



LGI FORENSIC ENGINEERING, P.C.

Engineers, Architects, Consultants and Investigators



WHEN YOU NEED TO KNOW WHY, YOU NEED LGI

FORENSIC INVESTIGATIVE APPROACH



LGI Forensic Engineering, P.C. provides clients with a thorough and accurate investigation, by combining extensive hands-on technical experience with strong scientific and engineering analysis. Clients can be confident that their assignments will be given the attention and professional expertise they deserve – from field inspection and testing, all the way to deposition and court testimony.

LGI'S EXPERTISE IN FORENSIC ANALYSIS EXTENDS TO THE FOLLOWING DISCIPLINES:

- › Construction
- › Architecture
- › Civil/Structural
- › Mechanical
- › Product Liability
- › Premises Liability
- › Materials Science
- › Electrical
- › Fire Origin and Cause/Fire Protection/Explosion

LGI'S LABORATORY IS ANAB ISO/IEC 17025 ACCREDITED FOR FORENSIC TESTING AND IS A FULL-SERVICE, STATE-OF-THE-ART TESTING FACILITY THAT PROVIDES THE FOLLOWING SERVICES:

- › Alloy Phase Detection
- › Corrosion Identification
- › EDS Analysis – Element & Chemical
- › FTIR Analysis – Organic & Inorganic Materials
- › High Accuracy Microscope (4K)
- › Grain Boundary Defects
- › Mechanical Testing
- › Non-Destructive & Destructive Testing
- › SEM Applications for Magnification & Investigation
- › Comparison Sample Collection
- › Depth of Field Magnification
- › Differential Scanning Calorimetry
- › Forensic Photography
- › Fracture Analysis (Fractography)
- › Keyence 3-D Microscope Analysis
- › Hardness Testing
- › Microstructure Defects
- › Polymer Identification
- › Virtual Lab Inspections



OUR SERVICES

CIVIL/STRUCTURAL – PROPERTY:

- › Civil Engineering & Analysis
- › Structural Engineering & Analysis
- › Water/Wind/Flood/Storm Damage
- › Lightning Damage
- › Earthquake Damage
- › Foundation Systems & Failures
- › Roofing Systems & Failures
- › Building Codes & Safety Codes
- › Bridges & Infrastructure
- › Building Inspections
- › Standard of Care – E&O Claims
- › Safety Codes
- › Waterproofing Evaluations

ELECTRICAL ENGINEERING:

- › Electrical Engineering & Analysis
- › Electrical Accidents & Injuries
- › Electrical Equipment/Control Systems
- › Electrical Fires
- › Lightning Damage to Components
- › Alarm/Security Systems
- › Products Evaluations
- › Appliances & Electronics
- › Electrical & Safety Codes
- › Utilities Evaluations/Underground Wiring

CONSTRUCTION SERVICES:

- › Construction Defect
- › Construction Accidents
- › Construction Injuries/Labor Law
- › Construction Disputes
- › Delay & Scheduling
- › Architectural Consulting
- › Vibration Claims & Monitoring
- › Contractor Performance/Surety
- › Standard of Care – E&O Claims
- › Building Codes & Safety Codes
- › Building Envelope Evaluations
- › Facade Analysis
- › Construction Sequencing
- › Building Commissioning
- › Construction Product Failures
- › Heavy Equipment – Accidents/Failures

LGI Offers Comprehensive Solutions to Complex Problems



OUR SERVICES



FIRE & EXPLOSION SERVICES:

- › Fire Origin & Cause
- › Fire Scene Analysis
- › Explosion Analysis
- › Electrical Fire Analysis
- › Mechanical/Product Analysis
- › Fire Protection Engineering
- › Fire Suppression/Sprinkler Systems
- › Vehicle & Boat Fire Analysis

LITIGATION SERVICES:

- › Case Reviews
- › Professional Expert Reports
- › Affidavits
- › Expert Witness Testimony
- › Demonstrative Evidence
- › Discovery Requests
- › Scientific Research
- › Review Opposing Expert's Testimony
- › Simulations/Mock-Ups

MECHANICAL ENGINEERING:

- › Mechanical Engineering & Analysis
- › Mechanical Accidents & Injuries
- › Mechanical Failures/Defects
- › Equipment/Machinery/Products
- › Plumbing Systems - Piping/Sprinklers
- › HVAC Systems Evaluations
- › Appliance Evaluations
- › Boilers & Burners Evaluations
- › Mechanical Control System Failures
- › Gas Systems & Steam Systems
- › Playground Safety/Equipment Failures
- › Slips/Trips/Falls – Premises Liability
- › Utilities-Power Generation/ Distribution

ENVIRONMENTAL SERVICES:

- › Environmental Engineering & Analysis
- › Mold Evaluations
- › HazMat Incident Investigations
- › Occupational Hazards & Illness
- › Indoor Air Quality
- › Sick Building Syndrome
- › Underground Storage Tanks

OTHER SERVICES:

- › Human Factors & Ergonomics
- › Nuclear Energy
- › Safety Engineering
- › Reverse Engineering
- › Marine Services and Evaluations



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LGI FORENSIC LABORATORIES, INC.

ACCREDITED BY ANAB ISO/IEC 17025 FOR FORENSIC TESTING

LGI has a state-of-the-art, ANAB ISO/IEC 17025 accredited laboratory supplied with high-tech scientific testing equipment. The lab is utilized to assist our clients with joint inspections, destructive and non-destructive testing, scientific analysis of products and materials science.

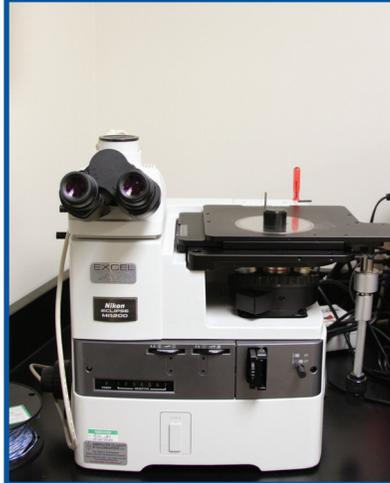
Our laboratory technicians and engineers analyze failures, perform necessary tests and conduct research to help uncover the reasons behind the failures. LGI understands that the formulation of concise and accurate opinions based on factual evidence is critical to the resolution of insurance claims and court cases.

LGI addressed the needs of experts, counsel and claim handlers who have reservations about attending live laboratory exams, by turning to technology for a solution. We installed two ClearOne Unite 200 PTZ (pan, tilt, zoom) cameras in the main area of the lab, and three AMX Acendo Vibe cameras. Clients can now “virtually” attend our lab exams through a GoToMeeting link and witness all lab exam activities. Remote viewers can also interact with the individuals conducting the exam through soundbars in the lab. It’s the next best thing to being present in our lab, while remaining safe and healthy at your home or office.

THE LABORATORY IS OUTFITTED WITH THE FOLLOWING HIGH-TECH INSTRUMENTS:

- › Scanning Electron Microscope/Energy Dispersive Spectroscopy (SEM/EDS)
- › Fourier Transform Infrared Spectroscopy (FTIR)
- › Keyence VHX 7000 Series 3-D Microscope (4K High Accuracy Digital Microscope)
- › Metallograph (Nikon Eclipse MA200) & Stereo Microscope (Nikon SM2100)
- › Micro Hardness Testing (Knoop/Vickers Buehler Micromet II)
- › Macro Hardness Testing (Rockwell Clark CDT-12)
- › Digital Radiograph (X-Ray)/CT Scanner (pending)
- › Differential Scanning Calorimetry (DSC) Instrument

At LGI, the Science Tells the Story



WHO WE ARE



STEVE PIETROPAOLO

MS, PE, CFEI, DFE
CEO

Steve Pietropaolo is a Licensed Professional Engineer (P.E.) in the State of New York amongst many others. He is a Certified Fire and Explosion Investigator and a Certified Fire Investigator Instructor. Steve is a Board-Certified Diplomate in Forensic Engineering by the National Academy of Forensic Engineers, where he also serves on the Academy Board, the Fire Investigation Committee, and he is an Associate Editor of the Academy's Technical Journal. Steve has more than 30 years of hands on engineering experience including electrical, mechanical, materials, safety, fire protection, and construction.

He has knowledge of all codes and standards used in the construction industry including building codes, safety codes and industrial codes. Mr. Pietropaolo's expertise is in the field of forensic investigations of product defects, fire/explosions, accidents/injuries, building failures, and electro/mechanical system failures. He also has extensive experience in utility company procedures/equipment and investigating major incidents involving electrical, gas, steam system failures, and construction accidents.

KAREN PIETROPAOLO

MBA, PRESIDENT, LGI FORENSIC ENGINEERING, P.C.
AND PRESIDENT, LGI FORENSIC LABORATORIES, INC.

Karen Pietropaolo has more than 27 years of business experience, focusing mainly on financial services and banking. She is an experienced professional with expertise in product and project management, strategic marketing plan development, implementation, and execution.

At LGI Forensic Engineering, Mrs. Pietropaolo focuses on the business management of the firm, marketing, client relations, process improvement, product management, company strategy, finance, and budgeting.





ROBERT BERRYMAN
P.E., CFPS, CFEI, ENGINEERING & LABORATORY DIRECTOR

Robert M. Berryman, CFEI is a Professional Engineer (P.E.) licensed in New York State. He is also a designated Certified Fire Protection Specialist (CFPS) by the National Fire Protection Association (NFPA) and a Certified Fire and Explosion Investigator (CFEI) by the National Association of Fire Investigators.

An integral part of the management team, Mr. Berryman is responsible for the management of the engineering staff and consultants as well as the operations of the laboratory. He oversees the technical report writing process and ensures that all the activities in the laboratory are American National Standards Institute National Accrediting Board (ANAB) compliant.

PATRICK J. VINCENT
SCLA, DIRECTOR, BUSINESS DEVELOPMENT & MARKETING

Patrick J. Vincent is an experienced business development and marketing manager with a diverse background in insurance claims, fire & water damage restoration, claims law education and forensic engineering. His 30+ years of experience have provided him with a well-rounded understanding of the insurance, legal and construction industries. Patrick has always created strong business and personal relationships through trust and integrity, which has been integral in obtaining and maintaining his client base and growing revenue for his employers throughout his career.

Along with his business development and marketing skills, and knowledge of the various industries which he serves, Patrick is a key part of LGI's leadership team, driving the direction and success of the firm into the new decade.



ZOEY GUZMAN
EXECUTIVE VICE PRESIDENT AND CHIEF OPERATING OFFICER

Zoey Guzman is a key member of LGI's management team and oversees the implementation of policies and procedures that ensures the organization runs at maximum efficiency and productivity.

Ms. Guzman leads the administrative staff and works tirelessly to achieve efficiencies of scale for the company. She is also responsible for assisting with recruiting and hiring, as well as instilling an extremely positive and team-focused culture within LGI. Ms. Guzman's tenure at LGI spans nearly two decades. Ms. Guzman has a Bachelor of Arts in English and a Bachelor of Arts in Graphic Design. She is currently on the Board of Directors of The Child Care Council of Westchester.





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