American Nuclear Society: 2011 Annual Meeting

June 26–30, 2011 • Hollywood, Florida • The Westin Diplomat

"Seizing the Opportunity: Nuclear's Bright Future"

SUMMARY DEADLINE: JANUARY 14, 2011 Call for Papers

CONFERENCE CHAIR

General Chair Jim Ferland, Westinghouse Electric Company **Technical Program Chair** Charlotta E. Sanders, Westinghouse Electric Company

DEADLINES: NO EXCEPTIONS

SUBMISSION OF SUMMARIES: November 1, 2010–January 14, 2011 AUTHOR NOTIFICATION OF ACCEPTANCE: By February 28, 2011 **REVISED SUMMARIES DUE:** March 15, 2011

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 Paper Submission and Review 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.

CONTENT (CONTINUED)

- 4. Appendixes: If any, must be called out in the text. Equations, figures, and tables are listed with letters corresponding to each respective appendix.
- 5. References: If any, must be closely related published works. Minimize the number of references.
- 6. 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

ANS charges \$100 per final printed page (prorated) in the TRANSACTIONS. Authors should be prepared to provide their purchase order numbers when submitting their summaries electronically.

REQUIRED TEMPLATE AND "GUIDELINES FOR TRANSACTIONS www.ans.org/pubs/transactions

| SUMMART PREPARATION : | www.alis.org/pubs/trailsactions | |
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| SUBMIT A SUMMARY: | www.ans.org/meetings | |
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ANS 2011 Annual Meeting: Session Titles by Division

(P) = Panel Session

- Accelerator Applications (AAD) 1.
- Nuclear Applications of Particle Accelerators: General 1a.

2. **Biology and Medicine (BMD)**

- 2a. Proton and Ion Treatment of Cancer
- 2b. Biology and Medicine: General
- 3. Decommissioning, Decontamination, and Reutilization (DDRD)
- Decommissioning, Decontamination, and Reutilization: General 3a.

Education, Training, and Workforce Development (ETWDD) 4.

- Unique Training Needs for Small and Medium Size Reactors 4a.
- 4b. Research by U.S. Department of Energy NEUP-Sponsored Students
- Education & Training: General 4c.

- 4d. Training, Human Performance, and Work Force Development
- Communicating in a Changing World (P) 4e
- 4f. Nuclear Communication: Getting It Right (P)

5. **Environmental Sciences (ESD)**

- 5a. Hydrogen Production, Interface of Nuclear and Chemical Plants, Safety, Materials, and Storage
- 5b. Environmental Sciences: General
- Environmental Applications of Geographical Information Systems (GIS) 5c.
- Climate Change: Nuclear Power's Potential to Influence Climate Change 5d.
- Environmental Monitoring at Nuclear Facilities: Monitoring Results 5e. and Advances in Techniques
- 5f. Contributions of Nuclear Science and Technology to Sustainable Development
- 5g. Cooling Water Availability





ANS 2011 Annual Meeting: Session Titles by Division

6. Fuel Cycle and Waste Management (FCWMD)

- 6a. Very Long-Term Dry Storage of Spent Nuclear Fuel
- 6b. SRS Plutonium Disposition Projects Update
- 6c. Best Practices in Interdisciplinary Safeguards and Nonproliferation Education
- 6d. Establishing Nuclear Energy and Nonproliferation Programs in the Middle East

7. Isotopes and Radiation (IRD)

- 7a. Isotope and Radiation: General
- 7b. Innovations in Radiation Detectors: New Designs, Improvements, and Applications
- 7c. Impact of DOE-NEUP to Research Reactors and Nuclear Science Programs

8. Materials Science and Technology (MSTD)

- 8a. Materials Science: General
- 8b. Nuclear Fuels and Materials
- 8c. Novel Instrumentation and Measurement Techniques
- 8d. Thermal Physical Properties and Measurement Techniques for Nuclear Materials

9. Mathematics and Computation (MCD)

- 9a. Sensitivity, Uncertainty, and Data Assimilation Methodologies in Nuclear Systems Analysis
- 9b. Current Issues in Computational Methods-Roundtable
- 9c. Mathematical Modeling: General
- 9d. Computational Methods: General
- 9e. Transport Methods: General

10. Nuclear Criticality Safety (NCSD)

- 10a. Data, Analysis, and Operations for Nuclear Criticality Safety
- 10b. Nuclear Criticality Safety Issues Related to Conduct of Operations
- 10c. Proper Applications of Benchmarking in Criticality Safety
- 10d. Improvements in NCS Controls
- 10e. Nuclear Criticality Safety Standards Forum

11. Nuclear Installation Safety (NISD)

- 11a. Nuclear Installations Safety: General
- 11b. Emerging Issues in Nuclear Facility Safety
- 11c. Current Issues in Reactor Safety
- 11d. Generic Aging Lessons Learned in NPP License Renewal
- 11e. Technical Issues and Insights on Probabilistic Safety Assessment and
- Analysis
- 11f. Highlights from PSA 2011
- 11g. Lessons Learned: The Combined ASME/ANS PRA Methodology Standards
- 11h. Fire Protection Tutorial

- 11i. Severe Reactor Accident Analysis
- 11j. Safety Attributes of DOE's Advanced Reactor Program

12. Operations and Power (OPD)

- 12a. Lessons Learned in the 10 CFR 52 New Plant Licensing Process: A Status Report
- 12b. Operations and Power: General
- 12c. Economics and Financing for New Nuclear Power Plants
- 12d. Non-U.S.-Based Nuclear Plant Design Development
- 12e. Small Modular Reactors: General
- 12f. Advanced /Gen-IV Reactors
- 12g. The Global Nuclear Energy Partnership—Advances and Innovations
- 12h. Next Generation Nuclear Plant-Advances and Innovations

13. Radiation Protection and Shielding (RPSD)

- 13a. Radiation Protection and Shielding: General
- 13b. Computational Resources for Radiation Modeling
- 13c. Current Topics in Radiation Protection and Shielding-Roundtable (P)
- 13d. Radiation Protection and Shielding Standards Forum
- 13e. Advancements in High Precision Radiation Measurements Detection Technology
- 13f. Advancements in High Precision Radiation Measurements

14. Reactor Physics (RPD)

- 14a. Reactor Physics: General
- 14b. Reactor Analysis Methods
- 14c. Reactor Physics Design, Validation, and Operating Experience
- 14d. Nuclear Data Covariance: Evaluation, Processing and Application
- 14e. Advances in Small and Medium Sized Reactor Designs
- 14f. Advances in Nuclear Reactor Kinetics
- 14g. Design and Analysis for Plutonium and Minor Actinides Transmutation
- 14h. Current Issues in LWR Core Design and Reactor Engineering Support

15. Thermal Hydraulics (THD)

- 15a. Next Generation Safety Analysis Code
- 15b. Thermal Hydraulics of Small Modular Reactors
- 15c. Experimental and Computational Two-Phase Flow
- 15d. Computational Thermal Hydraulics
- 15e. General Thermal Hydraulics
- 15f. Licensing Applications of Best Estimate Codes

16. Young Members Group (YMG)

- 16a. Hot Topics in Professional Development Roundtable
- 16b. Mind the Gap: Mentoring Successes and Challenges
- 16c. Movin' on Up: Promoting Your Best Corporate Persona

ANS 2011 Annual Meeting: Technical Divisions

| Accelerator Applications (AAD) | Denis Beller, bellerd@unlv.nevada.edu | Isotopes and Radiation (IRD) | Kenan Ünlü, kxu2@psu.edu |
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| Biology and Medicine (BMD) | Rolf Zeisler, rolf.zeisler@nist.gov | Nuclear Criticality Safety (NCSD) | Larry Wetzel, llwetzel@babcock.com |
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| Human Factors, Instrumentation, and Controls (HFICD) Tyrone S. Tonkinson, ttonkin@entergy.com | | | |