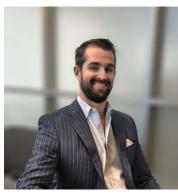
Matthew Frazell, EIT, ASP

Principal Consultant

Matthew is a graduate engineer, who holds a B.S. in Civil Engineering from Texas Tech University and has over ten years of Engineering, Process Safety, and Regulatory consulting experience. His work experience at ERM includes Facility and pipeline consequence analysis, PSM program development and auditing for midstream and downstream facilities, production and processing facility engineering design, equipment design, well site design/layout, flare studies and PSV sizing calculations, Greenhouse Gas reporting and SPCC plan generation. He also participated in over 150 PHAs as a Facilitator and Scribe. He is proficient with AutoCAD and ProMax. He has completed the AIChE certificate training program for HAZOP and LOPA. Matthew holds an Associate Safety Professional credential, and is an Engineer-In-Training with the Texas Board of Professional Engineers.



Experience: Ten years' experience in oil and gas, Energy, and Petrochem sectors

Email: Matt.Frazell@erm.com

LinkedIn: <u>https://www.linkedin.com/in/matthew-</u> frazell-eit-asp-9447621a/

Education

BS, Civil Engineering, Texas Tech University

Professional Affiliations and Registrations

- Engineer-in-Training (EIT) in the State of Texas
- Associate Safety Professional (ASP), Board of Certified Safety Professionals
- Eagle Scout, Boy Scouts of America (BSA)
- Society of Petroleum Engineers
- Independent Petroleum Association of America

Languages

- English, native speaker
- Spanish, limited working proficiency

Fields of Competence

- DOT / PHMSA Compliance
- Consequence Analysis
- Mechanical Integrity
- Facility Design
- Relief Valve Design & Sizing

Key Industry Sectors

- E&P Upstream
- Alternative Energy
- Gas Processing Midstream
- Petrochem Downstream

Publications

 Safety in the Red Zone: Hydraulic Fracturing – Theory to Practice



Key Projects

New Fortress Energy – FLNG EIS

Assisted United States Coast Guard (USCG) in developing an Environmental Impact Statement (EIS). Project tasks included analyzing the consequences of a Loss of Containment of Liquefied Natural Gas (LNG) and Diesel Fuel in the Gulf of Mexico including fire thermal radiation isopleth development and vapor dispersion analysis.

Energy Transfer – Blue Marlin EIS

Assisted United States Coast Guard (USCG) in developing an Environmental Impact Statement (EIS). Project tasks included analyzing the consequences of a Loss of Containment of Crude Oil in the Gulf of Mexico including fire thermal radiation isopleth development and vapor dispersion analysis.

Enterprise – SPOT EIS

Assisted United States Coast Guard (USCG) in developing an Environmental Impact Statement (EIS). Project tasks included analyzing the consequences of a Loss of Containment of Crude Oil in the Gulf of Mexico including fire thermal radiation isopleth development and vapor dispersion analysis.

Energy Transfer – DAPL EIS

Assisted United States Army Corps of Engineers (USCG) in developing an Environmental Impact Statement (EIS). Project tasks included analyzing the consequences of a Loss of Containment of Crude Oil pipeline in North Dakota including fire thermal radiation isopleth development and vapor dispersion analysis.

ExxonMobil – Gas to Energy Guyana EIS

Assisted ExxonMobil and Guyana Environmental Protection Agency (EPA) in developing an Environmental Impact Statement (EIS). Project tasks included analyzing the consequences of a Loss of Containment of Crude Oil and Natural Gas in waters off the coast of Guyana including fire thermal radiation isopleth development and vapor dispersion analysis.

Calumet Pipeline Holdings – PHMSA Support

Assisted current owner of Alligator Alley Pipeline with ensuring pipeline was abandoned properly according to DOT/PHMSA regulations. Tasks included developing an abandonment strategy, engaging with stakeholders and PHMSA regulators, and developing the Annual Report.

MarkWest – Pipeline Integrity

Worked with MarkWest Operations and Engineering to alleviate material stress issues due to subsidence from long wall coal mining directly beneath the pipeline.

Conoco Phillips – PHMSA Support

Managed PHMSA compliance requirements including the annual records review of Control Room Management Procedures, Integrity Management System, Public Awareness Program, Line Classification and operational requirements interpretations, FERC Filings, and Operator Qualification program.

Devon – Facility Siting Study

Conducted a Facility Siting Study using the Consequence Analysis (API 752/753) method to address the Facility Siting portion of OSHA PSM.

Lucid - PSM Support

Lead 18+ person team that produced redlined drawings, conducted a facility siting study, RMP updates, developed operating and maintenance procedures, and developed heat and material balance for multiple Cryogenic Gas Processing Facilities.

Denbury – Mechanical Integrity Program

Developed corporate management system for Mechanical/Asset integrity, and implemented inspection program field wide to address DOT/PHMSA requirements.

SM Energy – PHMSA Support

Aided upstream producer in understanding Line classification of newly laid pipeline, and developed Control Room Management Procedures.

Pardus – Produced Water System Management

Optimized Produced Water management system, and replaced 150 miles of produced water pipeline network over varying terrain.

Newell – Wood Wick – Containment & Piping Design

Designed new secondary containment and piping for candle making facility.

Entergy – Electrical Area Classification Drawings Development

Developed Electrical Area Classification drawings for Natural Gas powered steam turbine electric generation facility.

Conoco Phillips – Production Facility Process Simulation

Developed process simulation of new facility for use in optimizing air permit for central production facility.

Performance food Group – PSM Program Audit

Managed onsite effort in trouble shooting issues with Lithium Grease manufacturing process. Aided Onsite team in replacing faulty components.

Indorama - PSM Support

Facilitated PHA and helped team develop/refine process safety information

BP - North American Gas Facility Design

Developed production facility design for locations in Wyoming equipped with associated cold weather design conditions.

Pardus - Water Flood Design & Implementation

Aided upstream producer in developing water flood strategy, designed injection facility, and managed construction of said facility.

Atlas – Salt Water Disposal Design

Designed Produced Water injection facility with pipeline and truck loading options

Enlink – Flare System Design

Sized 90+ Pressure relief valves, and modeled flare header piping network.