



Our electrical expertise can provide root cause investigations into incidents involving electrical injuries and equipment malfunctions. Our experience covers a broad range of electrical systems, from small appliances to large components of the electric distribution systems. Often working in conjunction with in-house metallurgical and materials engineers, our electrical engineers evaluate and test the materials that comprise electronic equipment. Clients rely on us to determine why a certain material fails, which material is best suited for a particular product, and if a material is safe to use. Our expertise is applied to cases involving electrocution, safety analysis, lightning strikes, fires, accident reconstruction, equipment failures, scene documentation, and loss evaluation.

Services

- Electrical shock and electrocution
- Electrical arc flash/electrical explosions
- Electric motors / generators
- Batteries and energy storage
- Electrical switchgear
- Electrical power distribution equipment
- Breakers, fuses, and circuit protection systems
- Vehicle systems
- Grounding and bonding
- Stray Voltage
- Regulatory codes and compliance
- Lightning strikes
- Materials evaluation
- Alternative energy
- Aerial (Drone / UAS) inspections and laser scanning for scene documentation



***Johannes C. Laun, P.E. – Senior Engineer,
Fire/Electrical***



Mr. Laun is an electrical engineer, physicist, and fire investigator. He has extensive experience with electrical power distribution systems, including switchgear, transformers, circuit breakers and cabling for all voltage levels and plant sizes. He has conducted numerous investigations concerning electric shock/electrocutions and arc flash incidents. His additional experience including communications and antenna systems, electronic materials, and test, measurement and analytical techniques. Mr. Laun has investigated a wide variety of electrical incidents involving vehicles including cars, trucks, and heavy equipment.

***Roch J. Shipley, Ph.D., FASM, P.E. – Principal Engineer,
Materials/Metallurgical***



Dr. Shipley performs engineering investigations and failure analysis from a materials engineering perspective. His evaluations involve design, manufacturing, materials, and operational factors. He specializes in complex issues involving multiple disciplines and/or accident reconstruction. He has experience with both ferrous and non-ferrous alloys.

***Michael G. Koehler, Ph.D. – Principal Scientist,
Chemistry***



Dr. Koehler performs investigations involving materials and chemistry. His extensive experience in materials research and development brings a practical design perspective to each problem. His expertise spans a broad range of electric and electronic materials including polymers and composites, coatings, metals, and conductive plastics.