Peter R. Walsh, PE

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Education

Graduate Courses in Human Resources – Framingham State College, 1993-1994

MBA - Suffolk University, Boston, MA, 1981 BS Electrical Engineering - WPI, Worcester, MA, 1969

Curriculum Vitae



Licenses and Certifications

- Licensed Professional Engineer, 1977 to Present, State of Massachusetts, No. 28728
- Licensed Professional Engineer, 1975-1990, State of New Jersey, No.22289
- Licensed Professional Engineer, 1985-1988, State of New Hampshire, No. 6173
- NFPA Certified "Electrical Safety Compliance Professional" by written exam on NFPA 70E and related experience. Effective 2015-Present
- OSHA "Authorized Trainer" for General Industry Training (Granted by OSHA Training Institute Education Center, a cooperative program of the US Department of Labor OSHA and Keene State College) Program consisted of formal courses, written tests, and oral examinations. Effective 2009-Present

Experience

Teaticket Technical Associates LLC, Teaticket, MA

August 2016 to present

President and Engineer

Analyzes electrical incidents using the perspectives of human safety practices, proper equipment application and equipment performance. Teaches electrical safety for the workplace and assists companies in efforts to comply with OSHA and accepted best electrical safety practices. Participates in developing electrical standards for safety.

Mersen (Formerly known as Ferraz Shawmut), Newburyport, MA

June 2005 to August 2016

Solutions Engineer, Engineering Services Manager, Electrical Codes and Standards Specialist

Collaborated with customer engineers and their management to apply electrical products in accordance with electrical safety codes, standards, and best practices of safety. Trained customers how to avoid the electrical hazards of shock, arc blast, and arc flash. Investigated incidents in proximity of Mersen products such fuses and switches. Provided forensic analysis to customers.

Venture Development Corporation, Natick, MA

September 2004 to June 2005

Senior Analyst – Power Conversion

Researched technical product trends for power conversion devices. Provided technical marketing reports to Fortune 500 companies and venture capitalists.

Peter Walsh, PE, Concord, MA

June 2000 to September 2004

Engineer, Sole Proprietor

Provided consulting with fuses, lightning protection, metering, and other electrical projects on part time and full time basis.

WESCO Distribution, Westwood, MA

December 1998 to June 2000

Boston Area Electrical Engineer

Provided internal and external electrical engineering support regarding safe application of equipment.

Gould-Shawmut (Later known as Ferraz Shawmut), Newburyport, MA July 1997 to December 1998 VP of Technical Product Management

Provided electrical engineering to analyze customer incidents and resolve product management issues. The products were electrical fuses, switches, and related electrical components. Analyzed their proper application in power distribution equipment.

Bussmann Division of Cooper Industries, Concord, MA

April 1991 to July 1997

<u>District Sales Engineer</u>

Presented technical seminars and provided application assistance to the sales force and customers. This included the National Electrical Code requirements for electrical installations.

Peter Walsh, PE, Sudbury, MA

April 1989 to April 1991

Engineer, Sole Proprietor

Provided consulting regarding fuses, lightning protection, metering, and other electrical projects on part time and full time basis.

Exergen Corporation, Natick, MA

March 1987 to April 1989

<u>Application Manager for Electrical Products</u>

Developed new applications of infrared measurement instruments for the electrical industry.

Engineering Directions Inc. and Engineering Associates, Burlington, MA April 1981 to March 1987 Associate Director

Provided engineering to electrical equipment manufacturers and their customers.

Bussmann Division of McGraw-Edison, Plymouth, MA

January 1976 to April 1981

New England Sales Engineer

Provided correct application assistance for electrical and electronic components. Investigated incidents and provided forensic analysis.

General Electric Company, Millburn, NJ

June 1969 to December 1975

Electrical Project Engineer

Developed power system coordination recommendations for industrial electrical systems and supported legal team with forensic analyses.

Recent Selected Articles and Conference Presentations

- "MV Controllable Fuses Installed to Reduce Arc flash on Transformer Secondary", IEEE Paper No. ESW2016-03, Lead Author. Presented to the IEEE Electrical Safety Workshop, Jacksonville, FL, March 2016. This paper is also scheduled to be published in IEEE *Transactions* Magazine in their 2016-2017 cycle.
- "Increasing Branch Circuit Reliability for Computer Rooms", Published for Mersen customers, November 2015
- Wrote over 300 short articles ranging from new electrical products to electrical safety published by <u>www.ElectricSmarts.com</u> from 2002 to 2015
- "Major Changes to NFPA 70E Standard 2015 Edition", Published for Mersen customers, January 2015
- "2014 National Electrical Code Changes in Overcurrent and Surge Protection", Published for Mersen customers, January 2014
- "DC Arc Flash Calculations Arc-in-Open-Air & Arc-in-a-Box Using a Simplified Approach (Multiplication Factor Method)", IEEE Paper No. ESW2012-25, Peter Walsh, PE Co-Author, Presented to the IEEE Electrical Safety Workshop, Daytona Beach, FL, February 2014
- "Arc Flash, Be Gone!", Published by Rockwell Automation Encompass, February 2012
- "Introduction to Specifying Surge Protection", Published for Mersen customers, November 2011
- "Calculating Arc Flash Hazard Levels", Cover story in PurePower Magazine, Winter 2008

Recent Professional Development

- IEEE CEU-IEEE IAS Electrical Safety Management, March 2016 IAS Electrical Safety Workshop Conference
- IEEE CEU-IEEE IAS Technical Sessions, 18 Hours, 2015 IAS PCIC Industry Conference
- IEEE CEU-IEEE IAS Technical Sessions 1-4, 28 Hours, 2015 IAS Pulp & Paper Industry Conference
- IEEE CEU- "OSHA 1910.269 & 1926 Subpart Revisions", 2015 IAS Pulp & Paper Industry Conference
- IEEE CEU-IEEE IAS "Methods of Calculating DC Arc Flash Hazards", January 2015 IAS Electrical Safety Workshop Conference
- IEEE CEU-25 Professional Development Hours, February 2014 IEEE IAS Electrical Safety Workshop
- IEEE CEU-"NFPA 70E 2015 Edition Changes", February 2014
- IEEE CEU-"How to Perform an Arc-Flash Hazard Analysis", February 2014
- OSHA TIEC, New England-#503 "Update for General Industry Trainers", April 2013
- UL University-"Industrial Control Panel UL 508A & Short-circuit Current Ratings", September 2011
- OSHA TIEC, New England-#3095 "Electrical Standards", July 2009
- OSHA TIEC, New England-#501 "Trainer Course for General Industry", June 2009
- OSHA TIEC, New England-#511 "Occupational Safety for General Industry", January 2009

Professional Affiliations

Institute of Electrical and Electronic Engineers (IEEE) - Elevated to Life Member 2013

- Technical Committee Member to "IEEE Guide for Performing Arc Flash Calculations", IEEE 1584
- Technical Committee Member to "Guide for Motor Control Centers to Help Reduce Electrical Hazards", IEEE 1683
- Technical Committee Member to "IEEE Recommended Practice for Electrical System Design Techniques to Improve Electrical Safety", IEEE P1814

National Fire Protection Association (NFPA)

- Participated with proposed changes in the 2017 "National Electrical Code" (NFPA70-2017 240.67)
- Participated with proposed changes in the 2015 "Standard for Electrical Safety in the Workplace", (NFPA70E-2015 110(I)(2))
- Member of Technical Committee on NFPA 110 "Standard for Emergency and Standby Power Systems" from 2009 to 2016
- Member of Technical Committee on NFPA 111 "Standard for Stored Electrical Energy Emergency and Standby Power Systems" from 2009 to 2016
- Safely assisted the NFPA in videotaping arc flash explosions at the Mersen Newburyport test laboratory for inclusion with safety videos for the electrical industry, October 2006
- Member of National Electrical Code Making Panel 4 for the 2008 cycle

International Association of Electrical Inspectors (IAEI) Associate

National Society of Professional Engineers (NSPE)

National Electrical Manufacturers Association (NEMA)

• Technical Delegate to NEMA 08SG (Medium Voltage Switchgear Section) from 2008 to 2016