Date: March, 2024

## Vita

## Alan L Dougherty

Technology Department Lamar State College-Orange 410 Front Street Orange, Texas 77630

Office Phone: (409) 882-3025

E-mail address: Alan.Dougherty@LSCO.edu

## Education

A.A.S. Mechanical Technology, 1981, Williamson School of Mechanical Trades (Williamson College of the Trades), Media, Pennsylvania

B.S., Mechanical Engineering, 1991, Louisiana State University, Baton Rouge, Louisiana

## **Professional Experience**

**SENIOR STAFF ENGINEER**, ExxonMobil Corporation, Beaumont Refinery, Beaumont, TX.

BEAUMONT REFINERY PROJECTS DEPT (2015-2022) - Machinery Specialist. Senior Specialist Engineer for capital project rotating equipment. Various projects, including new hydrotreating unit, including 9000 HP steam turbine (1500 psig/600 psig extraction/150 psig exhaust) driven centrifugal hydrogen compressor, and new unit pump/seal selections. Startup and commissioning of new unit and all other capital project rotating equipment. Develop and review as needed startup operating procedures, hazards reviews, and review of EPC rotating equipment designs. Consult and work with other disciplines (electrical, controls, instrumentation) as needed for pump and compressor control schemes. Mentor, train new engineers, across disciplines, as relates to codes, industry and corporate standards, and focus with respect to safety in design.

MACHINERY SECTION - Heavy Oils Section Machinery Lead (2007-2015): Responsible for day-to-day operation support for pumps, compressors, rotating equipment, to include mentoring of junior engineers, reliability improvements, maintenance plans for turnaround execution; third part shop inspections for repairing equipment, new pump installations, alignment of rotating machinery. Work/collaborate with machine shop personnel in repair of machinery.

**SENIOR ENGINEER**, E. I. Dupont de Nemours, *Sabine River Works, Orange TX, 1996-2007.*<u>Olefins Plant (2005-2007)</u> - Senior Mechanical Technical steward supporting 1.5 MMMlb/yr Olefins plant. Technical responsibility for flare, pumps, high-speed turbo-machinery equipment. Capital project team

leader with responsibility for both minor/major projects (<\$250M / up to \$5MM), and mentoring and training of new/junior engineers.

<u>LDPE High Pressure Autoclaves (1996-2005)</u> - Senior Mechanical Technical steward supporting (3) High-Pressure Autoclaves (30Mpsi) manufacturing specialty LDPE resins. Technology steward for Regenerative Thermal Oxidizer Abatement system, Area Flare system, PSM Quality Assurance Area Element Champion, Site Technical Standard Proprietor for Rupture Discs and Chemical Transfer Hoses. Project Team Leader, leading projects. Continuous improvement of equipment, facilities, production growth, reduction in cost of manufacturing.

**SENIOR ENGINEER**, Entergy Corporation, *Roy S. Nelson Plant, Westlake, LA, 1994-1996.* Maintenance and operational technical support for natural gas, coal, and Circulating Fluidized Bed petroleum coke (NISCO Project - Nelson Industrial Steam Company) fueled steam generators. Perform root cause analysis, inspect and assist plant maintenance with stewarding plant equipment, assisting with planning and coordination of outage activities. Work closely with plant personnel towards process improvement and resolving chronic equipment problems.

**MECHANICAL ENGINEER**, Gulf States Utilities Company, Design Engineering/Nuclear Steam Supply Group, *River Bend Nuclear Plant, St. Francisville, LA, 1993-1994.* Perform design modifications, performance/trouble-shooting, and root cause failure analysis of General Electric supplied systems, including Reactor Core Isolation Cooling (RCIC), Reactor Water Cleanup (RWCU), and refueling equipment.

**QUALITY ASSURANCE ENGINEER**, Gulf States Utilities Company, Quality Engineering Dept, *River Bend Nuclear Plant, St. Francisville, LA, 1992-1993.* Quality audits and review of design modifications, procedures, and specifications to ensure compliance with site Quality Assurance Program, applicable industry codes and standards.

**QUALITY CONTROL INSPECTOR**, Gulf States Utilities Company, *River Bend Nuclear Plant, St. Francisville, LA, 1987-1989.* Trained and Qualified per ASNT as Level II Quality Control Inspector. Perform required inspection of maintenance activities to plant Safety Related Systems per site Quality Assurance Program and Procedures.

**SR. ENGINEERING ASSISTANT**, Gulf States Utilities Company, *Roy S. Nelson Station, Westlake, LA, 1981-1986.* Plan/schedule maintenance activities. Responsible for trend/analysis of vibration data program for all critical rotating equipment within the 540 MW Coal Fired Power Plant. Trained to perform balancing of rotating elements (pump impellers, fan assemblies) on a rigid bearing shop balancing stand. Performed inspections of plant systems/equipment.