



## JEM ADVISORS

### Collective Project Experience

Year	Location	Project Type	Description	Scope
1991 - 1992	UK	Upstream Production Facility	Greenfield Offshore Oil & Gas Production Facility	Hands-on Commissioning and Start-up, leading defect elimination program to achieve steady state operations.
1992 - 1994	UK	Upstream Production Facility	Greenfield Offshore Gas/Condensate Production Facility	Development of Maintenance & Inspection programs, including population into the Computerized Maintenance Management System.
1992 - 1995	Mississippi, USA	New Chemical Plant	Chemical Plant Integrated with Major Refinery	Project Operations Management. OR management, including OR Reviews. Operations Rep responsible for P&ID review, HAZOPs and Model review. Responsible for Procedure development and Operator Training.
1995 - 1999	UK	Upstream Gas Processing Facility	Onshore 1.6billion CFPD Gas Processing Facility, including installation of 2 x 600million CFPD gas processing trains	Maintenance Manager, providing input to facility design, equipment selection, 3D model reviews and spares requirements. Leading the development of the condition-based Maintenance and Inspection program and all training requirements. Supported the Commissioning and Start-up.
1996 - 1998	Mississippi, USA	Major Refinery Complex	Turnaround Planning and Execution	Zero injury focus: 36-month planning cycle and integration of various major modification projects.

1998 - 2005	Kazakhstan	Upstream Complex Facility Expansion	Additional capacity for crude stabilization and sour gas treating. Gas and LPG recovery, large amine and sulfur recovery facilities, international product pipeline integration	Project Operations Management. Operational Readiness management, including OR Reviews. Mentoring local employees to operate.
1999 - 2001	Mississippi, USA	Major Gulf Coast Refinery	Refinery Clean Fuels Project	Project Superintendent - Management of all refinery personnel assigned to the Project. Responsible for project staffing and all Operations Planning and OR Reviews.
2005 - 2009	Kazakhstan	Upstream Complex Facility Expansion Non-Operated Joint Venture	Sour Crude Stabilization and High-Pressure Sour Gas Reinjection	Integration of project with existing processing facilities and with associated Russian processing facility. Mentor local employees to operate.
2006 - 2014	Escravos, Nigeria	Greenfield Downstream Project	Large Gas-to-Liquids Facility with required Power and Utility Plants	Commissioning Manager - responsible for Pre-Commissioning oversight and all Commissioning activities. Ensure knowledge transfer (Mentoring) from Expat Commissioning staff to National work force, Mentoring of National Commissioning Superintendents and Managers.
2009 - 2014	Kazakhstan	Gas and LPG recovery, large amine and sulfur recovery facilities, and international product pipelines	Doubled facility throughput capacity, added high pressure sour gas injection capability, integrated expansion with existing facility	Start-up and initial years' operation & maintenance management, OR management, including OR Reviews. Mentoring local employees to operate.
2012 - 2016	Angola, Azerbaijan, Egypt, Indonesia, Norway, Oman, Trinidad, UK, USA	Greenfield Upstream Offshore and Onshore Facilities	25+ Major Projects with CAPEX (ranging from \$250MM to \$6billion)	Development and deployment of OR Procedure across a global portfolio, including mentoring personnel and leading assurance reviews.

2012 - 2016	Angola, Azerbaijan, Egypt, Indonesia, Norway, Oman, Trinidad, UK, USA	Greenfield Upstream Offshore and Onshore Facilities	10 Major Projects in execute stage with CAPEX ranging from \$250M to \$6B	Development and deployment of a Maintenance & Reliability program across a global portfolio, including mentoring personnel and managing performance.
2015 - 2016	China	Major Sour Gas Facility Completion and Startup	Three train gas processing facility with large amine/sulfur plants	OR Reviews and Commissioning activities. Mentored local Operations, Maintenance & TAR groups to take over operation.
2019 - 2024	North America	Refining Company	Operational Excellence Review and Improvement Plan	Review, development and implementation of improvement plan for two refineries.
2019	Texas, USA	Large Midstream Company	Safety Leadership Training to Front- Line Supervisors	Development and workshop facilitation of safety leadership training workshops.
2019	USA and EU	Global Chemical and Refinery Facilities	Expansion and modifications to a wide variety of global facilities	Development and implementation of an OR Guideline, including training and assurance reviews.
2019 - 2020	Canada	Midstream Company	Buy-Side Due Diligence	Completed site assessments in line with operational excellence and industry best practices to identify issues with impacts greater than \$1M USD to validate purchase price offering.
2019 - 2021	Texas, USA	Chemical Plant Expansion	New Propylene Oxide Production Unit	Two OR Reviews (early and mid-execute stage). Instilling OR knowledge into the organization, mentoring key individuals. Contributing to 'closing the gaps'.

2020	Texas, USA	Chemical Plant Expansion	New ethers unit, converting tertiary butyl alcohol to oxyfuels	OR Review at mid-execute stage. Instilling OR knowledge into the organization, mentoring key individuals. Sharing of best practices including equipment preservation programs.
2020	Texas, USA	Increased Storage/Flow for a Hydrocarbon Storage Facility	Increased crude oil capacity and flow via expansion of existing caverns and modifications to above-ground facilities	OR review at late-execute stage. Supporting and mentoring the team on implementing OR fundamentals including roles and responsibilities, planning and performance management.
2020	California, USA	Midstream Facility	Evaluate site performance in line with operational excellence and efficient operation	Site performance assessment in line with operational excellence and efficient operation including findings and gap closure recommendations. Assisted with implementation of gap closure efforts to expedite implementation.
2020	Texas, USA	Chemical Company	E-Permitting Implementation at Pilot Plant	Implementation of a new digital modernization project that was focused on deployment of Electronic/Digital Permitting (E-Permit) in operational assets.
2020	New Jersey, USA	Chemical Plant Expansion	Additional titanation reactor to increase catalyst production	OR review at late-execute stage. Instilling OR knowledge into the organization, including hands-on support for System Handover and Commissioning phase.
2020	Texas, USA	Storage Facility	Increased ethylene storage capacity via expansion of existing caverns and above ground facilities	OR review at mid-execute stage. Reinforcement of OR into the organization, including the development of integrated and resource loaded schedules. Provided process & mechanical troubleshooting for existing facilities to improve operability and Process Safety.

2020	Texas, USA	Refinery Brownfield Modifications	Enclosure of atmospheric relief valves into the flare system, including additional vessels and instrumentation	OR review at late Phase II (select) stage. Initiation of OR organization, plans and communication.
2020	Texas, USA	Chemical Plant Modifications	Improve overall plant reliability by installation of a high-density polyethylene production mixer/extruder	OR review at mid-execute stage. Reinforcement of OR into the organization, including operational risk assessment/mitigations, as well as the introduction of metrics and performance management process.
2020 - 2023	Multiple locations, USA	Midstream Company	Evaluate operational performance in line with safe and efficient operational excellence performance	Multiple site assessments in line with Operational Excellence and efficient operations including findings and gap closure recommendations. Assisted with implementation of gap closure efforts to expedite implementation.
2020 - 2021	Texas, USA	Planned Refinery Build	Commercial Strategy	Reviewed plan for build, feedstocks, profitability.
2020 - 2021	Texas, USA	Chemical Company	Operational Excellence Optimization	Designed framework for tracking and quantifying lost production events. Established "worst actor" program to drive root cause analyses and resolution to eliminate lost production events.
2020 - 2021	Texas, USA	Chemical Company	EHHS Strategy Workshops	Facilitated strategy and teamwork planning for EHS team.
2020 - 2021	California, USA	Law Firm	Litigation Support	Expert witness support involving a lawsuit filed by a refinery to be reimbursed for the impacts of a five-minute electrical power interruption that resulted in the refinery being shut down for a month.

2021	Texas, USA	Chemical Plant Laboratory Re-siting	Re-locate a site laboratory based on the Baker Risk Facility Siting Study (FSS) and Quantitative Risk Analysis (QRA)	OR review at late Phase II (select) stage, resulting in initiation of an OR plan, capturing pre-execute activities as well as documented roles and accountabilities.
2021	Netherlands	Chemical Plant Expansion and Modification	Implementation of a Wastewater Treatment/Incineration Plant	An OR review at late-execute stage. Recommendations included updating the detailed schedule and applying estimated hours for engineering deliverables and Commissioning/Start-Up plans.
2021	Italy	Chemical Plant Debottlenecking Project	Debottlenecking of existing plant, utilities and logistics to achieve increased production capability	OR review at late Phase II (select) stage, leading to initialization of the company OR process, including roles and responsibilities, OR planning and implementation of best practices.
2021	Texas, USA	Chemical Plant Expansion	Installation of an additional contactor to increase the utilization of the unit	OR review at late Phase II (select) stage, resulting in effective application of metrics, OR plan and resource requirements for Phases III and IV.
2021	Texas, USA	Chemical Unit Start Up	Cold Eyes Review	Reviewed full program for OR and Start-up, including tracking tools and the timeline.
2021 - 2022	North America	Midstream Company	Buy-Side Due Diligence on Multiple Assets	Completed site assessments in line with operational excellence and industry best practices to identify issues with impacts greater than \$1M USD to validate purchase price offering.

2022	North America	Terminal and Retail Company	Evaluate operational performance in line with safe and efficient operational excellence performance	Completed site assessments in line with Operational Excellence and efficient operation including findings and gap closure recommendations. Assisted with implementation of gap closure efforts to expedite implementation.
2022	Multiple locations, USA	Midstream Company	Energy Transition Strategy and Business Development Support	Advising and leading strategy process for selection and planning for integration of new business ventures and energy transition consideration. Included introducing operational review and auditing processes.
2022 - 2023	Multiple locations, USA	Midstream Company	Evaluate operational performance in line with safe and efficient operational excellence performance	Completed multiple site assessments in line with Operational Excellence and efficient operation including findings and gap closure recommendations. Assisted with implementation of gap closure efforts to expedite implementation.
2022 - 2023	Louisiana, USA	LNG Facility	3rd Party assessment of readiness for first Maintenance Turnarounds for LNG Trains	Operations and Maintenance Readiness Review for facility Turnaround.
2023	Texas, USA	Global Refining Company	Strategy Planning	Worked with Refinery Leadership Team to develop strategy for and estimate required resources for an aggressive 5-year Capital Project program.
2023	Gulf Coast, USA	Large Refining Company	Evaluate operational performance in line with safe and efficient operational excellence performance	Site assessments in line with Operational Excellence and efficient operation including findings and gap closure recommendations.

2024	North America	Refining Company	Environmental / Sell-Side Review	Remote data room assessments in line with Environmental Excellence/industry best practices to identify issues with impacts greater than \$100,000 USD to validate sales price offerings.
2024	Pennsylvania, USA	Midstream Company	Improvements to Company Control of Work Processes and Operational Readiness Workshop	Supported major revisions to Control of Work processes to eliminate incidents. The company added Project Operational expert positions to support major CAPEX projects, and training in Operational Readiness and PSSR processes was delivered.
2024	Multiple locations, USA	Ethylene Storage Company	Security Review	Completed site assessments in line with industry best practices for site physical security. Recommendations were provided to close identified gaps.
2024	North America	Refining Company	Buy-Side Due Diligence	Review, advising and reporting of data room, management presentations, and site visits on EHS and regulatory compliance, asset integrity/operations, community relations and economics/marketing.
2024	North America	Refining Company	Tank Inspection and TAR Review	API 653 Tank Inspection reporting and documentation, API 580/581 Risk Based Inspection quality and documentation, Major Turnaround performance, including optimizing TA strategy and scope control for labor limitations.
2024	South America	Terminal and Retail Company	OE and Infrastructure Review	Evaluate operational performance in line with safe and efficient operational excellence performance, review infrastructure plan for growth and implementation of action plan.

2025	Europe	Chemical Company	Operational Readiness Review	Review of current state of Operations Readiness within a PDH project compared to industry best practices and offering guidance and recommendations to support efficient Commissioning, Start-up and Safety/Production targets.
2025	North America	Private Equity	Buy-Side Due Diligence	Review of asset performance, integrity, and market positioning to determine valuation of a potential purchase, while identifying operational risks, hidden liabilities, and opportunities for profitability.
2025	North America	Refining Company	Root Cause Analysis	Identify underlying causes of an incident, assess compliance with safety regulations, and develop recommendations to prevent recurrence, including review of start-up schedule and implementation.
2025	North America	Midstream Company	Root Cause Analysis	Identify underlying causes of an incident and develop recommendations to prevent recurrence and enhance safety and operational procedures.
2025	North America	Energy Company	Operating Expense Review / Assessment	Conduct Project Design Assurance, Operational Readiness Assessments, and Operating Expense validation.
2025	North America	Investment Company	Buy-Side Due Diligence and Integration	Focused pre-closing operational assessment of facilities, staffing, permits, operating procedures/practices, and operating expenses for a terminal facility.

2025	North America	Refining Company	Operational Readiness and Commissioning Support	Development of a Capital Project Systems Completions, Handover, Commissioning and Startup Process.
2025	Caribbean	Investment Company	Independent Technical and Commercial Feasibility Review	Evaluation of design and technology to discern success of a newbuild project.
2025	North America	Storage Company	PSM Assessment of Current Operations	Assessment of Process Safety Management practices implemented in the company, through document reviews and site reviews.
2025	North America	Storage Company	Root Cause Analysis	Identify underlying causes of an incident and develop recommendations to prevent recurrence and enhance safety and operational procedures.
2026	North America	Chemical Company	Root Cause Analysis Review	Review company's internal root cause analysis for gaps.