

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

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### Professional Summary:

Curtis has nine years of mechanical engineering experience, including approximately five years in mechanical forensics and four years in the heavy-duty truck manufacturing industry, and has been a registered professional engineer since 2018.

Curtis has completed water loss investigations of over 400 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, Curtis has investigated residential and vehicle fires caused by failures of fuel-gas systems. His areas of expertise include:

- Mechanical engineering loss investigations
- Failure analysis of residential appliances and plumbing fixtures
- Vehicle fires
- Personal injury investigations
- Equipment failure analysis
- Code and standard analysis and interpretation
- Accident investigation for commercial and passenger vehicle collisions
- Event data recorder (EDR) crash data retrieval and analysis

### 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

Professional Engineer, Kansas Board of Technical Professionals, #28830

Professional Engineer, Alabama Board for Engineers & Land Surveyors, #50827

Professional Engineer, Colorado Department of Regulatory Agencies, #61161

Professional Engineer, Florida Board of Professional Engineers, #93532

Professional Engineer, Mississippi Board of Licensure for Professional Engineers, #33190

Professional Engineer, Wyoming Board of Professional Engineers, #19173

Professional Engineer, New Mexico Board of Licensure, #28077

FAA Part 107 Small Unmanned Aircraft Systems (sUAS) Remote Pilot (Drone) Certification, Certificate Number 4676707

### Project Experience:

#### **Confidential Insurance Client, Texas**

##### **Commercial Water Loss**

Completed inspection of hotel drainage/plumbing system after multiple instances of pooling water in various rooms throughout the hotel. Rooms were taken out of service following winter storm damage to plumbing but the hotel continued to experience puddling water after water was shut off. Identified leaks in vertical drainage stacks between floors unrelated to freeze damage causing water from occupied rooms to flow into out-of-service rooms during morning showers.

#### **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:

Advanced Tire Forensics, Tennent & Associates, 2023  
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  
Bosch CDR Tool Technician Training, IPTM, 2022 (tested)  
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

### Publications and Presentations:

Flood: Investigating Residential Water Losses, classroom presentation for adjusters and engineers (Goodson Engineering, 2020)

Hot Surface Ignition, Webinar presentation (Goodson Engineering, 2020)