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, 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 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 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, and is co-author of a handbook for the NESC.

EDUCATION

Rensselaer Polytechnic Institute

Ph.D. Electric Power Engineering — 1996
Thesis: Dynamics of Streaming Electrification in Large Power Transformers

M.Eng. Electric Power Engineering — 1992
Thesis: Effect of Harmonics on Current Carrying Capacity of HPFF Cable

Brigham Young University

B.S. Electrical Engineering — 1991
Power Emphasis, Math Minor

REGISTRATION

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

EXPERIENCE

Palmer Engineering and Forensics, LLC, North Salt Lake, Utah
President 2009 – Pres

University of Utah, Salt Lake City, Utah
Associate Professor, Lecturer – Electrical Engineering Department 2016-Pres
Adjunct Associate Professor -- Electrical Engineering Department 2014-2016
Adjunct Instructor – Electrical Engineering Department 2011-2014

Knott Laboratory, LLC, Centennial, Colorado
Manager, Electrical Engineering and Fire Investigations 2005 - 2009
Senior Engineer 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 of 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 110 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