

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

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SYNOPSIS

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 industrial processes, electric machinery and systems, elevators, consumer electronics, control systems, and electrical safety (including electric shock and electrocution), including the application and analysis of codes—including the National Electrical Code (NEC), National Electrical Safety Code (NESC), and California Public Utilities Commission General Order 95 (G.O. 95). He has also provided litigation support for multiple intellectual property matters. Dr. Palmer's education and research experience includes a vast array of aspects relating to electrical engineering, electric power, control systems, 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 power system fault studies, protective device coordination, and load flow studies. Dr. Palmer's extensive experience includes electromagnetic 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 failure analysis, electromechanical energy conversion, power systems, power system protection, power electronics and power quality as part of the electrical engineering curriculum at several universities. He has authored over twenty journal and conference publications, has given numerous presentations and workshops, is co-author of a handbook for the NESC, and is on NESC subcommittees for updating the NESC.

EDUCATION

Rensselaer Polytechnic Institute

Ph.D. Electric Power Engineering

Thesis: Dynamics of Streaming Electrification in Large Power Transformers

M.Eng. Electric Power Engineering

Thesis: Effect of Harmonics on Current Carrying Capacity of HPFF Cable

Brigham Young University

B.S. Electrical Engineering

Power Emphasis, Math Minor

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REGISTRATION

Registered Professional Engineer in Utah, Colorado, Alabama, Wyoming, Florida, Arizona, Idaho, Michigan, Virginia, California, Arkansas, Texas, Nevada, and Kentucky Certified Fire and Explosion Investigator (NAFI)

EXPERIENCE

| Palmer Engineering and Forensics, LLC, North Salt Lake, Utah President | 2009 – Pres |
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| University of Utah, Salt Lake City, Utah Associate Professor, Lecturer – Electrical Engineering Department Adjunct Associate Professor Electrical Engineering Department Adjunct Instructor – Electrical Engineering Department | 2016-Pres 2014-2016 2011-2014 |
| Knott Laboratory, LLC, Centennial, Colorado Manager, Electrical Engineering and Fire Investigations Senior Engineer | 2005 - 2009 2000- 2005 |
| University of Colorado Denver, Denver, Colorado Adjunct Instructor – Electrical Engineering Department | 2006-2008 |
| Colorado School of Mines, Golden, Colorado Assistant Professor – Division of Engineering/Center for Adv. Ctrl o | f Elec Pow Systems 1996-2000 |
| NEI Electric Power Engineering, Inc., Arvada, Colorado, Consulting Engineer | 1999-2000 |
| Rensselaer Polytechnic Institute, Troy, New York Research Assistant | 1991-1996 |

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, property loss/subrogation, intellectual property, and class action lawsuits. He has testified over 135 times in depositions, hearings and trials.

PROFESSIONAL AFFILIATIONS

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

NSPE - National Soc. of Prof. Engineers
NAFI – Nat. Assocn of Fire Investigators
NFPA – Nat. Fire Protection Association
ASME - American Soc. of Mech. Engineers

IEEE (Sen. Mem.)- Inst. of Elect. and Electronics Engineers
Industrial Application Society
Power and Energy Society
Product Safety Engineering Society