2007 ANS/ENS INTERNATIONAL MEETING

November 11–15, 2007 • Washington, D.C. • Omni Shoreham Hotel

"Making the Renaissance Real"

SUMMARY DEADLINE: JUNE 8, 2007

CALL FOR PAPERS

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Track Themes

1. Meeting Theme—Making the Renaissance Real
2. Nuclear Power and New Construction of Nuclear Systems
3. Fuel Cycle, Waste Management, and Decommissioning Technologies
4. Nuclear Facility and Criticality Safety
5. Environmental Science and Technologies
6. Medical and Nonpower Applications of Radiation
7. Nuclear Science and Engineering
8. Advanced Energy Research and Emerging Technologies
9. Education, Training, and Communication with the Public
10. Nuclear Nonproliferation and Security
11. Professional Development

Deadlines: NO EXCEPTIONS

SUBMISSION OF SUMMARIES:	*May 1–June 8, 2007*
AUTHOR NOTIFICATION OF ACCEPTANCE:	*By July 24, 2007*
REVISED SUMMARIES DUE:	*August 8, 2007*

Format

Authors are now REQUIRED to use the ANS Template and "Guidelines for TRANSACTIONS Summary Preparation" provided on the ANS Web site. Summaries must be submitted electronically using Adobe Acrobat (PDF) files and original Microsoft Word documents and the ANS Electronic Submission System. Summaries not based on the ANS Template will be REJECTED.

Guidelines for Summaries

Please submit summaries describing work that is NEW, SIGNIFICANT, and RELEVANT to the nuclear industry. ANS will publish all accepted summaries in the TRANSACTIONS. Papers are presented orally at the meeting, and presenters are expected to register for the meeting. Completed papers may be published elsewhere, but the summaries become the property of ANS. Under no circumstances should a summary or full paper be published in any other publication prior to presentation at the ANS meeting. It is the author's responsibility to protect classified or proprietary information.

Content

1. Introduction: State the purpose of the work.
2. Description of the actual work: Must be NEW and SIGNIFICANT.
3. Results: Discuss their significance.
4. References: If any, must be closely related published works. Minimize the number of references.
5. Do not present a bibliographical listing.

Length

1. Use at least 450 words, excluding tables and figures.
2. Use no more than 900 words, including tables and figures.
3. Count tables and figures as 150 words each. Use no more than three tables or figures.
4. Limit title to ten words; limit listing authors to three or fewer if possible.
5. Exclude references from word count.

Page Charge

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2007 ANS/ENS International Meeting: Session Titles for Contributed and Invited Sessions

(I) = Invited, (C) = Contributed, (I/C) = Invited/Contributed, (P) = Panel Sessions; (S) = Student Only; ( ) = Sponsoring Division, [ ] = Cosponsoring Division

Track 1. Meeting Theme—Making the Renaissance Real

1a. Contributions of Nuclear Science and Technology to Sustainable Development (ESD) [YMG] (C)

1b. International Design Consensus: A Necessary Part of a Global Nuclear Environment (OPD) (P)

1c. Status of Workforce Development in the Renaissance (OPD) [YMG] (P)

1d. Hot Cell Capabilities to Support the Nuclear Renaissance (FCWMD) (P)

1e. Bringing Value to the American Nuclear Society (YMG) (P)

Track 2. Nuclear Power and New Construction of Nuclear Systems

2a. Environmental Aspects of New Site Selection (ESD) (I/C)

2b. Ongoing Plant Upgrades to Improve Human and Plant Reliability (HFD) [OPD] (I/C)

2c. Human Factors Concepts and Considerations in New Plant Designs (part II, continued from ANS 2007 Annual Meeting) (HFD) [OPD] (I/C)

2d. Maintenance Lessons for the New Nuclear Fleet (HFD) [OPD, YMG] (I/C)

2e. Early Site Permit Process: Safety Issue Resolution (NISD) (C)

2f. Control Room Habitability: Technical and Regulatory Lessons Learned (NISD) [OPD] (C)

2g. Update on the Status of Small Power Reactors (OPD) (P)

2h. Introduction to New Plant Licensing Processes (OPD) (P)

2i. Advanced Instrumentation and Control Licensing Status (OPD) (I/C)

2j. Equipment Reliability: A Continuing Force in Nuclear Asset Performance (OPD) (P)

2k. New Construction Quality Assurance and Inspection (OPD) (I/C)

Track 3. Fuel Cycle, Waste Management, and Decommissioning Technologies

3a. Decommissioning, Decontamination, and Reutilization Technology (DDRD) (I/C)

3b. Decommissioning, Decontamination, and Reutilization Hot Topics and Emerging Issues (DDRD) [YMG] (I/C)

3c. Current Issues in Environmental Restoration and Decommissioning (ESD) [DDR] (C)

3d. Glenn T. Seaborg Science and Engineering Congressional Fellowship Program (FCWMD) [YMG] (P)

3e. The Fuel Cycle: What About the Front End? (FCWMD) [MSTD] (I/C)

3f. Recent Developments in Fuel Cycle Modeling and Systems Analysis (FCWMD) [RPD] (I/C)

3g. Safety in Waste Burning and Fast Reactors (NISD) (C)

3h. Modeling Safety Issues of Fuel Reprocessing (NISD) (C)

Track 4. Nuclear Facility and Criticality Safety

4a. American National Standards Institute/American Nuclear Society Standard for Criticality Safety Engineer Training and Qualification (NCSD) [YMG] (C)

4b. Nuclear Criticality Safety Program Improvements and Associated Metrics (NCSD) (C)

4c. Historical Critical Experiments Significant to Nuclear Criticality Safety (NCSD) (C)

4d. Nuclear Criticality Safety Standards Forum (NCSD) (P)

4e. Data, Analysis, and Operations for Nuclear Criticality Safety (NCSD) (C)

4f. Innovations in Probabilistic Risk Assessment (NISD) [OPD] (C)

4g. Modern Analyses and Experiments in Nuclear Facility Safety (NISD) [OPD] (C)

4h. Current Issues in Reactor Safety (NISD) [OPD] (C)

4i. Emerging Issues in Nuclear Facility Safety (NISD) [OPD] (C)

4j. 10 CFR Part 53 Technology-Neutral Regulatory Framework (NISD) (C)

4k. Achieving a Nuclear Safety Culture: Lessons Applied from Davis Besse (NISD) [OPD, YMG] (C)

4l. Consideration and Integration of the Six American Society of Mechanical Engineers and American Nuclear Society Probabilistic Risk Assessment Methodology Standards (NISD) [OPD] (P)

Track 5. Environmental Science and Technologies

5a. Environmental Impacts Associated with the Global Nuclear Energy Partnership Fuel Cycle (ESD) (I/C)

5b. Environmental Aspects of the Next-Generation Nuclear Plant (ESD) [OPD] (I/C)

5c. Environmental Benefits of Sustainable Nuclear Energy (ESD) (C)

5d. Environmental Aspects of Transportation of Radioactive Materials (ESD) (C)

5e. Life-Cycle Energy Balances of Various Energy Technologies (ESD) (I/C)

5f. Modeling the Transport of Tritium in the Environment (ESD) [OPD] (P)

5g. Applications of Geographic Information Systems to Enhance Environmental Evaluations (ESD) (C)

5h. Environmental Sciences: General (ESD) (C)

5i. Environmental Monitoring at Nuclear Facilities: Monitoring Results and Advances in Techniques (ESD) (C)

Track 6. Medical and Nonpower Applications of Radiation

6a. Nonelectrical Applications of Nuclear Energy (ESD) [YMG, OPD] (I/C)

6b. Isotopes and Radiation: General (IRD) (C)

6c. Neutron Beam Applications: a Session in Honor of Dr. Richard M. Lindstrom (IRD) [BMD, MSTD] (I/C)

6d. Metrology and Quality Assurance: a Session in Honor of Dr. Robert R. Greenberg (BMD) [IRD] (I/C)

6e. Development of Radiological Standards (IRD) (I/C)

Track 6. Medical and Nonpower Applications of Radiation (continued)

6f. Research Reactors: General (OPD) (C)

6g. Determination of Charged Particle Emitters in the Human Body (BMD) (I/C)

6h. Biology and Medicine: General (BMD) (C)

6i. Nuclear-Based Imaging Techniques in Biology and Medicine (BMD) [YMG] (I/C)

6j. Advances in Boron Neutron Capture Therapy (BMD) (I/C)

6k. Nuclear Methods in Support of Nano-Domain to Micro-Domain Sciences—I: Medical (BMD) (I/C)

6l. Nuclear Methods in Support of Nano-Domain to Micro-Domain Sciences—II: Industrial (IRD) [MSTD] (I/C)

6m. Impact of Nuclear Technology on the Provision, Security, and Safety of Food Supplies (BMD) (I/C)

Track 7. Nuclear Science and Engineering

7a. Fuel Performance Modeling (MSTD) [OPD] (C)

7b. Gas-Cooled Reactors Fuels and Materials Research and Modeling (MSTD)[RPD, OPD] (C)

7c. Latest Lattice Physics/Core Simulation Methods for Reactor Analysis (RPD) [MCD] (I/C)

7d. Advanced Methods, Codes, and Benchmarking of the NURESIM Core Physics European Simulation Platform (RPD) [MCD] (I/C)

7e. Light Water Reactor Automatic Core Design Optimization (RPD) [OPD, MCD] (I/C)

7f. Current Topics for Reactor Engineers (RPD) [OPD, YMG] (P)

7g. Reactor Analysis Methods (RPD) [MCD] (C)

7h. Reactor Physics Design, Validation, and Operating Experience (RPD) (C)

7i. Reactor Physics: General (RPD) (C)

7j. Computational Resources for Radiation Protection and Shielding (RPSD) (C)

7k. General Two-Phase Flow (THD) (C)

7l. General Thermal Hydraulics (THD) (C)

7m. Young Professional Thermal-Hydraulics Research Competition (THD) (C)

7n. The SCALE Code System (RPSD) [ETD, NCSD] (I)

7o. Radiation Protection and Shielding: General (RPSD) (C)

7p. Transport Methods: General (MCD) (C)

7q. Computational Methods: General (MCD) (C)

7r. Mathematical Modeling: General (MCD) (C)

7s. Current Issues in Computational Methods: Round Table (MCD) (P)

7t. Computational Methods for Time-Dependent Transport (MCD) (I)

Track 8. Advanced Energy Research and Emerging Technologies

8a. Accelerator Sources for Active Interrogation (AAD) (I/C)

8b. Medical Applications of Accelerators (AAD) [BMD] (I/C)

8c. Experiments in Accelerator Applications (AAD) (I/C)

8d. Highlights of AccApp07 (AAD) (I/C)

8e. Radioisotope Power in Space Systems (ANST) [YMG] (I/C)

8f. Critical Technologies for Space Reactor Development (ANST) [MSTD] (I/C)

8g. Novel Fuel Concepts for Advanced Reactor Systems (ANST) (I/C)

8h. Application of Nuclear Power in Space Environments (ANST) (I/C)

Track 8. Advanced Energy Research and Emerging Technologies (continued)

8i. Environmental Impacts and External Costs of Energy Technologies (ESD) (C)

8j. Research Needs and Current Developments in Best Estimate Computational Thermal-Hydraulic Codes (THD) (C)

8k. Research Needs and Current Developments in Best Estimate Computational Thermal-Hydraulic Codes (THD) (P)

8l. Thermal-Hydraulic Research Needs for Global Nuclear Energy Partnership (THD) (C)

8m. Design and Evaluation of Advanced Burner Reactors (RPD) (I/C)

8n. Advanced/Gen-IV Reactors (OPD) (C)

Track 9. Education, Training, and Communication with the Public

9a. Generational Issues in the Nuclear Workforce (ETD) [YMG, OPD] (I/C)

9b. Student Internships the Right Way (ETD) [OPD] (I/C)

9c. Focus on Communications: Speaking with the Media (ETD) [YMG] (P)

9d. Focus on Communications: Communicating with the Policy Makers (ETD) [YMG] (P)

9e. Focus on Communications: Pronuclear Activism (ETD) [YMG] (P)

9f. Focus on Communications: Meet the Media (ETD) [YMG] (P)

9g. Innovations in Nuclear Engineering Education, Training, and Distance Learning (ETD) [OPD] (C)

9h. Training Excellence Awards (ETD) (I)

9i. Student Design Competition (ETD) (I)

9j. Training, Human Performance, and Workforce Development (ETD) [OPD] (I/C)

9k. Education and Training: General (ETD) (I/C)

9l. Innovations in Nuclear Infrastructure and Education Review (OPD) [ETD] (P)

Track 10. Nuclear Nonproliferation and Security

10a. Environmental Aspects of Homeland Security (ESD) (C)

10b. Environmental Aspects of Accidental Release and Malevolent Act Dispersion of Radioactive Materials (ESD) (C)

10c. Emergency Preparedness and Response (ESD) [OPD] (C)

10d. Safeguards and Security Imperatives for Interim Dry Fuel Storage (FCWMD) [YMG,OPD] (I/C)

10e. Nuclear Safeguards Implications of New Fuel Cycle Activities (FCWMD) (I/C)

10f. Radiation Shielding in Homeland Security Applications (RPSD) (C)

10g. Detection Technologies for Homeland Security Applications (RPSD) (I/C)

Track 11. Professional Development

11a. Monte Carlo Tutorial: TRIPOLI (RPSD) [YMG] (P)

11b. Monte Carlo Variance Reduction Tutorial (RPSD) [YMG] (P)

11c. SCALE Code System Tutorial (RPSD) [YMG, NCSD] (P)

11d. Monte Carlo MCNPX Tutorial (RPSD) [YMG] (P)

2007 ANS/ENS International Meeting: Technical Divisions

Accelerator Applications (AAD)
Sessions 8a, 8b, 8c, 8d
Itacil Gomes, icgomes@att.net

Biology and Medicine (BMD)
Sessions 6g, 6h, 6i, 6j, 6k, 6m
William D. James, wd-james@tamu.edu

Decommissioning, Decontamination, and Reutilization (DDRD)
Sessions 3a, 3b
John W. Bowen, johnwbowen@comcast.net

Education and Training (ETD)
Sessions 9a, 9b, 9c, 9d, 9e, 9f, 9g, 9h, 9i, 9j, 9k
Mike Robinson, robinsma2109@msn.com

Environmental Sciences (ESD)
Sessions 1a, 2a, 3c, 5a, 5b, 5c, 5d, 5e, 5f, 5g, 5h, 5i, 6a, 8i, 10a, 10b, 10c
Rebecca L. Steinman, rls@adventengineering.com

Fuel Cycle and Waste Management (FCWMD)
Sessions 1d, 3d, 3e, 3f, 10d, 10e
Terry Todd, terry.todd@inl.gov

Fusion Energy (FED)
James P. Blanchard, blanchard@engr.wisc.edu

Human Factors (HFD)
Sessions 2b, 2c, 2d
Mark G. Friedmann, mark.friedmann@dayzim.com

Isotopes and Radiation (IRD)
Sessions 6b, 6c, 6d, 6e, 6l
Stephen LaMont, lamont@lanl.gov

Materials Science and Technology (MSTD)
Sessions 7a, 7b
Kenneth J. Geelhood, kenneth.geelhood@pnl.gov

Mathematics and Computation (MCD)
Dmitriy Anistratov, anistratov@ncsu.edu

Nuclear Criticality Safety (NCSD)
Sessions 4a, 4b, 4c, 4d, 4e
Lane S. Paschal, lpaschal@comcast.net

Nuclear Installations Safety (NISD)
Sessions 2e, 2f, 3g, 3h, 4f, 4g, 4h, 4i, 4j, 4k, 4l
Raymond H. Gallucci, rhg@nrc.gov

Operations and Power (OPD)
Sessions 1b, 1c, 2g, 2h, 2i, 2j, 2k, 6f, 9l
Thomas A. Remick, remickta@songs.sce.com

Radiation Protection and Shielding (RPSD)
Sessions 7j, 7n, 7o, 10f, 10g, 11a, 11b, 11c, 11d
John Hendricks, jxh@lanl.gov

Reactor Physics (RPD)
Sessions 7c, 7d, 7e, 7f, 7g, 7h, 7i, 8m
Bojan Petrovic, petrovb@westinghouse.com

Robotics and Remote Systems (RRSD)
Carl D. Crane, ccrane@ufl.edu

Thermal Hydraulics (THD)
Sessions 7k, 7l, 7m, 8j, 8k, 8l
A. Kurshad Muftuoglu, muftuoak@westinghouse.com

Aerospace Nuclear Science and Technology Technical Working Group (ANST)
Sessions 8e, 8f, 8g, 8h
Melissa Van Dyke, melissa.vandyke@nasa.gov

Young Members Group (YMG)
Session 1e
A. Nichole Ellis, ellisan@westinghouse.com