

Jay Kramarczyk, MS, PE, CFI | Vice President & Sr. Managing Principal

165 Ledge Street, Suite 7, Nashua, NH 03060

508.614.5349(m)

jay.kramarczyk@efiglobal.com

Professional Summary:

Mr. Jason ("Jay") Kramarczyk is a licensed Professional Engineer in multiple jurisdictions throughout the United States as well as a Certified Fire Investigator and Certified Fireplace and Chimney Inspector. In addition to being an experienced expert witness, he is an often sought-after and engaging speaker on numerous topics.

Mr. Kramarczyk is extremely well-versed in consulting on, leading, and managing projects of all scales related to litigation, product design analysis, failure analysis, and complex consulting. His work often entails the forensic analysis of fire protection systems, including detection, alarm, and commercial kitchen/chemical suppression systems as well as construction and egress. Mr. Kramarczyk is proficient in researching, analyzing, and interpreting codes and standards for fire protection, mechanical, and building systems. Following a fire or explosion, Mr. Kramarczyk is trained in the application and use of complex computerized fire models in determining the growth and spread of fire, smoke, and heat. His education and experience has provided him with a notable understanding of fire/combustion science and dynamics and the ability to apply those principles to countless projects.

In addition to fire protection investigations, Mr. Kramarczyk is proficient in the analysis of mechanical systems and mechanical failures including water losses, ventilation systems, and gas-related events such as fires, explosions, and carbon monoxide incidents. Mr. Kramarczyk has performed failure analysis on numerous such systems including functionality, pressure, and leak testing to gas and water-based plumbing and appliances.

Mr. Kramarczyk also has expertise as a Certified Fireplace and Chimney Inspector to inspect wood-burning appliances and chimneys preventatively and following a loss to evaluate design, installation, maintenance, use, and potential modes of failure.

Further, Mr. Kramarczyk is trained, experienced, and certified as a fire investigator (and forensic engineer) to determine the origin and cause of fires and explosions and has performed these services throughout the country in small and multi-million-dollar losses and often, unfortunately, including injuries and fatalities. His unique and combined expertise in fire investigation and forensic engineering has proven to be a valuable combination.

Mr. Kramarczyk's expertise includes:

- Active fire protection forensics (detection, alarms, suppression)
- Passive fire protection forensics (construction & design, egress)
- Fire and explosion origin and cause investigations
- Fire, smoke, and heat spread; fire science & dynamics
- Fireplace, chimney, & wood-burning appliances
- Commercial kitchen fires and failures
- Mechanical system & water loss failures
- Gas-fed and alternative-fuel-fed fires & explosions
- Carbon monoxide events
- Code and standard analysis and interpretation

Licenses and Certifications:

Professional Engineer (Additional states available upon application):

Arizona, 50120	Massachusetts, 51392
California, FP 1671	New Hampshire, 14540
Colorado, 42865	New York, 94874
Connecticut, 30568	Pennsylvania, PE087110
Kansas, 20792	Rhode Island, 11332
Kentucky, 33416	Texas, 108005
Maine, 13694	Utah, 7415980-2202
Maryland, 51498	Vermont, 18.0107447

National Engineering Registration, NCEES, 17-326-95

Private Investigator, New Hampshire

Private Investigator, New York

Private Investigator, Vermont

Certified Fire Investigator, International Association of Arson Investigators, 34-120508 (Originally obtained 12/11/2014)

Certified Fire and Explosion Investigator, National Association of Fire Investigators, 12385-6017 (Originally obtained 3/17/2007)

Fire Investigator (NFPA 1033-2014), National Board on Fire Science Professional Qualifications, International Association of Arson Investigators, 361601

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

Certified in Hazardous Waste Operations & Emergency Response (HAZWOPPER)

CPVC Sprinkler Pipe Installer Certification (Blazemaster)

FAA Part 107 Small Unmanned Aircraft Systems (sUAS) Remote Pilot Certification

Project Experience:

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

Wendy's Restaurant, Cleveland, Ohio

Fire Investigation, Fire Protection System Analysis, & Mechanical System Analysis

Represented the insurance carrier for the fire protection contractor to investigate the cause and origin of the fire as well as an in-depth analysis of the fire suppression system, the way in which the appliances were installed, a review of the kitchen's ventilation system, and the practices of the restaurant staff prior to and during the fire.

Residential Explosion, Brookline, New Hampshire

Mechanical Analysis & Fire/Explosion Investigation

Investigated the origin and cause of an explosion at a residence, including the analysis of the grill being used, the manufacturer's instructions regarding that grill, and identifying/recovering remnants of the propane tank that had landed across a pond.

Alternative Fuel, Oil & Gas Company, Dickinson, North Dakota

Fire & Explosion

Evaluated the characteristics of customized, commercial fuel storage, delivery, and transfer systems to investigate the cause of a large explosion and fire that caused damage to multiple properties.

Church of Jesus Christ of Latter-day Saints, Meridian, Idaho

Fire Sprinkler System Failure Analysis

Investigated the cause of a large loss involving water freezing within a dry-pipe fire sprinkler system, finding that the sprinkler system was improperly designed, installed, and serviced.

Personal Injury, Everett, Washington

Product Defect & Mechanical Analysis

Investigated an alleged product defect following an injury involving a common hardware store-purchased product. Performed an analysis of the evidence, the manufacturer's instructions, and witness statements to provide the client with an expert failure analysis opinion.

T-Bones Sports Bar, Hays, Kansas

Fire Investigation & Fire Spread Analysis

Investigated the origin and cause of a large fire loss involving a restaurant and sports bar. Determined the fire was intentionally set which was provided to the insurance carrier for coverage determinations.

Core-Mark, Aurora, Colorado

Warehouse Storage Hazard & Fire Protection Analysis

Following a large fire loss, consulted with attorneys regarding the installed fire protection systems in relation to a hazard-analysis of various materials and chemicals stored in the subject warehouse.

Fatal Explosion, Thornton, Colorado

Mechanical Evaluation of Gas System & Cause Investigation

Performed examinations and testing and an evaluation of a gas distribution system following a large fatal residential explosion and resultant fire.

Project Experience (Continued):

Tantasqua Regional School District, Fiskdale, Massachusetts

Fire Protection & Mechanical Engineering Failure Analysis & Rebuilding Oversight

Conducted engineering failure analysis of commercial heating system and freeze-damage to fire sprinkler system. Coordinated scope of work with contractors, building official, and insurance carrier for repairs to both systems to prepare school for use.

Residential Water Loss, Bradford, Vermont

Water Loss Investigation – Fraud Investigation

Hired by insurance carrier to investigate the cause of a water loss that reportedly resulted in structural damages to the residence. Inspected the site, interviewed the claimant and contractors, reviewed forensic weather data and water usage records to conclude the water loss was fraudulent. Provided expert opinion to the carrier, who denied the claim.

Ski Resort Condominium Complex, Bolton Valley, Vermont

Fireplace & Chimney Exam, Fire Investigation

Performed an inspection and analysis of a fireplace and chimney that caused fire damage to a multi-family resort condominium as well as an investigation into the origin and cause of the fire. Evaluated the design and installation of the systems as well as the required inspections and cleaning history to provide the client with an assessment of the cause of the fire.

Car Wash, Hanover, Massachusetts

Mechanical Failure Analysis

Mechanical failure analysis of various components in an automatic tunnel-style car wash which had damaged a number of vehicles. Examined the components and system and reviewed the ongoing preventative maintenance performed.

Everman Apartments, Winchester, Kentucky

Egress, Fire Alarm & Sprinkler, Fire-Rated Construction, & Fire Spread Analysis

Provided forensic analysis regarding a multi-family apartment building following a fire that resulted in multiple injuries and fatalities and several million dollars in damages. Work included forensic assessment of applicable codes and standards as well as an analysis of the spread of the fire based on an understanding of the fire dynamics, fuel loading, and oxygen consumption. The analysis included determining how the damages, injuries, and fatalities would have changed if alternative life-safety systems were in place at the time of the fire versus what was actually in place.

Expert Witness Testimony: Court Qualifications/Depositions/Testimony:

Mr. Kramarczyk 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, Vice President & Sr. Managing Principal Engineer (current title), 2018-present
Unified Investigations & Sciences, District Manager, Principal Engineer, Senior Fire Investigator (2012-2018) (Merged with EFI Global)
Phoenix Investigations & Engineering, Project Engineer & Fire Investigator, 2009-2012 (Acquired by Unified Investigations & Sciences)
Western Engineering & Research Corp/Entropy Engineering Corp, Project Engineer, 2008-2009
Fire Cause Analysis, Engineer & Fire Investigator, 2006-2007
R.W. Sullivan Consulting Engineers, Code Consulting Intern, 2005-2006
WPI & US Navy, Fire Protection & Mechanical Engineering Laboratory Technician, 2003-2005

Formal Education:

Master of Science, Fire Protection Engineering, Worcester Polytechnic Institute, Worcester, Massachusetts, 2006
Bachelor of Science, Mechanical Engineering (with honors), Worcester Polytechnic Institute, Worcester, Massachusetts, 2005

Specialized Education/Training:

Engineering Investigations of Slip, Trip, & Fell Incidents, 2025
Scene Safety: Asbestos Identification, Assessment, & Abatement, 2025
Insurance Claims, Subrogation, & Liability, 2025
CSST Lightning Caused Fires, 2024
Wet Arson: Staged Water Losses & The Evolving Face of Insurance Fraud, 2024
Open Your Wallet and Put on The Handcuffs – The Corporate Transparency Act, 2024
Diamond Decision Process – Managing Cost and Risk of Metallurgical Forensic Cases, 2024
Preventing Construction Defects: Establishing a Risk Management Program When Your Client is Tired of Being a Defendant, 2024
Collision Analysis Fundamentals, 2024
Investigating the Claims of Ballasting & Corrosion Vibration Damage, 2024
Practical Real-World Ethical Challenges a Forensic Engineer Faces and How to Contend with Those Challenges Early, 2024
The HAZWOPPER Standard, 2024
Accreditation, Certification, & Certificates, 2024
Understanding Undetermined, 2024
Lithium Ion Battery Fires, 2024
Residential Natural Gas Systems, 2024

Specialized Education/Training (Continued):

Forensic Engineering Analysis of Roadway Geometry & Traffic Control, 2024
Forty Years of Advances in Failure Analysis of Polymeric Composite Materials, 2024
Forensic Engineering of a Farm Clevis Failure Through Analysis of Photographs, 2024
Improving Effectiveness of Forensic Engineering Reports, 2024
Forensic Analysis of an Elevated Pool Vault, 2024
Investigating the Effects of Imperfections on an Aluminum Stepladder Using Finite Element Analysis, 2024
Analysis of a UTV Axle Fracture Associated with Rollover, 2024
Innovative Uses of Generative Artificial Intelligence Tools in Fire Investigations, 2024
Motive, Means, & Opportunity: Determining Responsibility in an Arson Case, 2024
Fire Chemistry, 2024
Motor Vehicles: Transmission, Exhaust, Brake, & Accessory Systems, 2024
Motor Vehicles: The Engine and the Ignition, Electrical, & Fuel Systems, 2024
Commercial Kitchen Fires 1: Fundamentals, 2024
Fire Investigation for Fire Officers, 2024
Fire Flow Analysis, 2024
Lithium-Ion Battery Fires, 2024
ABC's of Engineering Ethics – The Project Management Triangle, 2023
Fire Resistance Rated Construction, 2023
Fundamentals of Metals, 2023
What Every Engineer Needs to Know About Liquefied Natural Gas Safety, 2023
Human Burn Injuries, 2023
Carbon Monoxide Poisoning, 2023
Spontaneous Combustion, 2023
Basic Math Concepts, 2023
Introduction to Small Natural Gas Systems, 2022
Piping Flange Fundamentals, 2022
Proper Design and Application of Advanced Composites for Strengthening Structures, 2022
ABC's of Electrical Fire Investigations, 2022
Fire Suppression System: Operation & Maintenance, 2021
Ethics & Standards of Professional Conduct, 2021
Engineering Ethics, 2021
Diesel Engine Fundamentals, 2021
Internal Combustion Engine Basics, 2021

Specialized Education/Training (Continued):

Introduction to Steam, Boilers, and Thermodynamics, 2021
Introduction to Heat Exchangers, 2021
2021 NFPA 921 Chapter 19 – Fire Cause/Classification, 2020
Fire Dynamics Calculations – Version 2.0, 2020
Texas Board of Professional Engineering & Surveying Practice Board Update & Ethics, 2020
Introduction to Fire Dynamics and Modeling, 2020
MagneTek: A Case Study in the Daubert Challenge, 2020
Introduction to Appliances, 2020
Legal Aspects of Investigating Youth-Set Fires, 2020
Investigating Natural Gas Systems, 2020
Charting Your Career Path in Fire Investigation, 2020
Design of Commercial Buildings to Mitigate Terrorist Attacks, 2020
Asbestos Awareness Training, EFI Global, 2020
Overview of Fire Alarm & Detection Systems, 2019
Case Studies of Three Explosions and a Chemical Accident, 2019
Engineering Ethics: The East Ohio Gas Company Explosion, 2019
The Texas City Disaster, 2019
Critical Evaluation and Testing of Commonly Reported Accidental Causes, CFITrainer, 2019
Joint Seminar, New England Fraud Expo, NEIASIU, 2019
Carbon Monoxide/Smoke – CO & Smoke Detection FAQ's, System Sensor/i4, 2018
Building Envelope Impact on HVAC Energy Use, 2018
Electrical Power Distribution Systems, 2018
Multigenerational Communication, NJSIA, 2018
Courtroom Testimony & Demeanor, NJSIA, 2018
Spotting Fraud in Self-Service, NJSIA, 2018
Recognizing Fraudulent Activity, NJSIA, 2018
The Proof is on the Porsche – Interpreting Damage to Identify Fraud, NJSIA, 2018
Arson Fraud Investigations & Financial Interest in Arson for Profit, NE-IASIU, 2018
The IASIU Code of Ethics: Our Living and Breathing Code, NE-IASIU, 2018
Role of the Attorney General with Respect to Insurance & Unemployment Fraud, NE-IASIU, 2018
Airbag Control Modules, NE-IASIU, 2018
Overview of Massachusetts Case Law, Statutes, & Regulations Applicable to Auto Damage Claims, NE-IASIU, 2018

Specialized Education/Training (Continued):

Anatomy of a Civil Action from Inception through Jury Trial, NE-IASIU, 2018
Goals & Ground Rules When Coordinating Public & Private Investigations of Fire Claims, NE-IASIU, 2018
Preparing for Depositions, NE-IASIU, 2018
sUAS Aerial Data Acquisition for 3D Modeling, 2017
Fire Protection Systems, 2017
Ethics in the World of Engineering, 2017
Electrical Engineering, 2017
Ethical Decisions & Moral Overload, 2017
Gas Fed Fires, Explosions, & Associated Topics, IAAI, Vermont Chapter, 2017
Civil Depositions and Cross Examination, IAAI, Vermont Chapter, 2017
Fire Investigations and the Insurance Company, IAAI, Vermont Chapter, 2017
Effective Report Writing, 2017
Carbon Monoxide Silent Killer, EAA, 2017
Glade Plug-In Air Fresheners, 2017
Marine Fire Investigations, 2017
Essentials of NFPA 1033, Unified Investigations & Sciences, 2016- 2017
Finding the Root Cause, December 2016
Engineering Ethics: The Big Dig Tunnel Ceiling Collapse, 2016
Introduction to Youth-Set Fires, CFITrainer.net / IAAI, 2016
Fireplace, Chimney, And Fuel Burning Appliance Fires, VT-IAAI, 2016
Overview of the Fire Hazards Associated with Lithium Ion Batteries, WPI & MA-IAAI, 2016
A list of additional training prior to this date is available upon request

Affiliations:

Senior Member/Diplomate, National Academy of Forensic Engineers
Member, International Association of Arson Investigators (International and Local Chapters)
Member, National Association of Fire Investigators
Member, National Fire Protection Association
Professional Member, Society of Fire Protection Engineers
Member, National Fire Sprinkler Association

Courses Instructed/Guest Lecturer:

Appliance Failures & Breakdowns
Arc Mapping as a Tool for Fire Investigators
Arson & Plumbing Fraud
Carbon Monoxide Incidents & Investigations
Chimneys, Fireplaces, and Wood-Fired Appliances
Commercial Kitchen Fire Protection
Commercial Kitchen Fires: Cause, Spread, Protection, & Investigations
Commercial Laundry Equipment Failures, Fires, & Investigations
Commercial Restaurant Origin and Cause Fire Investigations
Criminal Arson Case Study
Expert Witness Testimony
Fire Dynamics for the Fire Investigator
Fire Investigation: Answers From Ashes
Fire Investigation Methodology, Patterns, and Science
Fire Protection Construction, Alarms, Sprinklers, & Commercial Kitchens
Fire Protection, Fire Science, & Arson
Fire Protection Overview and Winter-Related Loss Prevention
Fire Protection System Forensics
Fire Spread & Flame Spread in Subrogation and Liability Investigations
Fire Spread Theories, Fire Dynamics, & Fire Protection
Fire Sprinkler Systems Overview & Failures
Fraudulent Water Loss Analysis
Gas-Fed Fires, Explosions & Associated Topics
Gas Systems & Explosion Dynamics, Webinar
Heating Fuel Use & Heating Degree Days
Heating System Use, Failures, & Analysis
Insurance Claims Regarding Residential Fire Sprinklers
The Latest in Fire Investigations: Electrical Fires & Arc Mapping
Motor Vehicle Fire Investigations & Arson
NFPA 1033 Professional Qualifications for Fire Investigator
Residential Sprinkler System Failures
Resistance Heating as a Heat Source for Fire Ignition

Courses Instructed/Guest Lecturer (Continued):

Vehicle Fires, Technology, & SIU
Winter-Related Claims & Investigations

Publications:

Kramarczyk, Jay & Gilbert, Paul. "Property Loss Considerations: Is Insuring a Casino a Safe Bet?" EFI Global/Sedgwick, 2024.

Kramarczyk, Jay, et al. "The Effects of Fire Extinguisher Effluent on Equipment." EFI Global, 2023

Kramarczyk, Jay, et al. "Foam Fire Suppression in Aircraft Hangars – The Benefits Outweigh the Risks." EFI Global, 2022

Kramarczyk, Jay, et al. "Going Green? Understanding the Potential Risks." EFI Global, 2002

Kramarczyk, Jay. "Preventing Fires in Fireplaces and Chimneys." Sedgwick Claims Management Services, November 2015

Ackland, Phil. "A Guide for Commercial Kitchen Fires, Prevention and Investigation A Collaboration of Experts." 2012 (Peer-Reviewer)

Kramarczyk, Jay. "Forensic Fire Protection Engineering." NASP Subrogator Magazine. Winter, 2011

Kramarczyk, Jay. "Forensic Fire Protection Engineering." Phoenix Ink Newsletter. 2010

Kramarczyk, Jay. "The Scientific Method, Truth from Engineering." NASP Subrogator Magazine. Spring/Summer, 2008