

**JAMES W. LAIRD, PE, CFEI, CWI**

**PROFESSIONAL REGISTRATIONS AND CERTIFICATIONS**

- Registered Professional Engineer, Mechanical Engineering
- National Association of Fire Investigators (NAFI)
  - Certified Fire and Explosion Investigator
  - Certified Vehicle Fire Investigator
- CCS Licensed Motorcycle Road Racer
- American Welding Society - Certified Welding Inspector
- Northwestern University - Center for Public Safety - Crash Investigation
- Earlbeck Corporation - Fundamentals of Welding & Technology
- Eaheart Industrial Service Inc. - Operator Safety Training - Forklifts

**EDUCATION & CAREER DEVELOPMENT**

- B. S. Mechanical Engineering - Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, Virginia
- Traffic Accident Reconstruction - Northwestern University Center for Public Safety
- Fire & Explosion Investigation - National Association of Fire Investigators
- Advance Motorcycle Rider Training - California Superbike School
- Vehicle Fire Investigations - National Association of Fire Investigators
- Bosch CDR Technician and Data Analyst - Northwestern University Center for Public Safety

**PROFESSIONAL SOCIETIES**

- National Society of Professional Engineers
- National Association of Fire Investigators
- International Association of Arson Investigators
- American Society of Mechanical Engineers

**FORENSIC INVESTIGATION & TECHNICAL EXPERTISE**

- Motorcycle crash causation analysis with advanced rider experience
- Heavy equipment accident, failures and fire
- Vehicle parts and mechanical system failures
- Automotive crash data download and interpretation
- Vehicle/Equipment fire origin & cause
- Welding failures and analysis
- Power tools and consumer equipment accident analysis
- Product liability
- Workplace safety
- Plumbing fixture and component analysis
- Fatigue related failures
- Exercise equipment injury
- HVAC equipment malfunction and fires
- Fire sprinkler systems
- Appliance mechanical failures, flooding and fire

- Wood fired appliances
- Industry standards
- Forklifts and aerial work platforms

### **CAREER HISTORY**

**FORCON International**, Richmond, Virginia - Lead Mechanical Engineer

- Mechanical Engineer for FORCON International with over 8 years conducting investigations and providing expert analysis
- Led and conducted over 1000 inspections, failure analyses and consultations
- Provide expert testimony

**Virginia Tech**, Blacksburg, Virginia - Research, Extreme Laboratories

- Conducted heat flux gauge testing for fire propagation analysis
- Analyzed data and designed experimental setup for gauge accuracy testing

**US Army Aberdeen Testing Center**, Aberdeen, Maryland - Engineering Technician

- Conducted testing and analyzed combat performance of military vehicles

**Trident Engineering**, Annapolis, Maryland - Forensic Engineering Intern

- Conducted forensic engineering investigations and failure analysis with regard to household appliances, structures and vehicle crashes