



# **Odors and Air Pollutants 2021: A Virtual Event**

## **Technical Program**

(Updated March 31, 2021)

**April 20 – 22, 2021**



## General Virtual Event Information

The Odors and Air Pollutants 2021 Virtual Event will be held online on an interactive platform where you'll gain access to seven Technical Sessions as well as the Opening General Session 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. Three technical sessions and the Opening General Session will be presented live. All times are listed in Eastern Time.

**On Demand sessions** 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. Four technical sessions will be available to you on-demand.

# Tuesday, April 20, 2021

## Opening General Session

Tuesday, April 20, 2021, 12:00 – 1:00 PM Eastern

LIVE

- 12:00 PM      Welcome**  
Mark Perkins, Conference Co-Chair, Perkins Consultants
- 12:05 PM      A Summary and Evaluation of Odor Regulations Around the World**  
Michael McGinley, St Croix Sensory Inc; Carlos Diaz, Ambiente et Odora S.L.;  
Anna Bokowa, Ortech Environmental
- 12:25 PM      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

## Session 01: Putting Microorganisms to Work – Vapor Phase

Tuesday, April 20, 2021, 2:00 PM – 3:00 PM Eastern

LIVE

**Moderators:** Ray David, Greeley and Hansen; Kevin Jameson, Pure Air Filtration

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

# Wednesday, April 21, 2021

## **Session 02: Managing the Unseen Underground Crisis**

**Wednesday, April 21, 2021, 1:00 PM – 2:30 PM Eastern**

**LIVE**

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

- 1:00 PM      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 PM      Steep Slopes, Odors, and Corrosion Flow Together**  
Richard Pope, Hazen and Sawyer
- 1:40 PM      Sulfide Control Optimization Using Sewer Process Models**  
Adrian Romero, Jacobs; Matthew Ward, The WATS Guys; Jes Vollertsen, Aalborg University; Mark Holstad, City of Albuquerque
- 2:00 PM      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

Thursday, April 22, 2021

**Session 03: Planning the Odors Away**

**Thursday, April 22, 2021, 3:00 PM – 4:30 PM Eastern**

**LIVE**

**Moderators:** Anthony Yamini, Pure Air Filtration, Saif Molla, EPCOR Utilities, Inc.

- 3:00 PM**      **Cost of Being a Good Neighbor**  
Scott Cowden, Jacobs; Sharon Paterson, Wunderlich-Malec Engineering; Mark Feltner, HRSD
- 3:20 PM**      **Advanced Psychrometry 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 PM**      **Solving Odor Control Needs while Meeting Indoor Endotoxin Limits and Optimizing Energy Used for Ventilation at the Avon WWTP**  
Neil Webster, Webster Environmental Associates; Tim Drescher, Eagle River Water and Sanitation District; Carter Biesemeyer, Carollo Engineers
- 4:00 PM**      **Proactive Planning for Ventilation and Odor Control of a Large Diameter Tunnel System**  
Adam Dellinger, Jennie Celik, Christopher Easter, HDR

# On Demand Sessions

## **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**

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

### **Formaldehyde Emissions Impact Modeling and the Reality**

Wayne Kuang, 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**

Matthew Ward, 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**

Bart Kraakman, 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; Stewart North, Jefferson Cox, Streamline Innovations

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

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

# On Demand Sessions

## **Session 06: Odor Measurement**

**On Demand**

**Video length: 1:26**

**Moderator:** Kevin Jameson, Pure Air Filtration

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

Ulrich Bazemo, 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;  
Kristen Smeby, 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: 1:30**

**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