Isaac Patrick West

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OVERVIEW

A hands-on knowledgeable and loyal Project Engineer who enjoys learning new technologies and processes, and working with people. I enjoy and learn best by jumping into the details and getting my hands dirty. Patience, communication, and trust are my key to success.

EDUCATION

Purdue University, B.S.M.E – West Lafayette, IN May 2007
School of Mechanical Engineering, Formula SAE

PROFESSIONAL EXPERIENCE

Air Products and Chemicals – Los Angeles, CA July 2010 – Present
Senior Project Engineer – HyCO Engineering and Turnaround Team

- Effective management of capital projects up to $7MM, including scope and budget development, authoring of capital funding requests, bidding, vendor and contractor interface, and construction management for SMR (steam-methane reforming) hydrogen, air separation, and chemical plants, to meet safety standards, budgets, and schedule.
- Successfully managed major retrofits of large cast nickel alloy fittings for SMR outlet systems at two plants, resulting in safe, under budget, and ahead of schedule completion of critical path turnaround schedules. Completed project budgets ranged from $4.1MM to $5.3MM each.
- Successfully managed a large critical path capital reinvestment project totaling $4.5MM, involving the replacement of pressure vessels, adsorbent, and piping during a major hydrogen plant turnaround. By producing a detailed construction package to enable accurate fixed price bids and effective construction planning and management through communication, the project was completed both under budget and ahead of schedule.
- Preserved the confidence of an operating plant by stepping in as the project and construction manager of an in-progress $4MM project building two new labs. Regained the trust of the plant management team by building communication and fostering relationships with contractors. Mentored a mechanical contractor new to orbital tube welding in establishing a quality assurance plan. Maintained control of spending to complete under budget.
- Uphold an excellent safety record with no injury or first aid incidents by thorough communication and relationship building with contractors.
- Mentoring and training of junior engineers for professional development, as part of a companywide engineering rotation program.
- Improved control of spending and schedule by developing detailed construction packages for turnkey bids, including review of bids to determine technical competence and understanding of the scope.

Air Products and Chemicals – Santa Clara, CA July 2008 – June 2010
Project Engineer – Western Area Electronics

- Effective management of capital projects for the installation of on-site customer cryogenic and bulk gas supply systems, for the semiconductor and photovoltaic industry.
- Worked with field technicians and customers to perform repairs and upgrades on bulk systems for operating facilities with minimal down time, while maintaining high purity standards. Established trust of the customers by developing relationships to ensure they have a full understanding of the process.
- Trained technicians on the operation of liquid and gas bulk cryogenic systems, including high purity systems, to increase the knowledgebase of the team.

Air Products and Chemicals – Allentown, PA July 2007 – June 2008
Equipment and Project Engineer – Instrumentation and Equipment Technology

- Project lead in the mechanical development and fabrication of a xenon gas recovery prototype system, which resulted in large profit capability through the recapture of effluent xenon gas (US Patent 8,591,634). The successful prototype was instrumental to the development and award of a new service contract with a major semiconductor company.
- Successfully designed, built and tested a prototype cryogenic helium accumulator starting from concept, resulting in satisfactory on budget and on time delivery.
- Presented an overview of pressure relief valve sizing and operation to the R&D community, to promote safety and increase awareness of engineering services offered by our department.
- Lead mechanical engineer for fabrication of a sour gas PSA/TSA system for a university research center. In charge of mechanical estimates, project proposal, calculations, P&ID development and vendor communication.

Tenneco – Grass Lake, MI May-Aug 2003, Jan-May 2004, and Aug-Dec 2004
Co-op Engineer

- Supported publication of SAE Technical Paper 2006-01-1373 by studying high temperature muffler valve response.
- Performed NVH modal testing and analysis with LMS equipment, installed strain gauges and accelerometers.

Relevant Skills

- Experience in multiple welding techniques (including orbital welding) and nondestructive examination methods.
- Familiarity with heat treating techniques, including high temperature induction heating.
- Effective management of contractor safety programs.
- Concise documentation of modifications using Management of Change tools.
- Understanding of the ASME BPVC, and Process Piping Code.
- CAD and GD&T experience (ProE, CATIA, SolidWorks, AutoCAD).
- Certification as a crane lift supervisor.
- Mechanical hands-on skills including welding, machining, soldering, and vehicle repair.

Personal Interests

- Dual sport and adventure touring motorcycle riding, including mentoring of novice riders
- Rock climbing and mountaineering
- Mountain and road bicycling
- Photography
- Amateur Radio Operator License (FCC Technician License)
- US Forestry Service Volunteer, Class A Sawyer