

Lisa A. Peterson, PhD, PE

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Statement

Supporting others in their awareness of environmental impact and quantifying potential improvement opportunities

Professional Experience

Aftan Engineering

June 2018 – present

President

Environmental modeling of products and processes via Life Cycle Assessment (LCA) and Life Cycle Costing (LCC). Analysis of sustainability through environmental, economic and social pillars. Special focus on industrial processes, consumer products, water, renewable fuels, renewable energy, and plastics.

Drexel University

January 2014 – present

Visiting Research Scientist

Research in environmental sustainability and continuous improvement through LCA and LCC. Preparing manuscripts for submission to peer-reviewed journals, June 2018-present

PhD Candidate

Started program as a part time student in Jan 2014 while working full time. Took educational sabbatical for completion of thesis and oral defense April 2017-June 2018. Research focused on environmental engineering modeling of water management infrastructure and renewable fuels from agricultural crops. Completed PhD program June 2018.

Legendary Arms Works

September 2016 – April 2017

Chief Operating Officer

Responsible for manufacturing and operations of high quality bolt action hunting rifles for this privately held firm. Involved in corporate strategy with key tasks focused on supply chain management, operational efficiency, financial modeling, and organizational restructuring. Following the sale of the business, responsible for shut down of remaining operations including vendor relations, customer relations, HR matters and legal matters.

Brentwood Industries

February 2008 – September 2016

Engineering Manager - Production

Responsible for process and manufacturing engineering for thermoforming and injection molding, focusing on reducing cost of manufacturing through yield improvement and cycle time reduction. Managed 8 engineers. Lead Lean Six Sigma initiatives. The products manufactured mainly served the medical and automotive industries.

General Manager

Responsible for the newly acquired injection molding facility, focusing on business integration into the Brentwood family. Managed the organization consisting of 10 office staff members, 3 production supervisors and over 30 production associates across 3 shifts. The products manufactured mainly served the medical and packaging industries.

Director of Engineering

Responsible for project design, new product introduction and rules-based design automation for this privately owned business specializing in non-metallic water and waste water solutions. Managed an organization of 16 engineers and computer aided designers preparing the technical drawings to the municipalities. Filed 3 patents for design of sludge dredging equipment.

Chief Operating Officer

Responsible for Operations, Engineering and Development for this VC funded company manufacturing InP gain devices and LiNbO3 modulators for telecom, military and medical applications.

A. T. Kearney

April 2004 – September 2005

Senior Sourcing Manager

Consultant in procurement and supply chain strategy. Served clients from various industries, such as industrial machinery, beverage and confectionery, security systems, and financial services.

Aftan Engineering Corporation

February 2002 – April 2004

Director

Consultant in general management with special focus on manufacturing, engineering, international operations, and global supply chain strategy. Served clients from various industries including optoelectronics, communications, biomedical, petrochemical, and consumer products. Involved in 2 start-up opportunities involving due diligence, strategy development and VC funding.

CeLight, Inc.

January 2001 – January 2002

Vice President

Responsible for integrated electro optics and later for engineering, operations and manufacturing strategy. Involved in corporate strategy, including interaction with VC firms, potential partners, and board members.

Lucent Technologies and AT&T Bell Laboratories

May 1989 – January 2001

Director

Responsible for Optoelectronics Manufacturing Sourcing Strategy, including 2 joint ventures, operations in Matamoros, Mexico, and development of a global manufacturing sourcing strategy. Also responsible for Test Set Development organization. Key initiatives included establishing new facilities, ramping factory capacity by a factor of 2 and developing partner relationships. Served as board member for LD FiberOptics joint venture.

Senior Manager

Held various positions responsible for fiber optic component operations, including engineering, manufacturing, development, and support functions. Responsible for business line success with key initiatives including profitability, business development, new product introduction, customer interaction, supplier interaction, process improvement, cost reduction, yield improvement, employee involvement, and safety.

Technical Manager

Held various positions managing development engineers, manufacturing engineers and manufacturing shop personnel. Received patent for design of ball lens to eliminate ripple effect (6,064,527).

Member of Technical Staff

Held various positions in engineering, including design of bipolar analog integrated circuits and global procurement of high tech, high reliability components for use in AT&T's Undersea Cable System. Received patent for design of transmitter circuit (5,329,210).

Education

B.S. Electrical Engineering, 1989
Lehigh University, Bethlehem, PA

M. Eng., Electrical Engineering, 1990
Cornell University, Ithaca, NY

MBA, International Business, 2002
National Technological University, Fort Collins, CO

PhD, Environmental Engineering, 2018
Drexel University, Philadelphia, PA

Certifications

Professional Engineer (PA PE088689)
Lean Six Sigma Black Belt

Professional Memberships and Volunteer Activities

- IEEE (Member 87-99, Senior Member 99-present)
- ASME (Member 08-present)
- WEF (Member 13-present)
- IWA (Member 18-present)
- Tau Beta Pi Engineering Honor Society and Eta Kappa Nu Electrical Engineering Honor Society
- Reading Symphony Orchestra Board of Directors (95-99, 08-10), Committees (91-present)
- Penn State University-Berks Campus Industrial Advisory Committee (99-01, 08-present)
- United Way of Berks County (95-96 AT&T Campaign Co-Chairperson, 99-01 Allocations, 10-14 Brentwood Campaign Committee)
- Board of School Directors - Governor Mifflin School District (13-present)
- Board of Directors - Horse Shoe Trail Conservancy (17-present), Treasurer (18-present)
- Brecknock Township Recreation Board (18-present)
- Pennsylvania Society of Professional Engineers – Reading Berks Chapter (19-present)

Skills and Experiences

- Lean 6 Sigma (Black Belt)
- Life Cycle Assessment (LCA)
- Life Cycle Costing (LCC)
- Sustainability modeling
- Scrap Reduction/Margin Improvement
- Quality Improvement Programs
- Design of Experiments
- Business Process Improvement
- Global Supply Chain Management
- Engineering Management
- Strategic Planning
- Organizational Budgeting
- Accounting and Finance
- Contract Manufacturing
- ISO Certification (9001 and 14001)
- ERP/MRP System Implementation
- HR management
- Employee Involvement Programs
- Morale Improvement Programs
- 360 Degree Feedback Process
- Mentoring and Succession Planning
- Career Development
- Force Adjustment Initiatives
- Safety Initiatives
- Union and Non-Union Workforce Leadership
- Large Public to Small Private Corp Management
- Merger & Acquisition
- Venture Capital Funding

Publications

Adler, P. R., Spatari, S., D'Ottone, F., Vazquez, D., Peterson, L., Del Grosso, S. J., Baethgen, W. E., Parton, W. J. (2018). "Legacy effects of individual crops affect N₂O emissions accounting within crop rotations." GCB Bioenergy **10**(2): 123-136.

Peterson, L. (2018). Environmental, Economic and Social Evaluation of Alternative Stormwater and Watershed Management Approaches. Environmental Engineering. Philadelphia, PA, Drexel University. **Doctor of Philosophy**.

Conference Presentations

Peterson, L. A., Spatari, S., Awerbuch, P. M. (2018, October). Applying LCA to Social Ecological Systems Framework for Stormwater Management. Presentation at EcoBalance 2018, Ryogoku, Japan

Peterson, L. A., Spatari, S. (2018, October). Cradle-to-Gate LCA of Plastic Underground Stormwater Infiltration Basins. Poster at EcoBalance 2018, Ryogoku, Japan

Peterson, L. A., Spatari, S., Awerbuch, P. M. (2018, October). A Stormwater Management Case Study using LCA and LCC. Poster at EcoBalance 2018, Ryogoku, Japan

Peterson, L. A., Spatari, S., Awerbuch, P. M. (2018, October). Life Cycle Assessment and Life Cycle Costing of Stormwater Management Scenarios. Presentation at 15th International Specialised Conferences on Small Water and Wastewater Systems, Haifa, Israel

Peterson, L. A., Spatari, S., Awerbuch, P. M. (2018, November). Life Cycle Assessment (LCA) and Life Cycle Costing (LCC) of Floodplain Restoration as a Stormwater Management Solution. Presentation at 2018 Pennsylvania Water and Wastewater Technology Summit, State College, Pennsylvania

Peterson, L. A., Spatari, S. (2019, April). Through The Lens Of Life Cycle Assessment -- Comparing Stormwater Management Scenarios. Presentation at 2019 National Watershed & Stormwater Conference, Charleston, South Carolina