

## Curtis A. Anderson | Forensic Mechanical Engineer, P.E.

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### Professional Summary:

Mr. Anderson has six years of mechanical engineering expertise, including approximately two years in mechanical forensics and four years in the heavy-duty truck manufacturing industry, and has been a registered professional engineer since 2018.

Mr. Anderson has completed water loss investigations of over 350 residential/commercial plumbing failures involving appliances and plumbing fixtures in both the field and the lab. This experience encompasses identification/analysis of failure mechanisms and UPC/IPC compliance for plumbing installations. Additionally, he has investigated residential and vehicle fires caused by failures of fuel-gas systems. His area of expertise includes:

- Mechanical engineering support of loss investigations
- Failure analysis of residential appliances and plumbing fixtures
- Analysis of fuel-gas systems and their relation to fire causes

### Licenses and Certifications:

Professional Engineer, Texas Board of Professional Engineers, #132160

Professional Engineer, Oklahoma State Board of Licensure for Professional Engineers & Land Surveyors, #31067

Professional Engineer, Louisiana Professional Engineering and Land Surveying Board, #43583

Professional Engineer, Arkansas State Board of Licensure for Professional Engineers & Professional Surveyors, #18817

### Project Experience:

#### **Confidential Insurance Client, Texas, Water Damage Investigation**

Participated in the inspection of a home after insured disputed insurance payouts from a water loss two years prior to the inspection. Investigated extent of water damage in correlation to claimed loss event of failed water heaters in attic. Case was able to be settled in mediation following investigation.

#### **Confidential Insurance Client, Texas, Construction Site Injury**

Performed inspection of self-restraining line and harness that reportedly failed to function to protect a construction worker that fell from a construction platform. Inspection of line and photos from scene determined that the protective equipment was not being properly used, leading to the reported injuries.

### **Confidential Insurance Client, Texas, Heavy Duty Vehicle Fire**

Fire observed/occurred from below vehicle cab while insured began daily commute, roughly 3 days after taking vehicle in for repairs for an identical issue that luckily did not grow into a sustained fire. Reviewed repair summaries and inspected vehicle to determine that repairs were not adequate to remedy the previous issue, as the failure was not properly diagnosed, resulting in a repeat of the fire and a total loss of the vehicle.

### **Confidential Insurance Client, Texas, Residential Water Loss**

Performed inspection of stainless-steel braided supply line to dishwasher that ruptured below sink six months after a similar failure. Damaged line was protected by leak detection valves which also failed to operate. Identified cause of failure to be storage of corrosive cleaning agents below sink damaging both supply line and leak protection sensors.

### **Professional Experience:**

EFI Global, Forensic Mechanical Engineer, 2020 – Present  
Goodson Engineering, Forensic Mechanical Engineer, 2018 – 2020  
Peterbilt Motors, Design Engineer, 2014 – 2018  
UTSW Medical Center, Engineering Intern, 2013-2014

### **Specialized Education:**

Investigation of Gas and Electric Appliance Fires, Fire Findings, 2018 (tested)  
International Fire, Arson, and Explosion Investigation Training Program, NAFI, 2019  
Fundamental Techniques of Crash Investigation (VoD), IPTM, 2020  
Documenting the Event, IAAI, 2020 (4 hours, tested)  
Impact Failure of Plastics, SPE, 2020  
Residential Natural Gas Systems, IAAI, 2020 (3 hours, tested)  
Arc Mapping Basics, IAAI, 2020 (4 hours, tested)  
Introduction to Evidence, IAAI, 2020 (4 hours, tested)  
Introduction to Appliances, IAAI, 2020 (3 hours, tested)  
Motor Vehicles: The Engine and the Ignition, Electrical, and Fuel Systems, IAAI, 2020 (3 hours, tested)  
UV Effects on Plastics, SPE, 2020  
Fourier Transform Infrared Spectroscopy in the Failure & Compositional Analysis, SPE, 2020  
Fundamentals of Residential Building Construction, IAAI, 2019 (3 hours, tested)  
Residential Electrical Systems, IAAI, 2019 (4 hours, tested)  
Basic Electricity, IAAI, 2019 (4 hours, tested)  
Degradation Failure of Plastics, SPE, 2019  
Introduction to Design for Rotational Molding, SPE, 2019  
Understanding Failure Rate in Plastic Components, SPE, 2019  
Motor Vehicles: Transmission, Exhaust, Brake, and Acc Systems, IAAI, 2019 (3 hours, tested)  
Basic Rubber Technology, SPE, 2019  
Creep Failure of Plastics, SPE, 2019

### **Education:**

B.S., Mechanical Engineering, University of Texas at Dallas, Richardson, TX, 2014

**Affiliations:**

International Association of Arson Investigators (IAAI)  
Society of Automotive Engineers (SAE International)  
National Association of Fire Investigators (NAFI)

**Courses Instructed/Guest Lecturer:**

Flood: Investigating Residential Water Losses (Goodson Engineering, 2020)

**Publications and Presentations:**

Anderson, Curtis. "Hot Surface Ignition." Webinar. November 2020.