

Christopher Cummiskey | Senior Principal Engineer, PE

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Professional Summary:

Mr. Cummiskey has more than 15 years of experience in the forensic mechanical and fire protection engineering field. He is a licensed professional engineer in Massachusetts, New York, Rhode Island, Connecticut, New Hampshire, Maine, Vermont and Ohio. His diverse experience includes cause and origin analysis, mechanical and fire protection system failures, fire protection system design and review, electrical system review, mechanical and HVAC system review, electrical/mechanical system design, construction oversight and certification of fire protection and life safety building components.

Areas of expertise include the following:

- Appliance failures
- HVAC Systems, Gas systems and components
- Water system losses
- International Building Code
- International Fire Code
- NFPA Codes
- Standard for the Installation of Sprinkler Systems (NFPA 13, 13R, 13D)
- Standard for the Installation of Standpipe and Hose Systems (NFPA 14)
- Standard for the Installation of Stationary Pumps for Fire Protection (NFPA 20)
- The National Electrical Code (NFPA 70)
- The National Fire Alarm and Signaling Code (NFPA 72)
- Standard for the Installation of Air-Conditioning and Venting Systems (NFPA 90A)
- The Life Safety Code (NFPA 101)
- Various state and local codes

Licenses and Certifications:

Professional Engineer (Additional states available upon application):

Connecticut, 0028863

New York, 90783

Maine, 14273

Ohio, 85921

Massachusetts, 49546

Rhode Island, 9897

New Hampshire, 14980

Certified Fire and Explosion Investigator, National Association of Fire Investigators, 22081-13382

Certified Fireplace & Chimney Inspector, Fireplace Investigation, Research & Education Service (F.I.R.E.), FCI-255

Certified Fire Plans Examiner (CFPE-13-0063), National Fire Protection Association

Oil Burner Technician, MA, License #BU-319030
Oil Heating Technician, NH, License #HT2500592
National Council of Examiners for Engineering and Surveying (NCEES) Record #48189
NFPA 1001 Firefighter Level I & II, Rhode Island Fire Academy
NFPA 1403 Live Burn Instructor, Rhode Island Fire Academy
NFPA 1041 Fire Instructor, Rhode Island Fire Academy

Project Experience:

The sample projects here outline a small sampling of the types of projects and losses Mr. EXPERTNAME regularly investigates. For further information or additional examples, please contact EFI Global.

GAP Distribution Warehouse Sprinkler, Mechanical and Life Safety Systems Analysis

Post fire analysis of a major fire loss involving a 975,000 square foot distribution warehouse. Scope involved a performance analysis of the water-based sprinkler system, its design, application and operation during the fire, and its interface with the fire alarm system and mechanical systems.

Willimantic Paper Company Warehouse Sprinkler and Life Safety Systems Analysis

Assist in the fire investigation of a major fire at the Willimantic Paper Company in Willimantic Connecticut. Perform an engineering review of the building fire protection systems and assist in determining system operational characteristics. Also perform system deficiency analysis to assist in determining liability.

University of Rhode Island Life Safety Risk Assessment Analysis

Perform Life Safety and Risk Analysis for over 40 buildings located throughout the University of Rhode Island's four campuses. Analysis findings were utilized to implement safety measurements to minimize clients risk and exposure. Evaluations included Life Safety, Building Egress, Occupant Traffic, Fire Risk, Mechanical Risk, Electrical Risk, and Overall Building Safety. Findings also used to prioritize funding for repairs.

Community College of Rhode Island Fire Sprinkler and Fire Alarm Design

Work included fire alarm design and fire sprinkler design services for the Community College of Rhode Island Knight Campus Fieldhouse. Mr. Cummiskey also assisted in the design for the main knight campus building which consists of approximately 630,000 square feet of building area including architecturally complex ceilings and structural walls.

John F. Kennedy International Airport Traffic Control Tower Fire Alarm/Electrical/Mechanical System Replacement

John F. Kennedy International Airport is one of the busiest airports in the US. The fire alarm system in the entire building was replaced including HVAC interconnections and new dedicated power supply to comply with current codes.

Project Experience (Continued):

Port Authority Bus Terminal Fire Alarm/Mass Notification System Replacement

Fire alarm system replacement throughout the largest operational bus terminal in New York City. Installation of a mass notification system throughout the bus terminal and surrounding walkways to assist NYPD and FDNY in alerting building occupants of incidents within the terminal.

Veteran's Memorial Auditorium, Providence, RI Life Safety Code Evaluation, Sprinkler and Fire Alarm System Design Services

Mr. Cummiskey assisted the State of Rhode Island in conducted a life safety code evaluation of the Veterans Memorial Auditorium office building addition and provided the State of Rhode Island with a report outlining corrective actions for code compliance. Mr. Cummiskey also provided the necessary design documents, bid documents and performed construction administration for the additions to the fire alarm and fire sprinkler system. Note the Veteran's Memorial Auditorium is listed on the U.S. National Register of Historic Places.

State of Massachusetts Department of Mental Health Life Safety, Fire Sprinkler and Fire Alarm Code Evaluation

Scope of work included the evaluation of multiple Mental Health facilities to comply with local, state, and Joint Commission Standards for passive and active fire protection systems and life safety components including handrails, stairs, guards and passive life safety systems.

Expert Witness Testimony: Court Qualifications/Depositions/Testimony:

Mr. Cummiskey has extensive experience testifying as an expert witness in mediation, arbitration, depositions, and trials and has been accepted as an expert witness in numerous jurisdictions.

**List of Expert Witness Testimony Experience is Available Upon Request*

Professional Experience:

EFI Global Inc, Fall River, MA, 2016-Present, Senior Principal Engineer
Fire Design Group, Kingston, RI, 2015-2016, Senior Fire Protection Engineer
Jensen Hughes, Providence, RI, 2007-2015, Staff Fire Protection Engineer
Schneider Electric, West Kingston, RI, 2006-2007, Power and Cooling Systems Engineer
Union Fire District, South Kingstown, RI, 1999-2007, Firefighter and Training Officer

Formal Education:

Master of Science, Fire Protection Engineering, Worcester Polytechnic Institute, Worcester, Massachusetts, 2011

Bachelor of Science, Mechanical Engineering, University of Rhode Island, 2007

Specialized Education/Training:

Corrosion Control and Tactics, December 2025

Heat Transfer in Structure Fires, September 2025

Advanced Tiny House Design, September 2025

Electrical Systems for Mission Critical Facilities, November 2023

Advanced Electrical System Design, November 2023

Commercial Kitchen Ventilation, November 2023

Solar Power Installation, November 2023

Geothermal Heating and Cooling, November 2023

ASME Welding Qualification Procedures, June 2022

Non-Destructive Examination, June 2022

Mechanical Fatigue of Metals, June 2022

Solar Power Part I, December 2022

Heat Transfer in Structure Fires, March 2020

North American Technician Excellence, Certificate 3992083, September 2020

NSPE Ethics, November 2019

Practical Forensic Engineering, November 2019

Design of Welded Connections, November 2019

Advanced Design of Welded Connections, November 2019

Power Engineering Fundamentals, August 2019

Design of Bolted Connections, June 2018

Manufacturing Methods for Metals, December 2017

Introduction to Manufacturing Methods for Metals Casting and Forging Methods, December 2017

Investigating Solid Fuel-Burning Appliance Fires, Western Michigan University, 2016.

Investigating Residential Dryer Fires, Western Michigan University, 2016.

Investigation of Gas and Electric Appliance Fires, Western Michigan University, 2016.

Circuit Protection Devices, Completed February 19, 2016.

Interior Electrical Distribution Systems February 2016.

Ethical Issues in Forensic Engineering, February 2016.

Specialized Education/Training (Continued):

Boiler Classification and Application, February 2016.

Forensic Analysis Involving Fugitive Natural Gas and Propane. December 2016.

Arc Mapping Basics, IAAI 4 hour Tested Course, 2016.

Basic Electricity, IAAI, 4 hour Tested Course, 2016.

Electrical Safety, IAAI, 3 hour Tested Course, 2016.

Scene Documentation, IAAI, 4 hour Tested Course, 2016.

Explosion Dynamics, IAAI, 4 hour Tested Course, 2016.

Fire Protection Systems, IAAI, 3 hour Tested Course, 2016.

Insurance and the Fire Investigation, IAAI, 4 hour Tested Course, 2016.

Investigating Natural Gas Systems, IAAI, 3 hour Tested Course, 2016.

Accreditation, Certification, and Certificates, IAAI, 3 hour Tested Course, 2016.

Residential Building Construction, IAAI, 3 hour Tested Course, 2016.

Residential Electrical Systems, IAAI, 4 hour Tested Course, 2016.

Residential Natural Gas Systems, IAAI, 3 hour Tested Course, 2016.

Analysis of the Station Nightclub Fire, IAAI, 4 hour Tested Course, 2016.

Analysis of the Charleston Sofa Super Store Fire, IAAI, 4 hour Tested Course, 2016.

Effective Investigation and Testimony, IAAI, 3 hour Tested Course, 2016.

Basic Oil Burner Installation/Troubleshooting, RW Beckett Co. 8 Hour Course, 2016.

Advanced Oil Burner Installation/Troubleshooting, RW Beckett Co. 8 Hour Course, 2016.

Tank Inspection Procedures, NORA (National Oil Research Alliance), 2016.

Underground Storage Tank Testing, NORA (National Oil Research Alliance), 2016.

Affiliations:

Member, National Fire Protection Association

Member, Society of Fire Protection Engineers

Member, National Association of Fire investigators

Courses Instructed/Guest Lecturer:

Appliance Failures & Breakdowns

Commercial Kitchen Fire Protection

Commercial Kitchen Fires: Cause, Spread, Protection, & Investigations

Commercial Laundry Equipment Failures, Fires, & Investigations

Commercial Restaurant Origin and Cause Fire Investigations

Fire Protection Construction, Alarms, Sprinklers, & Commercial Kitchens

Fire Protection, Fire Science, & Arson

Fire Protection Overview and Winter-Related Loss Prevention

Fire Protection System Forensics

Fraudulent Water Loss Analysis

Heating Fuel Use & Heating Degree Days

Heating System Use, Failures, & Analysis

Publications:

Christopher Cummiskey & Amir Rubin. "Under Pressure – When Boiler Failures Cause Operational Havoc" EFI Global/Sedgwick, 2023.

Christopher Cummiskey & Amir Rubin. "Foam Fire Suppression in Aircraft Hangers: The Risk outweighs the Benefits" EFI Global/Sedgwick, 2022.