



Welcome Participants



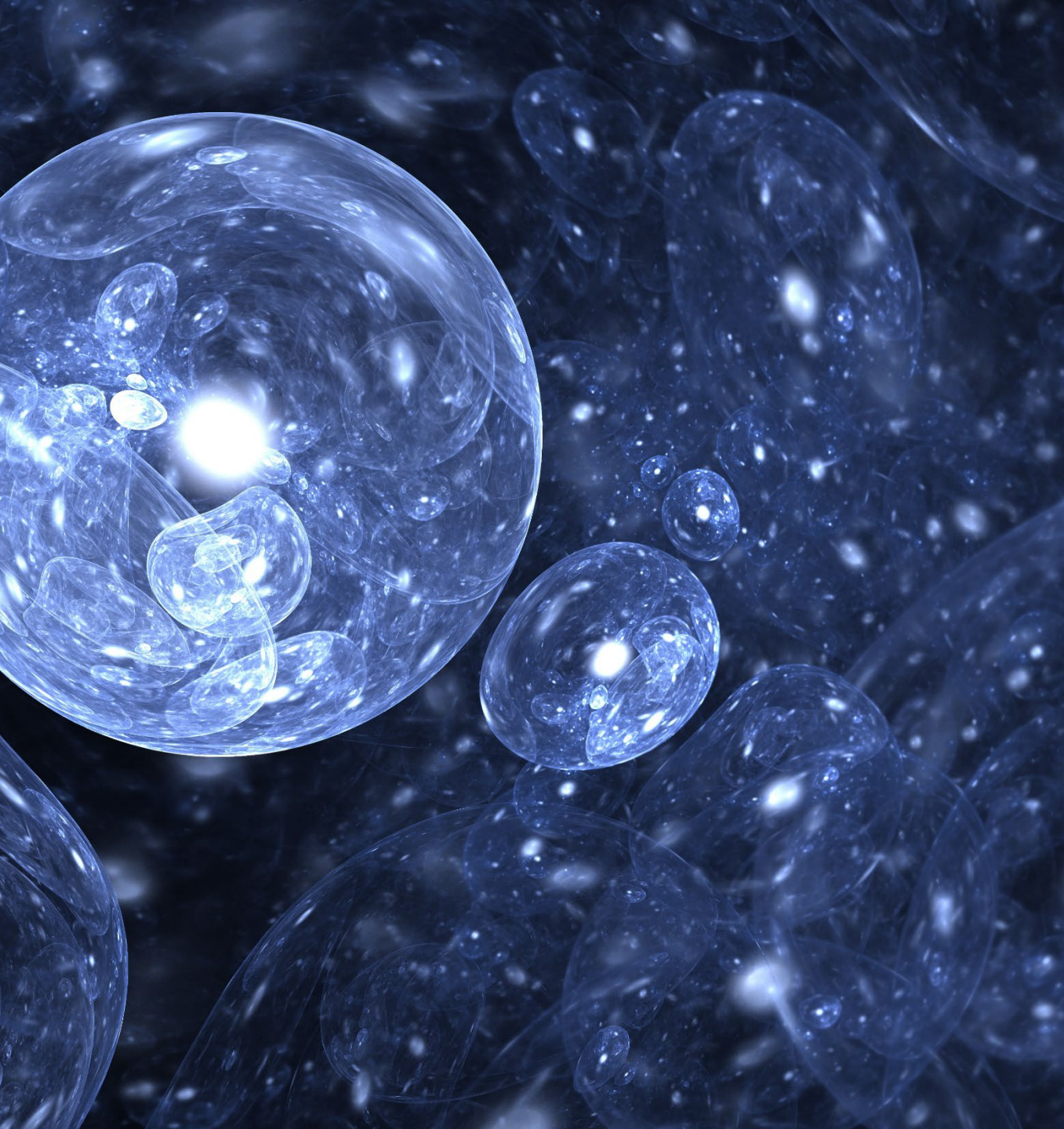
Your **lines have been muted** to ensure our presenters are not distracted by background noise



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

25 January 2023

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The business of sustainability



H&S Moment – *Supporting an Inclusive H&S Workplace*

When we are out in the field, it is important to remember that staff come from a variety of backgrounds.

Keeping that in mind, ERM supports equitable and inclusive work environments for everyone and seeks to create a safe psychological space for all employees to voice their concerns at any time.

If anyone on our projects experiences discrimination or harassment based on their gender identity, sexual orientation, race / ethnicity, social status, religion, or disabilities, they are empowered to:

- Stop work
- Leave the project site
- Report the circumstances to the project team
- Notify 911 in situations with immediate concerns for employee safety and well-being

The ERM H&S Team is currently collaborating with our Employee Resource Groups to enhance the DE&I sections within current HASPs templates to:

- Reinforce that ERM does not tolerate discrimination or harassment; and
- Strengthen mitigation measures to support inclusive work environments



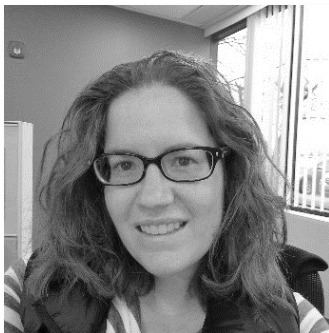
Speakers



Mark Lafranconi, PhD, DABT
Principal Toxicologist
Cincinnati, OH



Sara Meyer
Principal Consultant
Holland, MI



Katie Merrick
Senior Consultant, Scientist
Syracuse, NY



Lori Dinkelman
Partner, Scientist
Holland, MI



AGENDA

01

WHO guidelines for drinking water quality

02

Proposed removal of TRI de minimis levels for PFAS

03

Updated EPA guidance for NPDES permits

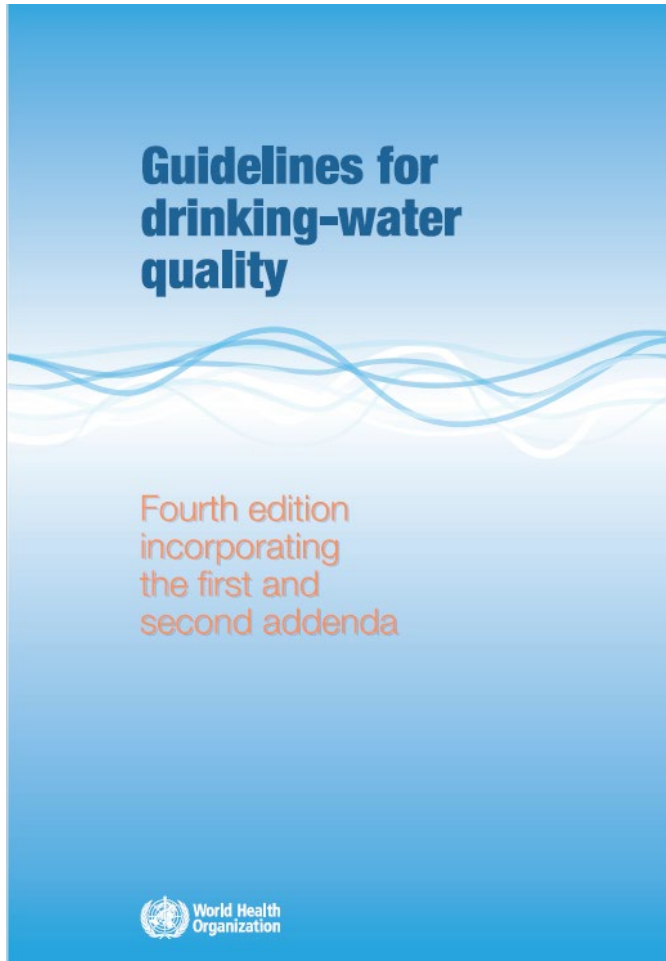
04

Updates to EPA All Appropriate Inquires Rule

WORLD HEALTH ORGANIZATION (WHO) DRINKING WATER GUIDELINES - PFAS

MARK LAFRANCONI

WHO Guidelines for Drinking Water Quality



- Fifth Edition – Anticipated November 2023
- Includes PFOA, PFOS and total PFAS
- Provisional Guideline Values (PGVs)
 - 0.1 $\mu\text{g/L}$ PFOA/PFOS
 - 0.5 $\mu\text{g/L}$ Total PFAS
- Based on achievable technology
- Considers PFAS as a category

Impact

Significant Controversy

- Treatment – Based Standards
VS
- Health-Based Standards



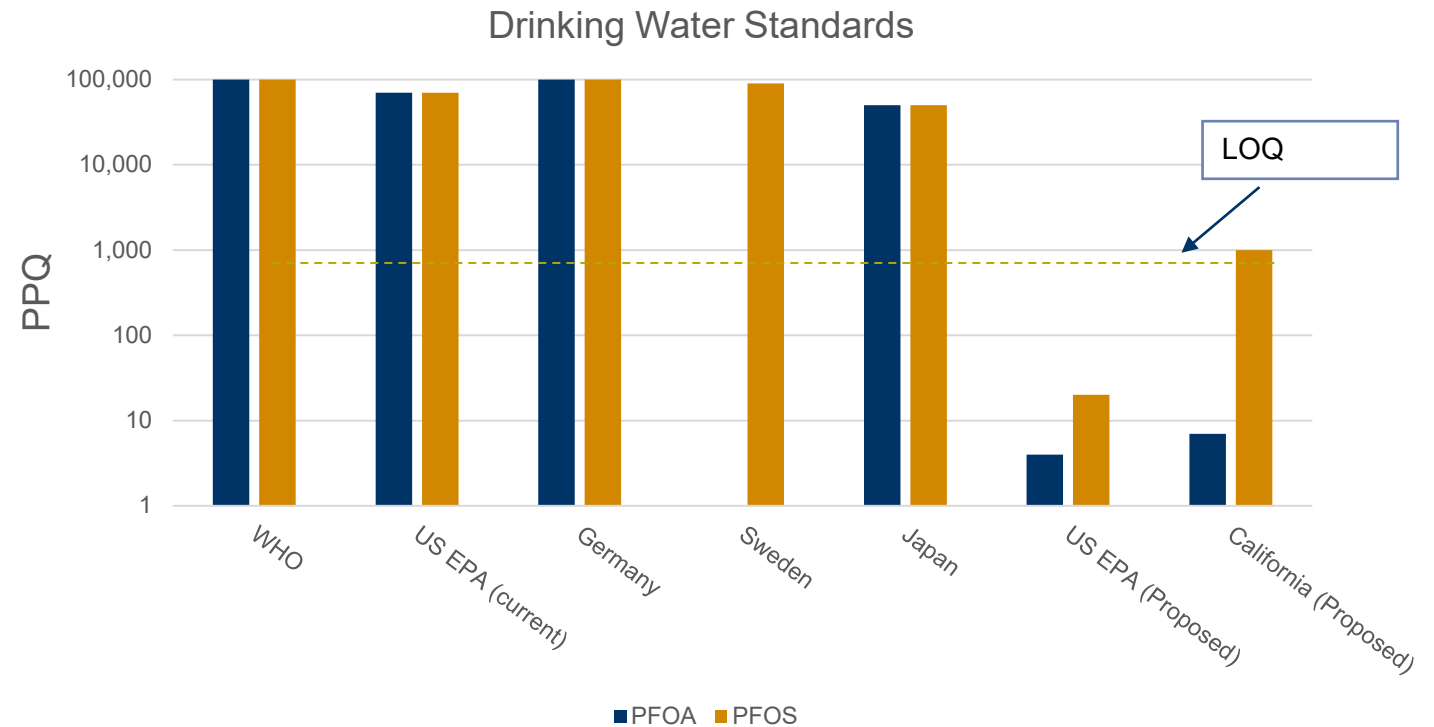
November 10, 2022

Bruce Gordon
Unit Head, Water, Sanitation, Hygiene and Health
World Health Organization

RE: Scientists Letter: The World Health Organization Should Significantly Revise or Withdraw Its Draft PFAS Drinking Water Guidelines

Dear Mr. Gordon,

We, the undersigned 116 scientists, who are experts on per- and polyfluoroalkyl substances (PFAS), including health effects and water treatment technologies, are writing to express concerns about the draft "[Background document for development of WHO Guidelines for Drinking-water Quality](#)" for PFOS and PFOA. We strongly recommend that this document be significantly revised and the numerous peer-reviewed scientific studies demonstrating



Likely Outcome

Drinking water standards to default to available treatment technologies as recommended by WHO

UPDATED EPA NPDES PERMIT GUIDANCE

SARA MEYER

PFAS in NPDES Permits – Updated in December 2022

EPA Memo in December 2022 titled “Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program & Monitoring Program”

■ APPLICABLE DISCHARGERS

- Specific Industry Categories
- May include other dischargers

■ MONITORING

- Draft Analytical Method 1633 – all 40 PFAS
- Conducted at least quarterly
- All PFAS data must be included in Discharge Monitoring Reports (DMRs)

■ BEST MANAGEMENT PRACTICES

- Product elimination or substitution
- Optimizing operations & good housekeeping
- Equipment decontamination or replacement

PFAS in NPDES Permits

■ STORMWATER BMPs

- Only addresses AFFFs
- Prohibit use of AFFFs other than actual fire-fighting
- Eliminate PFOA/PFOS
- Require immediate cleanup in all situations where AFFF have been used

■ PERMIT LIMITS

- Applicable effluent guidelines
- Site-specific, technology-based
- Water Quality-Based Effluent Limits (WQBELs)
- Numeric criterion
- Public Notice

■ WHAT COMES NEXT

- 2023 potential for new water program PFAS rules
- 2024 Categorical Limits
- PFAS Enforcement

PFAS- CHANGES TO CERCLA STANDARDS AND PRACTICES FOR ALL APPROPRIATE INQUIRIES

KATIE MERRICK

CERCLA and AAI Updates



Designation: E1527 – 21

Standard Practice for
Environmental Site Assessments: Phase I Environmental
Site Assessment Process¹

What is AAI and why is it important?

- All appropriate inquiries (AAI) is the process of evaluating a property’s environmental condition to assess potential liability for any contamination. AAI is used to satisfy requirements to claim liability protection under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

What changed?

- On 15 December 2022, EPA announced that they had amended the AAI rule to reference ASTM International's E1527-21 “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process”. This is effective 13 February 2023.
- There is a one-year grace period to use the previous ASTM E1527-13 standard
- The revised ASTM Standard addresses emerging contaminants in the context of AAI.

PFAS and AAI

How are PFAS handled under AAI and the ASTM Phase I ESA process?

- PFAS compounds are classified under the heading of emerging contaminants in the revised ASTM E1527-21 standard.
 - Emerging contaminants are *not required* to be in the scope of an ASTM AAI compliant report, but they *may* be included
- An AAI compliant Ph I ESA must address the presence or likely presence of CERCLA listed compounds at a Subject Property and classifies them as a Recognized Environmental Condition (REC), Historical REC (HREC), or Controlled REC (CREC).
- Other items can be classified as de minimis risks, or non-ASTM concerns.
- **Future changes coming:** EPA has posted a Notice of Proposed Rulemaking (NPRM) Designating PFOA and PFOS as CERCLA Hazardous Substances. The designation is pending.

Researching PFAS

How can the likelihood for PFAS impacts at a Subject Property addressed?

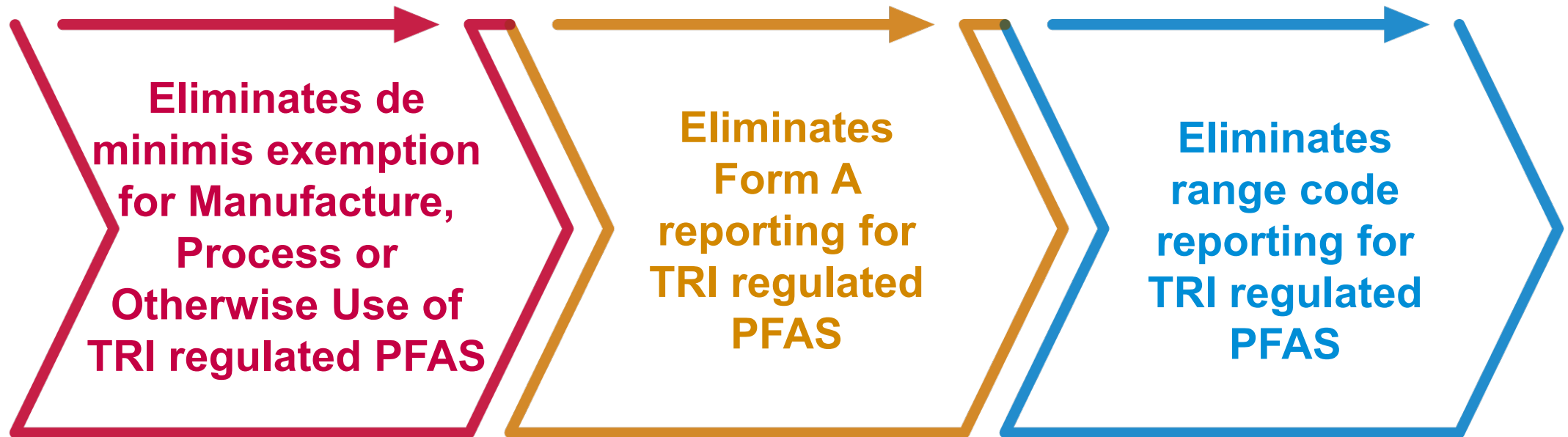
- PFAS data can be obtained from both federal (EPA) and state agencies. The availability of regulatory information and sampling data related to PFAS on a state level varies; however, availability of public information is improving.
- Environmental database reports are available from several third-party providers (e.g. ERIS, EDR) that contain PFAS-related databases from the local, state, and federal levels. These providers are often used as a source of information while conducting AAI compliant reporting.
- The potential for PFAS to be present at a Subject Property can also be assessed through interviews with operations and/or management personnel, and review of documentation.

**PROPOSED RULE TO CHANGE
TOXIC RELEASE INVENTORY (TRI)
REPORTING REQUIREMENTS
& EPCRA SUPPLIER
NOTIFICATION REQUIREMENTS**

LORI DINKELMANN

Proposed Updates to TRI Reporting for PFAS

EPA's December 5, 2022 Proposed Rule adds all 189 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)



Proposed Updates to TRI Reporting for PFAS

In support of this requirement, EPA’s proposed rule also:

- Eliminates de minimis exemption under EPCRA Supplier Notification Requirements for all substances on “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 now required to disclose TRI regulated PFAS chemicals, as well as all other TRI regulated PBT chemicals, at any concentration in their products.

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

Comments must be received on or before February 3, 2023;
EPA intends to issue a final rule in November 2023

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

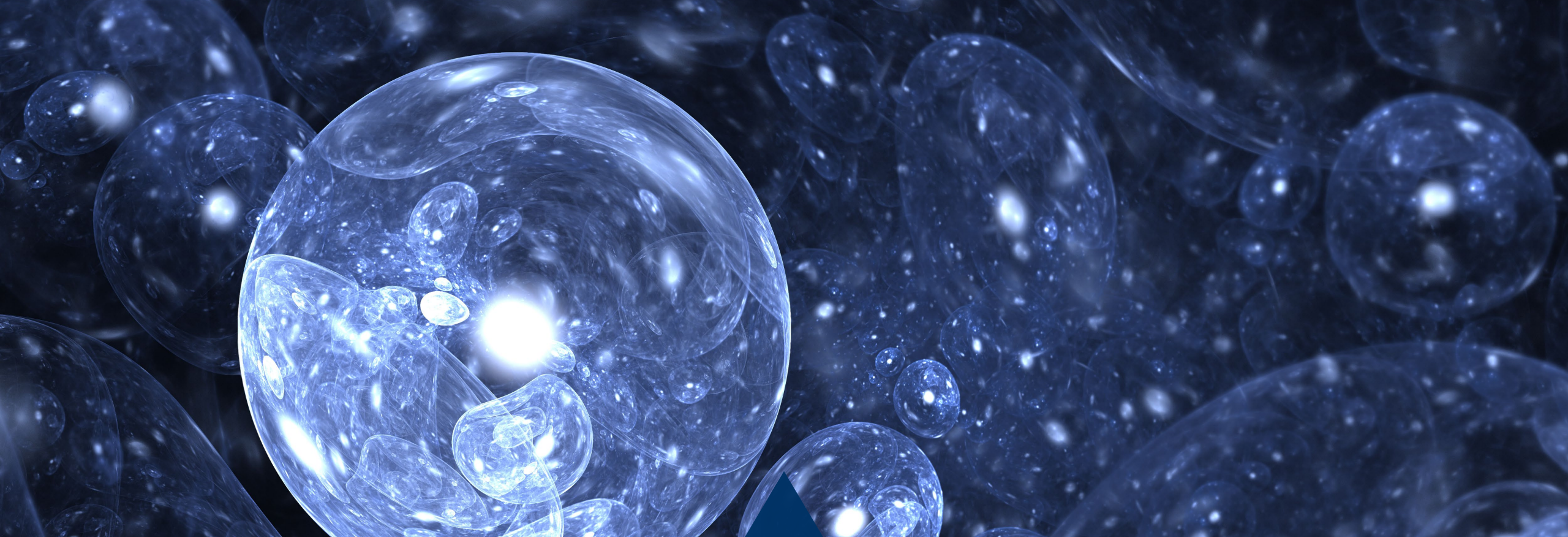
Polychlorinated biphenyl (PCBs)

Polycyclic Aromatic Compounds (PACs)

Tetrabromobisphenol A

Toxaphene

Trifluralin



Thank you.

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