

JOHN A. PALMER, PH.D., P.E., C.F.E.I.



EDUCATION:

Ph.D., Electric Power Engineering, Rensselaer Polytechnic Institute, 1996, Thesis: Streaming Electrification Dynamics in Large Power Transformers.

M.Eng., Electric Power Engineering, Rensselaer Polytechnic Institute, 1992, Thesis: Effect of Harmonics on Current Carrying Capacity of HPFF Cable.

B.Sc. Electrical Engineering, Power Emphasis, Brigham Young University, 1991

REGISTRATION:

Dr. Palmer is a registered Professional Engineer (P.E.) in the State of Colorado. He is also a Certified Fire and Explosion Investigator (C.F.E.I.).

EXPERIENCE:

Manager, Electrical Engineering and Fire Investigations, Knott Laboratory, LLC, Centennial, Colorado, April 2005 to present; Senior Engineer, Knott Laboratory, Inc., Centennial, Colorado. 2000 to April 2005; Adjunct Lecturer, University of Colorado at Denver, 2006; Assistant Professor, Division of Engineering and Faculty Member in the Center for Advanced Control of Energy and Power Systems at the Colorado School of Mines, Golden, Colorado, 1996 to 2000; Consulting Engineer, NEI Electric Power Engineering, Inc., Arvada, Colorado, 1999 to 2000; Research Assistant, Electric Power Engineering Department, Rensselaer Polytechnic Institute, Troy, New York, 1991-1996.

ENGINEERING, ANALYSIS AND RESEARCH:

Dr. Palmer has extensive experience in cause and origin analysis of electrical accidents, electrical equipment failures, electrical fires, structural fires, vehicle fires, and explosions. He also performs product testing and design review. He has consulted on cases involving electric machinery and systems, elevators, consumer electronics control systems, electric shock and electrocution. Dr. Palmer's education and research experience includes a vast array of aspects relating to electrical engineering, electric power and electromechanical systems. An area of particular emphasis throughout his career has been his focus on electric power equipment, including transformers and electric machines and drives. He has conducted fault studies, protective device coordination, and load flow studies. Dr. Palmer's extensive experience includes electro-magnetic fields and high-voltage systems. His responsibilities and research often include working with thermodynamics, fluid dynamics and liquid dielectrics. Career research projects include: analytical and computational assessment of overheating of pipe-type underground cables; experimental, analytical and computational assessment of static electricity problems in large power transformers; modeling of pulsed linear induction motors; distributed generation; and optical and ultrasonic diagnostic and monitoring tools for power equipment. Dr. Palmer's research has led to the development of a controller device for a power transformer cooling system, resulting in a patent. In addition, he has taught principles of electromechanical energy conversion, power systems, power electronics and power quality. He has authored over twenty journal and conference publications.

EXPERT TESTIMONY:

Dr. Palmer has provided expert testimony in various jurisdictions across the country. He has been qualified as an expert witness and has provided litigation support in cases involving personal injury, product defects, intellectual property, and class action lawsuits.

PROFESSIONAL AFFILIATIONS:

Dr. Palmer is a member of the following technical and professional societies:

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| NSPE | - National Society of Professional Engineers | IEEE | - Institute of Electrical and Electronics Engineers |
| NAFI | - National Association of Fire Investigators | | Industrial Application Society |
| NFPA | - National Fire Protection Association | | Power Engineering Society |
| ASME | - American Society of Mechanical Engineers | | Dielectrics and Electrical Insulation Society |

