

#WEFOdors

ODORS AND AIR POLLUTANTS 2021 A Virtual Event

Conference Program April 20–22

www.wef.org/OdorsAir

This conference is held by the Water Environment Federation in cooperation with the Ohio Water Environment Association.







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Founded in 2004, PureAir Filtration is a leading expert in custom design solutions for a wide range of gas phase filtration applications, with our four primary applications being protection of critical electronics, indoor air quality, odor control, and protection from toxic gases. Our team custom designs various models and configurations of air scrubbing units, and we also manufacture high quality engineered chemical adsorbent media which goes inside these units to purify the air passing through. We have several specialty adsorbent medias to remove a wide variety of gases.

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ODORS AND AIR POLLUTANTS SPECIALTY CONFERENCE COMMITTEES



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Chris Hunniford V&A Consulting Engineers, Inc. Conference Co-Chair

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GENERAL VIRTUAL EVENT INFORMATION

The Odors and Air Pollutants 2021 Virtual Event will be held online on an interactive platform (The WEF Learning Center) where you'll gain access to seven Technical Sessions as well as the Opening General Session, Sponsor Presentations, and Networking Opportunities. Technical Sessions will be presented in two ways: Live and On Demand to encourage the most interaction and engagement between speakers and registrants.

Live sessions will take you to a Zoom meeting where the speakers and moderators are giving their presentations on screen in real time while you watch. Sessions 1, 2, and 3 as well as the Opening General Session will be presented live. All times are listed in Eastern Time. Live sessions will be recorded and will also be available on-demand after the scheduled date and time.

<u>On Demand sessions</u> will be pre-recorded complete with moderator interaction and questions. The recordings will be available for you to watch at your convenience any time during the duration of the virtual event. Sessions 5, 6, 7, and 8 will be available to you on-demand.

REGISTRATION

Online registration can be completed at any time before or during Odors and Air Pollutants 2021: A Virtual Event by visiting the Registration webpage: <u>https://showproevent.com/OAPC0421</u>.

The registration fee includes access to educational content; networking features; and digital conference proceedings. The preconference workshop is optional (not included).

Conference registrants will receive their username, temporary password, and <u>login</u> instructions from <u>noreply@learn.wef.org</u>. If you registered on or after April 20th, your <u>login</u> credentials will be sent to you no later than the next business day (Monday-Friday).

For more information about registration policies, please visit the conference webpage at <u>www.wef.org/odorsair</u> and click the "Registration" tab.

Need help or didn't receive your login instructions? Contact OdorsAir@wef.org.

CONFERENCE CODE OF CONDUCT

WEF is committed to providing a professional, safe, and welcoming environment during its in-person and virtual events for all water professionals and their guests. WEF expects all attendees, speakers, sponsors, media, and other participants to uphold our commitment to diversity and inclusion by helping us provide a positive conference environment for everyone.

WEF has zero-tolerance for any form of discrimination or harassment, including but not limited to sexual harassment by participants or our staff at our meetings. WEF will take any action deemed necessary and appropriate, including immediate removal from the meeting without warning or refund, in response to any incident of unacceptable behavior, and WEF reserves the right to prohibit attendance at any future meeting, virtually or in person.

If you experience harassment or hear of any incidents of unacceptable behavior, WEF asks that you immediately email the WEF Executive Director Walter Marlowe.

Unacceptable behavior is defined as:

- Negative comments about race/ethnicity, gender and gender identity, sexual orientation, disability, age, religion, physical appearance, citizenship, or other protected categories
- Unwelcome sexual attention, including inappropriate use of nudity and/or sexual images in public spaces or in presentations
- Threatening, stalking, or endangerment of others
- Any activity meant to cultivate hostility, ad hominem insults or other attacks

We do not tolerate the following:

- Disruption of presentations during sessions, exhibitions, or at other events organized by WEF throughout the virtual meeting. All participants must comply with the instructions of the moderator and any WEF virtual event staff.
- Presentations, postings, and messages should not contain promotional materials, special offers, job offers, product announcements, or solicitation for services.
 WEF reserves the right to remove such messages and potentially ban sources of those solicitations.

Participants should not copy or take screen shots of any technical presentations, sponsor demonstration, Q&A or any chat room activity that takes place in the virtual space.



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NETWORKING OPPORTUNITIES

We are utilizing Kumospace to allow for casual networking. The space will be open throughout the entire conference, so stop in any time. You can choose from any of the rooms listed and talk with people inside your sound bubble. The closer you get to a group, the louder they become. Some rooms even have music and a chance to fill up a virtual drink. Explore and see what you can do!

We encourage you to join this platform after technical sessions and company demos to continue the conversation.

<u>Click here to download</u> tips on how to use Kumospace effectively.

SESSIONS AT A GLANCE

Session	Session Title	Time	CE Credits	
Tuesday, April 20				
OGS	Opening General Session	12:00 p.m. – 1:00 p.m. Eastern	1.0 PDHs	
Company Demo	Selection & Monitoring Adsorbents for Complete Odor Control	1:00 p.m. – 1:20 p.m. Eastern	N/A	
Session 01	Putting Microorganisms to Work – Vapor Phase	2:00 p.m. – 3:00 p.m. Eastern	1.0 PDHs	
Wednesday, April 21				
Session 02	Managing the Unseen Underground Crisis	1:00 p.m. – 2:30 p.m. Eastern	1.5 PDHs	
Technology Spotlight	Environmental Solution to Eliminating Caustic & Sulfur Buildup in Vapor Phase Treatment	2:40 p.m. – 3:00 p.m. Eastern	0.2 PDHs	
Networking	Networking Hour	3:00 p.m. – 4:00 p.m. Eastern	N/A	
Thursday, April 22				
Session 03	Planning the Odors Away	3:00 p.m. – 4:30 p.m. Eastern	1.5 PDHs	
On Demand				
Session 04	Odor and Wastewater Modeling	On demand – Watch any time!	1.5 PDHs	
Session 05	Innovation	On demand – Watch any time!	1.5 PDHs	
Session 06	Odor Measurement	On demand – Watch any time!	1.5 PDHs	
Session 07	Everything You Need to Know About an Odor Control System Minus the Technology	On demand – Watch any time!	1.5 PDHs	

ONLINE PROCEEDINGS

Conference proceedings, consisting of manuscripts for each presentation, have been made available through an online portal. Advance registrants will receive an email with instructions on how to access to the Odors and Air Pollutants 2021 online proceedings before the end of the conference. Later registrants will receive an email with instructions to access proceedings following the event's conclusion.

Not attending this year's Odors and Air Pollutants Conference? Copies of proceedings may be ordered on Access Water starting after the event ends at the member rate of \$120 USD/nonmember rate of \$150 USD. You may call 1-800-666-0206 or visit www.AccessWater.org to place your order.

CONTINUING EDUCATION

Did you know that WEF provides an easy way for virtual conference participants to receive continuing education (CE) credits? Attendees can now track credits, access transcripts, archived record keeping, and state reporting.

- For Professional Engineers: WEF Education and Training events are accepted in most U.S. states. WEF maintains Provider Status with several state engineering boards, including the Florida Board of Professional Engineers (FBPE) and the New York State Education Department (NYSED).
- For Professional Operators: WEF will work with attendees on specific state approvals by request.

States' licensing boards encourage licensees to familiarize themselves with credit policies and requirements, and to verify which events are approved or accepted in their state(s). If you have questions about WEF's Continuing Education Program, please contact us at <u>csc@wef.org</u> or 1-800-666-0206.

How to get your certificate?

On each session's page, you will see three sections: session, quiz and certificate. In order to obtain your certificate, you will need to watch the session video in its entirety (on the session page), respond to attentiveness polls during the video, and pass the associated quiz with a score of 100%.

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We would like to thank the following companies for their contributions to the conference and program.











TUESDAY, APRIL 20, 2021

Opening General Session Tuesday, April 20, 2021, 12:00 p.m. – 1:00 p.m. Eastern LIVE

12:00 p.m. Welcome <u>Mark Perkins</u>, Conference Co-Chair, Perkins Consultants

12:05 p.m. A Summary and Evaluation of Odor Regulations Around the World <u>Michael McGinley</u>, St Croix Sensory Inc; Carlos Diaz, Ambiente et Odora S.L.; Anna Bokowa, Ortech Environmental

12:25 p.m. Panel Discussion Moderated by: Chris Hunniford, Conference Co-Chair, V&A Panelists: Michael McGinley, St Croix Sensory Ric Pipkin, Union Sanitary District, CA Carlos Diaz, Ambiente et Odora S.L. Bullington Pham, South Coast AQMD

Company Demo Tuesday, April 20, 2021, 1:00 p.m. – 1:20 p.m. Eastern

1:00 p.m. Selection & Monitoring Adsorbents for Complete Odor Control Presented by PureAir Filtration Sponsoring companies demonstrate the latest products, resources and problem-solvers with live chat Q&A

The schedule for Tuesday, April 20 continued on next page

TUESDAY, APRIL 20, 2021

The schedule for Tuesday, April 20 continued from previous page

Session 01: Putting Microorganisms to Work – Vapor Phase Tuesday, April 20, 2021, 2:00 p.m. – 3:00 p.m. Eastern LIVE

Moderators: Ray David, Greeley and Hansen; Kevin Jameson, PureAir Filtration

- 2:00 p.m. Design Considerations for Odor Control Systems in Cold Weather Climates Jim Ross, Webster Environmental Associates, Inc.
- 2:20 p.m. Treatment of Odors and Pollutants using a Convective Biofilter Rakesh Govind, James Fang, University of Cincinnati
- 2:40 p.m. Advances in Hybrid Vapor Phase Biological Technology for the Treatment of Reduced Sulfur Compounds and Hydrogen Sulfide <u>Casey Davis</u>, KCI

WEDNESDAY, APRIL 21, 2021

Session 02: Managing the Unseen Underground Crisis Wednesday, April 21, 2021, 1:00 p.m. – 2:30 p.m. Eastern LIVE

Moderators: Vaughan Harshman, Evoqua; Shirley Edmondson, Black & Veatch

- 1:00 p.m. Odor & Corrosion Juggling Act Part II: Lessons Learned with Maintaining a Major Municipal Collection System Odor and Corrosion Control Program. David Hunniford, V&A Consulting Engineers, Inc.; Nickolas Wagner, Manatee County Utilities; Michael Fleury, Carollo; Christopher Hunniford, V&A Consulting Engineering
- 1:20 p.m.Steep Slopes, Odors, and Corrosion Flow TogetherRichard Pope, Hazen and Sawyer
- 1:40 p.m. Sulfide Control Optimization Using Sewer Process Models <u>Adrian Romero</u>, Jacobs; Matthew Ward, The WATS Guys; Jes Vollertsen, Aalborg University; Mark Holstad, City of Albuquerque
- 2:00 p.m. A Utility's Journey to Evaluate Alternatives and Craft a Collection System Odor and Corrosion Control Strategy Hanting Wang, Greeley and Hansen; Brian Brach, Manasquan River Regional Sewerage Authority; Ray David, Michael Hope, Greeley and Hansen

The schedule for Wednesday, April 21 continued on next page

WEDNESDAY, APRIL 21, 2021

The schedule for Wednesday, April 21 continued from previous page

Technology Spotlight <u>Wednesday, April 21, 2021, 2</u>:40 p.m. – 3:00 p.m. Eastern

1:00 p.m. Environmental Solution to Eliminating Caustic & Sulfur Buildup in Vapor Phase Treatment Presented by Veolia Water Technologies Similar to mobile sessions at in-person events, technology spotlights allow companies to showcase products and services in technical and educational presentations combined with equipment or hands-on visuals. There will be a live chat Q&A.

Networking Hour Wednesday, April 21, 2021, 3:00 p.m. – 4:00 p.m. Eastern

3:00 p.m. Join fellow virtual event attendees on Kumospace for a networking break.

THURSDAY, APRIL 22, 2021

Session 03: Planning the Odors Away Thursday, April 22, 2021, 3:00 p.m. – 4:30 p.m. Eastern LIVE

Moderators: Anthony Yamini, PureAir Filtration, Saif Molla, EPCOR Utilities, Inc.

- **3:00 p.m.** Cost of Being a Good Neighbor <u>Scott Cowden</u>, Jacobs; Sharon Paterson, Wunderlich-Malec Engineering; Mark Feltner, HRSD
- 3:20 p.m. Advanced Psichometry Based on Citizen Science: A History, a New Standard, a European Project and a Case Study in Chile Gerhard Schleenstein, Ecotec Ingenieria; Carlos Diaz, Cyntia Izquierdo, Ambiente et Odora S.L.
- 3:40 p.m. Solving Odor Control Needs while Meeting Indoor Endotoxin Limits and Optimizing Energy Used for Ventilation at the Avon WWTP Neil Webster, Webster Environmental Associates; <u>Tim Drescher</u>, Eagle River Water and Sanitation District; Carter Biesemeyer, Carollo Engineers
- 4:00 p.m. Proactive Planning for Ventilation and Odor Control of a Large Diameter Tunnel System Adam Dellinger, Jennie Celik, Christopher Easter, HDR

Session 04: Odor and Wastewater Modeling On Demand Video Length: 1:39

Moderator: Sharon Miller, North Texas Municipal Water District

Odor Dispersion Modeling and the Solution to Pollution is Dilution Dilemma

Phyllis Diosey, Hazen and Sawyer

New International Handbook on the Assessment of Odor Exposure Using Dispersion Modelling

<u>Jennifer Barclay</u>, Atmospheric Science Global Ltd.; Carlos Diaz, Ambiente et Odora S.L.; Gunther Schauberger, University of Veterinary Medicine; Phyllis Diosey, Hazen and Sawyer

Formaldehyde Emissions Impact Modeling and the Reality

<u>Wayne Kuang</u>, Jiye Zhang, New York City Department of Environmental Protection; Rhine Almonacy, WSP USA

Forensic Sewer Modeling – Using Advanced Modeling Tools to Bust Permit Violators and Anticipate Terrorist Attacks

<u>Matthew Ward</u>, The WATS Guys; Mark Holstad, City of Albuquerque; Eyasu Yilma, Chester Engineers; Adrian Romero, Jacobs; Jes Vollertsen, Aalborg University

Session 05: Innovation On Demand Video Length: 1:22

Moderator: Hanting Wang, Greeley and Hansen

Full-scale Digester Micro-Aeration Studies to Improve Biogas Quality <u>Bart Kraakman</u>, Jacobs; Israel Diaz, University of Valladolid; Josef Cesca, Jacobs; Raul Muñoz, University of Valladolid

Durational Biosolids Odor Control Using Peroxide Regenerated Iron Technology (PRI-TECH) at Metropolitan St. Louis Sewer District's Lower Meramec Treatment Plant

Michael Nelson, USP Technologies; Lynne Moss, Black and Veatch

Advanced Oxidation Process to Reduce Sulfide, Hydrogen Sulfide and Filamentous Bacteria at South Shore WRF

Brennon Garthwait, Brett Kelly, Veolia NA; Jeff Privott, Kruger; <u>Stewart</u> <u>North</u>, Jefferson Cox, Streamline Innovations

Application of Biological Treatment Device for Odors Generated at a Municipal Landfill

Ashraf Aly Hassan, United Arab Emirates University; <u>Gabriel Cohen</u>, Mitham Al-Faliti, Bruce Dvorak, University of Nebraska

Session 06: Odor Measurement On Demand Video Length: 1:26

Moderator: Kevin Jameson, PureAir Filtration

Sulfur Modeling: Assessing the Efficacy of Liquid Treatments for Primary Clarifier Odor Control and Their Whole Plant Impacts at WRRFs

<u>Ulrich Bazemo</u>, Black and Veatch; Dusty Brannum, Trinity River Authority; Mike Young, Trinity River Authority; Eric Redmond, Lynne Moss, Black and Veatch

A Profile of Wastewater Odors - Assessor Training and Evaluation of Odors from Facility to the Community

Charles McGinley, Michael McGinley, St Croix Sensory Inc

Odor Control System Evaluation and Optimization at F. Wayne Hill WRC

Gayathri Ram Mohan, Gwinnett County - Department of Water Resources; <u>Kristen Smeby</u>, Hazen and Sawyer

On Line Monitoring of Odor Unit (OU) Emissions and Odor Sources Identification, by Using a New Generation of Gas and Odors Analyzers

Jean-Christophe Mifsud, RUBIX S&I; Janis Rubinis, ELLE

Session 07: Everything You Need to Know About an Odor Control System Minus the Technology On Demand Video Length: 1:36

Moderator: Richard Pope, Hazen and Sawyer

The Corrosion Damage Mechanisms, Contributing Factors and Prevention Options in Odor Control Systems Robert Nixon, Corrosion Probe Inc

Optimizing Your Fiberglass Process Equipment Mechanical Reliability Gary Arthur, Fiberglass Reinforced Plastics Institute, Inc.

Key Factors Often Overlooked When Specifying Fans Ryan Cassel, Hartzell Air Movement

Corrosive Odors and their Successful Conveyance Samuel Boswell, Daniel Company

Effective Odor Control System Exhaust Approaches: Stacks and Vents

Phyllis Diosey, Hazen & Sawyer

Opening General Session Tuesday, April 20, 2021, 12:00 p.m. – 1:00 p.m. Eastern LIVE

Michael McGinley

St. Croix Sensory

Michael is the Laboratory Director at St. Croix Sensory. He has a Bachelor of Chemical Engineering degree from University of Minnesota and a Masters of Health Sciences degree from the Johns Hopkins University School of Public Health. Mike is a member of several industry organizations. Notably, he is a subcommittee chair of the ASTM E18 Sensory Evaluation Committee. His work at St. Croix Sensory involves overseeing daily laboratory operations including environmental air and product odor evaluations, laboratory QA/QC, and manufacturing of odor testing products.

Session 01: Putting Microorganisms to Work – Vapor Phase Tuesday, April 20, 2021, 2:00 p.m. – 3:00 p.m. Eastern LIVE

Jim Ross

Webster Environmental Associates, Inc.

Jim Ross is Vice President of Webster Environmental Associates, a nationally known Odor and Corrosion Control specialist company. Jim has presented on multiple odor control topics at national and local WEF conferences and has conducted nearly 100 odor control projects that have included studies, designs, startups, and performance testing. Jim has a masters degree in environmental engineering and is a licensed P.E. in seven states.

Rakesh Govind

University of Cincinnati

Dr. Rakesh Govind obtained his MS and PhD from Carnegie-Mellon University, Pitsburgh, PA and joined Mellon Institute as Director of the ICAPS (Industrial Control and Process Safety) Center. Then he worked at Polaroid Corporation as Senior Scientist in Boston, MA, before joining the faculty in the Department of Chemical Engineering at the University of Cincinnati. He is currently Professor of Chemical Engineering at the University of Cincinnati. Dr. Govind has published several papers on biofiltration of contaminants in exhaust gases.

Casey Davis

KCI

Mr. Davis has over 10 years of experience managing successful odor control projects across the US. He began his adventures in odor control working with a European company to bring innovative, biological treatment technology to the North American odor control market. His diverse odor control experience ranges from field service, odor assessment, system design, RD, manufacturing, project delivery, performance testing and business development. He now works in the engineering consulting industry providing solutions to a wide variety of water and wastewater clients.

Session 02: Managing the Unseen Underground Crisis Wednesday, April 21, 2021, 1:00 p.m. – 2:30 p.m. Eastern LIVE

David Hunniford

V&A Consulting Engineers

David has 35+ years of experience in water and wastewater odor, hydrogen sulfide related corrosion, and trenchless pipeline engineering. He has performed and overseen analysis and design of odor control solutions, operation, and maintenance of liquid and vapor phase odor control equipment, and managed long-term system-wide odor control programs for municipalities across the United States. He has been with V&A Consulting Engineers, Inc. from 2019 to present.

Richard Pope

Hazen & Sawyer

Dick manages Hazen & Sawyers odor services group and is a registered PE and Board Certified Environmental Engineer. Although he has worked on wastewater related air quality issues throughout his 42-year career, his fundamental focus has been odor assessment and control where he has worked at over 250 facilities in 35 states and 10 countries. He is recognized as an odor expert and is an active, long term member of WEFs Air Quality and Odor Control Committee. Dick is a frequent presenter at WEF and MA webinars and conferences and a contributing author on several odor-related textbooks.

Adrian Romero

Jacobs

Adrian Romero is a process engineer with Jacobs working in projects related to energy and resource recovery from wastewater, and integrating strategies for sulfide control in collection systems to the overall facility performance. He has presented at regional, national and international conferences. Adrian earned a PhD at University of Maryland as part of the DC Water Research and Development Program. His research focused on biosolids quality and utility-wide odor minimization through process optimization.

Session 02 Biographies continued on next page

Session 02 Biographies continued from previous page

Session 02: Managing the Unseen Underground Crisis Wednesday, April 21, 2021, 1:00 p.m. – 2:30 p.m. Eastern LIVE

Hanting Wang

Greeley and Hansen

Hanting Wang is a Civil Engineer at Greeley and Hansen in Chicago. She received her bachelors degree in Civil and Environmental Engineering and her masters degree in Environmental Engineering from the University of Illinois at Urbana Champaign. She has experience with multiple corrosion and odor control projects throughout the nation. She also serves as the Chair of the Mentoring Committee and Vice Chair of the Young Professionals Committee through the Illinois Section of American Water Works Association (ISAWWA).

Session 03: Planning the Odors Away Thursday, April 22, 2021, 3:00 p.m. – 4:30 p.m. Eastern LIVE

Scott Cowden

Jacobs

Scott Cowden is a professional engineer with over 30 years of experience in the area of odor control applications for municipal wastewater treatment systems. His expertise includes both vapor phase and liquid phase technologies. He also has extensive experience in the area of odor control master-planning including site sampling, emissions modeling, and dispersion modeling.

Gerhard Schleenstein

Ecotec Ingenieria

Gerhard is an Environmental Engineer, M.Sc. WRM, with 15+ years working experience focused on sanitation and industrial wastewater treatment. During several years was LatAm sales manager for a leading wastewater equipment manufacturer. Project manager of 100+ consultancy services to public and private enterprises and public authorities such as the Chilean Environmental Ministry. At present runs an odor consultancy company and contributes to the EU funded Distributed Network for Odor Sensing Empowerment and Sustainability Project. Member of DWA, AIDIS and WEF since 2010.

Neil Webster

Webster Environmental Associates, Inc.

Mr. Webster is the Chief Executive Officer for Webster Environmental Associates, Inc. a consulting firm he founded in 1981, that specializes in odor control engineering. He has worked on at least 500 odor control projects in the U.S. and abroad during the last 37 years. Mr. Webster has been an active member of the WEF Odor and Air Emissions Committee and has presented papers at dozens of workshops and WEF conferences. He is a registered professional engineer from Louisville, KY and has a Masters Degree in engineering from Purdue University.

Session 03 Biographies continued from previous page

Session 03: Planning the Odors Away Thursday, April 22, 2021, 3:00 p.m. – 4:30 p.m. Eastern LIVE

Tim Drescher

Eagle River Water & Sanitation District

Tim Drescher works for the Eagle River Water & Sanitation District, and is the facility supervisor at the Avon Wastewater Treatment Facility in Colorado. Prior to becoming supervisor six years ago, Tim had been an operator at the treatment facility in Vail where he had gained the majority of his professional experience. Tim started his career in the wastewater industry at the age of twenty, after obtaining his associates degree in Watershed Science in Ely, Minnesota near the gates of the boundary waters wilderness canoe area.

Adam Dellinger

HDR

Adam is a Water/Wastewater Engineer and Project Manager at HDR in Cleveland. He graduated from the University of Toledo with a Masters Degree in Industrial Engineering. During his time at HDR he has been involved with a variety of projects and tasks including ventilation and odor control studies, process control narrative documentation and development, program management, mechanical design and construction administration. Adam and his wife Sarah live on the east side of Cleveland with their 4-year-old son Miles and 1-year old daughter Hazel.

Jennie Celik

HDR

Jennie Celik is a Project Manager and member of the Executive Committee for the Northeast Section of OWEA. Jennie has over 15 years' experience as a water/wastewater engineer with a technical specialty in wet weather collections experience, including data management, asset management, planning, and design both separate sanitary and combined sewer systems. She has worked on both projects and CSO programs in varying roles. From project start to finish, Jennie has been involved with program management, planning, preliminary design, detailed design, services during construction, and operations and maintenance.

Session 04: Odor and Wastewater Modeling On Demand Video Length: 1:39

Phyllis Diosey

Hazen & Sawyer

Dr. Diosey has led air quality and odor assessments for numerous wastewater facilities, municipal facilities (landfills, waste-to-energy, compost), industrial processes, and power-generating facilities throughout the United States. Her experience includes air quality, odor, air toxic, and dispersion and deposition modeling and assessment in support of environmental impact statements, federal, state, and local permitting, feasibility studies, hazardous waste remediation, human and ecological risk assessments, construction impacts, environmental justice, and fugitive dust assessments.

Jennifer Barclay

Atmospheric Science Global Ltd.

Jennifer has more than 27 years experience in air quality related work. She is a specialist in advanced meteorological studies, odours and atmospheric dispersion of pollutants. Jenny was a member of the ASG group for 16 years, the developers of CALMET and CALPUFF.

Wayne Kuang

New York City Department of Environmental Protection

Mr. Kuang is a Research Scientist with the NYCDEP Bureau of Wastewater Treatment and has 31 years of experience working in CAA and CWA compliance research, with the last 20 years specialized in CAA emissions, permitting and compliance and has established or helped to established many compliance programs. He was members of national technical committees, and has administrated many research studies including large scale award winning research projects. Mr. Kuang received a Bachelor of Science in Chemistry and a Master of Science in Environmental Engineering.

Session 04 Biographies continued from previous page

Session 04: Odor and Wastewater Modeling On Demand Video Length: 1:39

Matthew Ward

The WATS Guys

Since completing his masters in Environmental Engineering at the U of Texas at Austin in 2005, Matthew Ward has worked for the Jacobs (formerly CH2M Hill) in the field of odor control and sewer process modeling where he was involved in numerous master plans, designs and research projects. Recently, Mr. Ward has launched The WATS Guys, a company which has developed Mega-WATS, the world-leading sewer process model, and Mega-Vent, a sewer ventilation model which tracks headspace air flow and pressure over branched sewer networks.

Session 05: Innovation On Demand Video Length: 1:22

Bart Kraakman

Jacobs

Bart has a degree in Molecular Sciences and Microbiology from the Wageningen University (NL). He is Associate Director of Process Engineering and Principal Process Engineer at Jacobs with over 25 years of experience in various process design and project management roles. Responsible for numerous municipal and industrial projects from design to commissioning stages mainly involving bioprocesses, biosolids, air quality odour control as well as sewer asset management strategy development. He lived and worked in Europe, Asia-Pacific and North America. He currently lives in the United Kingdom.

Michael Nelson

USP Technologies

Michael is the Midwest Territory Manager with USP Technologies. His work focuses on the design and operation of chemical-based wastewater treatment programs. He has broad expertise in wastewater odor control, including for industries, collection systems, septage handling, primary treatment, digestion, solids dewatering, and large surface area basins. He has 13 years of experience with USP across North America. He has bachelors degrees in Biology and Finance from the University of Iowa. In his free time he enjoys travel and working on his small hobby farm in Milan, Illinois.

Stewart North

Streamline Innovations

Stewart North is the Director of Business Development-Municipal Industrial at Streamline Innovations. He joined Streamline in October of 2019 to build the non-oil and gas division. He has been in the water and wastewater field since 2001 and has been actively treating wastewater for odor and corrosion control since 2005. The focus has been on collection systems and headworks and he has successfully performed hundreds of trials and installations using a proprietary AOP called the Talon REDOX Process.

Session 05 Biographies continued from previous page

Session 05: Innovation On Demand Video Length: 1:22

Gabriel Cohen

University of Nebraska

Gabriel Cohen is a recent graduate from the Univerity of Nebraska-Lincoln with a Masters of Science in Environmental Engineering. During his time at the university he has worked on projects related to the application of a bio-trickling filters in treating contaminated air generated by landfills and ethanol plants. He is currently finishing up on a project at the university and beginning the job hunt.

Session 06: Odor Measurement On Demand Video Length: 1:26

Ulrich Bazemo

Black and Veatch

Ulrich is a process engineer focusing on odor management projects and wastewater treatment process modeling. He has five (5) years of experience in water/wastewater treatment with an MS from the University of Maryland College Park. His comprehensive experience includes vapor and liquid phase odor control, wastewater treatment process modeling, research pilots testing, water quality analysis and process troubleshooting.

Kristen Smeby

Hazen & Sawyer

Ms. Smeby is a Senior Associate in Hazen and Sawyers Atlanta office with over 20 years of experience in the wastewater field. She has extensive experience in the design and evaluation of all aspects of odor control for municipal wastewater treatment facilities, pumping stations and collection systems. She is also one of the firm's top odor control experts.

Charles McGinley

St. Croix Sensory

Charles McGinley is the principal of McGinley Associates, P.A., a firm that specializes in odor management consulting. Charles is also the technical director of the sensory-testing laboratory St. Croix Sensory, Inc. Charles has a Bachelor of Chemical Engineering from the University of Minnesota, Institute of Technology, and a Marketing-MBA from the University of St. Thomas.

Jean-Christophe Mifsud

RUBIX S&I

Dr Jean-Christophe Mifsud, 55, is President and founder of RUBIX S&I that develops IOT devices for outdoor and indoor environmental aiming at optimizing the well being of the coworkers and customers. He had previous experience as founder and Chief Executive Officer of ALPHA M.O.S, a worldwide leading company in Smart Sensing Systems, and headquartered in Toulouse, France. He founded this company in 1993, for which the mission is to develop instrument correlated with the human senses, particularly those of smell and the taste, developing Electronic Nose, Electronic Tongue and Eyes for the food and cosmetics industries. The company has sold several thousand instrument in the world including FDA and USDA entities. He also holds more than 25 patents in various fields and did publish more than 100 publications.

Session 07: Everything You Need to Know About an Odor Control System Minus the Technology On Demand Video Length: 1:36

Gary Arthur

Fiberglass Reinforced Plastics Institute

Gary Arthur works for Fiberglass Reinforced Plastics Institute which is a non-profit industry organization. Gary has been the executive director, president, and a founding member of the Fiberglass Reinforced Plastics Institute since 2013. He has over 30 years' experience in the Fiberglass industry.

Robert Nixon

Corrosion Probe, Inc.

Robert (Randy) Nixon is the president of Corrosion Probe and Corrosion Testing Laboratories. He has 42 years of experience in corrosion and materials engineering and consulting.

Samuel Boswell

Daniel Company

Samuel Boswell has over 17 years' experience in the water & wastewater construction industry, of which more than 14 years are specializing in odor control system design. Samuel is the lead process designer and odor control technologist in charge of product development, planning, pilot testing, 3d design, proposals, and consulting services with Daniel Company in Upland, California. Samuel was instrumental in the design and development of Daniel Company's pilot testing trailer that has been used at 6 sites across 3 major waste water treatment plants in California and had more than 5 years of service in identifying best available technology and uncovering biological media differences. Samuel has a Bachelors of Science degree from Cal Poly Pomona and is a registered professional Civil Engineer in the State of California.

Ryan Cassel

Hartzell Air Movement

Ryan Cassel is currently the Fiberglass product and market manager for Hartzell Air Movement. Ryan has over 15 years of experience in industrial air movement and air pollution control solutions. He is Hartzell's technical lead for all odor control and corrosive airstream applications.

Session 07 Biographies continued on next page

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Session 07: Everything You Need to Know About an Odor Control System Minus the Technology On Demand Video Length: 1:36

Phyllis Diosey

Hazen & Sawyer

Dr. Diosey has led air quality and odor assessments for numerous wastewater facilities, municipal facilities (landfills, waste-to-energy, compost), industrial processes, and power-generating facilities throughout the United States. Her experience includes air quality, odor, air toxic, and dispersion and deposition modeling and assessment in support of environmental impact statements, federal, state, and local permitting, feasibility studies, hazardous waste remediation, human and ecological risk assessments, construction impacts, environmental justice, and fugitive dust assessments.

SPEAKER AND MODERATOR DIRECTORY

Gary Arthur Session 07

Jennifer Barclay Session 04

Ulrich Bazemo Session 06

Samuel Boswell Session 07

Ryan Cassel Session 07

Jennie Celik Session 03

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Scott Cowden Session 03

Ray David Session 01

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David Hunniford Session 02

Kevin Jameson Session 01, 06

Bart Kraakman Session 05

Wayne Kuang Session 04

Michael McGinley OGS

Charles McGinley Session 06

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Richard Pope Session 02, 07

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Gerhard Schleenstein Session 03

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Matthew Ward Session 04

Neil Webster Session 03

Anthony Yamini Session 03

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WEFTEC 2021

McCormick Place, Chicago, IL and Online October 16-20, 2021 <u>www.weftec.org</u>

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