

The Science of PFAS

Chipping Away at the Details

Raleigh, North Carolina, USA
23-25 January 2024

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TECHNICAL AGENDA – Tuesday, January 23

Registration
7:30 am – 5:00 pm
Oak Forest Foyer

Continental Breakfast
7:30 am – 8:30 am
Oak Forest Foyer

OPENING KEYNOTE PLENARY

PFAS Regulation and Science Initiatives in Federal and State Agencies

8:30 am – 10:00 am

All conference sessions will be in the Oak Forest Ballroom

Welcome and Introduction

Lara Phelps, US EPA, Office of Research and Development (ORD), Center for Environmental Measurement and Modeling (CEMM), and Michele Karnes, Coterie Environmental
James Walker, A&WMA President, Consumers Energy

Plenary presenters include:



Elizabeth Biser
Secretary, North Carolina
Dept. of Environmental
Quality



Chris Frey, Ph.D.
Assistant Administrator
for Research and
Development, US EPA



Abigail Hendershott
Executive Director,
Michigan PFAS Action
Response Team



Sushma Masemore
Asst. Secretary for
Environment, North
Carolina Dept. of
Environmental Quality

Keynote sponsored by:



10:00 am – 10:20 am
Networking Break and Exhibition Viewing
Oak Forest Foyer and Ballroom

All breaks are sponsored by
our Silver Sponsors:



SESSION 1: PFAS FORENSICS – USING SCIENCE TO IDENTIFY SOURCES

Co-Chairs: Elizabeth Denly, TRC, and Lara Phelps, US EPA, ORD, CEMM

10:20 am – 10:40 am
A Forensic Approach for PFAS Source Tracking Using High Resolution Mass Spectrometry Tools...N/A
Dr. Kavitha Dasu, Battelle

10:40 am – 11:00 am
PFAS Source Identification: Tips for Forensics Evaluations...1
Elizabeth Denly, TRC

11:00 am – 11:20 am
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Mark J. Benotti, Ph.D., and Trevor Schwichtenberg, Ph.D., NewFields

11:20 am – 11:40 am
Using High Resolution Mass Spectrometry for Environmental Forensics for New and Emerging PFAS from Industrial Production and Use Sites...23
Mark Strynar, Ph.D., US EPA

11:40 am – 12:00 pm
Recent Technical Advances in Continuous Real-Time Optical Field Monitoring of Volatile PFAS and Breakdown Products...33
Curtis Laush, Ph.D., Spectrum Environmental Solutions

12:00 pm – 12:10 pm
Question and answer period

Lunch sponsored by:

12:10 pm – 1:20 pm
Conference Lunch

(Lunch buffet will be in the foyer with seating in the Oak Forest Ballroom, Willow Oak, and Pin Oak Rooms)



TECHNICAL AGENDA – Tuesday, January 23, con't.

SESSION 2: PFAS HEALTH EFFECTS

Co-Chairs: Loren Lund, Ph.D., Jacobs, and Mike Devito, US EPA, ORD, CCTE

1:20 pm – 1:40 pm

PFAS Toxicity and Health Effects – Regulatory Updates...38

Loren Lund, Ph.D., Jacobs

1:40 pm – 2:00 pm

Comparison of Approaches for Evaluating Relative Toxicity and Risk of PFAS Mixtures...N/A

Barrie Selcoe, Jacobs

2:00 pm – 2:20 pm

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Joost van 't Erve, Ph.D., Michigan Department of Health and Human Services (MDHHS)

2:20 pm – 2:40 pm

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Leah Wehmas, Ph.D., US EPA ORD

2:40 pm – 2:50 pm

Question and answer period

2:50 pm – 3:10 pm

Networking Break and Exhibition Viewing

SESSION 3: PFAS MEASUREMENT METHODS AND TECHNIQUES

Co-Chairs: Bill Troxler, Focus Environmental, and Erin Shields, US EPA

3:10 pm – 3:30 pm

Overview of OTM-50...71

Stephen Jackson, Ph.D., US EPA

3:30 pm – 3:50 pm

Tracking Organic Fluorine by Plasma-based Mass Spectrometry...N/A

Kaveh Jorabchi, Ph.D., Georgetown University

3:50 pm – 4:10 pm

Novel Extraction and Analysis Methods for the Measurement of 44 Diverse PFAS in Fish and Benthic Macroinvertebrate Tissues...N/A

Jill Kerrigan, Ph.D., 3M

4:10 pm – 4:30 pm

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Jelle Hofman, Ph.D., VITO NV

4:30 pm – 4:50 pm

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Griet Jacobs, VITO NV

4:50 pm – 5:00 pm

Question and answer period

5:15 pm – 6:15 pm

Networking Reception in the Exhibit Area

Join our exhibitors, sponsors, presenters, and colleagues for an informal reception to build relationships in the industry. Drink ticket included with full conference registration.

The reception is brought to you by our Gold Sponsors:



Exhibits will be located in the Oak Forest Ballroom and Foyer. These industry-leading companies will be on site displaying their products and services at the conference. Stop by during one of the breaks, lunches, or the reception to learn more.

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TECHNICAL AGENDA – Wednesday, January 24

Registration
7:30 am – 5:00 pm

Continental Breakfast
7:30 am – 8:30 am

12:00 pm – 1:15 pm
Conference Lunch

Lunch sponsored by:



SESSION 4: PFAS IN WATER

Co-Chairs: Jeffrey McDonough, ERM, and Phillip Potter, Ph.D., US EPA

8:30 am – 8:50 am

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Lloyd Hill, US EPA ORD

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Dr. Ian Ross, CDM Smith

9:10 am – 9:30 am

PFAS Fate and Transport in Wastewater...135
Dr. Matt Reeves, Western Michigan University

9:30 am – 9:50 am

State Agency Perspective on Quantifying PFAS in Waters of the State and Potential Mitigation of Sources...N/A
Julie Grzyb, Deputy Director, Division of Water Resources NCDEQ

9:50 am – 10:00 am

Question and answer period

10:00 am - 10:20 am

Networking Break and Exhibition Viewing

SESSION 5: APPLIED BIOSOLIDS – POTENTIAL IMPACTS AND RISKS

Co-Chairs: Matt Traister, Ramboll, and Poonam Giri, NC DEQ

10:20 am – 10:40 am

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Sydney Ruhala, Michigan EGLE

10:40 am – 11:00 am

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Brad De Vore, J.D., Jimmy Kirkland, Grace Hearn, Womble Bond Dickinson

11:00 am – 11:20 am

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Max Krause, Ph.D., US EPA ORD

11:20 am – 11:40 am

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Jeremy Labbe, P.E., Casella Waste Systems

11:40 am – 11:50 am

Question and answer period

SESSION 6: MANAGEMENT OF PFAS IN LANDFILL LEACHATE

Co-Chairs: Ivan Cooper, Civil & Environmental Consultants, Inc, and Stephanie Bolyard, NC DEQ

1:15 pm – 1:20 pm

Intro to PFAS Sources to Landfills and Strategies for Short- and Long-term Reduction...188
Ivan Cooper, P.E., BCEE, Civil & Environmental Consultants, Inc.

1:20 pm – 1:50 pm

Discussion Panel: PFAS Removal from Landfill Liquids
Panelists include:

Reverse Osmosis: *Bernie Rieder, Rochem*

Foam Fractionation: *Rob Rappold, Allonnia*

FluoroSorb—Surface Modified Clay for PFAS Adsorbance:
Matt Geary, CETCO

1:50 pm – 2:20 pm

Discussion Panel: PFAS Destruction from Leachate Residuals
Panelists include:

Supercritical Water Oxidation (SCWO): *Sudhakar (Sunny) Viswanathan, 374 Water*

Plasma: *Daniel Cho, Onvector*

Electrochemical Oxidation: *Chad Felch, Lummustech*

2:20 pm – 2:50 pm

Discussion Panel: Implementation Strategy

This panel will include perspectives from State Regulators and Waste Management companies with a focus on leachate treatment strategies and how to implement these technologies, permitting processes, and lessons learned. Speakers include:

Michael Scott, Director of NCDEQ Division of Waste Management

Matt Einsmann, P.E., Team Environmental Manager, Republic Services

2:50 pm – 3:00 pm

Question and answer period

3:00 pm – 3:20 pm

Networking Break and Exhibition Viewing

TECHNICAL AGENDA – Wednesday, January 24, con't.

SESSION 7: PFAS IN AIR

Co-Chairs: John Offenberg, US EPA, ORD, CEMM, and Mingming Lu, University of Cincinnati

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Matt Traister, Ramboll

3:40 pm – 4:00 pm

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Heather Stapleton, Ph.D., Ronie-Richele Garcia-Johnson Distinguished Professor, Nicholas School of the Environment

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Evan Christianson, Barr Engineering

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Dr. Jason Surratt, University of North Carolina

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Rachel Velthuisen, Ph.D., TRC

5:00 pm – 5:10 pm

Question and answer period

TECHNICAL AGENDA – Thursday, January 25

Registration

7:30 am – 3:00 pm

Continental Breakfast

7:30 am – 8:30 am

SESSION 8: PFAS DISPOSAL AND DESTRUCTION

8:00 am – 10:00 am

Co-Chairs: Mel Keener, Coalition for Responsible Waste Incineration, Kavitha Dasu, Battelle, and Jonathan Krug, US EPA

8:00 am – 8:20 am

Thermal Decomposition of PFAS: Insights into the Formation of PICs...N/A

Dr. Nathan Weber, US EPA ORD

8:20 am – 8:40 am

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Shalene Thomas, Battelle

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Dr. Jimmie Oxley, University of Rhode Island

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James Mattila, Ph.D., US EPA

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Trevor Whitson, Revive Environmental

9:40 am – 10:00 am

Question and answer period

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10:00 am – 10:20 am

Networking Break and Exhibition Viewing

Co-Chairs: Johnsie Lang, Arcadis, and Max Krause, US EPA

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Baxter Miatke, P.E., Arcadis

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Rebecca Distefano, Calgon Carbon Corporation

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Katie Henderson, Ovivo

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Chad Felch, Lummustech

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Question and answer period

Lunch sponsored by:

12:00 pm – 1:10 pm
Conference Lunch



TECHNICAL AGENDA – Thursday, January 25, con't.

SESSION 10: PFAS INVESTIGATIONS AND REGULATIONS AT THE STATE LEVEL

Co-Chairs: Taryn McKnight, Eurofins, and Adam Driscoll, Barr Engineering

1:10 pm – 2:40 pm

Hear from practitioners at the States on the collection and evaluation of PFAS data along with the development of policy and regulations.

Speakers include:

- **Anthony (Tony) Bollasina, P.G.**, New York State Department of Environmental Conservation
- **Natalie Johnson, Ph.D.**, Section Chief, Technical Support and Site Discovery, Northeast Region, Massachusetts Department of Environmental Protection
- **Frannie Nilsen, Ph.D.**, Environmental Toxicologist, Secretary's Office, North Carolina Department of Environmental Quality
- **Jennie Willemsen, Ph.D.**, Research Scientist, New Jersey Department of Environmental Protection

2:40 pm – 3:00 pm

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Jennifer Willemsen

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Co-Chairs: Taryn McKnight, Eurofins, Adam Driscoll, Barr Engineering, and Aaryn Jones, US EPA

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Aaryn Jones, EPA Region 4, Office of the Regional Administrator

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Schatzi Fitz-James, EPA OLEM Office of Superfund Remediation and Technology Innovation, and Brian Schlieger, EPA OLEM Office of Emergency Management

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Erik R. Hanselman, J.D., OECA, Office of Site Remediation Enforcement

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Jeff Dawson, Office of Chemical Safety and Pollution Prevention, US EPA

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Question and answer period

4:30 pm – 4:40 pm

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Lara Phelps, US EPA, ORD CEMM

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