

James Au

Process Manager

James Au is a Process Engineering Manager with 17+ years leading design, startup, and optimization of LNG, RNG, and oil re-refining facilities. Proven ability to manage cross-functional teams, deliver complex EPC projects, and develop innovative process solutions that improve efficiency and reduce costs.

Process Experience

Primoris Services Corporation (OnQuest) –
Process Engineering Manager Aug. 2022 to Sep. 2025

Primoris Engineering is a detailed engineering company that is technology agnostic and provides complete EPC projects focusing on liquified natural gas (LNG) and renewable natural gas (RNG) from various feedstock sources.

- Duties include all duties as Senior Process Engineer below, plus the following (as a working manager):
- Managing process department. This includes hiring, assigning, managing, and supporting all process engineers to ensure work is completed with the highest quality for all projects and proposals.
- Improved all process deliverables Responsible for all process work from the department and ensuring consistent quality.
- Support sales and project development: manhour estimates, scope of work, and schedules for process work.
- Attend conferences and develop new clients, highlighting our companies' capabilities.
- Support FEED estimates, includes developing manhours and schedules for FEL 1, 2, and 3.
- Executing FEED studies including all process design and estimates for full EPC engineering.

Service Areas

- Landfill / BioGas
- Organics Management

Education

- M.S, Chemical Engineering, University of California, Los Angeles, 2008
- B.S, Chemical Engineering, University of California, Irvine, 2006
- B.S, Material Science Engineering, University of California, Irvine, 2006

Distinguishing Qualifications

Master's Thesis:

Kinetic analysis of gypsum crystal growth on Reverse Osmosis membranes under the influence of antiscalants and other additives

Effective in the communications of cross functional teams, both multi-discipline and client/vendor relations.

Experience in developing innovative designs and solving complex issues to develop the most cost effective and robust solutions for design issues.

Real-world operations and field troubleshooting to support client operations and maximize plant uptime.

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- Develop process templates, procedures, and requirements to increase efficiency and productivity for the process group while ensuring consistent and quality engineering and documentation.
- Project Highlights: FEL3 for LNG Peakshaver in New Mexico, USA. FEL work for wood biomass to RNG, Pilot plant design to operation for proprietary reactor for methane reforming. Supported hydrogen design for pilot unit and trailer loading system.

**Primoris Services Corporation (OnQuest) –
Senior Process Engineer** *Jan. 2018 to Aug. 2022*

- Duties include optimizing process designs from conceptual development through detailed design including equipment startups. Lead the development of process flow diagrams, preparation of equipment process data sheets and piping and instrumentation diagrams for projects.
- Work with all disciplines and client through implementation of design. Extensive cross discipline support.
- Assist business and project teams in developing technical solutions, including developing possible new solutions, and scope definition.
- Lead process engineer for projects included peakshaver LNG facility, landfill to RNG, and dairy digester to RNG facilities. All successfully operating. In those roles, responsible for taking those projects from conception through plant operations.
- Technology vetting and selection for each project to determine the best solution to meet the client needs within budget and schedule.
- Lead process engineer through many HAZOPs. Minimized amount of HAZOP recommendations.

Chemical Engineering Partners – Senior Process Engineer *Jan. 2012 to Dec. 2017*

(Chemical Engineering Partners is a technology licensing and process design company for Used Oil Re-refineries)

- Responsible for managing projects from contract signing to plant start-up
- Managed all technical aspects of the projects and was the single point of contact for all technical items for clients
- Prepared and approved Basic Engineering Design Packages on time or ahead of schedule
- Successfully supported detailed engineering to ensure a successful and smooth transfer of process technology
- Supervised and trained Process Engineer to successfully design Basic Engineering Design Packages
- Reviewed and approved equipment process data sheets for heat exchanger, distillation columns, pumps, pressure vessels, and reactors
- Reviewed and approved process Piping & Instrumentation Diagrams and Heat & Material Balances

- Wrote Operations Manuals for the plant start-up and shutdown which helped lead to successful plant startup
- Successfully trained client engineers and operators on plant start-up, shutdown, and general operations so that they can independently operate the plant without continued CEP support
- Personally requested by clients to perform both onsite and offsite troubleshooting due to prior performance in determining operational problems which ensured reliable plant operation
- Participated in client HAZOP analysis
- Designed pilot test conditions (conducted by third party catalyst company) for API Group III base oil production and subsequently designed the first hydrotreating system for the company to produce API Group III base oil
- Provided marketing with technical support which lead to contracts; attended trade shows and conferences to promote and generate new business

Chemical Engineering Partners – Process Engineer

Jun. 2008 to Dec. 2011

- Successfully designed second largest re-refinery in western hemisphere
- Successfully designed re-refinery that produces API Group II base oil from low quality used oil that many industry experts said was not feasible
- Developed process simulation models using Pro/II software for main processes in a Used Oil Re-Refinery (includes flash vessels, distillation columns, wiped film evaporators, and hydrotreating reactors)
- Developed Process Flow Diagrams, Piping & Instrumentation Diagrams, and Heat & Material Balances which led to successful operation
- Prepared equipment process data sheets for heat exchanger, distillation columns, pumps, pressure vessels, and reactors (additionally, automated transfer of Heat and Material Balance data into process data sheets to streamline data sheet production which allowed future BED packages to be delivered ahead of schedule)
- Development of Control Philosophy for process controls for new plants
- Developed new lab testing procedure to allow for better process simulation
- Reviewed and approved plant 3D models and mechanical and general arrangement drawings for fabricated equipment (from detailed engineering firm) which led to successful operation
- Provided offsite and onsite support to sister company's operating plant (Evergreen Oil in Newark, CA)
- Provided onsite plant start-up and turnaround support for clients
- Attended factory acceptance tests (FAT) for critical equipment with client
- Collaborated with marketing to develop presentations for conferences and provide technical support