Allan McNally

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SUMMARY

Mechanical Reliability Engineer with significant experience and technical expertise in rotating equipment found in the chemical, mining and metals, municipalities, nuclear power generation, petro-chemical, petroleum (downstream and upstream), fossil power-generation, pulp and paper, oil and gas, and steel Industry. I am an effective problem solver with strong people skills and good communication focused in solving and eliminating high-impact chronic problems, reducing downtime, and saving money for the customer ensuring the solution is sustainable.

PROFESSIONAL EXPERIENCE

M-MRE Solutions LLC (DBA McNally-LLC), Owner — April 2014-Present

- Owner and responsible for consulting company offering reliability and mechanical engineer services concentrated in rotating equipment (turbo-machinery). Services include root-cause analysis, rotor-dynamics analysis, machinery diagnostics, RAM and life cycle cost analysis, project management, physical (Metallurgical) failure analysis, machinery design audits, finite element analysis, reliability assessments and audits, FMEA and RCM facilitations, centrifugal pump performance analysis, bad actor elimination programs, and training (onsite and offsite).
- Customers include: Navajo Refinery (HollyFrontier-Oil Refinery), PCA (Pulp and Paper Mill), SIPCHEM, WestRock (Pulp and Paper Mill), Dominion (Nuclear Power Plant), TESCO Engineering, Sahara Chemicals, etc. References can be provided if requested.
- Company website: www.mcnally-llc.com
- Number of people: 3
- Expertise available: Metallurgical Engineer and Mechanical Engineer.
- Professional liability insurance coverage: $2,000,000
- International insurance coverage: $2,000,000

Mechanical Reliability Engineer-RockTenn-West Point, VA — 2012-2014

- Performed root-cause failure analyses following the plant's triggering points using cause-and-effect mapping-Why Tree Analysis and/or Failure Mode and Effect Analysis to improve the life cycle and performance of equipment. Overall, I completed a total of 15 RCA.
- Responsibilities included working the minor, intermediate, and major overhaul of steam turbine generators during night shift as well as troubleshooting any issues with the steam units, GE and Westinghouse condensing units with extraction, and auxiliaries. Additional overhaul and repair management responsibilities included feed-water pumps, FD/ID fans, and ANSI-horizontal and vertical centrifugal pumps.
- Served as the technical contact to review any Management of Change (MOC) for the maintenance department.
- Managed the mechanical integrity, with the help of outside consultants, of pressure vessels, tanks, piping and pressure relief-valves in the plant. Duties included creating inspection plans using API, ASME, and NBIC guidelines; creating inspection plans according to code and managing the actual repair or improvement project if the cost was below $500K.
- Managed the planning, scheduling, and execution of small capital projects with values up to $500K in the maintenance department. Duties included developing scope of work, planning for resources, defining critical paths, logistics, safety requirements, forecasting, generating and handling outside contracts, and overall execution of projects. Completed two major capital projects during a year-period worth $400K per project.

- Handled any R-stamp repair in the plant. Duties included developing repair procedure, liaison with approved state inspector, execution of repair, documentation, updating R-stamp quality control manual, and reporting any non-routine repair to the state.
- Equipment type covered in the areas include: 15-42 MW Steam Turbine Generators, GE and Westinghouse, Boiler Feed Water Pumps, 2300 GPM centrifugal horizontal pumps, 2400 GPM Vertical pumps, liquid ring vacuum pumps, roots-blowers, ID and FD fans, liquid oxygen compressors, metering pumps, Alstom coal crushers, bucket elevators, lime kilns, wet scrubbers, Marley cooling towers, Jeffry Raider crushers, API 650 tanks, pressure vessels, power generation boilers, recovery boilers, batch digesters, Kamyr digesters, cryogenic pressure vessels, etc.

Equipment Reliability Engineer-I.E DuPont-Richmond, VA **2011-2012**

- Performed root-cause failure analysis to resolve major failures with significant impact to the business and implemented sustainable solutions to prevent them from happening.
- Managed the Preventative Maintenance program for the highly critical rotating pieces of equipment by ensuring that all spares were up to date and ordered, standard practices were written and updated, and proper training was provided to the personnel who maintained the equipment. Overhaul and inspection plans were developed using API guidelines, OEM specifications, and internal company engineering standards.
- Performed 1st party Mechanical Integrity and Quality Assurance audits to determine the effectiveness of the MIQA program and ensured that all solutions to any non-conformance found was implemented on time according the DuPont's PSM S21A policy.
- Performed reliability studies using Meridium software to create Weibull curves and Crow-AMSAA studies in an effort to optimize maintenance strategies as well as equipment improvements.
- Provided equipment and components specifications for precision maintenance installations following OEM and API 686 guidelines. Additional responsibilities included defining and performing acceptance testing and startup of the equipment.
- Visited various vendors' shop to oversee and document the overhaul of certain critical pieces of equipment as well as the acceptance tests performed.
- Oversaw the entire overhaul and repair process of high speed, 7300 RPM, centrifugal compressors used in the recovery process. Responsibilities included developing the scope of work, providing list of spares requirements, developing overhaul procedures, tracking quality measurements per OEM specifications, developing or approving repair guidelines, installation guidelines, and startup acceptance testing.
- Equipment knowledge include: 7300 RPM refrigeration centrifugal compressors, steam-turbine generators, lightning mixers, plunger pumps, metering pumps, centrifugal blowers, gearboxes, centrifugal horizontal pumps, specialized seal-applications for 3000 PSI mixers, mag-drive pumps, API 614 lube systems, etc.

Maintenance and Project Engineer-SGL Carbon-Hickman, KY **2009-2011**

- Managed the maintenance and repair of facilities and equipment in the plant in a safe and efficient manner. Overall, the department had 15 direct hourly employees including Electrical, Mechanical, Controls and Instrumentation, and 3 salary employees: planner, supervisor, and storeroom clerk.
- Achieved below 96.5% budget utilization in 2009, 2010, and 2011.
- Reorganized and optimized the spare parts management system program and implemented new practices to sustain improvements. Other benefits from this project included up-to-date BOMs for the highly critical pieces of equipment.
- Managed the safety and work of contractors within the plant; zero safety incidents or accidents during my entire career so far.
- Revamped the plant's preventative maintenance program, for the highly critical pieces of equipment, with the help of technicians, supervisors, and Six Sigma Black Belt agent and RCM

- Reviewed and optimized Standard Maintenance Procedures (SMPs) and Standard Operating Procedures (SOPs)
- Improved the utilization of CMMS program to capture equipment history and cost. Implemented the full use of PM Modules in SAP.
- Performed RCA and RCFA facilitations to prevent repetitive failures.
- Managed and developed scope of work, plans, schedules, and coordination of all engineering projects with values up to $1700K. Developed and managed yearly Maintenance and Engineering CAPEX budget with the accountability of executing all projects under budget and on-time with zero safety incidents/accidents.
- Performed the yearly appraisals, training, discipline, and coaching of those under responsibility
- Managed the approval of daily expenses for the department and the cash-flow of engineering budget. Entered the monthly forecast of each engineering project to predict the monthly cash-flow.
- Implemented a housekeeping program to improve the planning process and process flow in the department.

Production Department Manager-SGL Carbon-Hickman, KY **2008-2009**

- Managed 24-hour heavy manufacturing department with 23 employees. The list of responsibilities included day-to-day quality and safety, production planning, manufacturing and shipping, material handling department and overall budget planning and compliance for the 2 departments.

Process Engineer-SGL Carbon-Hickman, KY **2004-2008**

- Managed the process optimization of the extrusion department focused on quality, cost, and throughput. Responsibilities included the execution and completion of Six Sigma projects, review of SOPs, training of operators, process troubleshooting, supervision of production department during absentee of department supervisor, and internal auditing of ISO practices.
- Completed 3 cost-reduction projects with savings of $600K per year utilizing Lean-Six Sigma processes.

EDUCATION AND TRAINING

B.S.M.E, Mechanical Engineering, Louisiana State University, Baton Rouge, LA.
MBA, Business Administration, Murray State University, Murray, KY.
Green Belt, Six Sigma, -SGL Carbon Group.
Steam Turbine Overhaul and Repair – HPC Technical, Sarasota, FL.
Practical Rotor dynamics for Real Machines-Xdot Engineering, Charlottesville, VA.
Root-Cause Failure Analysis-I.E DuPont, Richmond, VA.
Reliability Engineering Principles-I.E DuPont, Richmond, VA.
Failure Mode and Effect Analysis-I.E DuPont, Richmond, VA.
Life Cycle Cost Analysis-I.E DuPont, Richmond, VA.
Lead Investigator Training-Reliability Center Inc.-Hopewell, VA.
API 571-Equity Engineering, San Antonio, TX.
API 653-Equity Engineering, San Antonio, TX.
Fundamentals of Lubrication, Noria, Minneapolis, MN.
ISO Level III Vibration, Pioneer-Engineering, Fort Collins, CO.
Machinery Diagnostics, GE-Houston, TX.
Maintenance Planning and Scheduling-Marshall Institute, SC.
Sustainable Storeroom Solutions-Marshall Institute, SC.
Precision Maintenance Training-Reliability Solutions, Richmond, VA.
The Understanding Statistical Process Control Seminar-SPC Press, Knoxville, TN.
Total Productive Maintenance Training-Wisconsin University, Madison, WI.
Fundamentals of Centrifugal Pumps Flow Path Design-SoftInWay, Bangalore, India
Fundamentals of Centrifugal Compressors Flow Path Design-SoftInWay, Bangalore, India