

**Professional Resume  
of  
JOHN P. REAGAN, P.E.**

January 2024

**I. General Information**

Electrical Engineer  
Schaefer Engineering, Inc.  
Wentzville, Missouri

**II. Professional Summary**

**A. Education:** Bachelor of Science Degree  
Electrical Engineering  
Southern Illinois University  
Edwardsville, Illinois  
May 1996-Magna Cum Laude

Associates of Arts Degree  
Engineering Science  
St. Louis Community College  
St. Louis, Missouri  
December 1992

**B. Experience:**

June 2003 to present

Position: Project Engineer - Electrical  
Schaefer Engineering, Inc.  
Wentzville, Missouri

April 1999 through May 2003

Position: Project Engineer - Electrical  
FTI/S.E.A. Consulting, SEA Limited  
St. Louis, Missouri

Responsible for electrical engineering projects including failure analysis of electrical components and systems, analysis of electrical equipment and appliances to determine their role in an incident, and evaluation of electrical shock and electrocution incidents. Fire origin and cause analysis. Other types of projects include alarm system and equipment evaluations, equipment damage evaluations such as lightning or water damage, and lighting system evaluations.

**Experience (continued):**

May 1981 through March 1999

Positions: Deputy Director of Electrical Engineering/Project Manager  
Sverdrup & Parcel, Sverdrup Corporation, Sverdrup Facilities, Inc.  
and Jacobs Engineering, Inc.  
St. Louis, Missouri

Responsible for the successful delivery of quality projects on schedule and within budget. Specific duties included troubleshooting, failure analysis, project planning, production management, scheduling, and electrical engineering of building and site electrical systems including power distribution, lighting systems, and communication systems. Project Manager including oversight of multi-discipline design and construction activities. Master Builder Award recipient.

**III. Professional Registration**

Registered Professional Engineer in the States of Missouri (2001), Illinois, Indiana, Arkansas, Alabama, Kansas, Michigan, Kentucky and Tennessee.

Certified Fire and Explosion Investigator (NAFI-CFEI), National Association of Fire Investigators Certification Board. (2010, Recertified 2015, 2020)

Certified Fire Investigator (IAAI-CFI), International Association of Arson Investigators. (2014, Recertified 2019, 2024)

Certified Fire Investigator, Missouri Division of Fire Safety. Certified to the standards and qualifications in NFPA 1033-2009. (2015, Recertified 2018, 2021)

**IV. Continuing Education**

1993 - Overcurrent Protection, Bussmann

1994 - Overcurrent Protection, Square D

1996 - Telecommunications Infrastructure Planning, Washington State University

1996 - Fundamentals of Project Management, Caltech

1999 - Annual Conference/Fire Investigation Training, Missouri Chapter IAAI

1999 - Live Burns, Testing and Analysis, S.E.A. Columbus, Ohio

1999 - Ohio Arson School

1999 - Investigation of Electrical Appliance Related Fires, IAAI/AHAM

2000 - Annual Conference/Fire Investigation Training, Missouri Chapter IAAI

2001 - Annual Conference/Fire Investigation Training, Illinois Chapter IAAI

2001 - Investigation of Gas and Electric Appliance Fires, Fire Findings, Inc.

2002 - Annual Conference/Fire Investigation Training, Illinois Chapter IAAI

2002 - Annual IAAI Conference, International

2004 - Annual IAAI Conference, Missouri Chapter IAAI (Partial)

2004 - Annual IAAI Conference, Illinois Chapter IAAI (Partial)

2005 - Seminar on NFPA 70-2005, National Electrical Code

2005 - Seminar on NFPA 70E, Standard for Electrical Safety in the Workplace

2005 - OSHA Asbestos Awareness, AmeriSafe, Aurora, Illinois

**Continuing Education (continued):**

- 2007 - Seminar NFPA 72-2007, National Fire Alarm Code
- 2007 - Seminar Fire Alarm Inspection, Testing and Maintenance
- 2007 - Seminar, Forensic Fire Scene Reconstruction, IAAI
- 2009 - Mazzone/Buxton Training Conference, Illinois Chapter IAAI
- 2009 - Annual Conference/Fire Investigation Training, Illinois Chapter IAAI
- 2010 - National Fire, Arson & Explosion Investigation Training Program, NAFI
- 2010 - IAAI CFI Trainer, Electrical Safety
- 2011 - Mazzone/Buxton Training Conference, Illinois Chapter IAAI
- 2012 - Mazzone/Buxton Training Conference, Illinois Chapter IAAI
- 2012 - Designing for Compliance with ANSI/AAMI IEC 60601-1, Underwriters Laboratories
- 2013 - OSHA Asbestos in Construction, Click Safe
- 2013 - Asbestos Operations and Maintenance, Environmental Safety
- 2014 - Asbestos Operations and Maintenance, Environmental Safety Refresher
- 2015 - National Fire, Arson & Explosion Investigation Training Program, NAFI
- 2015 - Hazardous Voltage/Current in Marinas, NFPA/American Boat and Yacht Council
- 2015 - Asbestos Operations and Maintenance, Environmental Safety Refresher
- 2016 - Asbestos Operations and Maintenance, Environmental Safety Refresher
- 2017 - Asbestos Operations and Maintenance, Environmental Safety Refresher
- 2017 - IAAI CFI Trainer, Thermometry, Heat and Heat Transfer
- 2017 - IAAI CFI Trainer, Arc Mapping Basics
- 2018 - Asbestos Operations and Maintenance, Environmental Safety Refresher
- 2018 - NASP/IAAI, Understanding Safety Concerns: Asbestos at the Fire Scene
- 2018 - NFPA, Developing a Comprehensive Electrical Safety Program
- 2018 - IAAI CFI Trainer, Critical Thinking Solves Cases
- 2018 - IAAI CFI Trainer, Residential Electrical Systems
- 2018 - IAAI CFI Trainer, The Impact of Ventilation in Building Structures on Fire Development
- 2018 - IAAI CFI Trainer, Understanding Undetermined
- 2019 - IAAI CFI Trainer, Fundamentals of Interviewing
- 2019 - IAAI CFI Trainer, Fire Investigator Scene Safety
- 2019 - IAAI CFI Trainer, Discovery in Criminal Cases
- 2019 - IAAI CFI Trainer, Basic Electricity
- 2019 - Asbestos Operations and Maintenance, Environmental Safety Refresher
- 2019 - Buxton/Mazzone Training Conference, Illinois Chapter IAAI
- 2019 - NFPA, Five Things You Need to Know About NFPA 70E Training Requirements
- 2020 - Asbestos Operations and Maintenance, Refresher
- 2020 - IAAI CFI Trainer, Emerging Technologies in Fire Investigation
- 2020 - Red Vector, 2020 National Electrical Code Changes, Focus on Wiring Methods
- 2020 - Red Vector, 2020 National Electrical Code Changes, Branch Circuit GFCI Protection
- 2020 - Red Vector, Electrical Protection Grounding
- 2020 - IAAI CFI Trainer, Digital Photography for the Fire Investigator
- 2021 - Asbestos Operations and Maintenance, Refresher
- 2021 - Anti-Harassment Training (IL-PE Requirement)
- 2021 - Buxton/Mazzone Training Conference, Illinois Chapter IAAI
- 2021 - IAAI CFI Trainer, Lithium-ion Battery Fires
- 2021 - DRI, Advanced Failure Analysis of Lithium-ion Batteries

**Continuing Education (continued):**

2021 - ASM, 3D Imaging of Lithium-ion Batteries  
2022 - IAAI CFI Trainer, Effective Investigation and Testimony  
2022 - Asbestos Operations and Maintenance Refresher  
2022 - Ethics; Laws and Rules for Engineers  
2022 - Buxton/Mazzone Training Conference, Illinois Chapter IAAI  
2022 - IAAI CFI Trainer, The Scientific Method for Fire and Explosion Investigations  
2023 - Asbestos Operations and Maintenance, The Asbestos Institute  
2023 - IAAI CFI Trainer, PPE for Post-Fire Scenes  
2023 - IAAI CFI Trainer, Fire Effects Parts 1 and 2

**V. Professional Affiliations**

International Association of Arson Investigators (IAAI)  
    Missouri Chapter, IAAI  
    Illinois Chapter, IAAI  
National Association of Fire Investigators (NAFI)  
Institute of Electrical and Electronics Engineers (IEEE)  
    Senior Member  
National Fire Protection Association (NFPA)  
    NFPA, Electrical Section  
    Technical Committee on Electrical Arcing (921-2014 Edition)  
    Task Group on Marine Fire Investigation (921, Chapter 30-2020 Edition)

**VI. Courses Taught**

Electric Appliance Fires - April 2000, Annual Conference of the Missouri Chapter IAAI.

Engineering Role in Fire Investigation - April 2001, Annual Conference of the Illinois Chapter IAAI, Southern Zone.

Electrical Appliance Fires – April 2002, Grinnell Mutual Insurance Company

Engineering Role in Fire Investigation – May 2002, IAAI Annual Conference.

Electrical Services at the Fire Scene – March 2003, Annual Conference of the Illinois Chapter IAAI, Southern Zone.

A Team Approach to Fire Investigation – September 2003, Annual Conference of the Illinois Chapter IAAI.

Fire Scene Electrical Systems – May 2004, Annual Conference of the Missouri Chapter IAAI.

A Discussion of Electrical Engineering Topics – May 2004, Annual Conference of the Illinois Chapter IAAI, Southern Zone.

**Courses Taught (continued):**

Electrical Systems at the Fire Scene – September 2005, 38th Annual Fire & Fraud Investigation Conference of the Professional Fire & Fraud Investigators Association.

Investigating Electrical Fires including the Evaluation of Alarm Systems – September 2006, Fire Investigation Training Conference of the Illinois Chapter IAAI, in Cooperation with the Illinois Fire Service Institute and the Office of the State Fire Marshall.

Investigating Electrical Fires – September 2006, 24<sup>th</sup> Annual Fire Investigation Seminar of the Iowa Chapter IAAI.

Electrical Fire Investigations – October 2008, Chicago Fire Department, Office of Fire Investigations, In-Service Training.

An Update on Electrical Investigation Topics – March 2012, annual conference of the Central Illinois Fire Investigators Association/ Illinois Chapter IAAI.

Proving the Cause, Beyond the Basics – March 2015, annual conference of the Central Illinois Fire Investigators Association/ Illinois Chapter IAAI.

Fire Investigation 101 – November 2016, DRI Fire Science Conference, Scottsdale, AZ.

NFPA: It's Not Just 921 – September 2018, DRI Fire Science Conference, Washington, D.C.