



Gary Colburn

PE

Senior Managing Engineer

Department

Engineering Services

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Locations

Seattle, WA

Biography

Gary Colburn is an expert forensic electrical engineer with over ten years of experience in forensic investigations and failure analysis. He has been an expert witness and led investigations for subrogation and liability losses involving fire and water damage where the electrical system is engaged.

Gary is a former power system engineer with 30 years of power utility experience in the design of transmission and distribution systems and additional knowledge in generation and substation design and how the power system affects the customer's electrical and plumbing systems.

Credentials

- PE | Professional Engineer

Representative Consulting Assignments

- Commercial Building Fire | Seattle, WA | Acted as Principal Consulting Engineer in the defense of a \$15 million frozen food building fire.
- Multi-Level Apartment Complex Fire | Everett, WA | Determine cause of a multi-story apartment complex fire.
- Electrocution | Provided deposition testimony, citing crucial language from the National Electrical Safety Code (NESC), of the incident which injured a painter who made contact with high voltage wires due to proximity to the building resulting in a settlement of the case and a win for the client.
- Sports Complex | Seattle, WA | Led the design and engineering of 26kV switchgear, electrical vaults, and multiple feeders for Seattle Seahawks and Mariners stadiums.

Professional Experience

- 2023 - Current | Senior Managing Engineer | YA Engineering Services
- 2023 - 2018 | Principal Forensic Electrical Engineer | EFI Global
- 2014 - 2018 | Forensic Electrical Engineer | Unified Investigations & Sciences
- 2013 - 2014 | Electrical Distribution Engineer | Snohomish PUD
- 1984 - 2013 | Transmission and Distribution System Planning | Seattle City Light

Area of Practice

- Communications Engineering
- Computer Programming
- Condition Assessment
- Controls Engineering

- Damage Assessment
- Electrical Engineering Design
- Litigation Support
- Failure Analysis
- Fire Origin & Cause
- Forensic Electrical Engineering
- Infrared Thermography
- Lithium Battery Investigations
- NEC & NESC Expertise
- Non-Destructive Testing
- Power Electronics
- Power Generation
- Power Quality and Harmonic Analysis
- Power System Engineering
- Products Liability
- Solar Array Inspection
- Transformer Failure Analysis

Education

- Washington State University - Bachelor of Science - Electrical Engineering - Power Option - Pullman - Washington
- Class III Asbestos Operations & Maintenance - 2014-2022 (Annually)
- University of Alaska - Fundamentals of Arctic Engineering - 2021 - Alaska
- National Fire Protection Agency 1033 - Session 1 & 2, Fire Science & Dynamics and Thermodynamics & Thermometry - 2017
- International Association of Arson Investigators (IAAI) - NFPA 921 and 1033: Important Revisions - 2014
- International Association of Arson Investigators (IAAI) - Arc Mapping Basics - 2014
- International Associate of Arson Investigators (IAAI) - Basic Electricity - 2014
- International Associate of Arson Investigators (IAAI) - Process of Elimination - 2014
- National Electrical Safety Code (NESC) Training - David J. Marne, PE, Marne & Associates - 2009
- IEEE P&E Society Meeting - Harmonics - 2005 - Dallas - Texas
- National Electrical Code (NEC) Training - NFPA 70 - 1999
- Seattle City Light - Symmetrical Components - 1999
- Solar Power Part I - Design for Small Structures
- Solar Power Part II - Design for Grid-Tie Systems
- Solar Power Part III - Design Considerations
- Solar Power Part IV - Inspecting and Evaluating Systems
- Solar Power Part V - Installing Systems
- Water Systems and How They Fail
- Design of Hybrid Power Plants
- Electrical Storage Guide for Electrical Engineers
- Best Practices for O&M of Photovoltaic and Energy Systems

Affiliations

- International Association of Arson Investigators (IAAI)
 - The Institute of Electrical and Electronic Engineers
 - Power and Energy Society
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Licenses

- 26471 - Washington - Professional Electrical Engineer
 - 90151PE - Oregon - Professional Electrical Engineer
 - P-16599 - Idaho - Professional Electrical Engineer
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