

## Curriculum Vitae

### Frederick F. (Rick) Franklin, P.E.

#### Expertise

- Building fires
- Accident reconstruction
- Vehicle defects
- Vehicle fires
- Electrical/mechanical machinery and equipment failures

#### Litigation Support Experience

- 83 trials since 1973, with 80 percent of trials won by clients
- Qualified as a forensic engineering expert regarding fires and accidents of all types, usually involving electrical and mechanical equipment and machinery
- Never disqualified for any reason
- More than 250 depositions

#### Education

The Ohio State University

Bachelor of Electrical Engineering (B.E.E.), 1964

- Five-year program included mechanical engineering and physics courses
- 18 graduate credit hours in Electrical Engineering
- 99th percentile on Graduate Record Examination (GRE) in Advanced Engineering, 1964

#### Professional Experience

1974-Present – President, P.A.C.E., Inc., Cincinnati, Ohio

- 2,500 cause and origin (C & O) investigations of residential, commercial, and vehicle fires. Developed and published methods to prevent most short circuit arcing fires in buildings and vehicles, now accepted.
- 1,000 vehicle accident investigations, involving (computerized) accident reconstructions and reported vehicle defects.
- 400 industrial accidents involving electrical and mechanical machinery of all types.

1970-1974 – Systems Engineering Associates, Columbus, Ohio

- Forensic engineering investigations (162).



**Forensic engineer Rick Franklin, P.E., is an expert in both fire cause and origin, and electrical/mechanical machinery and equipment failures.**

1971-1973 – Capital Elevator, Columbus, Ohio

- Superintendent of elevator construction and service. Design of electrical elevator controllers.

1970-1971 – OSU Radio Astronomy Observatory, Columbus, Ohio

- Chief Resident Engineer in charge of microwave receiver systems and electrical and mechanical technicians. Designed improvements for radio telescope systems.

1968-1969 – Battelle Memorial Institute, Columbus, Ohio

- Mechanical design of a microwave system used to measure the effects of a simulated Aurora Borealis on microwaves.

1964-1968 – OSU Department of High Energy Physics and Electroscience Laboratory, Columbus, Ohio

- Designed two digital computer systems.

### Professional Affiliations

- Fellow, National Academy of Forensic Engineers
- American Society of Mechanical Engineers (ASME)
- Institute of Electrical and Electronics Engineers (IEEE)
- National Society of Professional Engineers (NSPE)
- Society of Automotive Engineers (SAE)

### Certifications

- Registered Professional Engineer in Ohio, Kentucky, Michigan, and Pennsylvania
- Ohio Licensed Private Investigator No. 59-74-0379 (1974 to 2005)
- Licensed Ohio Electrical Inspector (1974-1976)

### Patents

Holder of U.S. Patent Numbers 4858054 and 5519046

### Publications

1. "A Survey of Electrical Fires," Fire and Arson Investigator (IAAI), December 1981. Republished in Fire Journal (NFPA), March 1984, October 1988.
2. "Circuit Breakers: Safety or Myth?," Product Safety Newsletter (IEEE), October, 1988.
3. "Circuit Breakers: The Myth of Safety," Product Safety Newsletter (IEEE), March 1990. Republished in Professional Safety (ASSE), June, 1990. Republished in Fire and Arson Investigator (IAAI), June 1991. Also republished by local IAAI chapters.
4. "Latent Short Circuit Defects," Fire and Arson Investigator (IAAI), December 1991. Republished in Professional Safety (ASSE), September 1992.
5. "Vehicle Short Circuit Fires and Their Prevention," Fire and Arson Investigator (IAAI), September 1992. Republished in Professional Safety (ASSE), August 1993.
6. "Visible Skids as a Percentage of Total Braking Distance," Professional Safety (ASSE), April 1995.
7. "Service Cables Unprotected," Professional Safety (ASSE), July 2000.
8. "Electrical Forensics: The Case of the Service Cable Arcing Incident" Electrical Construction and Maintenance (EC&M); August, 2013.

### Seminars

Numerous seminars with slide presentations on the above published subjects have been given to the circuit breaker industry at the National Electrical Manufacturers Association (NEMA) in Washington, D.C., the Square D Corporation, the Department of Defense, the Florida Arson Convention, the American Academy of Forensic Sciences, AT&T, and to insurance companies and claims organizations.