

PFAS WORKSHOP FOR PUBLIC WATER & WASTEWATER SYSTEMS PRESENTER BIOS



DANNY CHANCE, TECHNICAL DIRECTOR, ACCURATE ENVIRONMENTAL

Danny Chance is the Technical Director for Accurate Environmental, the largest environmental laboratory in the state of Oklahoma. He has a B.S. degree in Cellular Biology from Northeastern State University. Danny has over 20 years of experience in the water and wastewater industry. He is also a licensed instructor for ODEQ drinking water and wastewater certification classes.

Danny has been with Accurate since 2001 and has taught certification classes since 2006. He was the Organics Program Manager before being selected as Technical Director and General Manager of Accurate Environmental, which includes all three locations in Oklahoma.

Danny is the primary instructor for on-site training and Accurate's QA/QC Development Program that gives training to public water systems and industries for laboratory QA compliance with ODEQ.

He also played a crucial role in Accurate Labs first UCMR certification for PFAS in 2012 as well as the Principal Investigator for EPA SBIR Phase I award in 2018 for PFAS sampling.



SHELLIE R. CHARD, WATER QUALITY DIVISION DIRECTOR OF THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

Shellie Chard obtained degrees in Chemical Engineering and Biotechnology from the University of Oklahoma. She has been the Water Quality Division Director of the Oklahoma Department of Environmental Quality since January 1, 2010 and has 29 years of experience in the drinking water and wastewater profession. Today she oversees drinking water, wastewater, storm water, water reuse, biosolids and operator certification and training. In addition to her activities at DEQ she is a WEF Trustee, member of the National Drinking Water Advisory Council and holds leadership positions in:

- Association of Safe Drinking Water Administrators
- Ground Water Protection Council
- Association of Clean Water Administrators
- Oklahoma Water Environment Association



KENNETH EDE, PH.D., CHMM, DIRECTOR OF THE ENVIRONMENTAL SCIENCE PROGRAM, OSU

Dr. Kenneth F. Ede serves as the Director of the Environmental Science Program at Oklahoma State University-Tulsa. Previous to this position, Ken served as the Assistant Dean of Engineering at Oklahoma State University and the Director of the Helmerich Research Center (HRC). Dr. Ede is a Certified Hazardous Materials Manager (CHMM). In addition to his academic contributions to Oklahoma State University, Dr. Ede served 18 years as the Environmental Health & Safety Manager for American Airlines.

Dr. Ede's thrust areas of research include PFAS (Per & Polyfluoroalkyl Substances), Hazardous Waste Management, Environmental Chemistry, Industrial Environmental Sustainability, and Industrial Ecology.

Dr. Ede serves as a member on the following committees:

- Hazardous Waste Management Advisory Council for the State of Oklahoma
- Environmental Federation of Oklahoma (EFO) Hazardous/Solid Waste Committee
- State of Oklahoma PFAS Committee
- In addition, Dr. Ede has authored numerous articles on PFAS and directed and co-authored the first PFAS sampling guidelines for the State of Oklahoma



AUDRA LIGGENSTOFFER, PH.D., ENVIRONMENTAL ENGINEER AND MICROBIOLOGIST, AMERICAN AIRLINES

Audra Liggerstoffer is an Environmental Engineer and Microbiologist for American Airlines - Environmental Compliance & Safety. Dr. Liggerstoffer graduated with a Ph.D. in Microbiology/Cell and Molecular Biology from Oklahoma State University (OSU) specializing in molecular biological tools and the microbial processes impacting environmental remediation and the production of biofuels.

During her final semester, she was accepted into OSU's Professional Science - Master's Program in Environmental Science/Management which redirected her career path into the applied science role she holds today with American and fostered the initial collaborations with Dr. Kenneth Ede, which continue to this day. Her primary roles within American include environmental program management and regulatory compliance with Clean Water Act programs, site remediation, and the management of Aerospace PFAS.



FRANK MARINE, PAST MARKETING AND COMMUNICATIONS CONSULTANT, TEXAS MOLECULAR

Frank Marine, past President of TM Deer Park Services LLC (Texas Molecular). He has been with Texas Molecular for 16 years. Frank earned a B.S Degree in Chemical Engineering from Newark College of Engineering in Newark, NJ.

Frank joined the Hazardous Waste business in 1987. His waste experience includes work with firms in the incineration, inorganic wastewater treatment, biological wastewater treatment, hazardous fuel blending, cement kiln, and underground injection segments. He currently represents Texas Molecular on the Deer Park Community Advisory Council and leads his company's outreach to local, state, and federal officials.

Frank leads the development of Texas Molecular's PFAS business which has safely managed over 80 million gallons of aqueous PFAS wastes. He has delivered papers on PFAS, sustainability, community participation, and the use of deepwell injection to chemical plating, galvanizing, other State and National industry associations,

Frank is married to his wife, Joan (48 years). He has one daughter and two wonderful grandsons. He enjoys any activities that includes his grandsons.



REED MERIWETHER, P.E., SENIOR ENGINEER, TRIHYDRO

Reed Meriwether has over 30 years of experience in water, wastewater, reclaimed water, stormwater and biosolids projects throughout the nation. He possesses a wealth of technical knowledge and expertise demonstrating innovative and cost-effective solutions and maintains strong client relationships. He is a hands-on engineer who balances administrative and technical project aspects with an emphasis on communication, maintaining schedule and budget, and accomplishing project objectives. Reed has experience with planning and design of complex water and wastewater treatment, storage, pumping and conveyance facilities. Reed has received many client accolades for innovative solutions, value-added mindset, and objective decision-making to achieve client goals, budget adherence, and regulatory compliance.

Complementary to his experience with water and wastewater treatment, Reed takes a holistic approach focused on new technologies to address emerging contaminants such as per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane and mitigating future impacts. He has planned, designed, supervised, and conducted field investigations for surface water, groundwater and soil impacts from chlorinated solvents, metals, petroleum hydrocarbons, PFAS and 1,4-dioxane. Reed has provided feasibility evaluations and application of innovative remedial technologies such as bioaugmentation, bioremediation, in situ chemical oxidation, phytoremediation, pump and treat with advanced oxidation reactor systems, multiphase extraction, soil vapor extraction, and monitored natural attenuation.



ANDREW PAWLISZ, D.A.B.T., SENIOR TOXICOLOGIST, TRIHYDRO

As a board-certified toxicologist with over 20 years of experience in industry, consulting, and government, Andrew Pawlisz is uniquely qualified to support projects involving damage to the environment by chemical agents, including contaminants of emerging concern, risk-based remediation and site closure, consumer product safety assessment, chemical exposure, regulatory compliance, product stewardship, health risks to workers, residential occupant wellbeing, livestock/wildlife success, and community and regulatory concerns. He is a published professional whose key areas of expertise include applied toxicology, human health and ecological risk assessment, litigation and regulatory support, fate and transport, bioaccumulation assessment, risk-based remediation design, and risk communication. He is an active member of numerous national and international organizations dedicated to environmental issues and he is a frequent contributor to conversations occurring in his field.



DONALD K. SHANDY, ATTORNEY, CROW & DUNLEVY

Don Shandy is a director in the firm's Oklahoma City office. Throughout his career, Don's legal practice has been focused on the environmental and energy areas.

Don has worked on projects in 41 states and five foreign countries. He has interacted closely with numerous state and federal agencies including the Environmental Protection Agency (EPA) and the Department of Justice. In 2001, Don was nominated by the Western Governors' Association to become assistant administrator for air and radiation at the EPA but ultimately decided to remain in private practice. He has interfaced with various White House administrations and agencies regarding global climate change.

As both in-house and outside counsel, Don had responsibility for a wide range of legal matters at international manufacturing facilities where he engaged regulators and other foreign officials to resolve issues. He has experience with European Union regulatory matters and has negotiated trade barrier issues between various countries. Don has worked with supply chain logistics operations encompassing more than 60 countries and has experience with laws, regulations and International Conventions impacting movement of global commerce.

Don has represented a number of industry sectors including exploration and production, midstream transmission, refining, pulp and paper, aerospace and cement manufacturing.

Don earned his Bachelor of Arts and Juris Doctor from the University of Oklahoma. He is licensed by the Oklahoma and Texas Bar Associations and is an American College of Environmental Lawyers Fellow. He frequently writes and lectures throughout the United States on a variety of energy and environmental issues.



JIMMIE WEAVER, PH.D., ASSOCIATE PROFESSOR OF CHEMISTRY, OSU

In 2000, Dr. Jimmie Weaver started his academic career playing football for the newly formed team Crimson Storm at Southern Nazarene University, and in this time earned a BS degree in Chemistry with Math and Physics minors. After a year of working in an immunology lab with Dr. William Hildebrand (OUHSC), he returned graduate school at The University of Kansas in the Chemistry Department working with Dr. Jon Tunge, where he developed Pd-catalyzed decarboxylative coupling reactions. After earning his PhD (2010), Jimmie took a post-doc position with Dr. Jon Ellman at Yale University where he developed organocatalyzed asymmetric reactions.

In 2012, Jimmie started his independent career at Oklahoma State University as an Assistant Professor of Chemistry, where he has developed a research program focused on advancing the art of synthesis through innovative approaches. In this effort, he has developed expertise in organofluorine chemistry by demonstrating numerous new chemical reactions that allow expedited synthesis of challenging, yet desirable, fluorinated motifs.

In 2017, Dr. Weaver received early tenure and was promoted to an Associate Professor of Chemistry. In 2018, Dr. Weaver and Mr. Joel Roark co-founded a company, Weaver Labs, that focuses on applied chemistry problems, including PFAS remediation, detection, and destruction. The company has received grants from US AirForce and NIH for the development of smart materials specifically designed to remediate PFAS from ground water.