Brooks A. Agnew
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GENERAL HIGHLIGHTS

1. 20 years of leadership experienced in Engineering, Quality Management, and building Lean Manufacturing in automotive, polymer applications, and scientific exploration programs.
2. Proven leadership in Project Management, Startups, Shutdowns, Relocations, Mergers
3. Part time Instructor of Mathematics at Gaston College in Dallas, North Carolina.
4. QS/ISO 9000 TS-16949 experience capable of implementing, auditing, and training.
5. Six Sigma Black Belt with nearly $500 million in recovered or new profits in manufacturing environments
6. ASQ Certified Quality Engineer in 1998
7. Highly accomplished presentation skills; national best-selling author; lecturer
8. Concurrent Engineering team facilitation and leadership in new product development.
9. BS in Chemistry, MS in Quality, PhD in Physics
10. QFD, SPC, JIT, FMEA, TQM, Kaizen, Kanban, and many other quality tools
11. Excellent blueprint knowledge; hydraulics, pneumatics, electronics, logic, architecture
12. Speak some Japanese, Spanish, German

EDUCATION

2000 Extension Courses completed for Doctorate in Physics (awarded)

1998 Kennedy-Western University Master's Degree in Quality Management.

1994 Tennessee Technological University Bachelor's Degree in Chemistry with honors. TN Tech Entrepreneurial Studies Program. Class valedictorian

1975 Brigham Young University Began University Studies

1974 Community College of the Air Force Associates in Electrical Engineering

BUSINESS EXPERIENCE

August 1998 - Present Independent Contractor - Six Sigma Black Belt

As a Six Sigma Black Belt, completed projects including startups, shutdowns, international relocations, acquisitions, liquidations, expansions, and scale-up of lean manufacturing operations. Helped numerous Fortune 500 Companies recover costs from poor quality, improve productivity, and acquire new business. Engineered new facilities with more than 100 employees from concept to full operation and sales in excess of $350 million per year. Proven leader in Advanced Product Quality Planning processes, PPAP's, and new product development. Proven success in QS-9000 and TS-16949 certification from start to finish.

Major Accomplishments

1. Recovered multi-million dollar automotive supplier contract for Fortune 100 Company in Western Kentucky. Involved customer relations, process engineering, Six-Sigma quality analysis, and logistics management. Contract saved the customer $1.4 million a year in sales, and earned subsequent new business due to production capability improvements.
2. Led engineering team to relocate manufacturing operations from Japan to North Carolina. Managed construction of new catalytic converter manufacturing facility, international transfer of equipment, hiring and training of engineering and quality managers, and establishment of world-class quant lab. Trained auditors, produced quality manual and hundreds of other technical documents to accomplish TS-16949 certification from scratch. Acquired and satisfied first GM RFQ's for new business in company's 33-year history. This effort built the US facility from zero domestic revenues to more than $300 million year in sales in less than 2 years.
3. Designed and built automated assembly and test equipment for blow and injection molded plastic automotive parts. Improved productivity by 33%, then relocated entire operation to Mexico as per customer requirements. Project increased profits to company by 5% across the board while reducing cost of poor quality from $32 thousand per month to less than $5000 per month.
4. Recovered $1.2 million in annual profits for paper coating company through expert process engineering and statistical investigations. Designed new surface energy measurement techniques using optics and GC analysis of chemistry. Discovered losses in high-speed solvated gravure web coating of paper, and designed temperature-controlled precision solids process to reduce cost of goods sold and eliminate warranty returns.
5. Managed FDA recall project for Fortune 100 Medical Instrument company. Designed entire process, trained 215 technicians, and negotiated FDA validation for project improvements. Accomplished FDA recall and upgrades for medical instruments in less than one year, earning a letter of commendation from Kaiser Corporation and more than $1 million in profits for the company.
6. Applied Six Sigma tools to recover profits for German transaxle company by reducing rework from 30% to 0.8% First-Time-Failure. Gear meshing noise was a major cause of internal costs due to rework, and warranty returns with GM. Designed project and led team to reduced costs by $35 thousand per month and warranty returns by 75%. Process savings allowed company to maintain a profit even though material costs went up, and sales dropped by 10% due to lower GM demand.
7. Provided engineering leadership for launch of Containment Contract for company to supply GM assembly plant with more than 140 commodities in a 2-shift, 1 million square foot JIT sequencing operation. Rewrote all operator work instructions, and translated them into Spanish. Facilitated training for 325 employees in the new company's methodology, and standardized launch process. Included plant layout, CAD design, material handling and flow, lean manufacturing techniques, and process contingencies to support zero-spill operation.
8. Designed and implemented document control system for a world bank. Process included shadowing current processes, developing metrics for continuous improvement, authoring documents, and developing a web-based storage and retrieval system for the documents. Acted as liaison between client bank, service company, and technology supplier.

July 1994 - August 1998 - Polyfibron Technologies, Inc. Morristown, TN

Chemical Process Engineer (8 direct reports)

Began tenure as *Quality Control Chemist.* Included ISO 9000 development, certification, and internal audits, SPC, experiment design, reliability engineering and TQM. Conducted major research into reactive adhesives, surface preparation, and adhesive testing methods. Led process design team for implementation of casting,

extruding, and lamination. Origination of numerous patent disclosures led to an incentive raise and promotion to *Chemical Process Engineer*. Improved all manufacturing processes for cost reduction, efficiency, and quality improvement. Interfaced with customers and sales departments in the development of adhesive and surface release products. Numerous patents pending.

Major Accomplishments

1 Invented Boxcor®, the world's first large-scale direct-to-plate imager.
2 Patented numerous breakthroughs in polymer-based adhesives and print blanket laminations.
3 Perfected water-soluble polyurethanes, and reactive adhesives.
4 Established Concurrent Engineering, improving new product development efficiency by 70%.
5 Developed new supplier quality methods that allowed company to certify suppliers, thus reducing costs due to incoming inspections.

Jan 1992 - August 1994 Textron-Automotive Parts Division at McCord-Winn
Cookeville, TN
Part/Full-time student at Tennessee Technological University and part time instructor to accomplish Bachelor's Degree in Chemistry with honors

Plant Engineer
Began employment as *Plant Engineer*, but union activity resulted is reassignment as acting Unit Manager for 132 unionized employees responsibilities included operations in blow and injection molded plastics manufacturing and assembling automotive parts as a JIT Tier II supplier. Designed automated assembly and inspection lines for high-speed production. Reviewed Quality manufacturing process for all aspects of Tier II JIT production of 10 thousand parts per day for each of 15 production lines. Reduced operating costs and facility maintenance costs. Employed SPC's and other quality management tools to empower employees to improve quality. Highly proficient with all major brands of PLC's in designing and building automated assembly and inspection equipment.

Major Accomplishments

1 Raised plant efficiency from 75% to 115% of benchmark.
2 Reduced scrap from 30 thousand pounds per month to barely 500 pounds per month.
2 Increased piece-per-hour rates by 20%.
3 Designed automated equipment to assemble and inspect products which reduced scrap by 90%.
4 Shipped over 10 thousand parts per day 98.8% on time with less than 100 ppm defect rate.

April 1990 - Jan 1992 - Nissan of America - B.I.C.S.
Smyrna, Tennessee

Maintenance Manager (23 direct reports)
Perform maintenance and modifications of all remote and direct sensors and controls in the Power House Facility. Supervise that section's portion of a $450 million expansion. Managed 3 coal/gas fired boilers, 10 compressors, and 10 chillers, and 4 cooling towers. Trained in power distribution and switch gear from 161KV to single phase. Perform all calibration and SCADA design for the facility. Highly developed combustion efficiency skills, including Measurex, Bailey, Foxboro, and custom programs. Infrared, UV-Vis, and electronic gas analyzers.

Major Accomplishments

1 Designed and built the calibration lab.

2 Installed new SCADA for complete control of more than 20,000 IO points.
3 Implemented ESP power management program saving company over $1,200,000 a year in utility costs.
4 24,000 production hours without a lost minute of downtime to the production facility.

June 1983 - Aug 1999 - Agnew Science Group
Kentucky - Tennessee

Research Scientist

1 Completed development of Ground Probing Radar for Earth Tomography
2 Submitted deep strata scanning technology to NASA in 1998 for MARSIS Project
3 Completed the location and drilling of 55 oil and gas wells in 9 states with a 99% accuracy
4 Participated in documentary on the HAARP weapons systems

PROFESSIONAL ORGANIZATIONS

American Chemical Society. IEEE Remote Sensing Society
American Society of Mechanical Engineers.
Scoutmaster with Boy Scouts of America.
Chairman of Construction for Hamblen County Habitat for Humanity.
MENSA
American Society for Quality Certified Quality Engineer
Published International Best-selling Author (non-fiction)