



REED M. KNOBBE, P.E., Senior Process Engineer

SUMMARY OF QUALIFICATIONS

River City Engineering, Inc., Lawrence, Kansas USA 2007-Present

Process Engineering Consultant for the Oil & Gas Industry providing design and technical support for gas and liquids processing/handling projects.

- Provide continuous troubleshooting support for clients plants.
- Evaluation of existing Amine unit to address increasing CO₂ levels in inlet gas in coordination with both equipment and chemical vendors. Provided client with different options moving forward based on gas forecasts.
- Part of owner's project team responsible for review and development of FEED study for a new 300 MMscfd propane recovery plant located in the Caribbean.
- Provided process evaluation of West African 150,000 BPD FPSO FEED proposal as part of owner's project team.
- Commissioning and Startup support for 4.5 MMscfd NGL recovery plant.
- Commissioning Leak Test Coordinator - Responsible for review and approval of all N₂/He leak testing procedures for ConocoPhillips Jasmine project during offshore greenfield commissioning.
- Evaluation of available gas plant options (GSP, OHR, SCORE, etc.) to determine optimal design during FEL-1 for 300 MMSCFD
- Debottlenecking study of 25 MMSCFD gas plant to increase capacity to 30 MMSCFD including analysis of Amine, Glycol, Refrigeration, and Compression systems.
- Coordinated multi-discipline team to provide retrofit design of all equipment to increase capacity of existing Ryan-Holmes plant from 70 to 90 MMSCFD.
- Feasibility study of using a fleet of Gas Production Storage Shuttles for production of a series of small 300 Bcf short life gas reservoirs.
- PreFEED level design of a 500 MMSCFD Gas Processing and Transport Ship.
- Evaluation of PSV & Flare Systems at a 10 MMSCFD gas plant to meet regular reporting requirements.
- Capacity study to identify bottlenecks preventing a 700 MMSCFD gas plant from processing 800 MMSCFD.
- Develop Cause & Effect diagrams for new storage unit of a 1.9 BCFD gas plant.
- Evaluation of refrigeration unit capacity for a 1.9 BCFD gas plant.
- Process evaluation of landfill gas recovery plant using the Kryosol process to determine necessary modifications as throughput increased.
- Process evaluation of coal mine methane processing plant turndown. Evaluated alternative technologies and performed high level cost estimates for replacement of the existing cryogenic nitrogen rejection column.
- Expansion, performance, and troubleshooting study to increase capacity of a cryogenic gas plant from 60 MMSCFD to 90 MMSCFD.
- Preliminary engineering study of a process to purify n-butane for further processing to food acids. Evaluated technology and provided high level cost estimates.
- High level analysis of cost effectiveness of compressing, dehydrating, and transporting CO₂ for use in tertiary oil recovery.
- Evaluation of plate-fin exchangers in gas plant to determine if thermal stresses caused by temperature differences were within acceptable limits.

PREVIOUS EXPERIENCE

TRINITY CONSULTANTS, Kansas City, Kansas, March 2007 – October 2007

Consultant providing client support to meet EPA regulations including preparation of annual reports and permit applications. Performed air dispersion modeling using AERMOD to predict potential pollution patterns from facilities.

EDUCATION

University of Kansas

Lawrence, Kansas

B.S. Chemical Engineering with Distinction, 2002 – 2006

- Recipient of the Kurata Thermodynamic Award, 2005
- Named Outstanding Sophomore in Chemical Engineering, 2004

PROFESSIONAL MEMBERSHIPS

Engineer in Training (EIT), Kansas

American Institute of Chemical Engineers

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