

# Noah James O'Brien

Cincinnati, OH 45203

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## EDUCATION

Master of Science, Engineering  
Youngstown State University  
Youngstown, Ohio  
Cumulative GPA: 3.67

Bachelor of Science, Applied Management  
Ohio University  
Athens, Ohio  
Graduation Honors: *Summa cum Laude*  
Cumulative GPA: 3.98

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## EXPERIENCE

2014-Present **Emery Oleochemicals**  
**Reliability Analyst**

### Continuous Improvement:

- Developed, implemented, and managed reliability engineering and preventative maintenance programs for North America and Asia Pacific operations (\$800,000,000 in insured physical manufacturing assets) with a \$2.2 million annual budget, including regional site visits; preventative maintenance audits; condition-based machine monitoring data analytics; employee training; management of employees and contractors at multiple sites; assessment of critical part stock quantities, and the creation of departmental Standard Operating Procedures (SOP).
- Developed, implemented, and analyzed Key Performance Indicator (KPI) metrics and reporting to facilitate continuous improvement in maintenance operations, machine reliability, production yields, in-specification output, and utility consumption, including the creation of an Overall Equipment Effectiveness (OEE) calculation program, SAP (ERP) scheduled PM completion tracking, and Excel-based automated reports predicated on DCS/PLC meter data ported via PI/OSisoft calculation formulas.
- Performed Return on Investment (ROI) calculations and initiated Request for Proposal (RFP) documents for all reliability-based, capital projects, including the creation of subsequent project charters, design reviews, technology assessments, budgets, and schedules, with cost savings ranging from \$10,000 to \$200,000 for each initiative.
  - a) Developed a method to optimize boiler load levels (natural gas consumption) by implementing a real-time, automated data analytic program to calculate boiler efficiencies  $[(\text{Steam BTU output} - \text{Feedwater BTU input}) / \text{Natural Gas BTU input}]$  in order to run the most efficient combinations of boilers at maximum loads resulting in an annual energy savings of \$70,000.
  - b) Developed an ultrasonic method to detect air leaks during plant shutdowns that resulted in a 930 scfm reduction in the site compressed air load with an associated annual energy savings of \$107,000.
- Developed Kaizen-based, interdepartmental strategies to drive continuous improvement in North America and Asia-Pacific operations, including the development of a phase-gate

review program, automation initiatives, data analytic methodologies, and a Manufacturing Readiness Checklist (MRCL) program to serve as a corporate repository of knowledge.

- Performed cost analysis utilizing machine trend data (historic and real-time) and work order histories to report monetary losses associated with inefficient operations and use Lean waste-reduction (defect-elimination) methods to identify process improvements, including preventative maintenance optimization strategies.

- a) Developed a multi-category risk matrix method to determine preventative maintenance frequencies for individual pressure safety valves, resulting in the discontinuation of non-value-added frequencies and an annual savings of approximately \$90,000 in reduced maintenance costs.
- b) Reviewed and removed obsolete (non-value-added) maintenance ISO quality-critical calibration procedures and replaced them with industry benchmarks, resulting in an annual cost savings of \$32,000.

#### **Safety and Quality Administration:**

- Managed site ISO and GMP preventative maintenance programs, including administration of SharePoint QMS controlled documents; participation in internal and external audits; adherence to NIST calibration/traceability requirements; and corrective action initiation and oversight for non-conformance thresholds.

- Maintained ISO 9001 and 14001 Internal Auditor certification and perform annual cross-departmental Quality & Environmental Management System audits.

- Managed site Process Safety Management (PSM) mechanical integrity program, including execution of API-compliant inspections, management of employees and inspectors; analysis of remaining life data; administration of SharePoint documentation retention program; and adherence to OSHA, EPA, NFPA, and SPCC requirements.

- Served as the Reliability Engineering representative in PHA (Process Hazard Analysis) reviews, including the creation of risk and consequence matrices; adherence to EPA Risk Management Plan (RMP) best practices; and identification of engineered solutions to mitigate environmental, health and safety hazards.

- a) Emery Oleochemicals, Cincinnati Site, received the OSHA distinction of 2,000,000 hours of work without a Loss Time Accident (LTA).

- Initiated and followed Management of Change (MOC) procedure for process and machine improvements, including the creation of hot work permits, work flow management, and employee oversight.

- Developed, administered, and served as the defined head of the Electrical Preventative Maintenance (EPM) mechanical integrity program in compliance with NFPA 70B.

#### **Equipment Analysis:**

- Maintained Nondestructive Testing (NDT) VT Level II machine inspection certification and knowledge in applicable SNT-TC-1A standards.

- Used ultrasonic technology (measurement and airborne acoustic) to test the functionality, structural integrity, and condition of pressure vessels and other production equipment.

- Used thermal imaging equipment (infrared thermography) to assess manufacturing equipment operational reliability and document baselines on new equipment.

- Performed root-cause-analysis and developed corrective actions for electrical and mechanical equipment failures (tanks, pressure vessels, heat exchangers, pumps, robotics,

packaging units, conveyors, optical sensors, compressors, turbines, boilers, generators, substation transformers, piping, and infrastructure)—utilizing a Six Sigma DMAIC framework.

**IS/Data Administration:**

- Developed standards for Enterprise Resource Planning (ERP) Plant Maintenance (PM) module, including asset creation, maintenance work order process flow, technical specification assignment, and virtual plant hierarchy based on parent/subordinate relationships.
- Created SAP preventative maintenance plans with scheduled frequencies specific to process environment, legal requirements, GMP guidelines, and ASME standards.
- Created SAP functional location structure indicators and hierarchies based on piping and instrumentation diagrams, circuit diagrams, and other engineering drawings.
- Served as a Global Energy Team member in the role of data analytic subject matter expert, with responsibility over software utilization initiatives and collaborative projects.

**2012-2014**

**Emery Oleochemicals  
Reliability Technician**

- Performed troubleshooting and adjustments on manufacturing equipment, including robotic tolerances, PLC controllers, and automated packaging systems.
- Performed diagnostic tests on manufacturing equipment utilizing local PLC interfaces and wireless condition monitoring data aggregation tools (Allen-Bradley/Rockwell Automation, PI OSisoft).
- Performed 5S workflow analysis on machine areas and implemented associated efficiency improvements, including the creation of standard operating procedures and reorganization.
- Maintained the site master equipment database comprised of log data, work order histories, and management of change documents.
- Managed the corrective and preventative maintenance program for all pressure safety valves and rupture disks in compliance with ASME Boiler and Pressure Vessel Code (I & VIII).
- Provided reports on all safety incidents that resulted from human-machine interfaces and participate in subsequent external regulatory safety investigations (OSHA, EPA).

**2011-2012**

**Eastern Personnel Services  
Manufacturing Information Systems Analyst (Contracted)**

- Served as lead ERP/SAP support analyst for system design, integration, clerical functions, and total life-cycle asset management.
- Developed and provided site-specific employee training for ERP SAP/PM module utilization in accordance with industry benchmarking and best business practices.
- Provided implementation and administration management for industrial insurance compliance programs (FM Global, Allianz).
- Created and administered data-analytic programs, including the creation of DCS/PI automated reporting methods.
- Administered 5S, TPM, Six Sigma, and other continuous improvement programs.

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## **ORGANIZATIONS, PROFESSIONAL ASSOCIATIONS AND HONORS**

- 2018-Present**     **Executive Board Member, West End Community Council**  
The City of Cincinnati legally recognizes and empowers designated community councils in each of the city's neighborhoods. The West End Community Council serves constituents in a diverse downtown area that includes multiple historic districts, industrial areas, and residential communities.
- 2015-Present**     **Vice President, Board of Trustees, Betts Longworth Historic District Group**  
The Betts Longworth Historic District Group manages property, educational programs, and business development within the historic district's boundaries. The responsibilities of Vice President include fiduciary duties as an elected member of the Board of Trustees, budgetary oversight, capital project management, and strategic vision execution.
- 2014-Present**     **Member, Phi Kappa Phi Honor Society – Ohio University and Youngstown State Chapters**  
Phi Kappa Phi is recognized as the United States' oldest and most selective collegiate honor society for all academic disciplines.
- 2013-2014**         **Volunteer Project Manager, Maji Safi**  
Maji Safi is an engineering organization committed to improving access to safe water in the rural areas of Kenya. Travel to the Upper Rift Valley in Kenya to manage a well drilling project and perform a SS program compliance audit was part of the volunteer experience.
- 2011-2016**         **Volunteer Translator, Kiva Microfinance Loan Application Translator**  
Kiva is non-profit organization with a mission to connect people through micro-lending to alleviate poverty throughout the world. Spanish to English translation of loan documentation has been the foundation of the volunteer experience.

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## **REFERENCES**

**Steven Halfawi**  
Senior Director  
Carl Zeiss Vision  
1050 Worldwide Blvd.  
Hebron, KY 41048  
(859) 689-1243  
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**Karen Crone**  
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**Steve Little**  
Chief Information Officer (Retired)  
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