

Advancing PFAS Treatment and Remediation Solutions 2025

Minneapolis, Minnesota, USA
13 - 15 May 2025

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FINAL PROGRAM

TECHNICAL PROGRAM – Tuesday, May 13

OPENING KEYNOTE PLENARY

7:00 am – 5:00 pm Registration Open in Orchestra Foyer with continental breakfast

8:00 am – 9:40 am, Orchestra Ballroom CD

Welcome and Introduction 1

Jim Walker, A&WMA Immediate Past President, Consumers Energy

Moderated by Dr. Jim Anderson, Special Projects Director, Corporate Research Laboratory, 3M

Keynote Plenary sponsored
by our General Sponsor



Dr. Kim Spangler 7

Executive Director, SERDP
and ESTCP, Office of the
Deputy Assistant Secretary
of Defense for Energy
Resilience & Optimization



Dr. John Banovetz 16

Executive Vice President,
Chief Technology Officer
and Environmental
Responsibility, 3M

9:40 am – 10:00 am Networking Break and Exhibition Viewing – Conrad Rooms

A Sessions will be held in the Orchestra Ballroom CD

SESSION 1A: SORPTION & FILTRATION PART 1

Session Chair: Dr. Sean Smith, 3M

Sponsored by:



10:00 am

PTR 99 PFAS Treatment using RO Membrane Technology 24
Philip Staffin-Wiebe, VEOLIA Water Technologies & Solutions

10:20 am

PTR 66 Benchmarking of Commercial RO/NF Membranes for
Ultrashort, Short, and Long-Chain PFAS Rejection 35
Albert X. Wu, Samuel Pfremmer, Tricia Smrz, Sean M. Smith, 3M

10:40 am

PTR 32 PFAS Treatment & Ultra High Concentration with
3rd Generation RO Technology 42
*Benjamin Sparrow, Elaine Castro-Ramirez, Hayley Cloona,
Ziyi Fang, Saltworks Technologies*

11:00 am

PTR 83 The Role of Closed-Circuit Reverse Osmosis in PFAS
Management 51
Jessica Shu, DuPont Water & Process Solutions

11:20 am

PTR 39 Mathematical Modeling of Granular Activated Carbon
Adsorption Systems for PFAS Applications N/A
Neal Megonnell, AqueoUS Vets

B Sessions will be held in the Duluth Room on the third floor

SESSION 1B: IN-SITU PFAS REMEDIATION – ESTABLISHED AND EMERGING TECHNOLOGIES PART 1

Session Chair: Shalene Thomas, Battelle

10:00 am

PTR 89 In Situ Remediation with Colloidal Activated Carbon to
Reduce PFAS Risk 60
Scott Wilson, Paul Erickson, Ryan Moore, REGENESIS

10:20 am

PTR 51 Encapsulation of PFAS in Soil 76
Paul Ruehl, Geocycle North America

10:40 am

PTR 6 Effective and Affordable PFAS Remediation: The Power
of Circulating Wells 87
*Mohamed Odah, Ph.D., P.E. Accelerated Remediation
Technologies, Inc. (ART); Dr. Nidal Rabah, TRC*

11:00 am

PTR 5 A Novel In-Situ PFAS Remediation Via In-Well Foam
Fractionation and Groundwater Circulation 104
Nidal Rabah, Brendan Lazar, Connor Luther, TRC

11:20 am

PTR 71 Underground Injection Disposal Technology 112
Bill Dawson, Buckeye Fluid Systems

11:40 am

PTR 36 Stratigraphic Sequestration of Contaminants in
Groundwater; An Alternative to Remediation 122
Mike Shultz, Stone Urban, Colin Plank, Rick Cramer, Geosyntec Consultants

FINAL PROGRAM

TECHNICAL PROGRAM – Tuesday, May 13, con't.

11:40 am – 1:00 pm
Lunch for all attendees, Orchestra AB and Conrad A

**Lunch sponsored
by our Diamond Sponsor**



A Sessions will be held in the Orchestra Ballroom CD

SESSION 2A: SORPTION & FILTRATION PART 2

Session Chair: Dr. Brady Anderson, 3M

Sponsored by:



1:00 pm

PTR 38 PFAS Removal and Destruction with the Carbon Re-Activation Process 131
Prasad Galhena, Bill Barber, DESOTEC

1:20 pm

PTR 15 Ultrashort-Chain PFAS Adsorption: Impact of PFAS Type, Water Matrix, and Adsorbent Properties 141
Sean Smith, Albert X. Wu, Tricia Smrz, Phanasouk Vorarath, Lee Xiong, 3M Company

1:40 pm

PTR 80 Ion Exchange Resin Uptake Mechanisms for PFAS and Other Key Considerations in Use 164
Paul Nedwick, Larry Gottlieb, Stephen Wheeler, ResinTech, Inc.

2:00 pm

PTR 70 Regenerative Anion Exchange for PFAS Remediation of Water: From Bench- to Full-Scale Implementation 170
Albert X. Wu, Todd Zweifel, Donald Kaczynski, Eric M. Tippmann, Bryce Thomas, Jingwen Chen, Tricia Smrz, Justin Gibeault, Sean M. Smith, 3M Company

B Sessions will be held in the Duluth Room on the third floor

SESSION 2B: IN-SITU PFAS REMEDIATION – ESTABLISHED AND EMERGING TECHNOLOGIES PART 2

Session Chair: Evan Christianson, Barr

Sponsored by:



1:00 pm

PTR 107 Enhanced In-situ PFAS Mass Removal From Soil and Groundwater via Surfactant Column Flushing Study 180
George (Bud) Ivey, Dr. David Holmes, Dr. Cecelia MacLeod, Ivey International Inc.

1:20 pm

PTR 93 Achieving Mass Balance? Long-Term Monitoring of PFAS Bioremediation 192
Tyler Emerson, Larry Kinsman, ORIN Technologies; Timothy Repas, Fixed Earth Innovations

1:40 pm

PTR 22 Phytoremediation Enhanced In-Situ Stabilization of PFAS: Lessons Learned in the First Three Years 206
Len Mankowski, WSP; Janice Adams, Michigan Department of Great Lakes, Energy and Environment (EGLE)

2:00 pm

PTR 48 Designing Nanoparticles to Enhance PFAS Phytoremediation 218
Cheng-Hsin Huang, Riley Lewis, Joseph J. Dalluge, Christy L. Haynes, University of Minnesota; Sara Thomas, Jasmine Jones, Sara Nason, Nubia Zuverza-Mena, Jason C. White, The Connecticut Agricultural Experiment Station; Vasilis Vasilou, Yale University

2:20 pm

PTR 104 PFAS Stabilization in Soil - Full-Scale Global Applications 229
Richard Stewart, RemBind

2:40 pm – 3:00 pm
Networking Break and Exhibition Viewing – Conrad Rooms

Breaks are sponsored by our Silver Sponsors:



FINAL PROGRAM

TECHNICAL PROGRAM – Tuesday, May 13, con't.

A Sessions will be held in the Orchestra Ballroom CD

SESSION 3A: AWAY FROM THE SOURCE ZONE: STRATEGIES IN GROUNDWATER, STORMWATER, AND SITE ASSESSMENT

Session Chair: Dr. Jim Anderson, 3M

Sponsored by:



3:00 pm

PTR 103 Implications of Scale and Subsurface Transport on Mass Transfer of PFAS and Recalcitrant Compounds 238
Bryon Dahlgren, Drew Barton, Shalene Thomas, Battelle

3:20 pm

PTR 52 PFAS Removal in Small Rural Wastewater and Water Treatment Systems by Various Methods N/A
Gary Hawkins, Qingguo "Jack" Huang, Ke Li, University of Georgia; Ching-Hua Huang, Yongsheng Chen, Georgia Institute of Technology

3:40 pm

PTR 21 Navigating the PFAS Puzzle: Strategic Assessment and Prioritization for Stormwater Management 247
Andrea Collier, Barr Engineering Co.

4:00 pm

PTR 87 PFAS in Stormwater: Remedy and Investigation at a Manufacturing Facility 260
Casy Fath, Brian Angerman, Barr Engineering Co., Minneapolis, MN; Jonathan Dippert, C.T. Male Associates Engineering, Surveying, Architecture, Landscape Architecture & Geology, D.P.C.

4:20 pm

PTR 75 PFAS Source Testing at a Large Automotive Manufacturing Facility 271
Chris Meincke, Byron Banman, Daniel Beck, Kristina Mindinger, GHD

B Sessions will be held in the Duluth Room on the third floor

SESSION 3B: CHALLENGES ASSOCIATED WITH AFFF SYSTEMS AND DATA-DRIVEN STRATEGIES FOR EFFECTIVE PFAS REMEDIATION

Session Chair: Dan Longbrake, Battelle

3:00 pm

PTR 26 How to Keep the Cost of AFFF to F3 Transitions Down 286
Gorm Heron, TRS Group

3:20 pm

PTR 106 AFFF Fire Suppression Systems PFAS Decontamination Via Surfactant Flushing 296
George (Bud) Ivey, J. Scott Poynor, P.G., Ivey International Inc.

3:40 pm

PTR 64 Is PFAS Sample Cross Contamination Caused by Sampling? 308
Daniel George, Paul Jackson, Nick Nigro, Lindsay Boone, Pace® Analytical Services

4:00 pm

PTR 4 The Future of PFAS Analysis and Fingerprinting: Bridging Traditional Techniques and Machine Learning 319
Kyong Song, Barr Engineering Co.

4:20 pm

PTR 20 Guiding PFAS Remediation Using Dynamic Analysis and Visualization Tools 344
John Owens, Thomas Fewless, Beth Landale, Bryon Banman, Jonathan Eller, GHD

4:45 pm – 6:00 pm Networking Reception for all attendees

Join exhibitors, sponsors, attendees, and speakers for some light hors d'oeuvres and drinks in the Conrad Rooms.

Networking Reception sponsored
by our Diamond Sponsor:

BATTELLE

Exhibitor demos/presentations will take place during the networking reception at their respective booths.

Alliance Technical Group	5:00pm
Aquagga, Inc.	5:10pm
Revive Environmental	5:20 pm
Desotec	5:30 pm
Claros Technology	5:40 pm

FINAL PROGRAM

TECHNICAL PROGRAM – Wednesday, May 14

Registration will be open from 7:00 am to 5:00 pm and a continental breakfast will be served from 7:15 am - 8:15 am.

A Sessions will be held in the Orchestra Ballroom CD

SESSION 4A: ULTRA-SHORT PFAS PANEL: REMEDIAL GOALS AT THE LIMITS OF SCIENCE

8:00 am – 10:00 am

Sponsored by:



Moderator: Rebecca Higgins, AECOM 352

This panel will consist of a group discussion amongst high-level PFAS practitioners facing technology, financial, and environmental limits at C3 or less.

Panelists include:

- **Anderson Ellis**, Senior Environmental Scientist, Aquagga 354
- **David Kempisty, Ph.D.**, Director, Emerging N/A Contaminants, ECT2
- **Ali Ling, PE, Ph.D.**, Assistant Professor, University of St. Thomas 362

B Sessions will be held in the Duluth Room on the third floor

SESSION 4B: REGULATORY CONSIDERATIONS FOR PFAS TECHNOLOGY SELECTION AND APPLICATIONS

Session Chair: Taryn McKnight, Eurofins

Sponsored by:



8:00 am

PTR 82 PFASGlobalView – Navigate and Master PFAS Requirements 371

Emily Mushlitz, Robin Snyder, Eric Wood, Ruta Deshpande, Ramboll

8:20 am

PTR 23 Navigating Ever-Evolving Risk Assessment, Management and Communication Strategies for PFAS 379

Jonathan Petali, Battelle

8:40 am

PTR 105 Navigating the PFAS Regulatory-Scientific Interface: Implementation Strategies for 2025 and Beyond 386

Taryn McKnight, Eurofins

9:00 am

PTR 50 Navigating the PFAS Challenge: Australia's Regulatory Landscape and Future Directions 397

Ian Collins, Alice Clark, Penny Flukes, Dr. Mark Bowman, Dr. Peter Beck, GHD Pty Ltd

9:20 am

PTR 98 PFAS: Devising an Approach for the Whole Family 405

Rosa Gwinn, Mackenzie Hirt, Claire Mitchell, AECOM

9:40 am

PTR 24 PFAS Regulatory Framework and How Utilities Must Navigate Risks 412

Thomas Maher, Civil & Environmental Consultants, Inc.

10:00 am – 10:20 am

Networking Break and Exhibition Viewing – Conrad Rooms

ABOUT THE AIR & WASTE MANAGEMENT ASSOCIATION



The Air & Waste Management Association is a not-for-profit, nonpartisan professional organization that enhances knowledge and expertise by providing a neutral forum for technology exchange, professional development, networking opportunities, public education, and outreach to more than 5,000 environmental professionals in 65 countries. A&WMA also promotes global environmental responsibility and increases the effectiveness of organizations to make critical decisions that benefit society. For more information, please visit www.awma.org.

FINAL PROGRAM

TECHNICAL PROGRAM – Wednesday, May 14, con't.

A Sessions will be held in the Orchestra Ballroom CD

SESSION 5A: STATE OF THE SCIENCE FOR TREATMENT TRAINS

Session Chair: Dr. Sean Smith, 3M

10:20 am

PTR 72 **A Practical Guide to PFAS Remediation** 421
Alison Ling, PE, Ph.D., University of St. Thomas

10:40 am

PTR 96 **Coupling of SAFF, Filtration, and Destruction to Treat PFAS Impacted Surface Water and Groundwater** 434
Hanna Temme, Rebecca Higgins, Stephen Today, AECOM

11:00 am

PTR 69 **PFAS Capture Performance Trends of an Advanced Water Treatment System for Cooling Water Remediation** 444
Albert X. Wu, Timothy J. Gunderson, Todd Zweifel, Donald Kaczynski, Eric M. Tippmann, Bryce Thomas, Jingwen Chen, Justin Gibeault, Sean M. Smith, 3M Company

11:20 am

PTR 78 **Degradation of PFAS Mixtures Through a Treatment Train of Capture and Photoreduction** 450
Tao Jiang, Nahid Pervez, Yanna Liang, Department of Environmental and Sustainable Engineering, State University of New York, University at Albany

11:40 am

PTR 13 **Electrochemical Oxidation for PFAS Destruction: Lessons Learned to Inform Treatment Train Mode** 460
Gavin Scherer, Rebecca Mora, Hanna Temme, Devesh Mittal, AECOM

12:00 pm

PTR 41 **Complete PFAS Destruction Solution Using Ozone Foam Fractionation & Electro-Oxidation (Case Studies)** 466
Zia Klocke, Katie Henderson, Ovivo USA LLC

B Sessions will be held in the Duluth Room on the third floor

SESSION 5B: COMPREHENSIVE STRATEGIES FOR PFAS-IMPACTED SOIL: CASE STUDIES AND EMERGING METHODS

Session Chair: Mark Williams, C.T. Male

10:20 am

PTR 90 **A Field Study Using Particulate Carbon-Based Remedies to Treat PFAS Source Soil at a Former Fire Pit** 488
Ryan Moore, Paul Erickson, REGENESIS

10:40 am

PTR 91 **Soil Washing of PFAS-Contaminated Soil Stockpiles – A High-Throughput Success** 508
Toni Mehraban, Robert Singer, Clifton Enochs, Ryan Rapuzzi, Brice Engineering

11:00am

PTR 25 **Thermal Desorption of PFAS-Impacted Soil** 520
Gorm Heron, TRS Group

11:20 am

PTR 74 **Smoldering PFAS-Impacted Soils: From Laboratory to Full Scale Applications** 531
Laura Kinsman, Dr. Gavin Grant, Grant Scholes, Benoit Boulay, Kyle Barber, Brian Harrison, Savron

11:40 am

PTR 35 **PFAS Degradation by Ex-Situ Thermal Treatment of Soil: Bench and Pilot Studies** 546
Christopher Haas, Timothy Hackbarth, Gabriella Belisle, Tom Opstal, Sean Smith, 3M

12:00 pm

PTR 110 **Innovative Approach to PFAS Remediation in Biosolids Using FluoroSorb Technology** 554
Phil Farina, Clear Creek Systems, Inc.

12:20 pm – 1:20 pm Lunch for all attendees
Orchestra AB and Conrad A

Lunch sponsored
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FINAL PROGRAM

TECHNICAL PROGRAM – Wednesday, May 14, con't.

A Sessions will be held in the Orchestra Ballroom CD

SESSION 6A: EMERGING TREATMENT AND DESTRUCTION TECHNOLOGIES PART 1

Session Chair: Dr. Mike Parent, 3M

Sponsored by:



1:20 pm

PTR 67 **Destruction of PFAS Using a Novel Approach to Catalyzed Chemical Oxidation** 562
Lauren Turner, Daniel Griffiths, Kristi Diller, Parsons

1:40 pm

PTR 44 **Pilot Demonstration of PFAS Destruction by Hydrothermal Alkaline Treatment of High Salt Streams** 575
Brian Pinkard, Aquagga, Inc.; Sean M. Smith, Luke Dressel, 3M

2:00 pm

PTR 29 **Continuous Flow In-Liquid Plasma Discharge for PFAS Destruction** 583
Tom Slunecka, Seg Niebuhr, Shaobo Deng, Nathan Danielson, Plasma Blue, LLC

2:20 pm

PTR 17 **Improving PFAS Extraction Efficiency by the Addition of Hydrophobic Quaternary Ammonium Salts** 589
Brady Anderson, Steve Zhang, Chris Haas, Tricia Smrz, Dean Graham, Lee Xiong, Josh Malinsky, Mike Barrera, Albert Wu, Gabriella Belisle, Alex Repucci, Sean Smith, 3M

3:00 pm – 3:20 pm Networking Break and Exhibition Viewing
Conrad Rooms (for both sessions)

SESSION 7A: EMERGING TREATMENT AND DESTRUCTION TECHNOLOGIES PART 2

Session Chair: Dr. Mike Parent, 3M

Sponsored by:



3:20 pm

PTR 18 **Scale-up of β -cyclodextrin Adsorbents for Removal of PFAS from Municipal Wastewater at Pilot-Scale** 652
Emma Shapiro, Zhi-Wei Lin, Clare McGillis, Will Dichtel, Aaron Packman, Northwestern University Department of Chemistry; Francisco Barajas-Rodriguez, AECOM

3:40 pm

PTR 30 **Real-World Applications of Electrochemical Oxidation for PFAS Destruction** 663
John Tracy, Laura Wilcox, Ph.D., Sophie Waterhouse, Michael Shaw, Aclarity Inc.

4:00 pm

PTR 16 **PFAS Destruction in Water Using Ultrasound** 669
Stephen McNamara, Jon Ludwicki, Jack Norman, Gabriella Belisle, 3M Company

4:20 pm

PTR 111 **Integration of Foam Fractionation and Supercritical Water Oxidation for PFAS Destruction** N/A
Rick Gillespie, Revive Environmental

B Sessions will be held in the Duluth Room on the third floor

SESSION 6B: PFAS ANALYTICAL TECHNOLOGY AND METHODS PART 1

Session Chair: Jesse Rocha, Alliance Technical Group

Sponsored by:



1:20 pm

PTR 57 **PFAS Test Methods Update** 599
Stephen Somerville, Pace Analytical Services, LLC

1:40 pm

PTR 7 **PFAS Air Testing for Stationary Sources** 608
Jesse Rocha, Alliance Technical Group

2:00 pm

PTR 65 **Ultra-Short Chain PFAS Analysis Advancements to Support Chemical Process Control & Water Treatment** 622
Andreas Häring, Herbert Königsmann, Andrea Mühlthaler, 3M Global EHS Laboratory

2:20 pm

PTR 60 **Expansion of the Analysis of PFAS in Soils and Sediments** 629
Danielle Webb, Jill Kerrigan, 3M Company

2:40 pm

PTR 56 **Non-Targeted Analysis of PFAS in Environmental Media** 645
Christian Toonstra, 3M Company

SESSION 7B: PFAS ANALYTICAL TECHNOLOGY AND METHODS PART 2

Session Chair: Shalene Thomas, Battelle

Sponsored by:



3:20 pm

PTR 49 **Total Organic Fluoride Monitoring of a PFAS Treatment Process using Combustion Ion Chromatography** 681
Sudha Marimanikkuppam, Stephen McNamara, Rob Wilson, Dymond Young, Tameka Lewis, 3M

3:40 pm

PTR 53 **Real Time Monitoring of Volatile and Semi-Volatile PFAS via Chemical Ionisation Mass Spectrometry** 691
Abigail Koss, Maya Abou-Ghanem, Spiro Jorga, Veronika Pospisilova, Tofwerk USA

4:00 pm

PTR 92 **Advances in Real-Time Low Concentration Measurements of PFAS Volatiles in Air Exhausts Using FTIR** 711
Curtis Laush, Spectrum Environmental Solutions

4:20 pm

PTR 33 **Development of TOF Analytical Technology for Assessing PFAS Remediation and Mitigation Performance** 717
Phanasouk Vorarath, 3M

4:40 pm

PTR 62 **Novel Analytical Method for PFAS in Fish and Benthic Macroinvertebrate Tissues** 724
Jill Kerrigan, Devon Bulman, Guangshu Zhai, Christian Toonstra, 3M

FINAL PROGRAM

TECHNICAL PROGRAM – Wednesday, May 14, con't.

TECHNICAL POSTER SESSION 4:45 PM - 5:45 PM

Join us for the poster session with snack and drinks in Conrad A!

PTR 58 High Throughput PFAS Destruction Using UV-Photochemical Process N/A
John Brockgreitens, Claros Technologies

PTR 9 Optimizing Test Methods for Evidence of PFAS Biomagnification in Mammalian Serum N/A
Desiree Hui, Mohamed Helmi Aboulsoud, Egemen Aydin, AGAT Laboratories

PTR 11 Comprehensive PFAS Remedies: Overcoming Analytical, Remediation, and Destruction Challenges N/A
David Kempisty, ECT2; Brian Pinkard, Aquagga; JP Verheul, Enthalpy

PTR 34 The Future is What We Make It – Introducing Honeywell CFX™ 745
Shawn Tanagho, Andrew Mach, Honeywell

PTR 73 Analysis of Pre-Cleaned XAD-2 Lots for PFAS Contaminants Using Multiple Labs and Sites N/A
Serge Cloutier, James Ross, Joshua Fera, Hugh Cramer, Olga Shimelis, MilliporeSigma

PTR 100 Treatment of Co-Mingled PFAS and 1,4-Dioxane Contamination Using Flow Reversal Reverse Osmosis (FR-RO) 746
Max Finder, Yair Schnurmacher, Shina Lauz, Kabir Mitra, ROTEC

PTR 95 Non-Target PFAS Analysis (NTA) and Forensics: Removing Bottlenecks From a Commercial Lab Perspective N/A
Jamie Fox, Bharat Chandramouli, SGS North America

Poster session sponsored by:



PTR 59 UV Destruction of Ultra-Short and Polymeric PFAS in Diverse Wastestreams 747
Zekun (Zack) Liu, Joseph Tirado, Sonja Moons, Zijie Xia, Claros Technologies

PTR 40 Sampling of Various Air Matrices from PFAS Destruction Systems N/A
Isaac Prichett, Sam Belo, Connor Junes, Hua Wei, Timothy Gutzkow, 3M

PTR 61 A Comparison of Different Analytical Methods for C1 to C8 PFAS Compounds N/A
Zijie Xia, Brian Beall, Pheng Yang, Sawyer Schugel, Nora Fritz, Claros Technologies Inc.

PTR 63 Destruction of PFAS in Aqueous Media by High-Energy Electron Beam N/A
Cleston Lange, 3M Company

PTR 79 PFAS Adsorption Mechanism and Co-Contaminant Impacts on Performance of SMC 748
Michael Donovan, Rebecca Dickman, CETCO

Exhibitor demos/presentations will take place during the poster session at their respective booths.

Saltworks Technologies	5:00 pm
Accelerated Remediation Technologies, Inc.	5:10 pm
Carbon Activated Corporation	5:20 pm
VLS Texas Molecular	5:30 pm

FINAL PROGRAM

TECHNICAL PROGRAM – Thursday, May 15

Registration will be open from 7:30 am to 12:00 pm in the Orchestra Foyer and coffee and tea will be available.

A Sessions will be held in the Orchestra Ballroom CD

SESSION 8A: REMEDIAL OBJECTIVE-BASED TREATMENT TRAIN SELECTION PANEL

Moderator: Rebecca Higgins, AECOM 749

8:00 am – 10:00 am

This panel will include a discussion of various approaches to future-proof treatment train selection with resilient remedial objectives.

Panelists include:

- **Rick Gillespie**, Chief Commercial Officer, Revive Environmental N/A
- **Brian Pinkard, Ph.D.**, CTO and Co-founder, Aquagga N/A
- **Scott Kyser**, Engineer, Minnesota Pollution Control Agency 752
- **Bryon Dahlgren**, Senior Program Manager, Battelle 760

B Sessions will be held in the Duluth Room on the third floor

SESSION 8B: FOAM FRACTIONATION AND OTHER STRATEGIES FOR LANDFILL LEACHATE PFAS MANAGEMENT

Session Chair: Jonathan Dippert, C.T. Male

8:00 am

PTR 55 **Foam Fractionation: An Impactful Innovation in PFAS Removal from Leachate** 766

Chris Taylor, The Water & Carbon Group

8:20 am

PTR 101 **Complete PFAS Management for Landfill Leachate - Waste Concentration, Destruction, and Stabilization** 776

Lingke Zeng, Stephen Zemba, Brian Beaudoin, Ron Michel, Sanborn Head Associates

8:40 am

PTR 46 **Comparing Foam Fractionation PFAS US DoD Field Demonstrations** 785

Zach Pierce, Andrew Punsoni, Jason Hnatko, Kent Sorenson, Allonnia

9:00 am

PTR 47 **Disruption of the PFAS "Cycle": How Reverse Osmosis Can Reduce PFAS Loading into WWTPs** 796

Peter Baker, Erica Peris, Rochem Americas, Inc.

9:20 am

PTR 12 **Novel Wastewater Treatment for PFAS Removal** 808

Paul Rodriguez, Steven Woodard, ECT2

9:40 am

PTR 84 **Encapsulation of PFAS in Landfill Leachate —Forming an Alternate Daily Cover** 818

Paul Ruehl, Geocycle North America

10:00 am – 10:30 am
Networking break with brunch
Orchestra AB

Brunch sponsored
by our Platinum Sponsor:



FINAL PROGRAM

TECHNICAL PROGRAM – Thursday, May 15, con't.

A Sessions will be held in the Orchestra Ballroom CD

SESSION 9A: SUPERCRITICAL WATER OXIDATION

Session Chair: Evan Christainson, Barr

10:30 am

PTR 10 Supercritical Water Oxidation (SCWO) for the Treatment of PFAS Laden Wastes 828

David Garb, Naorni Senehi, Sudhakar Viswanathan, Russell Schmitz, 374Water; Marc Deshusses, 374Water and Duke University; Brian Pinkard, Aquagga; JP Verheul, Enthalpy Analytical

10:50 am

PTR 76 PFAS Waste Destruction Using GA's Industrial Supercritical Water Oxidation (iSCWO) 839

John Follin, General Atomics

11:10 am

PTR 68 Evaluation of Operating Conditions for Supercritical Water Oxidation on PFAS Destruction 850

Emily Widstrand, Susan Roberts, Ph.D., Brian Strasert, Paul Donovan, Bay West; Louie Wong, John Follin, General Atomics

11:30 am

PTR 88 Vision and Piloting of Regional PFAS Destruction in Minnesota 859

Andy McCabe, Kelsey Klucas, David Garb, Shanna Czeck, Ali Ling, Barr Engineering

11:50 am

PTR 37 PFAS Destruction by Industrial Supercritical Water Oxidation of Unique and Challenging Streams 870

Donald Kaczynski, Chris Haas, Sean Smith, Albert Wu, Todd Zweifel, Justin Gibeault, Tricia Smrz, Souk Vorarath, Isaac Prichett, Samuel Belo, Thomas Kestner, 3M Company; John Follin, Kenneth Liberty, General Atomics

12:10 pm

PTR 85 Expanding the Utility of Supercritical Water Oxidation for PFAS Solid Waste Treatment 874

Alexis Carpenter, Edward Hart, Nadezda Ojeda, Eric Wu, AxNano, Inc.; Ken Liberty, John Follin, General Atomics

12:30 pm – Conference concludes

B Sessions will be held in the Duluth Room on the third floor

SESSION 9B: DATA-DRIVEN STRATEGIES FOR EFFECTIVE PFAS REMEDIATION

Session Chair: Jeff McDonough, CDM Smith

Sponsored by:



10:30 am

PTR 27 A Hot Topic: Exploring the Certainty of High-Temperature Thermal Treatment for PFAS 887

Jeffrey McDonough, Tamzen MacBeth, Ian Ross, CDM Smith, Inc.; Nathan Weber, Oak Ridge Institute for Science and Education

10:50 am

PTR 14 Remedy Challenges for Compost Piles Containing PFAS Impacted Industrial Sludges 897

John Cuthbertson, Clifford Yantz, Ramboll; Marat Goldberg, CETCO

11:10 am

PTR 2 PFAS Removal From Sewerage and Biosolids Using Surface Active Foam Fractionation 905

Peter Murphy, EPOC ENVIRO

11:30 am

PTR 28 Lessons Learned From the First PFAS Treatment System for Metal Finishing Wastewater 912

Louis LeBrun, Victor Leung, PhD, Krista Ramirez, Axine Water Technologies, LLC

11:50 am

PTR 108 Restoration and Remediation of Pigs Eye Dump: Integrating Task Force and Community Input 923

Narayanan Raghupathi WSP USA; Hans Neve, Minnesota Pollution Control Agency

12:10 pm

PTR 19 Using Analytics to Reduce Time, Cost and Waste in Innovative PFAS Remediation Approaches 934

Tom Fewless, Stephanie Martin, Liz Kneen, GHD Pty Ltd.