

## Speaker Biographies

### Improving Human Performance on the Grid

A Conference and Workshop on Improving Human Performance and Increasing Reliability on the Bulk Power System

March 29-31, 2016

#### Speakers are listed in order of presentation

##### Dr. James Merlo



**James Merlo** is the Senior Director of Reliability Risk Management at NERC. Joining NERC in July 2011, James works with the talented professionals in the electric reliability organization to promote

the understanding and learning from events and occurrences that are experienced on the Bulk Electric System, assess the industry status and needs with regard to human performance challenges affecting bulk power system (BPS) reliability and provide world class training for the ERO staff and industry. In this role, he identifies opportunities and methods for improvement based on proven methods from other industries, and develops and promotes industry-wide sharing and collaboration to improve human performance components of BPS reliability.

James served in a variety of leadership roles in the US Army including combat tours in Desert Storm and Operation Iraqi Freedom. Significant positions include: Deputy Brigade Commander in Baghdad, Iraq 2004-2005 and as an assistant professor and program director at the United States Military Academy.

James has his B.S. in Human Factors Psychology from West Point, his M.S. in Engineering Psychology from the University of Illinois and his PhD in Applied

Experimental and Human Factors Psychology from the University of Central Florida. He is the author of over 50 publications and book chapters on the subjects of human factors engineering and human performance.

Email: [james.merlo@nerc.net](mailto:james.merlo@nerc.net)

##### Gerry Cauley



**Gerry W. Cauley** was named President and Chief Executive Officer of North American Electric Reliability Corporation (NERC) in November 2009 and assumed the role in January 2010.

Mr. Cauley is responsible for overseeing NERC's mission to ensure the reliability of the North American BPS. As President and CEO, Mr. Cauley leads key programs affecting over 1,900 BPS owners, operators, and users, including standards and training, critical infrastructure, risk analysis, compliance monitoring, enforcement, situation awareness, reliability assessment, and government relations.

Mr. Cauley also oversees the operation of eight Regional Entities engaged in implementation of delegated responsibilities.

From 2007 to 2009, Mr. Cauley served as President and Chief Executive Officer of the SERC Reliability Corporation, a reliability Region covering 16 states in the southeastern and central United States. During this time he established new programs for monitoring and enforcing compliance with mandatory standards, developed training and educational programs, and a program to track reliability recommendations.

Prior to his CEO career, Mr. Cauley served as Vice President and Director of Standards at NERC and was instrumental in preparing NERC's application to become the electric reliability organization (ERO). He spearheaded the development of an initial set of standards to ensure the reliability of the BPS in North America. Mr. Cauley was also a lead investigator of the August 2003 Northeast blackout and coordinated the NERC Y2k program, supervising the reporting and readiness of 3,100 electric organizations in the United States and Canada.

Additionally, Mr. Cauley has served in various positions of leadership during his career, including program manager of grid operations and planning at the Electric Power Research Institute, training consultant for electric system operations, nuclear and fossil plant operations, substations, and distribution. He also served as an officer in the U.S. Army Corps of Engineers.

Mr. Cauley has a bachelor's degree from the U.S. Military Academy at West Point, a master's degree from the University of Maryland in nuclear engineering, and a master's degree in business administration from Loyola College - Baltimore. Mr. Cauley is a registered Professional Engineer in the Commonwealth of Virginia.

## Todd Conklin



**Todd Conklin** spent 25 years at Los Alamos National Laboratory as a Senior Advisor for Organizational and Safety Culture. Los Alamos National Laboratory is one of the world's foremost research and development laboratories; Dr. Conklin has been working on the Human Performance program for the last 15 years of his 25-year career. It is in this fortunate position where he enjoys the best of both the academic world and the world of safety in practice. Conklin holds a Ph.D. in organizational behavior from the University of New Mexico. Conklin has authored several bestselling books, including **Pre-Accident Investigations**, and **Pre-Accident Investigations: Better Questions**. He speaks all over the world to executives, groups and work teams who are interested in better understanding the relationship between the workers in the field and the organization's systems, processes, and programs. Conklin hosts an award winning **Pre-Accident Investigation Podcast**. He has brought these systems to major corporations around the world. Conklin practices these ideas not only in his own workplace, but also in the event investigations at other workplaces around the world. Conklin defines safety at his workplace like this: "Safety is the ability for workers to be able to do work in a varying and unpredictable world." Conklin lives in Santa Fe, New Mexico and thinks that Human Performance is the most meaningful work he has ever had the opportunity to live and teach.

## Monika Bay



**Monika Bay** leads BGE's innovative efforts around serious injury and fatality prevention. This portfolio of initiatives includes BGE's holistic risk management approach called Just Culture as well as a set of

targeted risk modeling and risk reduction initiatives. First pioneered in the aviation and healthcare industries, these unique human-centered approaches and tools are designed to deliver a real breakthrough in safety and operational performance by better understanding and addressing system design and behavioral choices, and the interaction between the two. Monika delivers a high-energy, interactive and engaging perspective on this precedent-setting approach within the utility industry.

Monika's 35 year career with BGE includes experience in nuclear and fossil generation, environmental land use management, military contracts and utility privatization, distribution pole asset management, and business transformation architecture. Monika earned her BES degree in Civil Engineering from the Johns Hopkins University in Baltimore, MD.

### **Zeeshan Sheikh**



**Zeeshan Sheikh** became Entergy's chief information officer in January 2014. He leads the company's information technology function in both daily operational and strategic roles.

Prior to becoming CIO Sheikh served at Entergy in a variety of roles over more than a decade, supporting the company's nuclear, transmission, system planning and operations, fossil and wholesale commodities organizations.

Sheikh began his career in 1997 as an engineering assistant for Con Edison at Indian Point Energy Center, later transitioning to an IT role there. He joined Entergy in 2001 when the company acquired Indian Point Unit 2. Sheikh became the site's IT manager in 2004 and the nuclear fleet's senior IT manager in 2008.

In 2010 Sheikh became Entergy's business unit CIO for all of the operations side of the business, with accountability for consolidating IT functions across various business units and improving Entergy's critical infrastructure protection program.

He has led a number of significant projects designed to improve the reliability and efficiency of the company's SCADA systems, which are used to monitor and control plant operations. From 2008 to 2010, Sheikh built, managed and decommissioned a spin-off company for Entergy.

Sheikh received a Bachelor of Science degree in economics from Rutgers University.

### **Bob Edwards**



**Bob Edwards** is a Human & Organizational Performance (HOP) practitioner. Bob works with all levels of an organization, teaching HOP Fundamentals and training

and coaching Learning Teams. Through the use of Learning Teams, companies and organizations are gaining a much deeper understanding of their operations and the complex nature of work. Bob leads organizations away from the blame model and deeper into collaboration. This, in turn, is leading to more thorough, meaningful and sustainable solutions to issues in safety, quality and operations.

Bob has a BS degree in mechanical engineering from Tennessee Technological University and Master's degree in Advanced Safety Engineering Management from the University of Alabama Birmingham. His work experience includes time as a maintenance man, soldier in the U.S. Army, a design engineer, maintenance and technical support leader and most recently in safety. Bob has worked for the past 16 years in the General Electric Appliances Division.

## Wally Groff



**Wally Groff** has worked for BPA 15 years, starting as a Substation Operator Apprentice. He has held jobs within transmission substation operations, NERC certified system operator, technical trainer, and technical services specialist. He currently works in the BPA Safety Office as their Human Performance manager responsible for managing BPA's agency Human Performance Improvement.

Wally is very passionate about helping people, and feels rewarded being given the opportunity to be an advocate for the front line worker, and being able to integrate Human Performance philosophies into all parts of the organization. Wally is also active in the North American Transmission Forum's Human Performance Practices Group, as well as the WECC Human Performance Working Group.

At home Wally enjoys spending time with his wife Amber, and two children Lillian (7) and Ethan (13), as well as fishing, carving wood, and gardening. He is also a veteran of the United States Marine Corps.

## Jeff White



**Jeff White** is the Human Performance Coordinator for Southern Company Services. Jeff began his career with Alabama Power in 1978 as a helper and progressed to journeyman lineman. During his time as a lineman, Jeff was a member of the winning Lineman's Rodeo team at Alabama Power and was the first Southern Company Lineman to compete in the International Lineman's Rodeo in Kansas City, Kansas. Jeff also attended Troy University at night while a lineman, receiving a BS in

Business in 1991. Jeff moved to Corporate Safety and Health in 1993.

In 2006, he transferred to Gulf Power Company as an Engineering and Construction Supervisor and in 2008 became a District Construction Supervisor. In 2010, White transferred to Mississippi Power Company as the Corporate Safety and Training Manager, where he worked prior to accepting his current role in January of 2012.

Jeff is an officer with the Southeastern Electric Exchange's (SEE) Accident Prevention Section and a core team member of the North American Transmission Forum's (NATF) Human Performance Practices Group.

## Kevin Harris



**Kevin Harris** has 28 years of service with Eversource Energy (Formally Northeast Utilities) in the field of Test and Commissioning of Generation, Substation and Switchyard facilities. In 2004, Kevin joined the Eversource Energy Transmission Group with an opportunity to participate in the startup of the newly formed Transmission Test Department (Field P&C/Apparatus Test). In 2007, Kevin participated in an opportunity to explore human performance with several consultants. Kevin has since co-championed a successful human performance improvement initiative within the Eversource Energy Transmission Group (72% reduction in Transmission Grid Events initiated by human error.) In 2012, Kevin presented on Electric Utility Industry Practices with Human Performance Tools at the first annual NERC conference on Human Performance in Atlanta, GA. He followed the NERC presentation opportunity with a presentation on a supervisor's perspective at the first PPI Human Performance Conference in Galveston, TX. In 2013, he presented at the first WECC Human Performance Work Group

Conference: Job Briefings, Creative Defense Barriers and HP Metrics in Salt Lake City, UT and was asked in 2014 to team with Mike Carden of Dominion and present at the 2014 WECC Human Performance Work Group Conference in Portland, OR. Kevin currently serves a team of 45 Field Engineers and technicians in Connecticut and Western Massachusetts for Eversource Energy as Manager of Transmission Test and Technical Support.

### Christian James



**Christian James** is Co-Founder and Managing Director of Industrial Biodynamics LLC, a company that provides kinetic learning training solutions to significantly reduce common workplace injuries. Prior to Industrial Biodynamics, Mr. James has been involved with numerous research and development projects for government and industry, to include: auditory research, shipboard component design, diesel engine testing and also research and development of future weapons. Mr. James also enjoys spending time cycling, running and tending his greenhouse in beautiful southwest Virginia.

### Tony Muschara



**Tony Muschara** is Principal Consultant and Owner, Muschara Error Management Consulting, LLC, specializing in human error risk management in high-hazard, industrialized facilities. Recent clients include: Amgen, PPL EU, Babcock and Wilcox (B&W), Biogen Idec, and The SI Group (chemical).

**Purpose:** Helping managers and leaders of high-hazard facilities protect people, products, and property from the human element by providing comprehensive and practical error management

applications developed from leading-edge research and experience, while honoring God and others through Wisdom, Integrity, and Love.

Over 37 years' experience in consulting, training, and management positions in commercial and military nuclear power operations

Authored numerous human performance guidelines and manuals for the nuclear power industry while employed by the *Institute of Nuclear Power Operations* (INPO) (22 years) in Atlanta, Georgia; several documents adopted by the U.S. Department of Energy and the International Atomic Energy Agency (IAEA)

A **Certified Performance Technologist** (CPT) awarded by the *International Society for Performance Improvement* (ISPI); considered a niche expert and specialist in the field of human error management

Qualified as a senior reactor operator (SRO) as a control room simulator instructor at *Farley Nuclear Plant*, while employed by *Westinghouse Electric Corporation*

Earned a Master in Business Administration (MBA) from *Kennesaw State University* near Atlanta, Georgia

Received a Bachelor of Science degree in mechanical engineering from the *U.S. Naval Academy*, served in the *U.S. Submarine Service* 25 years (active and reserve), Qualified in Submarines, and qualified as Engineer of Naval Nuclear Propulsion Systems; retired Captain, USNR-Retired

Married to his best friend, Pam, for 36 years, three children, and two grandchildren; lives near Atlanta, GA; enjoys hiking alpine trails in the Rocky Mountains.

## Dr. Michael E. Legatt



**Michael E. Legatt** is the principal human factors engineer for the Electric Reliability Council of Texas (ERCOT), which manages the flow of electricity to 22.7 million Texas customers. Mr. Legatt has been a programmer for over 20 years, and worked in the energy, financial, medical, neuroscience research and educational sectors.

He has a Ph.D. in clinical health psychology/neuropsychology from the Ferkauf Graduate School of Psychology/Albert Einstein College of Medicine, and is currently pursuing a Ph.D. in energy systems engineering at the University of Texas at Austin.

As an amateur (ham) radio operator, he received a commendation for helping to provide emergency communications during the 2003 blackout in the northeastern United States, which sparked his interest in the psychology of energy management. He works to build systems designed to provide operators with needed information, optimizing for perception, speed, comprehension, and stress management. He also works at the organizational level to support the growth of the industry's high reliability culture.

At ERCOT, his development of the Macomber Map<sup>®</sup> has been featured in the New York Times, National Public Radio and T&D World. The Macomber Map was credited as being instrumental in helping ERCOT operators maintain grid reliability during several record-setting wind generation levels since 2010, and through several severe weather events since 2009. Macomber Map is now freely available as an open-source application.

He also works on the behavioral aspects of consumer electric use, researching electric vehicle to grid integration, behavioral aspects of

conservation and consumer awareness in grid management, and the cybersecurity, behavioral, and reliability issues that arise with integration of new technologies across layers of the grid. He is ERCOT's lead on a collaborative project with the University of Texas at Austin, EV-TEC and the Pecan Street Project to study integrating electric vehicle charging and driver behavioral patterns with the bulk electric system. This research project looks at the viability of EVs to intelligently charge in a distributed fashion and provide ancillary services.

Email: [mlegatt@ercot.com](mailto:mlegatt@ercot.com)

## Beth Lay



**Beth Lay** is Director of Human Performance at Calpine. She holds a graduate certificate in cognitive science from the University of Central Florida and a Bachelor of Science degree in mechanical engineering from the University of North Carolina at Charlotte.

Beth's expertise is in applying Resilience Engineering and Highly Reliable Organizing ideas to existing safety and quality practices, aligning them with what we now understand about memory, perception, and how we think. Deming said variability is the enemy of quality but variability is unavoidable for most work. When we accept this, we change how we prepare for, plan, and perform work.

Beth has been in the power generation industry her entire career, working at Duke Energy then Siemens prior to Calpine. She's held roles ranging from an engineer assessing service run conditions and designing repairs for turbines to managing long term programs and implementing joint ventures in China to setting up and leading Siemens Field Service risk management program. As part of Calpine's safety team, she is implementing human

performance in what was formerly a more traditional safety program. With 84 plants in the US and Canada, Calpine is America's largest generator of electricity from natural gas and geothermal resources.

Beth has written papers and articles including "Risk Management: Using Resilience Engineering to Develop a More Reliable Workforce" in Power magazine, "A practitioner's experiences operationalizing Resilience Engineering" in Reliability Engineering and System Safety journal and was chapter author in books "Resilience Engineering in Practice", volumes 1 and 2, edited by Erik Hollnagel, David Woods, John Wreathall, and Jean Paries.

## Zak Woods



**Zachary Woods** obtained a Masters in human factors and cognitive systems engineering including Resilience Engineering at Ohio State under guidance of Emily Patterson. He obtained his Bachelors of Science at Xavier University.

Currently Zachary is focused on adaptive maintenance programs. Specifically how emergent maintenance needs are absorbed and addressed in constrained environments.

Zachary contributed to "A practitioner's experiences operationalizing Resilience Engineering" in Reliability Engineering and System Safety journal

## David Christenson



**David Christenson** is the CEO of Christenson & Associates, LLC, a consultancy group primarily serving safety-critical, high-risk industries and

now doing business as O4R: Organizing For Resilience (more at [www.o4r.com](http://www.o4r.com)).

David contributes to this organization as it serves clients with education, training, coaching and mentoring in Relational Leadership, The New View on Human Performance, Safety II, High Reliability Organizing & Resilience Engineering, Crisis Management, Critical Thinking, and Inspiring Leadership through Emotional & Social Intelligence.

David is currently pursuing a Ph.D. in Relational Leadership and Social Construction through the U.S. Taos Institute and Leiden University of Leiden, The Netherlands. He completed the Masters of Science degree program in Human Factors and Systems Safety at Lund University, Sweden in 2012. He was a researcher in the Leonardo da Vinci Laboratory for Complexity and Systems Thinking under the guidance of Professor Sidney Dekker. David previously earned a Master of Applied Geography degree in 2000 after an undergrad BS in Regional & City Planning, both with high honors from New Mexico State University. He recently earned a certificate with distinction in Inspiring Leadership through Emotional Intelligence, offered by Case Western Reserve University in preparation for his PhD studies.

## Dr. Mike Rayo



**Mike Rayo** is an Assistant Professor in the Department of Integrated Systems Engineering. In addition, he is the Principal Research Scientist and Owner of Cogenisys, a small design research consultancy. His research, consulting and teaching focuses on the triangulation of anthropological, design research, and quantitative research methods to understand current-state work systems and envision future systems that better support cognitive work. His design work focuses on creating systems that are usable, useful, desirable and safe to users and

support overall institutional goals. Recently, he has focused almost solely on the healthcare industry, devising improvements in clinical decision support, clinical alarms, interprofessional communication, and workflow automation with electronic health record software. His academic work has been funded by the Office of Naval Research, the National Patient Safety Foundation, and the Agency for Healthcare Research and Quality. Through his consulting work, he has applied his work to the automobile, insurance, healthcare, and education industries. He currently teaches two courses: Introduction to Cognitive Systems Engineering and Visual Analytics for Sensemaking.

### David Costello



**David Costello, P.E.** National Sales and Customer Service Director, Schweitzer Engineering Laboratories, Inc.

David Costello joined SEL in 1996 as a field application engineer and later served as a regional service manager, senior application engineer, and technical support director. He currently serves as the national sales and customer service director.

Prior to joining SEL, Costello worked as a system protection engineer at Central Power and Light and Central and Southwest Services in Texas and Oklahoma. He has served on the System Protection Task Force for ERCOT.

Costello has authored more than 30 technical papers and 25 application guides. He received the 2008 Walter A. Elmore Best Paper Award from the Georgia Institute of Technology Protective Relaying Conference and the 2013 Outstanding Engineer Award from the Central Texas section of the IEEE Power and Energy Society. He is a senior member of IEEE and a registered professional engineer in Texas.

Costello earned his bachelor of science in electrical engineering from Texas A&M University in 1991.

### Tony Lee



**Tony Lee** is the Vice President of Quality at Schweitzer Engineering Laboratories, Inc. (SEL) and is responsible for worldwide SEL quality systems and standards. He also oversees all SEL product compliance testing laboratories as well as the Corporate Customer Service and Supplier Quality Assurance organizations.

Mr. Lee joined SEL in 1991 and has held the positions of hardware engineer, principle research engineer, research engineering manager, R&D manager, R&D director of transmission and distribution, R&D director of power systems, and director of Quality.

He received his BS in electrical engineering from Washington State University in 1987. He worked for Texas Instruments in the Defense Systems Electronics Group from 1987 through 1991 as a test launch engineer.

Mr. Lee is named on 68 patents worldwide, with 24 others pending. His inventions are included in almost every SEL relay built today, as well as many other SEL products. He has authored or coauthored numerous conference papers regarding arc suppression, digital communications, and current differential protection for transmission lines.

### Ben Prier



**Ben Prier** - Business Development Manager - Electric Power. Ben is part of the Controls and Industry Solutions team at Phoenix Contact. His primary focus is on applications and solutions within the traditional



power and substation automation fields. Ben has over 10 years' experience in the Renewable Energy sector. Ben's previous position held at Phoenix Contact was as a Project Engineer, where he worked with Integrators, A&E firms, and End Users on project specifications and applications. He has a Bachelor of Science degree in Industrial Engineering from Iowa State University.

### Alan Sappè



**Alan Sappè** - Senior Product Specialist - Industrial Connectivity. Alan is a subject matter expert of a core product line within the Industrial Components division of Phoenix Contact USA based in Harrisburg, PA. His primary emphasis is with connectivity products used in substation and maintenance operations for T&D facilities where the products are used to support applications in relay protection and instrumentation and control. With over 10 years' experience in industrial connectivity, Alan works with utility companies, A&E firms, integrators and OEMs. He has a Master's degree from Shippensburg University and a Bachelor of Science degree from Penn State University.

### Dr. Antony Hilliard

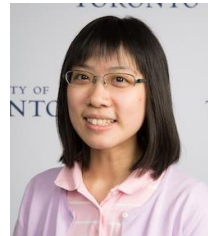


**Antony Hilliard** is a Post-Doctoral Fellow at the Cognitive Engineering Laboratory in the University of Toronto's Department of Mechanical & Industrial Engineering, and a Professional Engineer. He has applied sociotechnical systems analysis frameworks to improve tools for industrial Energy Monitoring & Targeting (M&T), inform requirements engineering for defense procurement, and specify human-in-the-loop simulators for research or training. Consulting clients and research partners include 3M

Canada, Defence R&D Canada, Energent Inc., and the IESO.

Antony received a Ph.D. in Industrial Engineering in 2015. His research interests are in designing control interfaces, information systems, and physical devices to enable next-generation socio-technical energy systems.

### Fiona Tran



**Fiona F. Tran** is a human factors engineering master's student in the Cognitive Engineering Laboratory at the University of Toronto. Her research is in designing and evaluating wide-area monitoring displays for power grid operation. She holds a BAsC in Engineering Science from the University of Toronto, specializing in Energy Systems Engineering.

Fiona has completed internships in human factors research with the Ontario IESO, electrical engineering with the Toronto Hydro-Electric System, and web development with several academic departments at the University of Toronto.

Her extensive community involvement and academic achievement have earned her the Gordon Cressy Student Leadership Award and Queen Elizabeth II Graduate Scholarship in Science and Technology, among other awards. She is a student member of the Human Factors and Ergonomics Society, and the Ontario Society of Professional Engineers.

### Rob Fisher



**Rob Fisher** is currently the President and Director of Operations for *Fisher IT, Inc.* a Native-American (Cherokee) owned business that was

recently awarded a Top-100 Native-American Owned Business in the US and a Top-50 Emerging Business in North Carolina by DiversityBusiness.com. Rob has extensive experience in performing event investigations, designing performance improvement systems, designing and improving corrective action programs, designing and running procedure programs, and educating staff. He is a sought after trainer, and is routinely invited to speak at international, national and regional conferences on safety, procedures, performance improvement, human performance and event investigation. Fisher IT has most recently been recognized internationally as instrumental in reducing fatalities and serious / life-altering injuries in high hazard industries using human performance and procedure concepts.

*Fisher IT, Inc.* provides training and consulting services in Human Performance Improvement, Root Cause, Corrective Action Program and Procedures / Programs / Processes for multiple industries. Current projects include US Nuclear, Non-Nuclear power generation and transmission, US Industrial and Petrochemical, Department of Energy and international clients.

Fisher IT, Inc. is known world-wide for the creation of practical application error reduction tools for use from the Senior Leaders to the hands of the field worker.

## Rizwan Shah



**Rizwan Shah**, Organizational Culture Program Advisor, provides direct consultation (assistance) to DOE and Contractor senior officials and their organizations on the development, management, assessment and improvement of organizational culture and performance reliability programs and interventions. He maintains close contact with field and oversight

organizations to ensure awareness of the state of organizational culture throughout the DOE complex. He provides authoritative advice to and coach's senior Department officials on issues that affect organizational culture to promote continuous improvement and consistency across the complex on related topics.

Mr. Shah works to develop and deliver necessary education and training materials to DOE leaders and personnel. He leads developing Departmental Safety Culture and guidance documents working through DOE's Integrated Safety Management (ISM) process. He also serves as the Department's staff level liaison with other government, international and professional organizations in the area of Organizational Culture, High Reliability Organization, Human Performance Improvement, and Safety Programs. He is also the DOE liaison for the Institute for Nuclear Power Operations (INPO).

Mr. Shah has experience in Leadership and Human Resource Development, Safety and Change Management, and Organizational Culture spanning 23 years and 13 countries. He has earned a Masters in Organizational Psychology from Columbia University and a Bachelor's of Science in Technical Management from Embry-Riddle Aeronautical University with a minor in Aviation Safety.

His office is located in the Department of Energy Germantown, Maryland office under the Office of Environmental Protection, Sustainability Support, and Corporate Safety Analysis

## David Bowman



**David Bowman** has 23 years of industrial experience with a strong background in Safety and Plant Operations.

David led the Human Performance effort at RiverBend Nuclear Station

from 2004-2007 and has carried that experience over into the Distribution and Transmission business units of Entergy. David is a firm believer that companies can and will improve their overall performance if they enhance their behavioral culture.

### Christopher Lazzaro



**Christopher Lazzaro's** passion lies at the intersection of design, storytelling, and learning. His team preaches the good news that your people want to learn if only they have a few things to help along the way, like training that is seriously fun.

To get here, Christopher spent the last twelve years ~~in Tibet~~ in increasing management roles at Associated Electric Cooperative, finally managing all programmers and technicians serving the utilities' core energy production and grid management needs. Responsibilities grew to include the Energy Management System, fossil plant software systems, and other critical systems that require the highest level of security and reliability. Basically, all the fun stuff. In previous lives, Christopher was a web site designer, systems programmer, software consultant, and five years a faculty member of the Breech School of Business at Drury University.

Christopher now works with the team at MetaMythic to build amazing training and awareness experiences. Through the process of Applied Fiction, the MetaMythic team adds fiction and storytelling to complex and technical training so people engage, understand, and remember the skills they need to defend our infrastructure.

### Lisa Carrington



**Lisa Carrington** has been in the electric sector for 15 years. She has work at both public and investor-

owned utilities as well as, a non-profit focusing on energy sector security.

During her tenure at Chelan PUD she developed and led the company's first NERC reliability compliance and NERC CIP compliance programs. Lisa earned her NERC system reliability operator certification in 2008 and later assumed the duties of system operations training as well. Prior to this role she also spent time in power sales/marketing, government affairs, and utility governance.

In 2011 she accepted a position at EnergySec as the Vice President - Policy & Strategy. This role focused on shaping national cybersecurity policy decisions and fostering security program development in the energy sector.

In late 2013 Ms. Carrington moved to Arizona Public Service as Regulatory Compliance Advisor. Providing oversight as well as technical and compliance support to the Transmission Operations and the Security & Compliance organizations. In late 2014 she transitioned to IT to lead the company's NERC CIP Version 5 Transition Team. Her focus is to enhance technology, operations, and processes to provide security benefits and meet compliance obligations.

Ms. Carrington was one of the founders of the Western Interconnection Compliance Forum (WICF), an all-volunteer information sharing organization focusing on NERC reliability compliance. This successful utility forum promotes peer-to-peer interaction. After nine years of continuous growth, WICF is currently the largest and most robust forum of its kind in the country.

Her broad utility experience yields a real world understanding of the balance needed between security, compliance obligations, and reliable utility operations.

## Tom Neary



**Tom Neary, P.E.** the CEO and Co-Founder of OpCon Technologies, Inc. Tom pioneered the use of on the job video collaboration software to make field service and plant work force teams more resilient. Tom is an iOS developer and is fluent in applying Apple's ecosystem to businesses and corporate enterprises. Tom also volunteers time to promote and strengthen Human Performance across the Transmission and Distribution (T&D) business units of the North American electric utilities industry.

Prior to founding OpCon Technologies, Tom designed and installed industrial process control systems for 17 years. Tom holds a bachelor's degree in Chemical Engineering from University of New Hampshire and a Master's degree in Chemical Engineering from Tulane University in New Orleans, LA. Tom is a Registered Professional Engineer in the state of California.

## Christian Vehrs



**Christian Vehrs** served as a Field Supervisor and Inspector for Nuclear Power Services during the construction of South Texas Nuclear Project units 1 and 2 in Bay City, Texas. During this same time, he also provided inspection services for the construction of Laguna Verde Nuclear plant in Alto Lucero, Veracruz, Mexico.

After the completion of STNP, he provided inspection services for various fossil fuel power generating stations targeting Inter-granular Stress Corrosion Cracking (IGSCC) of main steam lines.

Mr. Vehrs joined Delta Air Lines in 1991 where he provided inspection oversight for Delta's turbine jet engine rotors and blades. He is currently the Lead

Instructor for Delta Air Lines' Human Factors program. In addition, he also delivers Delta's Accident / Incident Investigation training.

Mr. Vehrs sits on Delta's Event Review Committee in partnership with the Federal Aviation Administration (FAA) to review incidents of safety and compliance violations. In this capacity, he performs investigations internal to Delta Air Lines in partnership with the FAA.

## Shari Heino



**Shari Heino** started her career in the Texas electric industry in 1999 as an attorney for the Electric Reliability Council of Texas, Inc. ("ERCOT"), where she helped develop and manage the ERCOT market rules, handled market participant disputes and managed regulatory filings. In 2007, she joined Mathews & Freeland, a small utility law firm, and continued to practice utility law. In 2011, she became the Compliance Manager for Brazos Electric Power Cooperative, a Texas generation and transmission cooperative, where her responsibilities include overseeing Brazos' NERC compliance program in addition to supporting Brazos' compliance and risk management activities in other areas. Shari is a member of the Texas Reliability Entity's Member Representatives Committee ("MRC") and the Vice Chair of TRE's NERC Standards Review Subcommittee. Shari has been training dogs for most of her life and competes with her dogs in several dog sports including agility, flyball, and canine freestyle.

## Timothy Adam



**Timothy Adam** is the Director of Safety and Training for Chain Electric. He has been with Chain Electric for over 2 years working with 650 employees and various Transmission and Distribution

Customers, Safety and Training Consultants and Organizational Effectiveness consultants. Tim holds a B.S. in Business with an emphasis in Management from Columbia Southern University. Prior to this role, Tim served as Manager of Safety and Training with Mississippi Power Company, responsible for the safety and health of all employees. He served 14 years with Mississippi Power having worked in the Customer Service Organization as Area Manager, Distribution Control Center Supervisor, Line Construction and Maintenance Supervisor and Journeyman Lineman. Tim worked 14 years with Coast Electric Power Association in roles such as Journeyman Lineman and Lead Lineman.

Tim currently serves on the advisory council for the Institute for Safety in Powerline Construction (ISPC). Tim is a past board member of the Stone County Economic Development Partnership as well as the Stone/Wiggins Recreation Association Board. Tim served as Vice President of the Stone County Economic Development Partnership Board of Directors. He also served as the Chair Person for the Stone County Economic Development Partnership Industrial Committee and committee member of the Stone/Harrison Accelerate to 2060 Study. Tim served as chairperson of a search committee to hire an Economic Development Director in Stone County.

Tim is a 2009 graduate of Mississippi Power's Leadership Development Program. Tim holds several certifications including Certified Occupational Safety Manager (COSM) and Certified Utility Safety Professional (CUSP). He is also an OSHA outreach trainer.

Tim served in the Army National Guard from 1991 to 1996. His Military Occupational skills (MOS's) were 63Bravo and 11Bravo.

Originally, from the MS Gulf Coast, Tim and his wife, Sophie, have made Wiggins, MS. their home. They have three children and one Grandchild – Brittany

White (28), Kaitlyn (17), Kaleb (13) and Roman White (5).

### Kent Peterson



**Kent Peterson** is the Human Performance Improvement (HPI) Program Manager for Xcel Energy. He is responsible for leading the HPI efforts and initiative within the Transmission organization. He has held previous roles and duties within Transmission Technical Compliance Training, Fossil and Alternative Generation Training, and Nuclear training, operations, and oversight. In addition, he works with company stakeholders and committees with Root Cause and Event Analysis, is chair of the Human Performance Advisory Committee for Transmission, sits on the HPI Sub-Team for Energy Supply and Generation, and is a Core Team member of the NATF Human Performance Practices Group. He holds a Bachelor of Science in Applied Physics from Winona State University.

### Brian Baskette



**Brian Baskette** is the Principal Program Manager for Human Performance at the Institute of Nuclear Power Operations (INPO) in Atlanta, GA. He has over 30 years of experience within the nuclear and energy sectors. He provides consultation, facilitation, and training to improve human performance, leader and team effectiveness, and organizational performance. Brian has worked with nuclear, electric generating, fuel processing, corporate utility, government, and research facilities throughout the US and abroad. He worked at three nuclear power plants and a corporate utility in addition to his INPO experience. Brian holds a Master's Degree in Industrial/Organizational Psychology, a Certificate in Organization

Development, ISPI Certification as a Performance Technologist, and IAF Certification as a Professional Facilitator. He is a life-long learner and enjoys traveling, fishing, playing drums, and being in the mountains with his lovely wife.

## Deveny Bywaters



**Deveny Bywaters** is the Operations Training Manager for the Western Electricity Coordinating Council (WECC), responsible for the Operator Training Program and staff liaison for the Operations Training Subcommittee (OTS) and Human Performance Work Group (HPWG).

With 27 years of experience in Training and Talent Development, Deveny plays a key role in WECC's Human Performance Work Group's current efforts to review event trends from a human performance and training perspective. By the end of 2016, the goal is to pilot a Human Performance Awareness program.

Deveny has trained hundreds of end users, developed corporate training programs, implemented a corporate online university, and managed cross-functional teams on topics ranging from GIS, substation asset management, billing, diversity, leadership, and performance management.

As a member of Toastmasters International, Deveny was a District Director from 2008 to 2012, responsible for managing a membership of 2,000 with a volunteer leadership team of 65. Toastmasters proved to be a valuable playground for leadership and communication skill building.

In her spare time, when Deveny is not reading about human performance or training techniques, she retreats to the garden for relaxation in the summer and can be found on the ski slopes burning off energy in the winter. As often as possible, Deveny

spends time with her two 4-year old granddaughters who prove to be a rich resource of inspiration for how people learn.

Whether it is field training, human performance training, or 4-year-olds training adults, Deveny is always exploring creative ways to learn.

## Steve Collins



**Steve Collins** is a Senior Operations Specialist with Pacific Gas and Electric (PG&E) Company, currently working in Transmission System Operations Training. In this position, Steve provides training development for System Dispatchers, System Operators and Apprentices. He focuses on creating the training material, working with the training simulator to create training scenarios, presenting the training material to the students and managing the post-course data. Some of his topics include NERC/WECC overview, voltage control, reactive resources, system restoration, electric emergency plans, remedial action schemes, special protection schemes, load shedding schemes, and 500kV switching and protection.

Steve has worked for PG&E for 28 years. He began his career as an Auxiliary Operator at the Contra Costa Power Plant. In 1997 Steve became a transmission System Operator at the Pittsburg Switching Center. He participated in several rotations as an instructor for system operators, an instructor for switchmen training, and then joined the Transmission Operations Center (TOC) in 2009 as a System Dispatcher, eventually working as a Shift Supervisor. Steve joined the TSO-Training team in 2013.

## Dr. Jake J. Mazulewicz

---



**Jake Mazulewicz** serves as Dominion Virginia Power's Human Performance Specialist. He focuses on designing and leading interactive Human Performance cases and classes.

He served as a Senior Instructional Designer, and created interactive training courseware for Distribution and Transmission Linemen, Substation Electricians, Designers and other technical specialists.

He is a former College Professor who taught Organizational Behavior, and Leadership at Bentley University near Boston. He earned his Ph.D. in Education from the University of Virginia. For four years he led Outdoor Experiential Learning courses for corporate clients. He is a former Firefighter, EMT, and Paratrooper.

## Ben McMillan

---



**Ben McMillan** joined NERC staff on June 20, 2011 as a Risk Analysis Engineer. Prior to this, Ben spent time in the manufacturing industry, working in the fields of quality and process improvement, as the Division Quality Manager. A naval officer for 20+ years, he served in the surface warfare and nuclear power community, certified as a Naval Nuclear Engineer. Additionally he held positions in the operational testing of weapons and command /control systems. He holds a Bachelor of Science in Mathematics from the United States Naval Academy and a Master of Engineering Management degree from Old Dominion University.

A Senior Member of the American Society for Quality (ASQ), Ben holds certifications from ASQ as a Quality Engineer (CQE), Reliability Engineer (CRE), Quality Auditor (CQA) and Manager of

Quality/Organizational Excellence (CMQ/OE). He is also a Six Sigma Black Belt, and has been teaching Root Cause Analysis for 4 years, having developed the course for NERC as well as his previous employer.

**E-mail:** [ben.mcmillan@nerc.net](mailto:ben.mcmillan@nerc.net)

## Ed Ruck

---



**Ed Ruck** is a Senior Reliability Engineer and is responsible for performing event analyses of power system events and reviewing the Event Analysis reports written by the industry. Ed joined North American Electric Reliability Corporation (NERC) as a Regional Compliance Program Coordinator in October 2004 and was responsible for oversight of regional entities in their implementation of the mandatory compliance program, and since then has held roles in compliance auditing and compliance investigations prior to joining the Reliability Risk Management team.

Prior to joining NERC, he worked as a Senior Engineer at Mid-America Interconnected Network performing the Reliability Coordinator function. He also worked on EMS maintenance projects and regional planning studies.

Ed has a Bachelor of Science degree with a major in Electrical Engineering from the University of Illinois Champaign – Urbana.

**Email:** [ed.ruck@nerc.net](mailto:ed.ruck@nerc.net)

## Dave Sowers

---



**Dave Sowers** has spent the last 25 years “pushing electrons through copper wire” in different capacities across several sectors of the industry. He started his career in power

generation in the Naval Nuclear Power Program. After his service in the Navy, Dave worked for a Semi-Conductor manufacturer in the chemistry department, before returning to his nuclear power roots in the commercial sector. He spent several years working as a nuclear plant operator for both PSE&G in New Jersey and Entergy in Louisiana. Dave returned to government service with US Army Corps of Engineers as a Hydro-Electric Control Room Operator and Emergency Management Specialist. Throughout his 25 year career, Dave has served in many diverse roles including Plant Operator, Procedure Developer, Operations Training, Emergency Response, Control Room Supervision, and Power Plant Management. This broad range of power generation experience has given Dave a unique diversity of experience and perspective, from the tool room to board room.

Dave Sowers' formal education has also helped to foster this diverse perspective. Dave's learning didn't stop after he graduated from the Naval Nuclear Power Program. While working he continued to gain an extensive formal education. Dave has a Bachelor of Science degree in Resources Management from Troy University, a Master of Science in Management degree from Troy University, and a Master of Science graduate certificate in Emergency Management and Homeland Security from George Washington University; he graduated all three programs Summa Cum Laude.

Dave's work and education experience gives him a unique perspective and ability to bridge the gaps between an organization's frontline workforce and their management team. Since he has lived Human Performance from both perspectives he is an effective, relatable, and credible communicator of its principles and methodologies. Dave Sowers is ready to help your leaders coach and communicate Human Performance to your team.

## Tony Wiseman



Tony Wiseman is a recognized expert on power plant training and staffing, including work in the US Navy Nuclear Power Program, Progress Energy Carolinas and Calpine Corp., and is currently Calpine's Training Manager. He led the effort to develop and implement Calpine's craft progression program, including the creation of 21<sup>st</sup> Century 3D combined-cycle training animations. Working with Calpine's Human Performance and Safety team, he is developing Operations Centers of Excellence across Calpine's fleet.

At Progress Energy, Tony worked closely with Hop Howlett to develop human performance programs to support a fleet-wide Conduct of Operations and Operations Excellence programs. He also developed Progress Energy's industry benchmark multi-skilled craft development program. Tony managed the retraining effort of single skill coal plant craft employees to support the retirement of five coal plants and construction of three combined-cycle facilities. In his safety role, he led the effort to translate new industry arc flash requirements into tools useful to the front-line worker, as well as the implementation of the National Incident Management System Incident Command system to support Progress Energy's oil spill response program. On NERC compliance, Tony developed an industry benchmark Generator Owner/Operator training program.

In the US Navy Nuclear Power Program, he has served honorably on five nuclear submarines, retiring as a Chief Electrician. At the Kings Bay submarine base, Tony led the effort to evaluate and update the Nuclear Repair Division's staffing strategy to support a 50% increase in fleet support requirements. As a Master Training Specialist at the Navy Nuclear Power Training Command, Tony developed a student evaluation system and intervention program aimed at reducing student



attrition. He taught courses on marine electrical equipment and electronic control systems.

Tony has been involved in various industry groups, including Electric Power Expo (EPEXPO) since 2007. He has served on the Board of Directors of the ASME Combined-Cycle Users Group (CCUG), chairing the board as it transitioned to an independent users group. Tony has also led the Western Utilities Training Advisory Board (WUTAB) conference steering committee, hosting conferences both at Calpine and Progress Energy. He has presented on workforce issues and arc flash operations at the FOMIS Plant Managers Forum, Southeast Electric Exchange, Southwest Electric Safety Exchange, EPEXPO, CCUG, and WUTAB. He has published articles in Power Magazine and the Combined-Cycle Journal.

Tony holds an MBA in Technology Management from University of Phoenix, a Bachelor's in Applied Nuclear Engineering from Thomas Edison State University, and a Bachelor's in Liberal Studies (Sociology, Political Science) from Excelsior College.

