

Ryan C. Hathaway | Senior Forensic Electrical Engineer, P.E.

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Professional Summary:

Mr. Hathaway is an electrical engineer with over 16 years of experience in forensic engineering and electrical fire causation. His areas of expertise include:

- Evaluation of electrical evidence and artifacts for evidence of failure that result in property damage or personal injury
- Failure analysis and product design evaluation of electrical systems and products
- Lightning-related damage verification
- Investigation of shock hazards and electrocutions
- Building and electrical code issues
- Water damage assessment of electrical products and appliances

Licenses and Certifications:

Professional Engineer, Georgia, Registration No. PE032708

Professional Engineer, Alabama, Registration No. 30520

Professional Engineer, Florida, Registration No. 75655

Professional Engineer, Kentucky, Registration No. 29253

Professional Engineer, Louisiana, Registration No. PE0037877

Professional Engineer, Maine, Registration No. 13510

Professional Engineer, Mississippi, Registration No. 19284

Professional Engineer, New Hampshire, Registration No. 14349

Professional Engineer, North Carolina, Registration No. 035813

Professional Engineer, South Carolina, Registration No. 27471

Professional Engineer, Vermont, Registration No. 018.0102440

Professional Engineer, Virginia, Registration No. 0402054500

Project Experience:

Unnamed Insurance Company, Buford, GA Origin & Cause/Electrical Examination

Origin and cause investigation of a fire involving a single-family dwelling. Electrical cause was determined, and mediation was successful against the manufacturer of the defective device resulting in recovery by the Insurance Company.

Unnamed Manufacturing Company, Chattanooga, TN**Origin & Cause/Electrical Examination**

A vehicle fire involving a semi-truck that was a loner vehicle and in the client's possession at the time of the fire. The vehicle's owner demanded our client to pay for the truck since they had it in operation at the time of the fire. Was able to identify the fire cause and demonstrate that it was not due to the actions of the vehicle driver.

Unnamed Insurance Company, Cordele, GA**Origin & Cause/Electrical Examination**

Electrical investigation of a fire-consumed cotton picker. Evidence of a pre-existing issue with the electrical system was found. Mediation was successful against the manufacturer of the equipment resulting in recovery by the Insurance Company.

Professional Experience:

EFI Global/Unified Investigations & Sciences, Inc., Senior Forensic Engineer, May 2013 – Present
HSA Engineers and Scientists, Senior Electrical Engineer, November 2012 – April 2013 S-E-A, Project Engineer - Electrical, October 2001 – November 2012

Specialized Education:

Asbestos Operations and Maintenance- Recertification, Triangle Environmental Consultants, 2018, 2017, 2016, 2015, 2014

Online Continuing Education Hours for Professional Engineers through PDHOnline(PDHOnline.com),

- Design Safety Standards for Electrical Systems, 2017
- Life Safety Coded 101, 2017
- OSHA 3075 – Controlling Electrical Hazards, 2017
- Electric Vehicles 101, 2017
- Professional Ethics: Critical Thinking for Today's Engineers, 2017
- Florida Engineers: Professional Ethics (Renewal Cycle 2015-2017), 2017
- Florida Statutes and Rules for Engineers (Biennial Cycle 2015-2017), 2017
- Transformers, 2016
- Fire Protection and Prevention During Construction, 2016
- Engineering Ethics Case Study: The Challenger Disaster, 2016
- OSHA – Stairways and Ladders, 2016
- Introductions to Transistors, 2016
- Introductions to Batteries, 2016
- Combustible Dust in Industry, 2016
- Introduction to Solar Energy, 2016
- Engineering Ethics for the North Carolina Engineer, 2016
- Florida Laws and Rules for Engineers (2015-2017), 2016
- Electrical Distribution Systems, 2015

- Controlling Electrical Hazards, 2015
- Ground-Fault Protection on Construction Sites, 2015
- Control of Hazardous Energy, 2015
- Power Supplies Basics, 2015
- An Introduction to the Smart Grid, 2015
- Ethics NSPE, 2015

Essentials of NFPA 1033, Unified Investigation and Sciences, Inc., 2016/2017

Live Burn: Fire & Forensic Engineering, Unified Investigations and Sciences, Inc., 2015

Online Continuing Education Hours for Professional Engineers through Red Vector (RedVector.com)

- 2014 NEC Changes – Articles 90, 100, and 110 (Introduction & Chapter 1), 2014
- 2014 NEC Changes – Chapter 2: Wiring and Protection, 2014
- 2014 NEC Changes – Chapter 3: Wiring Methods and Materials, 2014
- 2014 NEC Changes – Chapter 4: Equipment for General Use, 2014
- 2014 NEC Changes – Chapter 5: Special Occupancies, 2014
- 2014 NEC Changes – Chapter 6: Electric Signs and Outline Lighting, 2014
- 2014 NEC Changes – Chapter 7: Special Conditions, 2014
- Ethical Decision-Making Webcast, 2014

- International Building Code & More: Electrical and Communication Requirements, 2013
- Electric Fire Alarm Systems, 2013
- Series B: 2011 NEC Code Changes – Introduction, Chapter 1 & Chapter 2, 2013
- 2011 NEC Code Changes – Chapter 6, Chapter 7 & Chapter 8, 2013
- Ethical Decision Making for Engineers #4 (B), 2013
- Electric Motors and Generators: Generators and Alternators, 2012,
- OSHA Electrical Regulations, 2012
- Ethical Decision Making for Engineers #2, 2012
- Ethical Decision Making for Engineers #3, 2012
- Low Voltage Fundamentals, 2012
- Understanding Electric Rates, 2012
- Electric Motors and Generators: Basic Magnetics, 2012
- Electric Motors and Generators: DC Motors, 1 hour, 2012
- Arc Flash Hazard Analysis – The Basics, 2011
- 2011 NEC Code Changes Articles 90-110, 2011
- 2011 NEC Code Changes – Introduction, Chapter 1 & Chapter 2, 2011
- Surge Protection, 2 hours, 2011
- Ethical Decision Making for Engineers, 2011
- 2008 NEC Code Changes, Part 1 & Part 2, 2010
- OSHA 3075 – Controlling Electrical Hazards, 2009
- Electric Distribution Over-Voltage Protection, 2009
- Electric Power System Design for Industrial Facilities, 2009
- Introduction to Printed Circuit Board Prototyping, 2009

OSHA 29 CFR 1910.1200-Globally Harmonized System of Classification and Labeling of Chemicals, Unified Investigation and Sciences, Inc., 2014

Asbestos in Buildings: Class III – Work Practices for Operations and Maintenance Personnel, Triangle Environmental Consultants, 2013

40 Hour HAZWOPER, Compliance Solutions, 2013

Advanced Fire Investigation Approaches, Unified Investigations &
Sciences, 2013 International Association of Arson Investigators

(IAAI) – CFITrainer.net

- MagneTek: A Case Study In The Daubert Challenge, 2013
- Using Resources to Validate your Hypothesis, 2013
- Fundamentals of Residential Building Construction, 2013
- Electrical Safety, 2013
- Arc Mapping Basics, 2013
- Fire Investigator Scene Safety, 2013
- Investigating Motor Vehicle Fires, 2013
- NFPA1033 and Your Career, 2013
- The Scientific Method for Fire and Explosion Investigation, 2013
- Fire Protection Systems, 2013

Education:

Bachelor of Science, Electrical Engineering, Ohio University, Athens, Ohio, 2001

Affiliations:

International Association of Arson Investigators (IAAI)
National Association of Fire Investigators (NAFI)
Georgia Fire Investigator's Association (GFIA)

Publications and Presentations:

"Arcing and Shorting" Georgia Fire Investigators Association Spring Seminar, March 2016

"Open Neutrals" Georgia Fire Investigators Association Spring Seminar, March 2016

"Overloaded Extension Cords" Georgia Fire Investigators Association Spring Seminar, March 2014

"Electrical Arcing from Cord Abuse" Georgia Fire Investigators Association Spring Seminar, March 2014