



Professional Analysis and Consulting, Inc., is state licensed to conduct fire investigations and provides detailed fire cause and origin analysis. Our experiences range from small fires in facilities and vehicles, to large plant-wide involvement. Fires of accidental, incendiary, and natural origin have been investigated.

We have licensed Professional Engineers supported by chemists, mechanical engineers, materials scientists, and electrical engineers. Our field investigators are equipped with state of the art scene documentation tools including laser scanning. Our facility allows for testing, simulations and modeling resources. Recognizing the potential legal aspects of an investigation, our facility is compliant with state requirements for evidence collection and storage.

By incorporating engineering skills at the beginning of the fire investigation, our expertise provides a better technical understanding of the fire, along with ensuring that the right analytical tools are used during the investigation.

## Services

- Origin and cause analyses
- Fire modeling
- Fire and flammability testing
- Metallurgical analysis
- Vehicle fire investigations
- Analysis of fire debris
- Aerial (Drone / UAS) inspections and laser scanning for accident scene documentation
- Evidence storage
- Artifact examination facilities
- Materials analysis
- 3-D tomographic / radiographic analysis



## Practice Area Leaders

# *Fire Investigations*

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



Mr. Laun is an electrical engineer, physicist, and Certified Fire Investigator (IAAI-CFI). He has extensive experience investigating fires and explosions that include chemical facilities, residential-commercial-industrial facilities, passenger vehicles and trucks, and heavy equipment. Mr. Laun is trained in arson investigation techniques, and is a Certified Fire and Explosion Investigator. Mr. Laun also designs and executes in-field tests, conducts detailed research, and performs examinations applying theoretical techniques.

### ***Timothy M. Hicks, P.E. – Principal Engineer, Mechanical***



Mr. Hicks conducts cause and origin investigations for fires and explosions involving automotive, trucks, ATVs, lawn equipment, buses, and other commercial and construction equipment. He also has experience investigating residential and commercial building fires. His mechanical engineering experience includes fire causation issues related to fuel systems, exhaust routing, electrical failure, engine coolant and lubrication, and mechanical failure.

### ***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 materials expertise includes combustion, flammability, fuels, electric and electronic materials, polymers and composites, coatings, and agrochemicals.