

Accomplishments Inventory

1. Managed construction of a \$2,600,000 central control room (CCR) for an NGL fractionation facility. Oversaw subcontractor in the design and construction of the building. Also worked with the client to coordinate all of the electrical and control systems needed to run the facility from the CCR. The project was completed on time, despite significant delays created by many days of heavy rains.
2. As a member of the Process team for two 45,000 BPSD fractionation trains, I helped to keep this schedule-driven project on track by assisting with general site planning/layout, including researching siting requirements for pressurized and refrigerated storage and their associated secondary containment. Also worked with the client's environmental consultant to provide all the data needed for the state air permit and provided Process coordination with the overseas team doing hydraulics and PSV calculations. Facility's start of operation is on track to be completed within 16 months of initiation of Process design, resulting in an expected annual profit somewhere in the neighborhood of \$36,500,000.
3. Effectively supervised a team of ten engineers and other technical support staff in a manner that created a positive and cooperative atmosphere and resulted in a 40% increase in staff productivity.
4. Successfully trained a tri-state team of over 800 managers, sales reps, technicians, and support staff on key company programs which resulted in improving service levels by 10%, improved operations processes, and increased customer satisfaction.
5. Provided staff training at the management level in a chemical engineering environment that resulted in a 100% turnaround in morale and cooperation among the management team, as well as a drastic reduction in employee turnover.
6. Functioned as Process Technical Lead on a design for a proposed \$150,000,000 calcium chloride plant, helping to keep the Process Division's part of the project within the budgeted manpower and cost limits at all times.
7. Participated as a technical expert in enforcement conferences and meetings with concerned citizens related to environmental issues for chemical and refining facilities in Texas. Was able to translate technical jargon into easily understandable laymen's terms resulting in better understanding and reduced friction between the parties.
8. Lead a steam system study for an acrylic acid plant that identified numerous sources of steam and condensate losses that if addressed, would result in annual energy savings of approximately \$3,000,000.

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9. Evaluated, to determine federal and state regulatory permit ramifications, all units involved when a major Texas oil company decided to consolidate their original dual train crude refining process into a single train process. This evaluation allowed the company to expedite the consolidation process and saved them at least \$100,000 in regulatory costs.
10. Was invited to be a presenter at the AIChE 2011 ChemShow in New York City. Topic was "So You Want to Become a Consultant?", covering issues of concern to those in chemical/chemical engineering fields who would like to start their own consulting firms.
11. As a student/summer intern, wrote a program to automate the daily material balance calculations for the FCCU that had until then been done by hand, resulting in greater accuracy and a savings of at least 10 manhours per week or approximately \$35,000 per year. This was in the early days of programming and most process engineers had not yet learned this skill. That simple program was still in use several years later.
12. Established and oversaw a church ministry providing support and education to job seekers, providing weekly assistance. Have organized and conducted day-long seminars covering many important aspects of the job search. Combined, these efforts have resulted in successful new jobs/careers for numerous participants.
13. Delivered a presentation as a last minute fill-in at a PMI Conference resulting in rave reviews and the gratitude of the event planners, as well as a verbal invitation to present at the next year's conference.
14. Assisted in the development of the schedule-driven FEL 3 Process design for a 100,000 BPSD NGL Fractionation plant by developing datasheets for heat exchangers and vessels.
15. Developed the HYSYS simulation for a proposed 7.7 MMSCFD gas gathering plant and associated 8-mile pipeline, participated in design team meetings, performed hydraulics, and designed process equipment, including vertical and horizontal separators, pumps and a reciprocating compressor. Also developed the PFDs and PIDs, and participated in their review with the client.
16. Drawing on my environmental experience, assisted the client and project management team on a sulfur plant upgrade project by researching the appropriate federal and state regulations to determine the allowable incinerator air emissions of H_2S , SO_2 , NO_x , and CO , thus allowing the vendor specifications to be completed. Because the incinerator is a long-lead item, the development of these specs was critical to keeping the project on schedule. Prior to my involvement, the incinerator schedule was in danger of slipping because the client had been unable to provide the necessary emission limits.

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17. As a member of the Process team for two 45,000 BPSD NGL fractionation trains, I helped to keep this schedule-driven project on track by assisting with general site planning/layout, including the siting of pressurized and refrigerated storage and their associated containment requirements. Also worked with the client's environmental consultant to provide all the data needed for the state air permit and provided Process coordination with S&B India on the hydraulics and PSV calculations. Facility's start of operation is on track to be completed within 16 months of initiation of Process design.
18. As a member of the Process team for a new 135 MMSCFD H₂ manufacturing plant, assisted in the development of the PIDs for client review and approval.
19. Functioned as the Process Technical Lead on the design for a proposed \$150,000,000 Calcium Chloride plant, helping to keep the Process Division's part of the project within the budgeted manpower and cost limits at all times. As part of the design team, also provided process specifications for pumps, storage vessels, agitators, filters, instrumentation, PSVs, and wet gas scrubbers (WGS), as well as P&ID/PFD development, preparation and tracking of equipment data sheets, and line list design data.
20. Quoted extensively in article titled "Better Days Ahead?" in the June 2011 edition of PE Magazine, a publication of the National Society of Professional Engineers.