MICHAEL J. MOTYL
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CAREER OBJECTIVE

Build upon and apply my technical background in a leadership position that financially benefits the company.

EDUCATION

M.S., Metallurgical Engineering, University of Wisconsin-Madison
B.S., Metallurgical Engineering, Iowa State University
M.B.A., Rensselaer Polytechnic Institute (course work)
P.E. Licensed Professional Engineering Certificate

WORK EXPERIENCE

CATERPILLAR INC. **Mossville, IL** **2001-Present**

Engine Materials Technology

Sr. Engineer – Dev/Res

Metallurgical quality responsibility for engine heads, blocks, cast components and fasteners.

- Developed suppliers utilizing the APQP/PPAP process that contributed to major purchasing cost reduction projects worth over $8.5M.
- Lead quality team to resolve head and block casting defects for 200K machining cost reduction.
- Chartered and technically lead a 6-Sigma project that implemented low cost heat treatment solution for bracket field failures.
- Lead head and block suppliers in developing process and controls to support 1.7M cost reduction.
- Provided technical council and guidance to engineering, purchasing and suppliers on implementing an austempering heat treatment to resolve Freightliner's front support failure complaint.
- Resolved over 50 fastener heat treatment quality issues through discussions with purchasing and the supplier. Supported 6-sigma projects to resolve high temperature fastener issues.
- Performed analysis that established supplier responsibility for marine casting defect that caused product health issues.

ALCOA WHEEL PRODUCTS, **(Formerly Reynolds Wheels International) Beloit, WI** **2000-2001**

Major U.S. producer of aluminum wheels **1996-1998**

Quality Engineer Supervisor

Metallurgical Engineer responsible for foundry quality, productivity improvement and scrap reduction.

- Identified the source of a metal cleanliness problem and implemented process changes that saved the company $5 million per year in scrap and rework.
- Developed procedures and resolved issues to maintain casting dimensional and metallurgical quality requirements in accordance with QS9000.
- Determined a root cause of a customer complaint of casting leaks to be inconsistent x-ray inspection. Implemented corrective action for more accurate evaluation of shrink defects that contributed to 10% reduction of foundry scrap.
- Developed primary metal and grain refiner system that reduced alloy cost $178,000 per year.
- Performed temperature surveys of the heat treat processes using statistical process control that reduced foundry scrap by 10%.

ROCKFORD PRODUCTS, Rockford, IL 1998-2000

Manufacturer of fasteners and cold-headed products for the automotive and commercial industries.

Laboratory Manager

Metallurgical engineer responsible for material selection, heat treatment quality and design.

- Implemented impact test and preventative measures that eliminated induction annealed ball stud rejections.
- Managed the computer software program for improved traceability of product heat treated in the batch and continuous furnaces.
- Contributed to APQP by resolving heat treat/properties issues and providing heat treatment designs.
- Evaluated rejections and customer complaints utilizing the 8-D problem solving process.
- Certified Metallurgical technicians for product testing, maintained QS9000 certification and laboratory A2LA accreditation.
- Evaluated wire supplier quality issues and implemented procedures for more efficient inspection of incoming wire.

AMERICAN NATIONAL CAN/SILGAN, Neenah, WI 1992-1996

Major U.S. producer of metal food containers.

Project Engineer/Metallurgist

Staff metallurgist responsible for customer problem resolution, supplier qualification, and product development.

- Saved company in excess of $1 million by determining the root cause of a leaking problem to be a steel chemistry problem of the supplier.
- Created and proved that a vertical flute design could improve can structural performance thereby reducing can costs by 23%.
- Recommended lower strength material and chrome coating, which eliminated a stress cracking problem and reduced customer's cost per year by over $100,000.

GENERAL DYNAMICS, Electric Boat Division, Groton, CT 1986-1992

Corporate builder of nuclear submarines for the Navy

Senior Materials Engineer

Engineer responsible for process improvement and quality of radiation shielding construction.

- Earned special award for saving $60,000 in production cost after determining best method for efficient lead shielding procedures in a nuclear environment.
- Served as principle investigator in resolving bonding of lead to high strength steel problem by developing a thermal spray coating to inhibit Liquid Metal Induced Embrittlement.
- Developed weld procedures for ferrous and titanium alloys.
- Resolved construction problems associated with fabrication of structures and installation of radiation shielding.

PUBLICATIONS

Patent: "Niobium Alloyed Gray Iron", Caterpillar (2007 applied for)
"Development of a Thermal Spray Barrier Coating to Prevent LMIE of HY Steels", Electric Boat (1990)
"Embrittling Effects of Lead on HY Steels", Electric Boat Division (1988)
"The Development of a Cast Steel Suitable for Glass Coating", AFS Transactions (1987)

ASSOCIATIONS

American Society of Materials – Treasurer 2007/9, and Chaired: Education 2001/2, Sustaining Members 2003/6, MEI 2006/7
American Society for Testing Materials – Task Group Chairman
American Foundrymen's Society – 5J Quality Control Committee 2001/9