

**Resume of  
Richard I. Underwood, P.E.**

**Applied Technical Services, Inc.  
1190 Atlanta Industrial Drive  
Marietta, Georgia 30066  
(770) 423-1400**

### **Capabilities**

He can conduct electrical and functional evaluations of suspect electrical and electromechanical equipment to determine the cause of failure and/or the presence of design or manufacturing defects. He is also capable of determining whether a product or installation complies with the requirements of the National Electrical Code or other industry standards.

### **Education**

B.S. in Electrical Engineering, University of Kentucky, 1955.  
Design of Industrial Electrical Power Systems, Clemson, South Carolina, October, 1989.  
Attended various seminars for professional and technical training in electrical matters.  
15 hours of annual continuing education is required for continued registration.

### **Professional Certification**

Georgia Master Electrician Certificate #255, 1973.  
Registered Professional Engineer in GA, AL, AR, CT, DE, FL, IL, IN, KY, LA, MD, MO, MS, NC, NY, OH, PA, SC, TN, VA, WV.

### **Experience**

Lockheed Aeronautical Systems Company - Georgia, 1955-1988.

Duties have included circuit design, wiring diagram preparation, shop assistance and troubleshooting of aircraft electrical systems on Models B47, C130, C141 and C5. These functions have been performed both at the plant and on the customer's premises.

Applied Technical Services, Inc., 1974-Present.

As a consultant, conducts investigations of fires suspected of having electrical or functional origins. Also conducts product liability investigations of electrical equipment and appliances to determine compliance with applicable standards such as NEC, ANSI, IEEE and NEMA. Prepares failure analyses and provides technical support for various investigations including bodily injury and property damage. Testifies as an expert witness. Designs test circuitry for customer equipment, performs tests, and evaluates results in support of investigations.

### **Other Work Experience**

Built and sold twelve residences in Cobb County, Georgia, in 1972-1975.

Wired/rewired many residences and businesses in the metro Atlanta area after passing the Master Electrician examination of Cobb County and the City of Atlanta. Also, during the same period, worked part time in repair of electrical appliances and heating equipment. Designed and installed four residential burglar alarms.

### **Courtroom Experience**

He has provided expert testimony for both defendants and plaintiffs in the fields of electrical engineering, code compliance regarding both products and buildings, and the standard of care for electricians and electrical engineers.

### **Publications**

"Appliance Fires: Determining Responsibility", co-authored with John J. Lentini, C.F.I., *The National Fire and Arson Report*, Volume 7, Number 2, April, 1989.

Author or co-author of numerous technical reports of investigations into structure and vehicle fires, lightning strikes, electrocutions, and industrial accidents.

### **Technical Presentations**

Guest Panelist at Insurance Seminar relating to Electrical Fires, October, 1990.

Guest Instructor at Georgia Fire Investigators Association Seminar, Brunswick, Georgia, November, 1990.

Guest Instructor at Georgia Fire Investigators Association Seminar, Decatur, Georgia, March, 1997.

### **Professional Associations**

Georgia Society of Professional Engineers.

National Society of Professional Engineers.

National Fire Protection Association.