

Kenneth L. Gentile | Sr. Forensic Electrical/Fire Protection Engineer, P.E.

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Professional Summary:

Mr. Gentile's expertise in electrical and fire protection engineering has been acquired from performance of design, consulting, project management of building systems construction, and forensic engineering.

More specifically these skills include:

- Forensic experience in the preparation of site investigation, written engineering opinions and expert witness consulting. Investigations include:
 - Extent of damage to electrical apparatus
 - Causes of electrical failure
 - Electrical activity resulting in sources of ignition
 - Flood damaged electrical equipment, lightning damage to electrical systems, residential and compromise of fire alarm and protection systems.
- Analysis of the compliance of electrical construction with applicable codes and standards.
- Design of operational and compliance solutions for electrical, fire protection, and complementary systems. Occupancy types include healthcare, aviation, petrochemical, high-rise structures, laboratories, transportation, medium and high voltage transmission/distribution, assembly and data centers.
- Consulting and application of codes for electrical distribution; fire suppression and signaling systems; fire prevention; emergency and stand-by power systems; and communication systems. He is also experienced with application of design standards in classified (hazardous) areas of industrial and energy industry facilities.
- Project management responsibilities for directing engineering teams designing control systems and instrumentation. He has also supervised design and production teams for industrial, onshore, offshore, and subsea controls, industrial electrical power units, and SCADA systems.

Licenses and Certifications:

Professional Electrical/Fire Protection Engineer, TX 75952

Professional Electrical/Fire Protection Engineer, NM 16348

Professional Electrical Engineer, LA 30015

Professional Electrical Engineer, AR 17685

Professional Electrical Engineer, KS 25641

Professional Electrical Engineer, TN 120600

Professional Electrical Engineer, MS 28299

Professional Electrical Engineer, AL 36669

Professional Electrical Engineer, NC 059222

Professional Electrical Engineer, GA 055680

Professional Electrical Engineer, OK 20566

Large Loss Experience:

Houston, Texas
Interior Substation Reconstruction

Inspected site and reconstruction cost estimates on damaged 3-phase 15KV / 480V package substation transformers at unoccupied mercantile facility.

Southeast Louisiana
Hurricane Damaged Chemical Facility

Inspected site and provided medium voltage equipment replacement cost information for multi-site chemical facility damaged by Hurricane Ida.

Central Louisiana
Natural Gas Facility Explosion

Inspected site and provided reconstruction cost information to natural gas facility damaged by on-site explosion.

Western New Mexico
Natural Gas Facility Explosion

Inspected site and provided reconstruction cost information to natural gas facility damaged by on-site explosion.

North Central Texas
Church Fire

Inspected site and provided restoration cost information to church audio-visual equipment exposed to on-site fire and fire-fighting efforts.

Design and Construction Project Experience:

Houston, TX
Project Management for Post-Flood Refurbishment of Wortham Theater Electrical, Fire Suppression, and Life Safety Infra-structure.

Directed on-site design teams and installing contractors on demolition, design, and construction at the large assembly performance venues. Replaced systems include redesign of 5KV electrical distribution feeders from 34.5KV/5KV utility connections; 460/277 volt motor and lighting distribution and fixtures; 208/120 volt motor and general use devices; fire alarm; fire pumps, tanks and automatic sprinklers; stage and house dimming systems; and interconnected equipment. Additional

duties included assessing extent of flood damage; developing compliance approaches to meet current codes; specifying replacement technologies to outdated and unavailable equipment; and cost control.

Oklahoma City, OK

Engineer of Record for New Stand-by Generator System and Emergency Lighting.

Provided a design to install a new stand-by generator and emergency lighting system in existing high-rise hotel. Tasks included schedule to install generator and electrical distribution modifications while hotel remained occupied and under direct observation of State Fire Marshal's Office.

New Braunfels, TX

Design Engineer of Record for Sensor and Water Spray for Coal Conveyor Expansion.

Designed new sensor and water spray fire suppression system to prevent combustion of coal dust on coal conveyor at cement production plant. Tasks involved locating and evaluating available water supply and designing adequate pumps, piping and nozzle placement. Electronic controls and sensors design included integration of new controls to existing fire/life safety and production control centers.

Albuquerque, NM

Design Engineer of Record for Roof-top Helipad Suppression System.

Designed and performed construction oversight for foam cannon system with automatic suppression release for hospital helipad on sixth-story roof. Tasks include design of foam storage, pumps, piping, and automatic sweep dispersal cannons. Control design had to integrate with hospital life safety systems. Compliance with applicable codes was coordinated with State Fire Marshal's representative.

Albuquerque, New Mexico

Interim Fire-Life Occupancy Plan During Arena Renovation and Addition.

Provided an occupancy plan to Contractor for arena renovation and addition to permit use of the facility during construction. Plan details included fire department access, temporary sprinklers and alarm, and temporary rated public egress. Plan was coordinated with representatives of the State Fire Marshal's Office.

Litigation Qualifications:

Pottsboro, Texas

Expert Consultant on Marina Fire

Consultant to joint plaintiff on large loss and injury marina fire. Suspected cause of docked boat fire was configuration of marina shore power electrical system. Performed site survey, multi-party site inspection, review of witness depositions, consulted on shore power installation on team with marine vessel experts. Case was resolved prior to court date.

Penitas, Texas

Expert Consultant on Agricultural Fire

Consultant to defendant on large loss agricultural equipment and facility fire. Suspected cause was tractor electrical system. Performed site survey, multi-party equipment dissection, review of

witness depositions, provided engineering opinion, and witness preparation. Case was resolved after initial court sessions.

Vidor, Texas

Expert Consultant on Flood-damaged Industrial Equipment.

Consultant to defendant on alleged electrical damage from flooding of metal fabrication facility. Performed site survey, multi-party equipment examination, and provided engineering opinion. Case was resolved prior to court date.

Houston, Texas

Expert Consultant for Medium-Voltage Distribution incident.

Consulted on circumstances and damages from contact of energized 12 KV distribution to secondary service neutrals. Performed site survey and provided engineering opinion. Case was resolved prior to court date.

Harvey, Louisiana

Expert Consultant for Fire Protection System Failure.

Consultant for plaintiff that installation, condition, and electronic controls conditions resulted in failure of fire protection system to discharge during fire. Loss site was public agency computer facility. Performed site survey, multi-party equipment dissection, review of witness depositions, deposition, engineering opinion, and witness preparation. Case was resolved prior to court date.

Katy, TX

Expert Consultant Regarding Nation Electrical Code (NEC)

Consultant to defendant as to whether residential electrical installation was compliant to NEC requirements. Plaintiff asserted code non-compliance as basis for contract non-fulfillment. Case was dismissed.

Beaumont, TX

Expert Consultant for Industrial Controls Accident.

Consultant to defendant on industrial controls operation on injury accident. Advised team of industrial and mechanical consultants on interaction of controls on accessibility to and shutdown of motorized food production equipment. Performed site survey and provided engineering opinion. Defendant was dismissed from case.

Dumas, TX

Expert Consultant for electrical causation of restaurant fire.

Consultant to plaintiff on start of fire by electrical construction error. Replacement of electrical distribution panels resulted in misapplication of voltage to kitchen electrical equipment. Performed site survey, collection and analysis of evidence. and provided engineering opinion. Case was resolved in favor of plaintiff prior to active litigation.

Addison, TX

Expert Consultant on fire suppression design review.

Consultant to defendant on allegations that fire suppression system design resulted in civil structural damage to multi-family housing. Provided engineering report. Defendant was dismissed from case.

Mize, MS

Expert Consultant on electrical damage to residential generator.

Consultant to defendant on allegations that residential fire caused damage to residential stand-by generator. Defendant was dismissed from case.

Houston, TX

Expert Consultant on electrical causation of fire.

Consultant to plaintiff as to start of fire by defective electrical workmanship. Large loss nightclub fire occurred after electrical modifications for HVAC installation. Performed site survey, collection and analysis of evidence and provided engineering opinion. Case was resolved in favor of plaintiff prior to active litigation.

Houston, TX

Expert Consultant on electrical causation of fire.

Consultant to plaintiff as to start of fire by defective electrical workmanship during remediation from minor fire. Large loss to multi-family building. Performed analysis of evidence and provided engineering opinion. Case was resolved prior to court date.

Professional Experience:

EFI Global, Senior Engineer, 2019 – Present
Arup-Texas, Senior Engineer, 2017 – 2019
Donan Engineering, Senior Forensic Engineer, 2017
Proserv, Inc., 2014 – 2017
Jensen Hughes, 2000 – 2014
Code Consultants Inc., 1996 – 2000
Simplex Time Recorder Co. 1990 – 1996
Self-employed Electrical Construction. 1982 - 1990
The L.E. Myers Company 1979-1981

Specialized Education:

January 2017 to Present:

- Post-Loss Equipment Evaluations, 12.0 Hours, 2024
- Arc Flash Standards OSHA 29 and NFPA 70E, 8.0 Hours, 2021
- Guide to Achieving Operational Efficiency, 9.0 Hours, 2017
- Capacitance, 4.0 Hours, 2017
- Controlling Electrical Hazards, 4.0 Hours, 2017
- Solar Energy, 4.0 Hours, 2017
- Energy Management For Motor Driven Systems, 8.0 Hours, 2017

Education:

B.S. Electrical Engineering, Washington University, St. Louis, MO, 1979

Affiliations:

Past Positions on National Fire Protection Association (NFPA) Technical Committees:

- Commissioning Fire Protection Systems (NFPA 3)
- Protected Premises Fire Alarm System (NFPA 72)
- Fire Alarm Initiating Devices (NFPA 72)

Past Memberships

- Society of Petroleum Engineers (SPE), Member.
- Society of Fire Protection Engineers (SFPE), Professional Member.

Courses Instructed/ Guest Lecturer:

"Laboratory Life Safety Requirements", August 25, 2011

"Ethanol Blended Fuels for Loading Terminals", June 3, 2007

"Survivable Fire Alarm Circuits", March 6, 2007

"Update for Video Image Smoke Detection", May 10, 2007

Publications and Presentations:

Gentile, Kenneth Co-author. "The Hidden Dangers of Smart Utility Meters" Commentary Paper, EFI Global, August 2023.

Gentile, Kenneth. "Life After Halon" Article, Consulting Specifying Engineer Magazine, November 2005.

Gentile, Kenneth. "The Next Wave In Fire? Video Smoke and Flame Detection," Security Systems News, April 6, 2005.

Gentile, Kenneth. "VoIP Attracts Customers and Controversy," Security InfoWatch.com, October 27, 2008.