

Project Team Resumes



CONTACT

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- Kenner, LA

EDUCATION

B.S., Biology,

University of Arkansas at Little Rock, Little Rock, AR

Professional Licenses, Certifications and Accreditations:

HAZWOPER

First Aid & Safety

Assessment and Measurement Certification for Measuring Ambient Odors

Certification of Visible Opacity Reading (EPA Method 9)

The National Environmental Trainers "Asbestos Awareness"

Total Safety H2S Chemical Specific Training

TSA:TWIC Transportation Worker Identification Credential

CSXT Contractor Training

e-RAILSAFE Training

Houston Area Safety Council Basic Plus DOW Site Specific

BP Texas City Refinery Site Specific

Colonial Pipeline Safety

HUET/ Offshore Survival/ Swing

Rope Certification

ExxonMobil: SPSA Safe Performance Self-Assessment

Shell: The Life Saving Rules

INTRODUCTION

April Mack Steger graduated from the University of Arkansas Little Rock with a Bachelor of Science Degree in Biology and Chemistry with an emphasis in Environmental Science. Mrs. Steger joined CTEH[®] in 2008, in North Little Rock, AR, as a member of the Toxicology Emergency Response Program (TERP[®]) including serving as an Environmental Scientist Project Manager responding to over 50 chemical releases across the United States and Canada. In 2012, Mrs. Steger transferred to CTEH[®]'s Kemah, TX, office as the Manager of Gulf Coast Operations and Major Projects Team with the goals of continuing to provide excellent service and support to clients in the Houston area and beyond in the areas of emergency response air monitoring, industrial hygiene (IH), safety, and environmental sampling.

Mrs. Steger specializes in Industrial Hygiene for worker safety and health, air monitoring during chemical releases for the safety and health of potentially affected communities, and the Incident Command System Safety role during high profile Incidents involving discharges that threaten navigable waterways. She has responded to refinery and chemical plant releases, chemical storage facility fires, pipeline releases, train derailments, offshore and onshore well blowouts, and barge and vessel releases across North America. She has supported her clients during annual large scale exercises, attending approximately 10 each year, and during emergency and remediation phases of releases to the environment taking roles such as Air Monitoring Specialist, Safety Officer and Assistant Safety Officer, Environmental Sampling Planning, Emergency Operations Center Safety, and Demobilization Unit Lead.

Mrs. Steger has experience conducting IH monitoring for OSHA and US Coast Guard compliance. Her expertise includes working with local, state and federal agencies to gain approval for work plans submitted through Unified Command for air, soil and water sampling during release events, and developing site safety and health plans for cleanup workers.

Mrs. Steger is a member of the La Porte, Morgan's Pointe, and Shore Acres Local Emergency Planning Committee Emergency Response and Resources Subcommittee (2012-Present); American Industrial Hygiene Association Gulf Coast Chapter; YoungShip Texas, Central Texas Coastal Area Committee (2014-Present); Texas TRANSCEAR, Membership Coordinator (2012-present); and Women's International Shipping and Trading Association Houston Chapter (2012-present).

Mrs. Steger has the following registrations and certifications: Transportation Worker Identification Credential (TWIC); 40 hour Hazwoper; 8 hour Hazwoper Supervisor; e-Railsafe; NIMS ICS 100/200/300; Houston Area Safety Council Basic Plus; site specific credentials for many facilities in the Gulf Coast; CPR; AED & First Aid for Adults; personnel transfer basket/swing rope training; Offshore Water Survival; and (HUET) METS Model 5.

Expertise includes: i) GIS Applications: ArcGIS, QGIS ii) Productivity and Visualization: Tableau, MS Word, MS Access, MS Excel iii) Operating Systems: Windows, Mac OSX

EMPLOYMENT

RELEVANT EXPERIENCE

Environmental Emergency Response-Tank Fire, Project Manager, Confidential Petroleum Client, Kansas City, KS

Ms. Steger led a team of environmental scientists who performed air monitoring with real-time instrumentation, analytical air sampling, and meteorological data collection. CTEH® provided toxicological support to assist Haz-Mat Response, Inc., client representatives, U.S. Environmental Protection Agency (USEPA), and Incident Command in protecting the health and safety of emergency responders, site workers, and community members during the emergency response. One 120,000 barrel capacity tank containing approximately 28,000 barrels of unleaded gasoline was involved in the fire, ; thus gasoline, its major components, and combustion products (particulate matter and polycyclic aromatic hydrocarbons) were the primary chemicals of interest.

Worker Exposure Assessment, Project Manager, United States Environmental Services, Memphis, TN

Ms. Steger led a team of three environmental scientists to monitor for possible worker exposure at a recycling facility. CTEH® was retained by a national remediation company due to a concern of an unidentified odor from inside a local recycling plant. Ms. Mack managed the real-time instrumentation, HAPSITE GC/MS, and report on the analytical sampling, data management, and report writing.

Emergency Response, Project Manager, Confidential Rail Client, California

Ms. Steger performed air monitoring with real-time instrumentation and analytical sampling during the rerailing of three tank cars containing chlorine residue, sodium hydroxide, and ammonium polysulfide, data management.

Emergency Response - Oil Well Blowout, Project Manager, Mississippi Department of Environmental Quality, Wiggins, MS

Performed real time air monitoring and analytical sampling during an onshore oil well blowout. Ms. Steger led the effort to assemble and implement an air monitoring and sampling plan that utilized both real-time air monitoring and analytical sampling for H2S, sulfur dioxide (SO2), and volatile organic compounds (VOCs) at the perimeter of the blowout and in the surrounding community. To

accomplish this, she established a two-tiered perimeter monitoring approach. The inner most perimeter was designed to monitor the well work site perimeter. The purpose of this perimeter was to alert CTEH®, MDEQ, local Emergency Management Agency, and on-site operations personnel of conditions at the work site that could potentially result in elevated chemical concentrations. Secondly, an air monitoring perimeter within the adjacent community to assess possible concentrations of chemicals that could potentially impact the community.

Emergency Response - Chemical Plant Fire, Project Manager, Columbus Chemical Industries, Wisconsin

CTEH® was requested to respond in support of CCI to conduct on-site and off-site air monitoring for remediation teams, origin and cause investigators, residences, and businesses near the area affected by the chemical fire. Ms. Steger took the leading role in the overall air monitoring for possible chemical hazards, community air monitoring for possible chemicals that could escape the fenced area of the worksite perimeter and overall safety for the work site operations. This included performing air monitoring and chemical identification during cleanup activities after a chemical warehouse fire.

Emergency Response, Project Manager, Confidential Petroleum Client, Mississippi

Performed carbon dioxide testing and noise monitoring during a routine pressure release of a CO2 well for the protection of workers drilling in the area of the release.

Confidential Rail Client, Toronto, Canada

Provided air monitoring for the transfer of a derailed sulfur dioxide car near the open commuter train line for the protection of the workers and the community.

Christopher Kuhlman, PhD, CIH, DABT

Senior Toxicologist
Director, ER Sciences



CONTACT

- ckuhlman@cteh.com
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- North Little Rock, AR

EDUCATION

Ph.D., Pharmacology and Toxicology,
University of Arizona, Tucson, AZ

B.S., Biochemistry,
University of California, Los Angeles, CA

Memberships and Affiliations

Society of Toxicology
American Industrial Hygiene Association (AIHA)
AIHA Emergency Response Planning Guidelines (ERPG) Committee
American Society for Testing and Materials (ASTM)

PROFESSIONAL CERTIFICATIONS

- Diplomate of the American Board of Toxicology (DABT)
- Certified Industrial Hygienist (CIH)
- 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) certification
- 8-hour HAZWOPER Supervisor certification

INTRODUCTION

Dr. Christopher Kuhlman is a board-certified toxicologist (DABT) and industrial hygienist (CIH) with experience in the fields of occupational toxicology, environmental toxicology, industrial hygiene, and human health risk assessment. Dr. Kuhlman's background includes a B.S. in Biochemistry from The University of California, Los Angeles (UCLA) and a Ph.D. in Pharmacology and Toxicology from The University of Arizona. Upon completion of his Ph.D., Dr. Kuhlman accepted a position as a Toxicologist at CTEH in Little Rock, Arkansas.

As the director of CTEH's ER Sciences program, Dr. Kuhlman leads the technical direction of CTEH's complex emergency response efforts. He has used his experience to help companies prepare for, respond to, and recover from hazardous material incidents.

Dr. Kuhlman participates in diverse projects, spanning from assessing chemical products to responding to environmental contamination and investigating chemical causes of human diseases. He is consulted for his expertise in worker chemical exposure incidents and effectively conveys toxicological information to workers, supervisors, and healthcare providers. Additionally, government agencies, hazardous materials handlers, manufacturers, and the petroleum industry seek his expertise in toxicology and risk assessment during hazardous material emergencies that pose a threat to workers, residents, and the environment.

EMPLOYMENT

- Director, ER Sciences, 2023 - Present
- Senior Toxicologist, 2021 – Present
- Project Toxicologist, 2017 – 2021
- Toxicologist, CTEH[®], LLC, North Little Rock, AR, 2014 – 2017
- Graduate Research Fellow, University of Arizona, Tucson, AZ, 2008 – 2014
- Research and Development Chemist, Bachem Biotechnology, Torrance, CA, 2006 – 2008

RELEVANT EXPERIENCE

Toxicology

Conducted general- and specific-causation analyses regarding chemical exposure and disease based on weight-of-evidence assessment of epidemiology, animal toxicology, and mechanistic data. Analyses included a variety of substances including asbestos, benzene, ethylene oxide, glyphosate, pesticides, silica, and other solvents. Consulted on a variety of projects, including industrial hygiene and community exposure assessments, chemical product evaluations and safety data sheet development, occupational exposure limit derivation, safety data sheet development, and formulation of emergency response guides and relevant exposure limits. Utilizing

knowledge of various scientific disciplines, conducted and supervised environmental and industrial hygiene sampling, monitoring, and information collection.

Serves on the leadership committee of the American Industrial Hygiene Association's Emergency Response Planning Guideline (ERPG) Working Group. This working group develops exposure guidelines for responding to potential releases of airborne substances for use in community emergency planning. ERPGs are used by first responders and regulators during an emergency response to evaluate possible health effects to the public or emergency response personnel.

Provides toxicology support to hazmat managers of Class I railroads and emergency room attending physicians following railroad employee chemical exposures.

Industrial Hygiene and Emergency Response

Responsible for the development and implementation of air monitoring and environmental sampling protocols for industrial hygiene and community exposure assessments. Assessments included the recognition of hazards, quantification of identified exposures, and determining the need for, and effectiveness of, exposure control methods.

- Responded to and/or provided technical support for more than a hundred chemical release emergencies, including major offshore oil spills, transportation incidents with hazardous materials, well control events, human health and environmental events, and natural disasters for both the public and private sectors.
- Prepared air monitoring and sampling work plans with appropriate instrumentation, sampling methods, and health-protective action levels based on relevant occupational and community exposure standards and guidelines.
- Prepared water, soil, and sediment environmental sampling work plans with appropriate instrumentation and sampling methods.
- Prepared health and safety plans and job safety analyses (JSA/JHA).
- Work plans reviewed and approved by local, state, and federal regulatory authorities.
- Coordinated medical monitoring programs with CTEH occupational health nurses.
- Provided risk communication support to workforces and communities (e.g., town hall meetings).
- Served in the safety, environmental, and operations units of incident commands established following a chemical release emergency, providing toxicology and industrial hygiene consultation to local, state, and federal agencies.
- Organizes and participates in worst case discharge drills and exercises.
- Staffs a worker exposure call center that offers immediate response to railroad employees reporting a chemical exposure at their workplace, including providing toxicology support to medical care providers, employees, and company supervisors.

Occupational Exposure Limit and Emergency Exposure Guideline Development

Developed internal/provisional occupational exposure limits (OELs) to assess risk and manage workplace hazards. Developed OELs following guidance of OSHA and ACGIH, based on an analysis of chemical properties of the substance, experimental studies on animals and humans, toxicological and epidemiological data.

- Developed internal/provisional OELs based on relevant toxicity and human exposure information.
- Develops AIHA Emergency Response Exposure Guidelines (ERPGs) intended for use as tools to assess the adequacy of accident prevention and emergency response plans, including transportation emergency planning, community emergency response plans, and incident prevention and mitigation.

Risk Assessment

Prepared risk assessment reports in accordance with state, federal, and international risk assessment guidelines (USEPA RAGS, DTSC HERO, TCEQ TRRP, LDEQ RECAP, Health Canada). Strategies include:

- Site-specific exposure assessments
- Chemical-specific exposure assessments
- Receptor-specific exposure assessments
- Job-task-specific exposure assessments
- Evaluation of multiple chemicals and biological interactions at target organs
- Toxicological assessments of chemicals without existing USEPA-derived toxicity factors
- Derivation of risk-based screening levels for chemicals with no existing standards
- Chemicals of potential concern evaluated include, but are not limited to, petroleum hydrocarbons, catalyst dust, metals (arsenic, lead, hexavalent chromium, manganese, etc.), chlorinated hydrocarbons (TCE, PCE, DCE), glyphosate, pesticides, dioxins, fire smoke particulate matter, polycyclic aromatic hydrocarbons (PAHs), and asbestos.

Pandemic Health & Safety

Assisted the U.S. Department of State and various companies (oil exploration & production, film and TV, corporate offices) throughout the United States and internationally in preparing for, responding to, and recovering from the COVID-19 pandemic. Responsibilities included engaging with U.S. Department of State, White House officials, and company leaders to help approach the pandemic from a practical, science-supporting standpoint to reduce the transmission of the SARS-CoV-2 virus. Support provided included:

- Developed health and safety plans, processes, and best practices.
- Developed various positive case response, case investigation, and contact tracing plans.
- Provided onsite coordination and implementation of health & safety plans.

- Provided risk communication with U.S. officials, diplomats, and industry workers.
- Coordinated COVID-19 diagnostic testing.
- Supported compliance with applicable guidance, regulations, and industry standards.

PUBLICATIONS

1. Kuhlman CL, Reilly M, Millner GC, and PM Brady. Emergency response and preparedness. *Encyclopedia of Toxicology* (4th edition), edited by P Wexler, Academic Press, pages 93-108. 2024
2. Kuhlman CL, Lipscomb JC. Toxicity data as the basis for acute and short-term emergency exposure guidance. *Toxicological Risk Assessment and Multi-System Health Impacts from Exposure*, edited by Aristidis M. Tsatsakis, Academic Press, pages 163-174. 2021
3. Kuhlman CL (co-author). *The Role of the Industrial Hygienist in a Pandemic: A Roadmap for COVID-19 and Beyond*. American Industrial Hygiene Association, Falls Church, VA. 2021
4. Kuhlman CL (scientific advisor). *Guidance for Conducting Civil Jury Trials During the COVID-19 Pandemic by the ABOTA COVID-19 Task Force*. American Board of Trial Advocates, Dallas, TX. 2020
5. Wnek SM, Kuhlman CL, Harrill JA, Nony PA, Millner GC, Kind JA. *Forensic Aspects of Airborne Constituents Following Releases of Crude Oil Into the Environment*, in Stout S and Want Z (ed) *Oil Spill Environmental Forensics Case Studies*. 1st ed: 2017
6. Brown JM, Kuhlman C, Terneus MV, Labenski MT, Lamyathong AB, Ball JG, Lau SS, Valentovic MA. *S-Adenosyl-L-Methionine Protection of Acetaminophen Mediated Oxidative Stress and Identification of Hepatic 4-Hydroxynonenal Protein Adducts by Mass Spectrometry*. *Toxicol. Appl. Pharmacol.* 2014 Dec 1;281(2):174-84
7. Kuhlman CL, Petersen DR, Tsaprailis G, Monks TJ, Lau SS. *4-Hydroxy-2-nonenal-Modified Proteins in Bone Marrow of Phenol/Hydroquinone Treated Rats: Implications for Benzene-Mediated Hematotoxicity*. *FASEB J.* 2012, 26:1050.12.
8. Wnek SM., Kuhlman CL, Camarillo JM, Medeiros MK, Liu KJ, Lau SS, Gandolfi AJ. *Interdependent genotoxic mechanisms of monomethylarsonous acid: Role of ROS-induced DNA damage and poly(ADP-ribose) polymerase-1 inhibition in the malignant transformation of urothelial cells*. *Toxicol. Appl. Pharmacol.*, 2011.
9. Lau SS, Kuhlman CL, Bratton SB, Monks TJ. *Role of hydroquinone-thiol conjugates in benzene-mediated toxicity*. *Chem. Biol. Interact.*, 184(1-2):212-7, 2010.

1. Kuhlman CL. *Addressing COVID-19: Ask an Industrial Hygienist*. The American Waterways Operators. April, 2020: <https://www.americanwaterways.com/covid19>
2. Kuhlman CL, Nelson K, Smith K, Southwell AH, Gaedt-Scheckter C. *Returning to Work: Health, Employment, and Privacy Considerations and Constraints as Businesses Resume Post-Quarantine Operations in the US*. Gibson Dunn Webinar Series. April, 2020: <https://www.gibsondunn.com/webcast-returning-to-work-health-employment-and-privacy-considerations-and-constraints-as-businesses-resume-post-quarantine-operations-in-the-u-s/>
3. Kuhlman CL. *In-Situ Burn Guidance for Safety Officers and Safety and Health Professionals*. Clean Gulf, Tampa, FL, November, 2016.
4. Kuhlman CL, Nony PA. *Transportation of Ammonia - Minot, ND Derailment - Efficacy of Shelter-in-Place Procedures*. Ammonia Safety and Training Institute 32 Hour Ammonia Safety Responder Course, Monterey, CA, September, 2016.
5. Kuhlman CL, Harrill JA, Nye AC. *The Shifting Regulatory Landscape Surrounding Chemicals of Historical Concern on Railroad Properties: Focus on Trichloroethylene, Benzo(a) pyrene, and Lead*. Railroad Environmental Conference, Champaign, IL, October, 2014.
6. Kuhlman CL, Tsaprailis G, Monks TJ, Lau SS. *Protein adduct formation by endogenous lipid electrophiles: identifying mechanistic links with benzene-induced hematotoxicity*. Pharmacology and Toxicology Departmental Seminar, University of Arizona, Tucson, AZ, November, 2012.
7. Kuhlman CL, Tsaprailis G, Bratton SB, Monks TJ, Lau SS. *Investigating protein modifications associated with benzene-induced myelotoxicity*. Pharmacology and Toxicology Departmental Seminar, University of Arizona, Tucson, AZ, February, 2011.
8. Kuhlman, CL, Tsaprailis G, Monks TJ, Lau SS. *Hydroquinone-thiol conjugates and benzene-mediated hematotoxicity*. Pharmacology and Toxicology Departmental Seminar, University of Arizona, Tucson, AZ, April, 2010.

Abstracts

1. Kuhlman CL, Wnek SM. *Derivation of Health-Protective Screening Values for Chemicals in Settled Dust on Outdoor Surfaces*. Society of Toxicology, New Orleans, LA, March, 2016.
2. Kuhlman CL, Tsaprailis G, Monks TJ, Lau SS. *Phenol/Hydroquinone reduces lymphocyte counts and produces quinol-thioether- and 4-hydroxy-2-nonenal- modified proteins: implications for benzene-hematotoxicity*. Experimental Biology, San Diego, CA, April, 2011.
3. Kuhlman CL, Fisher AA, Labenski MT, Monks TJ, Lau SS. *Instability of quinone electrophile adducts on cysteine residues: a basis for the preferential detection of covalent medication of lysines and arginines*. Society of Toxicology, San Francisco, CA, March, 2011.

PRESENTATIONS, ABSTRACTS, AND SYMPOSIUM PROCEEDINGS

4. Kuhlman CL, Bratton SB, Tsaprailis G, Monks TJ, Lau SS. Identification of quinol-thiol conjugate and 4-hydroxy-2-nonenal-protein modifications following hydroquinone/phenol administration: implication in benzene hematotoxicity. Mountain West Society of Toxicology, Breckenridge, CO, August, 2010.
5. Kuhlman CL, Tsaprailis G, Monks TJ, Lau SS. Investigating protein modifications associated with benzene-induced myelotoxicity. Biological Reactive Intermediates VII, Barcelona, Spain, June, 2010.
6. Kuhlman CL, Bratton SB, Tsaprailis G, Monks TJ, Lau SS. The role of quinone conjugation to bone marrow proteins in benzene-mediated hematotoxicity. Society of Toxicology, Salt Lake City, UT, March, 2010.

Doctoral Dissertation

1. Kuhlman CL. Protein Adduct Formation by Reactive Electrophiles: Identifying Mechanistic Links with Benzene-Induced Hematotoxicity (Ph.D.). University of Arizona, Tucson, AZ, 2013.

HONORS AND AWARDS

1. Alan Nye Scientific Distinction Award, CTEH, Little Rock, AR, December, 2018
2. Genentech Student Achievement Award, Society of Toxicology, San Francisco, CA, March, 2012
3. Third Place Best Abstract Competition, American Society for Pharmacology and Experimental Therapeutics, San Diego, CA, April, 2012.
4. Mountain West Society of Toxicology Travel Grant, Society of Toxicology, Breckenridge, CO, October, 2011.
5. H.N. and Frances C. Berger Foundation Scholarship, University of Arizona, Tucson, AZ, August, 2012.
6. Third Place Best Abstract Competition, American Society for Pharmacology and Experimental Therapeutics, Washington D.C., April, 2011.
7. Carl S. Smith Mechanisms of Toxicology Award - Honorable Mention, Society of Toxicology, Washington D.C., March, 2011.
8. SOT Graduate Student Travel Award, Society of Toxicology, Washington D.C., March, 2011.
9. Caldwell Award for Advancing Graduate Research in Pharmacology, University of Arizona, Tucson, AZ, January, 2011.
10. Predoctoral Trainee Award - National Institute of Environmental Health Sciences (NIEHS) Training Grant Recipient, 2010-2013.
11. Yuma Friends of Arizona Young Investigator Award, University of Arizona, Tucson, AZ, January, 2010.

CONTACT

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EDUCATION

Graduate Studies Program in Community Preparedness & Disaster Management

University of North Carolina, Chapel Hill, NC

USCG Officer Candidate, distinguished as Honor Company Commander

United States Coast Guard Academy, New London, CT

Basic Training

United States Coast Guard, Cape May, NJ

REGISTRATIONS & CERTIFICATIONS

- FAA Private Pilot Certified
- NREMT: Emergency Medical Technician
- Aviation Survival Technician "A" School
- Naval Helicopter Rescue Swimmer School
- Advanced Helicopter Rescue Swimmer School
- Senior Level Incident Management Courses (Incident CDR, Operations, Planning Section Chief)
- Basic Preparedness and Exercise Course (BPEC)
- Maritime SAR Planning Course
- Pollution Incident Responders
- National Science of Oil Spills
- Federal Law Enforcement schools

INTRODUCTION

Shannon Scaff is a senior risk management consultant for CTEH. He is an accomplished Emergency Management Director and Commissioned Military Officer with 25+ years of experience in environmental, health, safety, and security management across aviation, maritime, and urban settings. He is an expert in developing and implementing EHSS programs, with a strong track record in regulatory compliance and crisis management. He has demonstrated leadership in managing multi-disciplinary teams and complex operations, with a focus on cost-effective management and operational excellence. He is skilled in negotiation and conflict resolution, fostering relationships with government agencies, and community stakeholders to enhance organizational safety and compliance. He currently serves as consultant/respondent to major National Media Outlets including The Weather Channel & Fox National News.

EMPLOYMENT

Senior RM Consultant | 2024 - Present, CTEH, LLC
Manager, Safety | 2023- 2024, Kirby Inland Marine, Channelview, TX
Lead Instructor | 2022- 2023, Priority One Air Rescue, Mesa, AZ
Director, Emergency Management | 2018- 2022, City of Charleston, Charleston, SC
Assistant Manager of Operations | 2018- 2018, Georgia Ports Authority, Garden City, GA
Commissioned Officer/Chief of Contingency Planning and Force Readiness | 2015- 2017, U.S. Coast Guard
Chief, Law Enforcement Training | 2011- 2015, U.S. Coast Guard
Chief, Incident Management Division, Coast Guard Sector | 2008- 2011, U.S. Coast Guard
Air Auxiliary Program Manager | 2006- 2008, U.S. Coast Guard
Ensign | 2005- 2006, U.S. Coast Guard
Helicopter Rescue Swimmer/Aviation Survival Technician | 1997- 2004, U.S. Coast Guard

RELEVANT EXPERIENCE

Various Projects, Kirby Inland Marine

Championed corporate maritime safety program, significantly elevating safety standards across the largest towboat company in the U.S., involving 280 boats and 1,500 barges. Oversaw as many as 1,700 fleet operation and maintenance personnel, ensuring compliance with stringent safety protocols in the high-risk transportation of hazardous materials. Directed safety and operational procedures for the transport of pressurized and temperature-controlled hazardous materials, contributing significantly to the company's multi-billion-dollar revenue stream. Elevated visibility and efficacy of safety initiatives, promoting best practices that resulted in enhanced operational safety and compliance within the maritime industry.

Various Projects, Priority One Air Rescue

Spearheaded high-risk aviation training programs, delivering comprehensive instruction to approximately 120 students from federal, state, and local agencies, including the USCG, USAF, and FBI, focusing on flight safety and emergency response. Implemented rigorous risk identification and mitigation strategies across all training modules, ensuring zero incidents during complex air rescue operations and hoist maneuvers in both simulated and real-world environments. Led and mentored team of three instructors and oversaw development of up to eight students per session, enhancing team capabilities and performance in high-stakes emergency situations. Maintained strict adherence to safety protocols, contributing to company's successful delivery of mission-critical training services that significantly bolstered emergency preparedness and response efficiencies.

Various Projects, City of Charleston

Directed Emergency Management Division, overseeing three full-time staff and coordinating over 800 support personnel, significantly enhancing citywide emergency response capabilities. Spearheaded city's emergency response for a population of over 160K residents and 6 million annual tourists, including managing the COVID-19 response for 18 months and coordinating efforts for five hurricane activations. Acted as primary liaison to the Mayor, City Council, and media during State of Emergency declarations, effectively communicating critical information and maintaining public trust and safety. Developed and implemented comprehensive emergency management policies and safety programs, ensuring alignment with all regulatory compliance requirements. Engineered city-wide Emergency Operations Plan and Continuity of Operations Plan, significantly reducing vulnerability to natural and man-made disasters. Orchestrated security and incident command for the Cooper River Bridge Run, safeguarding 40,000 participants through meticulous planning and execution. Initiated and managed the city's first-ever Vulnerability Assessment, identifying and addressing critical life-threatening hazards, enhancing overall community resilience.

Various Projects, Georgia Ports Authority

Implemented comprehensive safety training programs and work processes under the guidance of the Manager of Crane Operations, enhancing employee safety and operational efficiency at the port. Managed daily schedules and equipment. Ensured strict adherence to safety and procedural guidelines, and conducted regular inspections and optimizations of crane operations, maintaining high standards of safety and functionality.

Various Projects, U.S. Coast Guard

From 1997 to 2017, served in various roles including commissioned officer/chief of contingency planning and force readiness, chief of law enforcement training at the Maritime Law Enforcement Academy, chief of the incident management division for the Coast Guard sector, air auxiliary program manager, and helicopter rescue swimmer/aviation survival technician.