
Richard W. Wunderley | Senior Electrical Engineer, PE, CFEI

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Professional Summary:

Mr. Wunderley has extensive experience in the area of utility power distribution, industrial, commercial and residential electric distribution design and installation. He has extensive expertise in the National Electrical Code (NEC), National Electric Safety Code (NESC) and a design and working knowledge of the International Building Code. He has experience in product failure analysis including electric appliances, lightning events, batteries, lighting and vehicle electric systems. Mr. Wunderley has extensive fire service experience as a fire fighter and current Assistant Fire Chief. Areas of expertise:

- Low Voltage AC Network Systems
- Project Management
- Overhead Power Distribution
- Underground Power Distribution
- Hospital Construction
- Residential Construction
- Product Failure Analysis
- Fire Suppression
- Fire Prevention

Licenses and Certifications:

Registered Professional Engineer Commonwealth of Pennsylvania, PE057071E

Registered Professional Engineer State of Maryland, 5081734

Registered Professional Engineer State of Ohio, PE069403

Registered Professional Engineer District of Columbia, PE9889

Certified Fire and Explosion Investigator (CFEI), National Association of Fire Investigators, 15918-8490

Project Experience:

Chartis Insurance/White and Williams LLP, Philadelphia, PA

Electric Utility Fire

Electrical Fire Investigation for a multi-million-dollar business loss.

Building power distribution inspection, documentation and evaluation of electrical failure resulting in the loss of the structure and business operations.

Donegal Insurance/ DiBella, Geer, McAllister & Best, P.C., Pittsburgh, PA

Electrical Investigation Incendiary Fire

Electrical power distribution inspection and evaluation for an industrial machine shop fire resulting in the complete loss of the structure.

Zurich Insurance/ Large Power Transformer Loss, Pittsburgh, PA

Power transformer Inspection and Loss Evaluation

Power transformer failure evaluation including failure mechanism, re-build cost evaluation and prevention measures.

Professional Experience:

EFI Global, Inc., Senior Electrical Engineer, 2004 – present
Northwestern REC, Superintendent of Engineering and Field Services, 2000 – 2003
Potomac Electric Power Company, Supervisor Standards, 1994 – 2000
Potomac Electric Power Company, Project Engineer, 1991- 1994
Potomac Electric Power Company, Engineer, 1984 – 1991
R. Wunderley Electric, Owner, 1982 - 1984

Specialized Education:

Profiling Youthful Fire Setters/ Firefighter Arsonists, PAAI, 4 Hrs., 2020
Recognition of deception, Crime and Violence, PAAI, 4 Hrs., 2020
Maternal Filicide-Molly Delgado Double Homicide, PAAI, 4 Hrs., 2020
Field Interviews, PAAI, 4 Hrs., 2020
Photovoltaic Systems, PAAI, 7 Hrs., 2019
Lithium Ion Battery Fires and Hazards, 7 Hrs., 2019
Investigations and Litigation Fire Losses for Subrogation Insurers, PAAI, 7 hrs., 2019
Application of Fire Protection Systems Investigation Fires Involving Lighting Fixtures, PAAI, 14 Hrs., 2018
Fire Dynamics & Behavior of Natural Gas, PAAI, 12 Hrs., 2016
Gas explosion investigations, PAAI, 10 Hrs., 2013
Gas and Oil Furnace Fires, PAAI, 8 Hrs., 2012
National Electrical Code, NFPA, 21 Hrs., 2011
Appliance Fire & Failure Investigations, PAAI, 8 Hrs., 2011
Arson Investigation, PAAI, 20 Hrs., 2009
Vehicle Fire Forensics, PAAI, 28 Hrs., 2008

Education:

B.S. Electrical Engineering, Penn State University, State College, PA, 1983

Affiliations:

Certified Fire and Explosion Investigator (CFEI), National Association of Fire Investigators

Member of the Institute of Electrical and Electronic Engineers

Member of the international Association of Electrical Inspectors

Member of Pennsylvania Association of Arson Investigators

President 2017-Present

Second Vice President 2015-2017

Member of the Board of Directors, 2009

Western Zone Training Coordinator

Member of International Association of Arson Investigators

Firefighter/Line Officer Saegertown VFD
(2001-Present)

Firefighter/Line Officer Liberty Borough VFD
(1977-1987)

Courses Instructed/ Guest Lecturer:

Basic Electrical Fire Investigations, Instructor, (12-hour course) 2007

Instructor Crawford/Venango Fire School, Electrical Emergencies

**Litigation CV available upon request.