

J. L. “Jack” Adams, PE

Summary – Jack Adams is a chemical engineer with 37 years of process engineering, project management, and project development experience. His experience includes oil refining, delayed coking, crude oil processing, Liquefied Natural Gas (LNG), gas plant design, and economics. Adams received a Master’s Degree in Chemical Engineering from Arizona State University and a Bachelor of Science in Engineering Science from Rockhurst College. He is a Professional Engineer in Texas.

Career Highlights – Adams has been employed in various process engineering, project development, project manager, and company management positions.

- Adams began his professional career as a process and startup engineer working for Pritchard and Litwin in the 1970’s on gas plant, LNG, and refinery projects.
- In the 1980’s, Adams was employed as the Manager of Project Development and Project Manager for Koch Refining Company. He led the development of projects to expand their Texas refinery, including multiple FCCU expansions, a coker modernization, installation of a hydrocracker, a new CCR reformer, crude revamps, a Parex, and multiple petrochemical upgrades. He led a heavy crude refinery upgrade plan that included a new coker and offsites.
- In 1992, Adams joined Clark R&M to manage profitability and project execution improvement. He participated in the analysis and acquisition of the Port Arthur, Texas refinery from Chevron.
- In 1996, Adams formed Adams Project Managers, Inc. (APMI) to provide project development and project management services for the refinery and oil industries.
- From 1996 to 2002, Adams (through APMI) was engaged to develop the process and project scope, cost estimate, technology package, site selection, and pro forma for a grassroots U. S. refinery. The package was also used as the basis for an environmental permit.
- In 2003, he was project manager for a Coker Sludge injection design for a St. Croix refinery.
- In 2004, Adams was engaged to lead a refinery FEL study to identify the scope of work plus ISBL and OSBL cost estimate for construction of a new coker for a U. S. refinery.
- From 2005 through 2008, Adams led an alliance of D-Cök and ConocoPhillips (“CoP”) to develop projects and expand uses of CoP’s delayed coker technology.
- Since 2008, Adams and APMI continues to provided project management services:
 - In 2009/10, Adams provided PM services to Flint Hills on a coker modernization project.
 - In 2011, APMI/Adams is providing Petrobras coker review, on-line spalling, and consulting.

Delayed Coking / Bottoms Upgrading Experience – Since 1990, Adams has worked on various coker and visbreaker revamp and grassroots projects and analyses, including:

- Adams led a heavy crude oil refinery upgrade team planning a grassroots coker (1990-1992.)
- Technology selection for a grassroots 150,000 barrel-per-day heavy crude refinery (1996-2002.)
- Project Managers for developing a coker sludge injection system for a St. Croix refinery (2003.)
- Managed the plan of a refinery to construct a coker and revamp of a U. S. refinery (2004.)
- Led the Coker Alliance between ConocoPhillips and D-Cök (2005-2008.)
- Consultant to Flint Hills Resources on a coker modernization (2009-2010.)

In summary, Adams has been responsible for process engineering and project management for all aspects of refinery revamps and heavy crude oil upgrading, specializing on refinery and coker revamps.

Education & Professional Affiliations

Masters of Science Degree in Chemical Engineering, Arizona State University 1978
Bachelor of Science Degree in Engineering Science, Rockhurst College 1972
Professional Engineer in Texas, certification #78851

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CHRONOLOGY OF EXPERIENCE

- Process Engineer and Startup Engineer**, Pritchard. 1974-1979
Process Engineer, Litwin Engineering. 1979-1980
Project Manager / Manager of Project Development, Koch Refining. 1980-1992
Assets Manager / Manager of Projects, Clark Refining & Marketing. 1992 -1995
Project Manager / Business Development, Adams Project Managers, Inc. 1996-Present

CAREER SUMMARY

Adams Project Manager, Inc. (1996 - present)

Project Manager and Project Developer

- Project Director responsible for the technology selection, environmental plan, and proforma for a grassroots 150,000 barrel-per-day Arizona refinery. (Managed services of Bechtel, UOP, and others from 1996-2002.)
- Project Manager, Marketer for Burns & McDonnell and MKEC (2002 – 2004.)
- FEL-1 for Hovensa Coker Sludge injection while at Burns & McDonnell (2003.)
- Program Manager for client refiner's FEL1 development for a new Delayed Coker, associated refinery revamps, offsite definition, etc. (2004-2005.)
- Project and Business Manager for Coker Alliance between ConocoPhillips and D-Cök. Led refinery coker revamps scope development (2005 to 2008.)
- Consultant to Flint Hills Resources on a coker modernization (2009-2010.)
- Project Manager and Project Development Services for various Coker studies, refinery technical and acquisition analyses (2005-2011.)

Clark Refining and Marketing (1992 - 1995).

Manager of Projects / Assets Manager... responsible for the strategic plan, led the development and project management of the refining division capital budget.

- Acquisition of the Port Arthur refinery from Chevron – Led the technical analysis and participated in the economic analysis and presentations.
- Received Clark's President's Award for leading the Productivity team.
- Hartford FCCU and Alky. expansions were completed on budget and schedule.

Koch Refining (1980 - 1992).

As Project Manager / Manager of Project Development for Koch Refining Company, responsibilities included management of engineering for capital projects, technology and contractor selection, contract negotiations, and economic evaluations. Participated in both the corporate and refining environments.

- As Manager of Project Development, led the economic analysis, project definitions, project estimates, and technical evaluations for multiple expansion projects including two crude unit revamps, two hydrotreater projects, and a new CCR reformer project, the relocation of a hydrocracker, multiple FCCU expansions, and a \$150 million paraxylene expansion.
- Project Manager responsible for a crude expansion (coker, hydrotreater, etc.)

Litwin Engineering, Wichita (1979-1980) - Process engineer for refinery projects.

Pritchard, Kansas City (1974 - 1979) - Process / Startup Engineer for LNG and gas plants.