Agenda

Sunday, February 23, 2020

5:00pm to 7:00pm	**Welcome Reception**

Monday, February 24, 2020

7:00am	Registration Opens
7:30am - 8:45am	Continental Breakfast
8:45am - 10:00am	**Welcome & Keynote: Tara Hemmer, SVP, Waste Management**
10:00am - 10:30am	Coffee Break

10:30am - 12:00pm — Session One

Track A: Leachate Treatment I	Track B: Characterizing Elevated Temperature Landfills	Track C: Waste Management Planning
Life Cycle Cost Analysis of Landfill Leachate Ammonia Removal versus Recovery for POTW Discharge - **Sara Arabi**, Donohue & Assoc.	Field Data & Modeling of Heat Generation Rates in Municipal Solid Waste Landfill Located in Northeastern United States - **Terry Johnson**, Waste Management	Quantifying the Nuisance and Safety Aspects of Storage and Collection - **Ronald Mersky**, Widener University
Leachate Scaling – Problems, Prevention, Cures - **Ivan Cooper**, Civil & Environmental Consultants, Inc.	Comparison of heat generation in a MSW landfill with anaerobic and aerobic biodegradation - **Navid Jafari**, Louisiana State University	Hennepin County's Zero Waste Challenge Program - **Carolyn Callopy**, Hennepin C ounty, Department of Environment and Energy
Integrated Electrochemical Landfill Leachate Solution for a Minnesota Landfill - **Steven Butel**, HTX Solutions, LLC	Characterization of Florida Landfills with Elevated Temperatures - **Ryan Joslyn**, Geosyntec Consultants	Waste Characterization Study at a Municipal Solid Waste Landfill - **Steven Wilsey**, GHD Services, Inc.
Large-Scale Advanced Leachate Treatment System, Concept to Full Scale Performance Comparison - **Kevin Torrens**, Brown and Caldwell	The effect of temperature on methane generation from solid waste excavated from landfills experiencing elevated temperatures - **Sierra Schupp**, North Carolina State University	

12:00pm - 2:00pm — Lunch & Poster Viewing - Lunch Speaker: Dr. Bryan Staley, President & CEO, EREF

2:00pm - 3:30pm — Session Two

Track A: PFAS Characterization	Track B: Waste Management Planning & Odor Control	Track C: Organics Management - Policy/Strategies
Leachate/POTW PFAS Nexus-Reality, Risks, and Solutions for Landfill Owners - **Kevin Torrens**, Brown and Caldwell	Overview of ISWA's Global Initiative on Closing Dumps - **James Law**, SCS Engineering	Evaluating the Local Effects of California's Senate Bill 1383: Changes to Organic Waste Disposal & Impacts on Methane Generation, Recovery, and Emissions - **Alexander Stege**, SCS Engineers
Emerging Contaminants and Surface Water: Per- and Polyfluoroalkyl Substances (PFAS) - **Laura Carpenter**, Brown and Caldwell	Managing Illegal Dumping in the Big Data Era: Prospects and Challenges - **Mark Milke**, Dept. Civil and Natural Resources Engineering, University of Canterbury	Food Waste Management Within the Food-Energy-Water Nexus - **Debra Reinhart**, University of Central Florida
Per- and Polyfluoroalkyl Substances (PFAS) in Landfill Leachate and Municipal Wastewater - **Morton Barlaz**, North Carolina State University	Why landfills smell and what can be done about it? - **William Emmert**, Tetra Tech	The Benefits of Digesting Food Waste at Water Resource Recovery Facilities: Results from the Goleta Sanitary District Pilot Project - **James Dunbar**, Lystek
Occurrence, Distribution and Mitigation of PFAS in Landfill Leachate - **Renzun Zhao**, North Carolina A&T State University	Growing Odor Concerns from Encroaching Development - **Wilbert Yang**, Tetra Tech	

3:30pm - 4:00pm	Coffee Break

Monday, February 24, 2020

4:00pm - 5:15pm	Session Three	
Track A: Managing Liquids in the Waste Column	**Track B: Environmental Assessment of Organics Management**	**Track C: Measuring/Enhancing Methane Potential**
Managing Liquids in Landfills: Technical and Operational Considerations - **Mike Beaudoin**, Republic Services	A Comparative Attributional Life-Cycle Assessment of Food Waste and its' Effect on the Food-Energy-Water (FEW) Nexus - **Adenike Opejin**, Arizona State University	Impacts of Moisture Enhancement Strategies on Biogas Generation in Municipal Solid Waste - **Christopher Bareither**, Colorado State University
The Successful Remediation of over 30 feet of Leachate on the Liner System at the SPSA Regional Landfill - **Jeffrey Murray**, HDR	Life-Cycle Optimization to Develop and Assess of Sustainable Organic Waste Management Strategies - **James Levis**, North Carolina State University	Effect of TAV5 ratios on methane generation and lignin degradation - **Hoda Rahimi**, University of Texas at Arlington
Geotechnical Engineering Concerns associated with Liquids in the Waste Mass at Landfills - **Tim Mitchell**, Civil & Environmental Consultants, Inc.	Life-Cycle Modeling of Nutrient and Energy Recovery through Mixed Waste Processing Systems - **Mojtaba Sardamehni**, North Carolina State University	

5:15pm - 6:45pm Reception & Poster Viewing

Tuesday, February 25, 2020

7:00am - 8:15am Continental Breakfast

8:30am - 10:00am	Session Four	
Track A: PFAS Treatment	**Track B: Landfill Covers**	**Track C: Assessing Heat Generation in Landfills**
PFAS Treatment Technologies: ITRC Consensus View - **Jeffrey Pintenich**, Brown and Caldwell	Real-world Performance of Engineered Turf Final Cover System under Extreme Weather Conditions - **Ming Zhu**, Watershed Geosynthetics	Energy Analysis of Elevated Temperature Landfill Processes at the Laboratory Scale - **Marco Castaldi**, City College, City University of New York
PFAS Treatment - The Devil we know and Need to Manage - **Viraj de Silva**, SCS Engineers	Suitability of un-composted grass clippings and biosolids as biocovers for biological methane removal from landfills - **Gomathy Radhakishna Iyer**, SCS Engineers	Experimental Measurement of Heat Production from Al Corrosion under Landfill-Relevant Conditions - **Zisu Hao**, North Carolina State University
Emerging Technologies for Emerging Contaminants - PFAS and Others - **Ivan Cooper**, Civil & Environmental Consultants, Inc.	Florida's First Exposed Geomembrane Cover Final Closure – Regulatory Approval through Construction - **Tobin McKnight**, Jones Edmunds & Associates, Inc.	Development of methods to measure heat released from ash hydration and carbonation in landfills - **Asmita Narode**, North Carolina State University
	Subsurface Failure of Final Cover Systems - **Amy Knight**, Civil & Environmental Consultants, Inc.	Field Testing of Municipal Waste Combustor Ash for Heat Generation Potential - **Michael Van Brunt**, Covanta

10:00am - 10:30am Coffee Break

Tuesday, February 25, 2020

10:30am - 12:00pm **Session Five**

Track A: Leachate Treatment II	Track B: Landfill Emissions	Track C: Sustainable Materials Management
Impact of Landfill Leachate Matrix on Nitrogen Removal Process with Heterogeneous Community of Heterotrophs and Autotrophs in a Sequencing Batch Reactor - **Harsh Patel**, North Carolina A & T State University	Lessons Learned At Three Landfills Complying with NSPS XXX Emission Control Requirements - **Wesley Younger**, Trinity Consultants	Sustainability of Recyclable Materials - **Debra Kantner**, Environmental Research & Education Foundation
Single Stage Partial Nitritation/ANAMMOX in Treatment of Landfill Leachate - **Ramesh Goel**, University of Utah	Drone Based Surface Emissions Monitoring - **David Barron**, Sniffer Robotics	Acceptability Of Economic Instruments For Improving The Management Of Plastic Drink Package Wastes In Enugu Urban, Nigeria - **Ijeoma Onyejekwe**, Enugu State University of Science and Technology
Leachate Treatment Pilot Study using MBR and Electrocoagulation for reduction of COD and Ammonia and for increasing Ultraviolet Transmittance - **Jason Lewandowksi**, OBG Part of Ramboll	Drone-Based Gas Mapping LiDAR for Methane Concentration Mapping and Whole Landfill Emissions Monitoring - **Michael Thorpe**, Bridger Photonics, Inc.	A 5-Year Outlook on the Consumer Goods Market: A Case Study on the Sustainability-driven Waste Market Transformation - **Susanna Cagle**, ENGIE Insight
Comparative Study on the Nature and Characteristics of Dissolved Organic Matter in Leachate from Two Landfills - **Florentino De la Cruz**, North Carolina State University	Predictive Modeling of Hydrogen Sulfide Generation by Using Historical data on Waste Disposal and Hydrogen Sulfide Collection - **Morton Barlaz**, N.C. State University	Evaluation of Alternate Inocula for Biochemical Methane Potential Testing - **Sierra Schupp**, North Carolina State University

12:00pm - 1:30pm **Lunch & Poster Viewing - Lunch Speaker: Michael E. Hoffman, Managing Director-Group Head Diversified Industrials, Stifel**

1:30pm - 3:00pm **Session Six**

Track A: Landfill Liners	Track B: Landfill Gas Management	Track C: Management Strategy Impacts on Leachate
Effects of Aggressive Leachates and Elevated Temperatures on the Hydraulic Conductivity of Bentonite-Polymer Composite Geosynthetic Clay Liners - **Sarah Gustitus-Graham**, University of Virgina	The WAG: An Innovation in Landfill Gas Data Analysis - **Raymond Huff**, SCS Engineers	Cost and Environmental Impacts of Co-Treatment of Centrate and Leachate for Nitrogen/Phosphorus Management - **Debra Reinhart**, University of Central Florida
Effect of Inorganic Salts Solutions on Polymer Elution from a Bentonite-Polymer GCL - **Christian Wireko**, FAMU-FSU College of Engineering	Achieving Compliance with Low Emission Flares - **Darrell Thompson**, APTIM, San Diego, CA	Effect of Food Waste Diversion on Leachate Quality - **Florentino De la Cruz**, North Carolina State University
Hydraulic Conductivity and Attenuation of Bentonite-Polymer Composite Geosynthetic Clay Liners Permeated With Bauxite Liquor from China - **Jiannan (Nick) Chen**, University of Virginia	From waste to energy: Landfill gas purification using zeolitic imidazolate framework composites - **Fangyuan Tian**, California State University Long Beach	Long Term Impacts of Recirculation of RO Concentrate from MSW Leachate Treatment on Leachate Concentration - **Patrick Sanford**, Rochem Americas, Inc.
Performance-Based Evaluation of Alternative Liners for Wisconsin Landfills - **Craig Benson**, School of Engineering, University of Virginia	Landfill and Digester Gas Upgrading to CNG and RNG - **Kyle Muffels**, GHD	

3:00pm - 3:30pm Coffee Break

Waste 360 GWMS Global Waste Management Symposium

EREF

Tuesday, February 25, 2020

3:30pm - 5:00pm	Session Seven	
Track A: Life Cycle Assessment	**Track B: Liquid Waste Management**	**Track C: Waste to Resources: Thermal Conversation & Landfill Mining**
A Generalized Non-Linear Life-Cycle Optimization Framework for Developing and Assessing Sustainable Solid Waste Management Strategies - **James Levis**, North Carolina State University	Using the Liquid Release Test to Evaluate Wet Wastes and Solidification Effectiveness - **Eric Chiado**, Civil & Environmental Consultants, Inc.	FastOx® Gasification: An Integrated Solution to Zero Waste - **Mike Hart**, Sierra Energy
Comparison of Organic Waste Management Options in Terms of Air Quality and GHG Impacts - **Patrick Sullivan**, SCS Engineers	Exploration and Production Landfill Waste Stability - **Harold Barber**, Civil & Environmental Consultants, Inc.	Landfill Mining – converting waste from an environmental liability into a resource for energy recovery - **Gioseph Anello**, The Regional Municipality of Durham
An Assessment of the Dynamic Global Warming Impact Associated with Long-Term Emissions from Landfills - **Yixuan Wang**, North Carolina State University	Implications of Solid and Liquid Waste Co-Disposal on Biodegradation and Biochemical Compatibility - **Christopher Bareither**, Colorado State University	Landfill Mining – Suitability, Practical Considerations, Technical Issues, Solutions and Costs - **Paul Dewaele**, Golder Associates Ltd. (Barrie, Ontario, Canada)
	Modeling the impact of landfilled MBT outputs on methane production - **Fabio Tatano**, University of Urbino	Potential use of MSW incineration ash as a kiln feed replacement in Portland cement manufacture - **Linda Monroy**, Lee County Solid Waste Division

5:00pm - 6:30pm Reception & Poster Viewing

Wednesday, February 26, 2020

7:00am - 8:15am Continental Breakfast

8:30am - 9:45am	Session Eight	
Track A: Coal Ash/CCR Management	**Track B: Landfill Operations**	**Track C: Composting**
Coal Ash regulations and permitting of the Coal-Fired Power Plants: United States Environmental Protection Agency (EPA) Region 6 Perspectives - **Golam Mustafa**, United States Environmental Protection Agency	Hydrologic Modeling Associated with Permitting a Landfill Expansion - **Rick Buffalini**, Civil & Environmental Consultants, Inc.	Finding a Balance: Managing CASP Permitting Requirements versus Operational Objectives - **Maura Dougherty**, Weaver Consultants Group
Organic Material Management at Closure of CCR Units - **Melissa Setz**, Geosyntec Consultants	Making a Case for Caissons - **Matt Stutz**, Weaver Consultants Group	Closing the Loop: Food Waste Composting in Prince George's County, Maryland - **Roy McGrath**, Maryland Environmental Service
Effect of coal combustion residual (CCR) leachates on hydraulic conductivity of bentonite-polymer geosynthetic clay liners - **Kuo Tian**, George Mason University		Can a high quality compost be made from mixed municipal solid waste, similar in quality as compost derived from source separated organics? - **De Baere Luc**, Organic Waste Services

9:45am - 10:00am Coffee Break

10:00am - 12:00pm **Session Nine: Fugitive Air Emissions Workshop**