

EXPERIENCE**BRG MACHINERY CONSULTING, LLC**, Charlottesville, VA*Machinery Consultant, 2012 – Present*

Work with a team of highly qualified machinery specialists in providing a full range of rotating machinery management services. Actively involved in providing machinery expertise in the following areas:

- Root cause failure analysis and redesign
- Shop and field testing
- Inspection of repairs and overhauls
- Mechanical integrity and process safety management assessments
- Monitoring and inspecting the manufacture of new major rotating equipment
- Turnaround planning and execution
- Training of operations and maintenance personnel

EXXONMOBIL RESEARCH & ENGINEERING, Baytown Texas*Rotating Equipment Specialist, 2000 – 2011*

Provided machinery expertise to ExxonMobil affiliates in the Americas Region. Assisted operating plants in all facets of machinery application and procurement from design specifications and bid evaluations to testing, commissioning and installation. For new plants and facilities, responsible for all machinery, including compressors, pumps, steam turbines, hot gas expanders, gearboxes, and reciprocating compressors. Served as rotating equipment specialist for the following projects:

- Baytown Refinery Delayed Coker Unit
- Baytown Refinery FCC Gasoline Hydrotreater,
- Chalmette Refinery FCC Gasoline Hydrotreater
- Joliet Refinery Wet Gas Scrubber

Other activities included:

- Machinery turnaround planning and execution for multiple refineries
- Root cause failure analysis on compressors, hot gas expanders, steam turbines, and pumps
- Shop and field repair surveillance for fans, compressors, hot gas expanders, steam turbines, and pumps

MOBIL TECHNOLOGY COMPANY, Paulsboro, New Jersey*Rotating Equipment Specialist, 1996 – 2000*

Provided machinery expertise to Mobil affiliates worldwide. Assisted operating plants in all facets of machinery management including performance and reliability improvements, as well as troubleshooting and failure analysis. For new plants and facilities, responsible for all machinery, including compressors, pumps, steam turbines, hot gas expanders, gearboxes, and reciprocating compressors. Served as lead machinery specialist for the following projects, among others:

- Beaumont Olefins Plant Upgrade Project
- Joliet Refinery FCC Compressor and Turbine Rerates
- Joliet Refinery FCC Main Air Blower Instrument Upgrade

MOBIL OIL CORPORATION, Joliet Refinery, Joliet, Illinois*Rotating Equipment Specialist / Lead Mechanical Engineer, 1988 – 1996*

Lead machinery and mechanical engineer for major refinery expansion to produce ultra low sulfur diesel fuel, which included the purchase of new reformer and CHD centrifugal compressor trains as well as all rotating equipment for a grass roots 400 Ton sulfur unit and miscellaneous refinery utilities upgrades. Provided guidance to EPC on development of all new facilities and supervised in plant construction activities for \$6M of improvements associated with the project.

Engineering Supervisor, 1983 – 1988

Supervised and mentored 5 to 12 engineers and drafters in rotating equipment, project and maintenance engineering. Individually assigned special projects included:

- Rerate of FCC Hot Gas Expander
- Safety Valve and Gate, Globe and Check Valve reliability improvement program
- HF Alky Valve Improvement program
- Pump repair cost tracking program

MOBIL OIL CORPORATION, Augusta Refinery, Augusta, Kansas
Engineering Supervisor/Project Engineer, 1974 – 1983

Progressed professionally from civil, mechanical, electrical design /drafting, to project management, and to engineering supervision. Responsibilities included specification, procurement, installation design, project administration and commissioning of rotating and fixed equipment on primarily energy conservation projects as large 2M\$. Primary Refinery Units modified included:

- Crude and Vacuum Units
- Refinery Gas Plant
- Reformers
- HF Alkylation
- Utilities

EDUCATION

SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY, Rapid City, SD
Bachelor of Science, Mechanical Engineering, January 1974