

**CHRISTOPH J. FLAHERTY, P.E., C.F.E.I.**

### **EDUCATION**

M.S., Electrical Engineering, Tufts University  
B.S., Physics, United States Naval Academy  
Certified Fire and Explosion Investigation Program, National Association of Fire Investigators,

### **REGISTRATION AND QUALIFICATIONS**

Naval Nuclear Propulsion Engineer  
Licensed Professional Engineer, District of Columbia, License No. PE901659  
Licensed Professional Engineer, Virginia, License No. 0402055571  
Licensed Professional Engineer, Maryland, License No. 47367  
Licensed Professional Engineer, Pennsylvania, License No. 084205  
Certified Fire and Explosion Investigator, National Association of Fire Investigators

### **PROFESSIONAL SOCIETIES**

Institute of Electrical and Electronics Engineers (IEEE)  
National Fire Protection Association (NFPA)  
National Association of Fire Investigators (NAFI)

### **AREAS OF EXPERTISE**

- Electrical consumer products including appliances, tools, computers, extension cords, and surge protectors
- Electrically ignited fires
- Electrical grounding and electrical shock
- Electrical commercial and industrial equipment including electric motor operated pumps, fans, and HVAC units
- Electrical power generation and distribution, including switchgear design, installation, and maintenance
- Residential and commercial building wiring
- Electrical control systems
- Conduct of work on electrical systems, including lockout/tagout procedures and other OSHA requirements

### **CAREER HISTORY**

**FORCON International**, Annapolis, Maryland - Forensic Electrical Engineer/Fire Investigator  
Conduct forensic engineering investigations and provide expert witness testimony for cases involving electrical failures of consumer products, commercial and industrial equipment, residential and commercial building wiring, and electrical control systems in addition to OSHA, electrical fires, electrocution and electrical shock matters.

**Flaherty Engineering Consulting, LLC** - Senior Electrical Engineer

**United States Naval Academy** - Electrical Engineering Faculty, Courses/subjects taught: Electrical Circuits, Power Generation and Distribution, Electrical Motors, Power Supply Design, Fiber Optical Communications, Signals and Systems

**CED Investigative Technologies, Inc.** - Consulting Electrical Engineer

**CED Investigative Technologies, Inc.** - Senior Electrical Engineer

**Lumera, Inc.** - Optical Engineer/Laser Safety Officer

**Trident Training Facility** - Nuclear Propulsion Plant Engineering Instructor

**USS Florida (SSBN 728)** - Strategic Missile Officer and Quality Assurance Director

**USS Florida (SSBN 728)** - Shift Maintenance Coordinator and Engineering Watch Officer

**United States Navy** - Naval Nuclear Propulsion and Submarine Training

### **CASE EXAMPLES**

- In a case in which it was alleged that an inexpensive hotplate's temperature control was defective and dangerous and resulted in melting an aluminum cooking pot and starting a fire, Mr. Flaherty showed that the temperature controls were reasonable, in common use, and that the hotplate physically could not melt an aluminum cooking pot by examining and testing several exemplar hotplates and similarly designed cooking ranges.
- In a case in which a construction electrician was electrically shocked and injured, Mr. Flaherty was able to show that required OSHA safety procedures were not used and that a supervisor improperly ordered the circuit he was working on to be re-energized. Mr. Flaherty demonstrated that correct use of the required safety procedures would have prevented the accident.
- In a case in which an electrical contractor was hired to rebuild the electrical distribution system for a marina, Mr. Flaherty showed that the work was not completed properly and that the portions that had been completed did not comply with the National Electrical Code and required extensive rework.
- In a case in which a customer claimed to have received an electrical shock from his computer, which had recently been serviced, Mr. Flaherty performed inspections and testing and determined that the computer case was properly bonded, that there was no evidence of an electrical malfunction with the computer, and that the computer could not have been the source of the claimed electrical shock.

- In one residential fire case, Mr. Flaherty was able to determine that the fire originated in a recalled brake system switch in the homeowner's Ford Explorer, which was parked in their garage.
- In a case in which an electric drag racer burned, Mr. Flaherty determined that the fire started just below the battery pack when the battery pack's metal support plate put too much stress on the electric motor cabling underneath it and caused a short circuit which ignited the lithium ion battery cells.
- In a residential fire case, Mr. Flaherty determined that the fire started in a dishwasher wiring harness routed through a portion of the dishwasher door where it short circuited to the frame.