

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. 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 electromechanical energy conversion, power systems, power electronics and power quality. He has authored over twenty journal and conference publications.

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 and Arizona Certified Fire and Explosion Investigator (NAFI)

EXPERIENCE

Palmer Engineering and Forensics, LLC, Kaysville, Utah President	2009 – Pres
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 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, intellectual property, and class action lawsuits.

PROFESSIONAL AFFILIATIONS

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

NSPE - National Society of Professional Engineers
NAFI - National Association of Fire Investigators
NFPA - National Fire Protection Association
ASME - American Society of Mechanical Engineers

IEEE - Institute of Electrical and Electronics Engineers
Industrial Application Society
Power Engineering Society
Dielectrics and Electrical Insulation Society