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RESUME

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Distinguished Research and Development Staff
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WORK EXPERIENCE

October 1997 to October 2014

Distinguished Research and Develop staff working in sensors and controls programs for nuclear, industrial, and commercial power-generation in the Electrical and Electronic Systems Research Division, Oak Ridge National Laboratory, operated by UT-Battelle LLC., Oak Ridge, Tennessee, for the U.S. Department of Energy. Also awarded the title *Distinguished Inventor* by Battelle Memorial Institute. Mr. Kisner is a technical innovator in a broad range of R&D areas related to sensors and measurement systems. His technical capabilities include sensor physics, thermometry, analog and digital electronics, radiation detection, acoustics and ultrasonics, electro-optics, quantum optics, ultra-high magnetic field processing systems, system integration, control systems, signal processing, nuclear detectors, data acquisition, and packaging & thermal management. Current application technologies include new radiation detection methods, infrared detectors, resilient control, micro- & nano-scale electronics, Johnson noise-based measurement systems, high-temperature measurements,, and acoustic detection systems such as laser-based ultrasonic measurement systems for manufacturing applications and ultrasonic torsional probe systems for liquid level measurement. He is a direct technical contributor to numerous projects for the US Nuclear Regulatory Commission (NRC) including design practices for highly integrated control rooms. Mr. Kisner has filed and been a co-inventor on 18 issued patents with as many inventions in progress. Mr. Kisner also has sought after skills in program development and project management. He and his team won an award from DOE for the development of a system to enhance vibrational dispersion of fluids and particulates in sediments. Several of his inventions have been licensed to private corporations. Mr. Kisner has been a member of the technical program committee for the American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Controls, and Human Machine Interface Technology. Mr. Kisner along with his colleagues is the recipient of a 2009 R&D100 award on magnetic processing.

September 1993 to September 1997

Director of the National Program Office, Instrumentation and Controls Division, Oak Ridge National Laboratory, operated for Lockheed Martin Energy Research Corp., Oak Ridge, Tennessee, for the U.S. Department of Energy. Mr. Kisner managed an organization that developed technical programs concentrating on sensors, measurement systems, control systems, electronics, photonics, signal processing, modeling and simulation, and diagnostic systems. He was responsible for capturing multi-million-dollar programs from both government and private corporate sponsors. Mr. Kisner remained technically active while in a management role and filed a patent for a new method of commercial lighting.

July 1992 to June 1993

Vice President of Spectrum Medical Technologies (SMT), a partner of DeBusk Development Corporation, Powell, Tennessee. Mr. Kisner co-founded SMT to develop an infant apnea monitor based on a proprietary spectrum analysis and signal detection technique of his

invention. The technology and patent rights have now been licensed to an affiliate company. Mr. Kisner was directly responsible for technology development and system prototyping. Areas of direct technical capability and design experience include analog and digital electronics, electro-optics (specifically infrared detection, imaging, and optical systems), mechanical and thermal systems, product packaging, control systems, and digital signal processing. Mr. Kisner's versatility allowed him to both perform engineering design and manage the work of others doing the same. Besides technical development, Mr. Kisner had responsibilities in other areas including marketing and manufacturing. Mr. Kisner's experience in this start-up spans both business and technical developments.

January 1986 to March 1997

Vice President of Research and Development, IMPAC Products Corporation (IPC), Asheville, North Carolina. With other partners, Mr. Kisner founded IPC, which develops, manufactures, and markets energy management and security electronics devices and systems. Mr. Kisner's capabilities in infrared measurement, signal processing, electronics, microcomputer system, power supplies, and product packaging were essential to design and manufacturing at IPC. Mr. Kisner developed numerous electronic products that have been successfully marketed by IPC and other companies.

June 1989 to June 1992

Group Leader, Control Engineering Group, Instrumentation and Controls (I&C) Division, Oak Ridge National Laboratory (ORNL), operated by Martin Marietta Energy Systems, Inc., Oak Ridge, Tennessee, for the U.S. Department of Energy (USDOE). Mr. Kisner managed several areas of R&D as well as engineering teams and projects. (1) Design and upgrade of instrumentation for ORNL research reactors; (2) Evaluation of nuclear power plant protection systems for the Nuclear Regulatory Commission (NRC); (3) Development of fault-tolerant control and protection systems for the Electric Power Research Institute (EPRI); (4) Design of advanced control system for the B&W Owners Group; and (5) Development of advanced control strategies for the Advanced Controls Development (ACTO) program. Mr. Kisner won a technical achievement award for his team's development of an advanced control system for B&W nuclear power plants. He was also session chair for several conferences.

June 1978 to May 1989

Development Staff, Instrumentation and Controls (I&C) Division, Oak Ridge National Laboratory (ORNL), operated by Martin Marietta Energy Systems, Inc., Oak Ridge, Tennessee, for the U.S. Department of Energy (USDOE). Work performed includes human factors engineering research for improved operator performance and operability of nuclear power plants. Some of the research that he performed has become part of the FAA-related guidelines for evaluating automation. He also designed and fabricated various control and instrumentation systems including a high-reliability neutron detector current amplifier for the safety channels of a research reactor. He has performed technical design reviews for various organizations.

Mr. Kisner organized numerous technically significant workshops, seminars, and conferences. He participated in the Traveling Lecturer Program for Oak Ridge Associated Universities and was active in Institute of Electrical and Electronics Engineers (IEEE) and American Nuclear Society (ANS) standards committees. He also served as a technical editor for the *Nuclear Safety Journal*.

June 1977 to May 1978

Project Manager, Office of Waste Isolation, Union Carbide Corporation, Nuclear Division, Oak Ridge, Tennessee. Mr. Kisner managed several projects which included estimating spent fuel generation from nuclear power plants and studying the effects of alternate fuel cycles on spent fuel production. He co-managed several projects including a study to determine feasibility of an international spent fuel repository.

December 1976 to May 1977

Development Engineer, Instrumentation and Quality Assurance Development Department, Oak Ridge Gaseous Diffusion Plant, Union Carbide Corporation, Nuclear Division, Oak Ridge, Tennessee. Mr. Kisner was part of a team that designed and tested instrumentation for uranium

enrichment processes. He was responsible for design and testing of mechanical and electronic systems.

January 1975 to March 1976

Graduate Research Assistant, Chemical Engineering Department, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. Mr. Kisner designed, installed, and maintained electronic instrumentation and control systems for a coal desulfurization/liquefaction project at the university. He was also employed by a consumer audio company to evaluate speaker systems and other audio components.

June 1973 to June 1974

Electronics design engineer, Computer Products Division, KDI Electro-Tec Corporation, Blacksburg, Virginia. Mr. Kisner designed digital- and analog-based electronics systems, including paper tape readers, high-speed aerial film digitizer and computer interfaces. He functioned as project engineer, production engineer, and field engineer.

June 1968

Mr. Kisner co-founded K&W Electronics, Inc., an electronics design and consulting firm, Falls Church, Virginia. K&W designed and built audio systems and electronic interfaces.

EDUCATION

1976: M. S. in Nuclear Engineering, Virginia Polytechnic Institute and State University (VPI&SU), Blacksburg, Virginia.

1973: B. S. in Nuclear Science (Physics), VPI&SU.

Continuing Education Topical Areas

Computer and Data Acquisition Languages
Control System Design and Implementation
Digital Signal Processing
Electronics Design
Expert Systems
Failure Detection and Identification
High-Power Lasers
Human-Machine Interface Design
Lightning Protection
Management and Leadership
Problem Analysis and Decision Making
Program Development/Marketing
Project Management
Radiation Spectrum Analysis
Radworker I & II
Reliability Engineering and Fault-Tree Analysis
Strategic Planning
Structured Software Engineering
Certified Electrical Worker
UL Knowledge Solutions Certification

Professional Activity

Registered Electrical Engineer in the State of Tennessee since 1979

Awards

2014 Named Distinguished Inventor by Battelle Memorial Institute
2009 R&D100 award on magnetic processing
Numerous internal organization awards on performance

Clearance Levels

DOE Q clearance currently active

PUBLICATION LIST (not exhaustive)

Patents

8,894,580 November 25, 2014, Reflective echo tomographic imaging using acoustic beams

8,796,634 August 5, 2014, High efficiency proportional neutron detector with solid liner internal structures

8,795,444 August 5, 2014, Method of and apparatus for thermomagnetically processing a workpiece

8,522,562, September 2, 2013, Apparatus and Method for Magnetically Processing a Specimen

8,218,396, July 10, 2012, Torsional ultrasonic wave based level measurement system

7,923,698, April 12, 2011, Neutron Detector

7,745,765, June 29, 2010, Thermal and high magnetic field treatment of materials and associated apparatus

7,608,824, October 27, 2009, Doped carbon nanostructure field emitter arrays for infrared imaging

7,536,240, May 19, 2009, Real power regulation for the utility power grid via responsive loads

7,534,980, May 19, 2009, High magnetic field ohmically decoupled non-contact technology

7,161,124, January 9, 2007, Thermal and high magnetic field treatment of materials and associated apparatus

6,762,844, July 13, 2004, Optical microscope using an interferometric source of two-color, two-beam entangled photons

6,744,518, June 1, 2004, Interferometric source of multi-color, multi-beam entangled photons with mirror and mixer

6,678,054, January 13, 2004, Quantum channel for the transmission of information

6,259,374, July 10, 2001, Passive pavement-mounted acoustic linguistic driver alert system and method

5,969,472, October 19, 1999, Lighting system of encapsulated luminous material.

5,309,921, May 10, 1994, Apparatus and method for respiratory monitoring

5,800,360, September 1, 1998, Apparatus and method for respiratory monitoring.

Published Application, Neutron detector, December 25, 2008

Published Application: “Magnetic Field Processing for Customizing Microstructures and Properties in Materials,” filed October 26, 2004.

Published Application: “Thermal and High Magnetic Field Treatment of Materials and Associated Apparatus,” filed April 19, 2005.

Additional inventions in various stages from disclosure to patent pending.

Conference Publications and Presentations

A. M. Melin, R. A. Kisner. D. L. Fugate, and D. E. Holcomb, “Hydrodynamic Effects On Modeling And Control Of A High Temperature Active Magnetic Bearing Pump With A Canned Rotor,” International Conference on Nuclear Plant Instrumentation, Control, & Human-Machine Interface Technologies, February 23-26, 2015 Charlotte, North Carolina.

M. M. Olama, G. Allgood, T. P. Kuruganti, M. Howlader, R. Kisner, P. Ewing, and T. McIntyre, “Design and Analysis of a Region-Wide Remotely Controllable Electrical Lock-Out System,” 2012 CIGRÉ Canada Conference, Hilton Montréal Bonaventure, Montréal, Québec, September 24-26, 2012.

G. L. Yoder Jr, A. M. Aaron, D. W. Heatherly, D. E. Holcomb, R. A. Kisner, M. McCarthy, F. J. Peretz, J. B. Wilgen, and D. F. Wilson, “An Experiment to Study Pebble Bed Liquid-Fluoride-Salt Heat Transfer,” January 2011, Conference: ICAPP 2011,

Nice, France, 20110502, 20110505, available through http://osti.gov, ID: 1025835.

Rios, O., Kisner, R. A., Wilgen, J. B., Ludtka, G. M., and Ludtka, G. M, “Solidification processing via contactless electromagnetic acoustic transmission (EMAT) driven by high magnetic fields,” TMS Annual Meeting 2011, San Diego, CA, February 27, 2011.

Kisner, R. A, Holcomb, D. E., “Current Status Of Instrumentation For A Fluoride Salt Heat Transport Demonstration Loop,” Seventh American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Control and Human-Machine Interface Technologies, Las Vegas, Nevada, November 07, 2010.

Yoder Jr, G. L , Wilson, D. F. Peretz, F. J. Wilgen, J. B. Romanoski, G. R., Kisner, R. A., Holcomb, D. E. Heatherly, D. W., Aaron, A. M., “Development of a Forced-Convection Liquid-Fluoride-Salt Test Loop, ‘High Temperature Reactors 2010, Prague, Czech Republic, October 18, 2010.

Kisner, R. A., D. E. Holcomb, A. C. Stephan, V. Jardret, C. L. Britton Jr., “Development of a High-Efficiency, Glass Shell-Based, He-3 Filled Neutron Detector,” 2007 IEEE Nuclear Science Symposium, Honolulu, Hawaii, October 31, 2007.

Holcomb, D.E., R. A., Kisner, W. L. Bryan, and J. E. Hardy "Evaluation of the Measurement Technologies Required for the Jupiter Icy Moons Orbiter (JIMO) Reactor," 5th International Topical Meeting on Nuclear Plant Instrumentation Control and Human Machine Interface Technology (NPIC & HMIT 2006), Albuquerque, NM USA, ANS, ANS, , USA, 11/12/2006-11/16/2006.

Holcomb, D.E., R.A. Kisner, and C.L. Britton, Jr., "Fundamental Thermometry for Long-Term and High-Temperature Deployment in Generation IV Reactors," International Symposium on the Future I&C for Nuclear Power Plants 2005 (ISOFIC2005), Tongyeong, Korea, Korean Nuclear Society, Korean Nuclear Society, , USA, 11/01/2005-11/04/2005.

Holcomb, David E., Roger A. Kisner, and Charles L. Britton Jr., “Ab Initio Thermometry For Long-Term Unattended Space Reactor Operation,” Proceedings of the Space Nuclear Conference 2005, San Diego, California, June 5-9, 2005.

Kisner, R. A., “Fiber Optic Acoustic Detector for Condition Monitoring,” presentation at Fairview Advisory Board meeting February 25, 2005.

Holcomb, David E,. Charles L. Britton, Jr., Roger A. Kisner, Michael J. Roberts, and Usha Jagadish, “Continuous Resistance Temperature Detector Calibration Using Johnson Noise Thermometry,” International Atomic Energy Agency Technical Meeting on Increasing Instrument Calibration Interval through On-line Monitoring Technologies, Halden, Norway, (September 27th-29th, 2004).

Kisner, R., C.L. Britton, U. Jagadish, J.B. Wilgen, M. Roberts, T. V. Blalock, D. Holcomb, M. Bobrek, M. N. Ericson, “Johnson Noise Thermometry for Harsh Environments,” Proceedings of the 2004 IEEE Aerospace Conference, March 6-14, 2004, Big Sky, MT.

Kisner, R.A., J. B. Wilgen, P. D. Ewing, K. Korsah, and M. R. Moore, "A Technical Basis For Guidance On Lightning Protection For Nuclear Power Plants," 4th International Topical Meeting on Nuclear Plant Instrumentation, Control and Human Machine Interface Technology, Columbus, OH USA, American Nuclear Society, 09/19/2004-09/22/2004.

Ludtka, G. M., R. A. Jaramillo, R. A. Kisner, D. M. Nicholson, J. B. Wilgen, G. Mackiewicz-Ludtka, and P. N. Kalu, “Exploring Ultrahigh Magnetic Field Processing of Materials for Developing Customized Microstructures and Enhanced Performance”, Proceedings of the “International Workshop on Materials Analysis & Processing in Magnetic Fields,” at the National High Magnetic Field Laboratory, Tallahassee Florida, March 16-19, 2004.

Holcomb, D. E. and R. A. Kisner, "Nuclear Power Plant Implementation of a Johnson Noise Thermometer," Joint U.S. Korean Nuclear Power Sensor Review, Daejong, Korea, Korean Atomic Energy Research Institute, 03/01/2002.

Carnal C. L., Kisner R. A., Hylton, J. O., Snyder, W. B, and Stevens, S., “Speech Annunciation from Highway Surface Grooves,” Proc. IEEE SoutheastCon, Clemson, South Carolina, March 30-April 1, 2001, pp. 239- 245.

Carnal, C.L., Kisner, R. A., Hylton, J. O., Snyder, W. B, and Stevens, S., "Speech Annunciation from Highway Surface Grooves," Proceeding of the IEEE SMC 2000 Conference, Nashville, TN USA, IEEE, IEEE, New York, NY USA, 10/08/2000-10/10/2000.

Battle, R.E., W. L. Bryan, R. A. Kisner, T. L. Wilson, "Reactor Protection System Design Using Application Specific Integrated Circuits," 2nd Annu. ISA/EPRI Joint Controls and Instrumentation Conf., Kansas City, MO, June 1-3,1992.

Kisner, R.A., "A Framework for Selecting Suitable Control Technologies for Nuclear Power Plant Systems," EPRI Symp. on Advanced Digital Computers, Controls, and Automation Technologies for Power Plants, San Diego, Feb.5-7,1992.

Munro, J.K., Jr., R.A. Kisner and S.C. Bhatt, "Verification and Validation of Control System Software," Workshop on Methodologies, Tools, and Standards for Cost-Effective, Reliable Software Verification and Validation, Chicago, Aug.7-9,1991.

Munro, J.K., Jr., R.A. Kisner and S.C. Bhatt, "Verification and Validation of Control System Software," Proc. American Power Conf., Chicago, Apr.29-May 1,1991, CONF-9104106-4, 1991.

Bywater, R.L., B. R. Upadhyaya, R. C. Berkan, and R. A. Kisner, "Command Validation of Secondary EM Pump System in the EBR-II," Trans. Am. Nucl. Soc., vol.62, 1990 pp.412-13.

Kisner, R.A., R.J. Carter and R.W. Lindsay, "Issues of Integrating High-Tech Concepts into Nuclear Power Plant Operation," Annu. Meet. Am. Nucl. Soc. on Advances in Human Factors Research on Man-Computer Interactions: Nuclear and Beyond, Nashville, TN, June 10-14,1990.

Raju, G.V.S., J. Zhou and R.A. Kisner, "Fuzzy Logic Controller to a Steam Generator Feedwater Flow," v. 2, pp. 1491-92, Proc. American Control Conf., San Diego, May 23-25,1990, ACC No. 90CH2896-9, 1990.

Berkan, R.C., B. R. Upadhyaya, R. B. Perez, and R. A. Kisner, "A New Nonlinear "Reconstructive" Control Approach Applied to the Axial Xenon Oscillation Problem in PWRs," v. 2, pp. 77.01-77.18, Proc. 7th Power Plant Dynamics, Control and Testing Symp., Knoxville, TN, May 15-17,1989, Univ. of Tennessee, Knoxville, 1989.

Kisner, R.A., "Automated Start-Up of EBR-II: A Preview," pp. 2-100--2-118, Proc. Specialist's Meet. on Advanced Controls for Fast Reactors, Argonne, IL, June 20-22,1989, IAEA No. IWGFR/71, 1989.

Kisner, R.A., R.C. Berkan and B.R. Upadhyaya, "Performance Characteristics for Advanced Control Systems," pp. 4.01-4.13, Proc. 7th Power Dynamics, Control and Testing Symp., Knoxville, TN, May 15-17,1989, Univ. of Tennessee, Knoxville, 1989.

Robinson, J.T. and R.A. Kisner, "An Intelligent Dynamic Simulation Environment: An Object-Oriented Approach," pp. 687-92, Proc. 3rd IEEE Int. Symp. on Intelligent Control, Arlington, VA, Aug.24-26,1988, IEEE, 1989.

Berkan, R.C., B.R. Upadhyaya and R.A. Kisner, "Control Strategy Developments Applied to the EBR-II Steam Generator System," Trans. Am. Nucl. Soc., vol.56, 1988 pp.381-82.

Berkan, R.C., B.R. Upadhyaya and R.A. Kisner, "Control Strategy Developments Applied to the EBR-II Steam Generator System," Annu. Meet. Am. Nucl. Soc., San Diego, June 12-16,1988.

Journal Publications

G. L. Yoder Jr., A. Aaron, B. Cunningham, D. Fugate, D. Holcomb, R. Kisner, F. Peretz, K. Robb, J. Wilgen, and D. Wilson, “An experimental test facility to support development of the fluoride-salt-cooled high-temperature reactor,” Annals of Nuclear Energy, Volume 64, February 2014, Pages 511–517

.Jaramillo, R. A., S. S. Babu, G. M. Ludtka, R. A. Kisner, J. B. Wilgen, G. Mackiewicz-Ludtka, D. M. Nicholson, S. M. Kelly, M. Murugananth, and H. K. D. H. Bhadeshia, "Effect of 30 Tesla Magnetic Field on Phase Transformations in a Bainitic High-Strength Steel,” Scripta Materialia, (52), 2005, 461-466.

Korsah, K., R. A. Kisner, L. A. Boatner, H. Christen, and D. Paris, "Preliminary Investigation of KTN as a Surface Acoustic Wave Infrared/Thermal Detector," Sensors and Actuators, vol.119, no.2, April 2005 pp.358-364.

Nicholson, D. M., R. A. Kisner, G. M. Ludtka, C. J. Sparks, L. Petit, R. A. Jaramillo, G. Mackiewicz-Ludtka and J. B. Wilgen, "The Effect of High Magnetic Field on Phase Stability in Fe-Ni", Journal of Applied Physics, v95, no. 11, pp 6580-6582 (2004).

Ludtka, G. M., R. A Jaramillo, R. A. Kisner, D. M. Nicholson, J. B. Wilgen, G. Mackiewicz-Ludtka, and P. N. Kalu, "In-Situ Evidence of Enhanced Transformation Kinetics in a Medium Carbon Steel Due to a High Magnetic Field," Scr. Materialia 2004.

Berkan, R.C., B. R. Upadhyaya, L. H. Tsoukalas, R. A. Kisner, and R. L. Bywater, "Advanced Automation Concepts for Large-Scale Systems," IEEE Control Syst. Mag., vol.11, 1991 pp.4-12.

Kisner, R.A. and R.C. Kryter, "A Framework for Selecting Suitable Control Technologies for Nuclear Power Plant Systems," Nucl. Saf., vol.32, 1991 pp.511-20.

Berkan, R.C., B.R. Upadhyaya and R.A. Kisner, "Reconstructive Inverse Dynamics in Feedwater Control," Trans. Am. Nucl. Soc., vol.61, 1990 pp.313-15.

Kisner, R.A., "Framework for Selecting Appropriate Control Technologies for Nuclear Power Plant Systems," Control Theory Adv. Technol - CTAT, vol.8(1), 1992 pp.405-18.

Raju G. V. S., Zhou J., Kisner R. A., "Hierarchical Fuzzy Control," INT J CONTROL 54: (5) 1201-1216 NOV 1991.

Berkan, R.C., B.R. Upadhyaya and R.A. Kisner, "Low-Order Dynamic Modeling of the Experimental Breeder Reactor II," ORNL/TM-11161.

DOE, NRC, ORNL and Other Reports (Public Distribution Only)

S. M. Cetiner, M. D. Muhlheim, G. F. Flanagan, D. L. Fugate, and R. A. Kisner, "Development of an Automated Decision-Making Tool for Supervisory Control System," ORNL/TM-2014/363, September 2014.

R. A. Kisner et al., "Embedded Sensors and Controls to Improve Component Performance and Reliability: Conceptual Design Report," October 2012, available through OSTI at http://osti.gov, ID:1056391, ORNL/TM-2012/433.

J. P. Stovall, D. T. Rizy, R. A. Kisner, and H. E. Deve, "Testing of the 3M Company Composite Conductor," ORNL/TM-2010/218, September 30, 2010.

Ludtka, G. M, Ludtka, G. M., Wilgen, J. B., Kisner, R. A., "Use of High Magnetic Field to Control Microstructural Evolution in Metallic and Magnetic Materials," CRADA Final Report, June 2010.

R. A. Kisner et al., "Cybersecurity through Real-Time Distributed Control Systems," ORNL/TM-2010/30, February 2010, available through OSTI at http://info.ornl.gov/sites/publications/files/Pub23135.pdf.

M. D. Laughter et al., "Recommendations for Development of an Integrated Nuclear Fuel Cycle Nonproliferation Strategy," ORNL/NTPO/LTR-2010-01, March 9, 2010, publication pending.

K. Korsah, D.E. Holcomb, M.D. Muhlheim, J.A. Mullens, A. Loebl, M. Bobrek, M.K. Howlader, S.M. Killough, M.R. Moore, P.D. Ewing, M. Sharpe, A.A. Shourbaji, S.M. Cetiner, T.L. Wilson, Jr., R.A. Kisner, "Instrumentation and Controls in Nuclear Power Plants: An Emerging Technologies Update," NUREG/CR-6992, October 2009.

Kisner, R. A., et al., "Design Practices for Communications and Workstations in Highly Integrated Control Rooms," U. S. Nuclear Regulatory Commission NUREG/CR-6991, ONRL/TM-2007/184, September 2009.

Kaldenbach, B.J., M.R. Moore, P.D. Ewing, W.W. Manges, C.L. Dillard, K. Korsah, R.A. Kisner, Assessment of Wireless Technologies and Their Application at Nuclear Facilities, U. S. Nuclear Regulatory Commission NUREG/CR-6882, ORNL/TM-2004/317, July 2006.

Ewing, P. D., R. A. Kisner, K. Korsah, M. R. Moore, J. B. Wilgen, and R. T. Wood, Technical Basis for Regulatory Guidance on Lightning Protection in Nuclear Power Plants, U. S. Nuclear regulatory Commission NUREG/CR-6866, January 2006.

Shourbaji, A. A., Kisner, R. A., Richards, R. K., Hardy, J. E., "Detecting and Locating

Partial Discharges in Transformers," 2005, Document R05-123845, CRADA final report.

Kisner, R.A., et al., Development of a Johnson Noise Thermometer for Nuclear Power Plant Use, ORNL/TM-2005/71.

Kisner, Roger A., Charles L. Britton Jr., Usha Jagadish, David E. Holcomb, and Miljko Bobrek, Michael J. Roberts, In Koo Hwang, Byung Soo Moon, Don W. Miller, and Joseph W. Talnagi "Development of a Johnson Noise Thermometer for Nuclear Power Use," Final Report ORNL/TM-2005/71, US DOE I-NERI between USA and the Republic of Korea, Project 2002-020-K, March 2005.

Ludtka, G. M., R. Jaramillo, R. A. Kisner, A. M. Ludtka, and J. B. Wilgen, "Exploring Ultrahigh Magnetic Field Processing of Materials for Developing Customized Microstructures and Enhanced Performance," 2005, ORNL/TM-2005/79.

Kisner, R.A., J. B. Wilgen, P. D. Ewing, K. Korsah, and M. R. Moore, "A Technical Basis For Guidance On Lightning Protection For Nuclear Power Plants," Fourth International Topical Meeting on Nuclear Plant Instrumentation, Control and Human Machine Interface Technology, Columbus, OH USA, American Nuclear Society, 09/19/2004-09/22/2004.

Holcomb, D.E., R.A. Kisner and M.J. Roberts, "Johnson Noise Thermometry For Space Reactor Temperature Measurements," Space Technology & Applications International Forum 2004, vol.699, 2004 pp.567-573.

Ludtka, G. M., G. M. Stocks, R. A. Kisner, D. M. Nicholson, G. Mackiewicz-Ludtka, J. B. Wilgen, J. W. Lue, and P. N. Kalu, "Enhanced Performance and Energy Savings through Ultrahigh Magnetic field Processing of Ferromagnetic Materials," Oak Ridge National Laboratory Technical Report ORNL-TM-2003/97, February 2003.

Kisner, R. A., J. B. Wilgen, C. L. Britton, U. Jagadish, and M. J. Roberts," Noise Measurement and Analysis Using an Inductive Pickup," final report on ORNL sponsored research (01-3210-2019), March 2003.

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March-Leuba, J., J. A. Mullens, R. T. Wood, R.A. Kisner, B. R. Upadyahya, J. M. Doster, C. W. Mayo, "NERI Project 99-119: A New Paradigm for Automatic Development of Highly Reliable Control Architectures for Nuclear Power Plants. Phase2 Progress Report," ORNL/TM-2001/187, September 2001.

Kisner, R., W. Dress Jr., R. Richards, "Application of Quantum Nonlocality," final report on ORNL sponsored research (3211-002U), November 2000.

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Functional Issues for Microprocessor-Based Reactor Protection Systems," 20th Water Reactor Safety Information Meeting, Bethesda, MD, Oct.21-23, 1992.

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