

JESSICA MORRIS, PH.D., PMP, CFEI

Vice President



Summary

Jessica has well over a decade of experience in fires, explosions, and toxic releases in chemical, oil and gas, processing, manufacturing, and specialty facilities. She is an industry leader in process safety management (20 CFR 1910.119), hazard analysis, risk mitigation, regulatory compliance. As a Project Management Professional (PMP), with deep expertise in chemical engineering, she has led multidisciplinary teams across industries, impacting safety across the globe. She is also a certified fire and explosion investigator with experience in root cause analysis, failure analysis, accident re-creation, advanced analytics, and more.

Areas of Technical Expertise

- Chemical and Process Engineering
- Fires, Explosions, and Toxic Releases
- Process Safety Management & Regulations
- Hazard Analysis
- Insurance, Litigation & Arbitration Support

Education

- Ph.D., Engineering, University of Arkansas, 2018
- M.S., Chemical Engineering, University of Arkansas, 2018
- B.S., Chemical Engineering, University of Minnesota, 2014

Licenses and Certifications

- Certified Fire and Explosion Investigator (CFEI) – National Association of Fire Investigators (NAFI)
- Project Management Professional (PMP) – Project Management Institute (PMI)
- 40-Hour OSHA Hazardous Waste Operation and Emergency Response Certification (HAZWOPER)
- DNV - Phast Advanced Modeling
- 67-Hour Principles of Fire Investigation Multi-Program Certification – CFITrainer (IAAI)
- 25-Hour Fire Investigation for Fire Officers Multi Program Certification – CFITrainer (IAAI)

Presentations and Publications

“Analysis of Project Hazards from LNG Vapor Cloud Explosions (VCEs),” Mary Kay O’Connor Safety and Risk Conference, 2025

“Transforming Process Safety through AI. 2025 AIChE Global Conference on Process Safety and Big Data,” Panel Discussion, 2025

“Human vs Machine (AI): Who should you rely on for Process Safety Management (PSM) – AI in Process Safety,” BakerRisk Webinar. Online – Global, 2025

“Eigen+ 2025 Partner Forum,” Keynote Speaker, 2025

“Energy Analytics Case Study. Eigen+ 2025 User Forum,” Webinar Online – Global, 2025

“Advanced Control / Cybersecurity Panel – AI in Process Safety,” 2025 AIChE Spring Meeting, 2025

“Ensemble Behavior of Passive, Time-Limited, Area Source Releases in a Wind Tunnel Study,” Chemical and Biological Defense Science & Technology Conference, 2022

“Parameterization of Along-Wind Dispersion based on Ensemble Behavior of Passive, Time-Limited, Area Source Releases in a Wind Tunnel Study,” Mark Kay O’Connor Safety and Risk Conference, 2022

“Parameterization of Along-Wind Dispersion based on Ensemble Behavior of Passive, Time-Limited, Area Source Releases in a Wind Tunnel Study,” 26th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling

“Vapor Cloud Explosions in Complex Geometries – Application of the BST Model,” 18th Global Congress on Process Safety, 2022

“What is the Safest Hazard Assessment Approach for Distances to Storage Tanks?” 17th Global Congress on Process Safety, 2021

*Denotes work performed with previous employer.

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"Minimizing Risk of Unit Trains of Hazmat," 17th Global Congress on Process Safety," 2021

"Vapor Dispersion: How Safe is your Safety Factor?" 16th Global Congress on Process Safety, 2020

"Three-Dimensional Flow Structure of a Simulated Atmospheric Boundary Layer Using a Modified Irwin Spire-Roughness Technique," 100th American Meteorological Society Annual Meeting, 2020

"Ensemble Behavior of Time-Limited, Area Source Releases in a Wind Tunnel Study," 23rd Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 2019

"Ensemble Behavior of Time-Limited, Area Source Releases in a Wind Tunnel Study," 2019 Chemical and Biological Defense Science & Technology (CBD S&T) Conference: Approaches to Characterizing Large-Scale Chemical and Biological Releases, Advances in Chemical Plume Characterization Technologies used in Large-scale Environmental Releases, 2019

"Improved Modeling of Continuous Gas Releases of Finite Duration," 15th Global Congress on Process Safety, 2019

"Sensitivity Analysis of Transport Conditions on Liquefied Gas Hazards," 15th Global Congress on Process Safety, 2019

"Building Siting Evaluations: Who put that there?" 2019 AIChE Midwest Regional Conference, 2019

"Experimentation and Modeling of the Effects of Along-Wind Dispersion on Cloud Characteristics of Finite-Duration Contaminant Releases in the Atmosphere," Dissertation, 2018

"Improved along-wind dispersion coefficient model from field and wind tunnel data," 14th Global Conference of Process Safety (GCPS), 2018

"Improvement of along-wind dispersion coefficient equation through experimental finite duration releases in a wind tunnel," Biannual Meeting for the Chemical and Biological Defense Science and Technology (CBD S&T) Conference, 2017

"Generalization of modeling along-wind dispersion," 13th Global Conference of Process Safety (GCPS), 2017

"Showcase of Chemical Engineering Research," University of Arkansas, 2017

"Lunch and learn: Effects of Along-wind Dispersion," DNV GL Software office, 2016

Professional Affiliations

- Member, American Institute of Chemical Engineers (AIChE)
- Advisory Committee Member, AIChE – Process Safety Management Mentoring (PSMM)

- Committee Member, AIChE – Loss Prevention Symposia (LPS)
- Division Member, AIChE – Process Safety Division (PSD)
- Committee Member, AIChE - IDEAL
- Committee Member, AIChE – Disabilities Outreach & Inclusion (DORIC)

Professional Leadership Positions

- 2026 LPS Symposia Chair for the 60th Loss Prevention Symposium (LPS) at the 22nd AIChE Global Congress of Process Safety (GCPS)
- 2026 General Advisory Committee (GAC) for the 18th AIChE Midwest Regional Conference (MRC)
- 2025 LPS Symposia Vice-Chair for the 59th Loss Prevention Symposium (LPS) at the 21st AIChE Global Congress of Process Safety (GCPS)
- 2025 General Advisory Committee (GAC) for the 17th AIChE Midwest Regional Conference (MRC)
- 2024 General Advisory Committee (GAC) for the 16th AIChE Midwest Regional Conference (MRC)
- 2023 Conference Chair for the 15th AIChE Midwest Regional Conference (MRC)
- 2022 Conference Vice-Chair for the 14th AIChE Midwest Regional Conference (MRC)
- 2021 PSMM Symposia Chair for the 10th Process Safety Management Mentoring (PSMM) Forum at the 17th AIChE Global Congress of Process Safety (GCPS)
- 2020 PSMM Symposia Vice-Chair for the 9th Process Safety Management Mentoring (PSMM) Forum at the 16th Global Congress of Process Safety (GCPS)

Editorships & Editorial Review Boards

- Manuscript Reviewer, Process Safety Progress, AIChE, 2023

CONTACT

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