - Only detected in unfiltered samples, entrained in moisture or on particles

Detected in Unfiltered Samples ¹	Detected in Filtered Samples ¹
4:2 FTOH, 5:2 sFTOH, 6:2 FTOH, 7:2 sFTOH, 8:2 FTOH, 10:2 FTOH	4:2 FTOH, 5:2 sFTOH, 6:2 FTOH, 7:2 sFTOH, 8:2 FTOH, 10:2 FTOH
PFHxA, PFHpA	no PFCAs

This study does show that USEPA is considering the VI pathway for PFAS and more studies, guidance, and regulation are likely



¹During NJ Field event 2

**TSCA SECTION 8 (a)(7)
PFAS REPORTING RULE**

Kelly Mayo-bean

TSCA Section 8 (a)(7) PFAS Reporting Rule

In accordance with requirements of the National Defense Authorization Act of 2020, EPA recently finalized a rule under Section 8 of the Toxic Substances Control Act (TSCA) to collect information on PFAS substances.

- Final rule published October 11, 2023 and became effective November 13, 2023.
- This rule outlines *information collection* and is not imposing specific regulations.
- Importers and manufacturers of “PFAS” must report certain information about activities with PFAS, by site, in any quantity (no threshold applies), for each calendar year from 2011 through 2022.

Timeline and Reporting Deadlines

Action	Date
Information collection period	NOW!!!
PFAS reporting module opens in the EPA Central Data Exchange System (CDX)	November 2024
Reporting closes in CDX for manufacturers/importers	May 8, 2025
Reporting closes in CDX for small manufacturers/importers (as defined in 40 CFR 704.3) exclusively as part of an article	November 10, 2025

Compliance Difficulties

The rule does not define a list of reportable substances. It defines “PFAS” and leaves it up to the regulated community to determine their obligations.

Traditional TSCA exemptions no longer apply for this rule. Reporting includes:

- **PFAS imported as part of finished articles**
- **PFAS handled solely for research and development (R&D)**
- **PFAS imported/manufactured as byproducts, impurities, or non-isolated intermediates.**

Includes reporting of traditional site-specific information (e.g., category of use, volumes) – **AND** - all existing information concerning environmental and health effects of each substance or mixture.

<https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/tsca-section-8a7-reporting-and-recordkeeping>

**CRITICAL EPA TRI
REPORTING RULE
CHANGE FOR PFAS**

Lori Dinkelman

US Toxic Release Inventory (TRI) Reporting Program

What is the TRI?



- Learn why the TRI was created and what chemicals and industry sectors it covers

Report TRI Data



- Resources for facilities to complete and submit TRI reporting forms

Access & Use Data



- TRI data, materials for specific audiences, and examples for TRI uses

Updates to TRI Reporting for PFAS

EPA's October 31, 2023 Final Rule adds all PFAS chemicals regulated under TRI to the list of "Chemicals of Special Concern" (i.e., Persistent, Bioaccumulative, and Toxic (PBT) list), including any PFAS chemicals added in the future under Sections 7321(b) and 7321(c) of the National Defense Authorization Act (NDAA)

Eliminates de minimis exemption for Manufacture, Process or Otherwise Use Threshold Assessments

Eliminates Form A reporting option

Eliminates range code reporting option

- **Reporting Threshold will remain 100 lbs/year for each individual PFAS**
- **Changes to TRI Reporting for PFAS is Effective January 1, 2024 for Reporting Year 2024 Reports Due July 1, 2025**

TRI Program Facilitates Community Right-to-Know

TRI Report submittals will provide a continual source of **publicly available information on PFAS use & releases** to the environment throughout the U.S.



Find Out What's Happening in Your Neighborhood
Using EPA's Toxics Release Inventory (TRI)

Do nearby industrial facilities release toxic chemicals?

What chemicals are they releasing?

What is being done to reduce chemical releases?

TRI can help you find the answers!

Learn About TRI in Your Community

Get Location-Based Factsheets and Information on Specific Facilities

Search by: State Metropolitan Area Watershed Tribe Facility

Select: State: or Zip Code: City: County:

Note: "Learn About TRI in Your Community" uses data from reporting year 2017. EPA updated these data in April 2019, and they are the most recent TRI data available.

The Toxics Release Inventory in Action:
Media, Government,
Business, Community and
Academic Uses of TRI Data



Updates to EPCRA Supplier Notification

In support of this requirement, EPA's final rule also:

- Eliminates the de minimis exemption under EPCRA Supplier Notification Requirements for **all** substances on the “chemicals of special concern” list (PBTs and PFAS)
 - Formerly carcinogens present at <0.1% and non-carcinogens at <1% did not have to be disclosed

Suppliers are now required to disclose TRI regulated PFAS chemicals, as well as all other TRI regulated PBT chemicals, at any concentration in their products

This regulatory change will create the disclosure needed for regulated facilities to identify regulated PFAS/PBTs in raw materials and products



Changes to Supplier
Notification are Effective
November 30, 2023

Impact of Updates to EPCRA Supplier Notification

A facility in SIC codes 20 through 39 that imports, manufactures or processes a TRI chemical and then sells or otherwise distributes a product that contains a TRI chemical to another TRI regulated facility must provide the receiving facility the following information in writing, contained in or attached to the SDS:

- 01 A **statement** that the mixture or trade name product **contains a toxic chemical or chemicals** subject to the TRI reporting requirements
- 02 The **name** of each toxic chemical, and the associated **CAS number** of each chemical, if applicable; and
- 03 The **percent by weight** of each toxic chemical in the mixture or trade name product.

FOR PFAS/PBTS

Now required to disclose at ANY concentration in products

Non-carcinogenic chemicals present at >1%

Carcinogenic chemicals present at >0.1%

Existing TRI PBTs	
Aldrin	
Benzo(g,h,i)perylene	
Chlordane	
Dioxin and Dioxin-Like Compounds	★
Heptachlor	
Hexabromocyclododecanes (HBCD)	★
Hexachlorobenzene	
Isodrin	
Lead (not in stainless/brass/bronze)	
Lead Compounds	★
Mercury	
Mercury Compounds	★
Methoxychlor	
Octachlorostyrene	
Pendimethalin	
Pentachlorobenzene	
Polychlorinated biphenyl (PCBs)	★
Polycyclic Aromatic Compounds (PACs)	★
Tetrabromobisphenol A	
Toxaphene	
Trifluralin	

Thank you

If further information is required, please contact:

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