

Kirk LuMaye, P.E., CFEI, CVFI, CXLT | Forensic Engineer, Mechanical

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Professional Summary:

Mr. LuMaye is a registered professional mechanical engineer. His experience encompasses failure analysis of mechanical and electrical systems and products. He has specialty experience related to water loss failures, home appliance failures, and corrosion failures. Mr. LuMaye is also a NAFI Certified Fire and Explosion Investigator and a NAFI Certified Vehicle Fire Investigator.

- Appliance Failures
- HVAC Systems
- Gas Systems and Components
- Water Losses
- Corrosion Failures

Licenses and Certifications:

Professional Engineer in Mechanical Engineering, California Board for Professional Engineers, Land Surveyors, and Geologists, CA, License # M37551

Certified Fire and Explosion Investigator (CFEI), National Association of Fire Investigators, International (NAFI), Certificate # 19416-10793v

Certified Vehicle Fire Investigator (CVFI), National Association of Fire Investigators, International (NAFI), Certificate # 19416-10793v

Certified XL Tribometrist (CXLT), Excel Tribometers, LLC, Certificate # 1706675

Project Experience:

Integra Telecom, Sacramento, CA

Fire Protection

A false alarm caused an Ansul Inergen fire protection system to activate, resulting in significant structural damages to the building. The false alarm was determined to have been caused by a nearby refrigerant leak discharging particulates into the air. The structural damage was determined to have been the result of undersized ventilation installed with the system.

Solano Vista Apartments, Vallejo, CA

Water Loss

PEX tubing burst at several locations in a large residential senior care facility resulting in upwards of \$3 million in damages. The PEX tubing was determined to have failed due to a thermal runaway of a boiler, caused by an improperly installed controller.

Professional Experience:

EFI Global, Forensic Engineer – Mechanical, 2018 – Present
Unified Investigations & Sciences, Forensic Engineer – Mechanical, 2016 – 2018
OConnor Engineering, Forensic Engineer – Mechanical, 2012 – 2016

Specialized Education:

Excel Tribometers, LLC Certified XL Tribometrist Certification Program, June 2017
Vehicle Fire, Arson, Explosion Investigation Training Program by NAFI, S2015
International Fire, Arson, & Explosion Investigation Training Program NAFI/NFPA/IAFI,
University of Eastern Kentucky, 2014
BIT 121: Mechanical II / H.V.A.C. Code Requirement, Cosumnes River College, 2013
Residential Electrical Systems, CFITrainer.net/IAII, 2014
Basic Electricity, CFITrainer.net/IAII, 2014
Post Flashover Fires, CFITrainer.net/IAII, 2014
Introduction to Fire Dynamics and Modeling, CFITrainer.net/IAII, 2014
Electrical Safety, CFITrainer.net/IAII, 2014
Understanding Fire through the Candle Experiments, CFITrainer.net/IAII, 2013
Physical Evidence at the Fire Scene, CFITrainer.net/IAII, 2013
Investigating Motor Vehicle Fires, CFITrainer.net/IAII, 2013
Introduction to Evidence, CFITrainer.net/IAII, 2013
Insurance and the Fire Investigation, CFITrainer.net/IAII, 2013
Fire Protection Systems, CFITrainer.net/IAII, 2013
Fundamentals of Residential Building Construction, CFITrainer.net/IAII, 2013
Evidence Examination: What Happens at the Lab?, CFITrainer.net/IAII, 2013
The Scientific Method for Fire and Explosion Investigation, CFITrainer.net/IAII, 2012
NFPA 1033 and Your Career, CFITrainer.net/IAII, 2012
Digital Photography and the Fire Investigator, CFITrainer.net/IAII, 2012
Arc Mapping Basics, CFITrainer.net/IAII, 2012
A Ventilation-Focused Approach to the Impact of Building Structures and Systems on Fire
Development, CFITrainer.net/IAII, 2012

Education:

Bachelor of Science, Mechanical Engineering, California State University Sacramento,
Sacramento, CA, 2012

Affiliations:

National Association of Fire Investigators (NAFI)

Honors and Awards:

Tau, Beta, Pi Engineering Honor Society, 2012