American Nuclear Society 2003 Annual Meeting

"The Nuclear Technology Expansion: Unlimited Opportunities"

Embedded Topical Meetings:
Accelerator Applications in a Nuclear Renaissance (AccApp'03)
Decommissioning and Spent-Fuel Management
Risk Management—Now More Than Ever
See Page 4 for details of the embedded topical meetings.

June 1-5, 2003 • San Diego, California • Town and Country Convention Center

CALL FOR PAPERS

Summary Deadline: January 17, 2003

Conference Chairs

Honorary Chair
Admiral Dennis Wilkinson

General Chair
Edward L. Quinn, *Consultant*

Technical Program Chair
Per Peterson, *Univ of California, Berkeley*

Track Themes

1. *Meeting Theme:* "The Nuclear Technology Expansion: Unlimited Opportunities"
2. Nuclear Plant Systems, Operations, and New Construction
3. Environment, Safety, and Health
4. Nuclear Engineering Science
5. Nonproliferation and Homeland Security
6. Fuel Cycles and Materials
7. Reactor Physics and Shielding
8. Nonpower Radiation Applications
9. Emerging Nuclear Technologies

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 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. Authors are responsible 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

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.

Deadlines – NO EXCEPTIONS

Submission of Summaries: *(Nov. 1, 2002–Jan. 17, 2003)*
Author Notification of Acceptance: by *Feb. 18, 2003*
Revised Summaries Due: no later than *Mar. 18, 2003*

REQUIRED Template and "Guidelines for TRANSACTIONS Summary Preparation":
www.ans.org/pubs/transactions

Submit a Summary:

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Transactions Coordinator:
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ANS 2003 Annual Meeting - Session Titles for Contributed and Invited Sessions

(I) = Invited, (C) = contributed, (I/C) = Invited / Contributed Sessions; [/] = Sponsoring / Cosponsoring Technical Divisions

Track 1: Meeting Theme: "The Nuclear Technology Expansion: Unlimited Opportunities"

Track Leader: Per Peterson, peterson@nuc.berkeley.edu

1a Meeting Theme Plenary (I)
1b Cosponsored Plenary (I)
1c President's Special Session (I)
1d TPC's Special Session (I)

Track 2: Nuclear Plant Systems, Operations, and New Construction

Track Leader: Mark Reinhart, parsec@mm2k.net

2a Early Site Permits–Panel [OPD] (C)
2b Current Trends in Quality Assurance in Commercial Nuclear Power [OPD] (I/C)
2c Significance Determination Processes–Panel [OPD] (C)
2d U.S. Nuclear Power Plant Control Room Habitability: Implementation of Industry and Regulatory Guidance [OPD, NISD] (C)
2e Plant Upgrades [OPD] (I/C)
2f Financing the Next Generation of Nuclear Power Plants [OPD] (I/C)
2g Plant Aging, Life Extension, and Degradation [OPD] (I/C)
2h Goal and Direction of Risk Management–Panel [OPD] (C)
2i Nuclear Asset Management–Panel [OPD] (C)
2j Cross-Cutting Issues with Human Factors and Human Performance Management in Nuclear Utilities [HFD] (I/C)
2k Emerging Issues with Human Factors Engineering in New Plant Design Concepts [HFD] (I/C)
2l Evaluation of Human Factors with the Development and Continued Use of Yucca Mountain for Nuclear Waste Storage [HFD] (I/C)
2m Public Perception of Risk in the Nuclear Environment (As Seen Through the Eyes of the Media)–Panel [HFD] (I/C)

Track 3: Environment, Safety, and Health

Track Leader: Charles Martin, charlesm@dnfsb.gov

3a Environmental Sciences: General [ESD] (C)
3b Advances in Environmental Monitoring Techniques [ESD] (I/C)
3c Environmental Monitoring at Nuclear Facilities [ESD] (I/C)
3d Environmental and Safety Aspects of Transportation of Radioactive Materials [ESD] (I/C)
3e Environmental and Safety Aspects of Spent-Fuel Storage [ESD] (I/C)
3f Life Cycle Studies and Energy Payback Times of Energy Technologies [ESD] (I/C)
3g Environmental Impacts and External Costs of Various Energy Technologies [ESD] (I/C)
3h Environmental Aspects of the Production and Use of Nuclear-Derived Hydrogen [ESD] (I/C)
3i Data, Analysis, and Operations for Nuclear Criticality Safety [NCSD] (C)
3j Nuclear Criticality Safety Standards Forum–Panel [NCSD]
3k Emerging Issues in Nuclear Installations Safety [NISD] (I/C)
3l Determination of Overall Likelihood for Nuclear Criticality Safety Accident Scenarios Under 10 CFR 70–Panel [NCSD]
3m Nuclear Criticality Safety Issues for First Responders [NCSD] (C)
3n Criticality Safety Issues in Transportation Packaging [NCSD] (C)
3o Safety Program to Achieve Beneficial Uses of ^{233}U in Medical Applications [NISD] (I/C)
3p U.S. Department of Energy Downselecting Progress for Advanced Reactors: Safety Technology Results [NISD] (I/C)
3q Site Licensing Progress: Safety Impacts in the Early Site Licensing Process [NISD] (I/C)
3r Safety Aspects of Reactor Utilization of MOX for Disposition of Weapons Material [NISD] (I/C)
3s Safety Improvements in Designs of Advanced Reactors [NISD] (I/C)
3t Alternative Source Term Applications to Improve Power Reactor Safety Analysis [NISD, OPD] (I/C)
3u Risk-Informed and Performance-Based Regulation of Advanced Reactors [OPD] (I/C)
3v Modeling the Transport of Material in the Environment [ESD] (I/C)

Track 4: Nuclear Engineering Science

Track Leader: Martin Bertodano, bertodan@purdue.edu

4a Education and Training: General [ETD] (C)
4b Training, Human Performance, and Workforce Development [ETD] (C)
4c Mathematical Modeling: General [MCD] (C)
4d Computational Methods: General [MCD] (C)
4e Transport Methods: General [MCD] (C)
4f Current Issues in Computational Methods–Roundtable [MCD] (I)
4g Research by U.S. Department of Energy Sponsored Students [ETD] (C)
4h Computational Fluid Dynamics and Heat Transfer [THD] (I/C)
4i General Two-Phase Flow [THD] (I/C)
4j Thermal Hydraulics of Next-Generation Nuclear Reactors [THD] (I/C)
4k Thermal-Hydraulics Code Development/Applications [THD] (I/C)
4l Particle Transport Methods in Medical Applications [MCD] (I/C)

Track 5: Nonproliferation and Homeland Security

Track Leader: William Sutcliffe, sutcliffe1@llnl.gov

5a Emergency Preparedness and Response [ESD] (I/C)
5b Nuclear Physical Protection in a Post 9/11 Environment–Panel [FCWMD]
5c U.S./Russian Nonproliferation Cooperation [FCWMD] (I/C)
5d Technologies Applied to Homeland Security [IRD] (I/C)
5e Nuclear Facility Security [OPD] (I/C)

Track 6: Fuel Cycles and Materials

Track Leader: Jeffery Brault, jeffery.brault@srs.gov

6a Disposition of U.S Department of Energy Spent Fuel: Where Are We Now? [FCWMD] (C)
6b Advances in Nuclear Fuels [MSTD] (C)
6c Advances in Nuclear Materials [MSTD] (C)
6d Materials Compatibility in Liquid-Metal Coolants [MSTD] (C)
6e Gas Reactor Fuel Performance Modeling and Analysis [MSTD] (C)
6f Gas Reactor Fuel Fabrication and Testing [MSTD] (C)
6g Scientific and Technical Developments in High-Level Radioactive Waste Disposal [FCWMD] (I/C)
6h Low-Level Waste Disposal: The Challenges [FCWMD] (I/C)
6i Separations Processes and Fuels Development for Partitioning/Transmutation of Actinides and Long-Lived Fission Products [FCWMD] (C)

ANS 2003 Annual Meeting - Session Titles for Contributed and Invited Sessions

6j Developments in the Nuclear Materials Disposition Program [FCWMD] (I/C)
6k Transuranic Waste Disposition: Progress at the Waste Isolation Pilot Plant [FCWMD] (C)
6l Fuel Cycle and Waste Management: General [FCWMD] (C)

Track 7: Reactor Physics and Shielding

Track Leader: Jess Gehin, gehinjc@ornl.gov
7a Radiation-Based Nondestructive Testing Techniques and Applications [RPSD, FCWMD] (I/C)
7b Pressure Vessel Embrittlement [RPSD] (I/C)
7c ANS Joint Benchmark Committee Benchmarks and Related Efforts [RPD, MCD, RPSD] (I/C)
7d Nuclear Data, Noise Analysis, System Control: Rafael Perez Legacy [RPD] (I)
7e Current Issues for Reactor Engineers–Panel [RPD]
7f Reactor Physics: General [RPD] (C)
7g Reactor Physics Design, Validation, and Operating Experience [RPD] (C)
7h Reactor Analysis Methods [RPD] (C)
7i Changes in Isotopic Compositions with Depletion [RPD, NCSD] (I/C)
7j Radiation Protection and Shielding: General [RPSD] (I/C)
7k Radiation Protection and Methodology for Research Reactors in Mexico [RPSD] (I)

Track 8: Nonpower Radiation Applications

Track Leader: Stephen LaMont, stephen.lamont@srs.gov
8a Innovations in Nuclear Infrastructure and Education [OPD, ETD]
8b Industrial Applications of Prompt-Gamma Neutron Activation Analysis [IRD] (I/C)
8c Low-Energy Nuclear Reactions [IRD] (I/C)

Track 9: Emerging Nuclear Technologies

Track Leader: Tom Larson, tkl@inel.gov
9a U.S. Department of Energy Generation IV Advanced Nuclear Energy Systems Research and Development Program–Panel [OPD, FCWMD] (I/C)
9b U.S. Department of Energy Nuclear Energy Research Initiative [OPD, FCWMD, ETD] (I/C)
9c Robotics and Remote Systems: General [RRSD] (C)
9d Fuels and Materials for Space Power and Propulsion [ANST, RPD] (C)
9e Current Proposed Program in Space Applications [ANST] (I/C)
9f Thermal-Fluid Physics of Space Nuclear Power Systems [ANST] (I/C)
9g General Space Technology Interests [ANST] (I/C)

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Embedded Topical Meeting: Accelerator Applications in a Nuclear Renaissance (AccApp'03)

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Cosponsors
ANS (AAD)

Paper Deadlines
Submission of Summaries: *January 2003*
Author Notification of Acceptance: *March 2003*
Full Papers Due: *April 2003*
Final Papers Due: *June 2003*

About the Meeting
As nuclear energy re-emerges as the environmentally friendly energy source and as nuclear applications expand in medicine, industry, and science, emerging accelerator technologies are increasingly gaining support and acceptance. Both sterilization of mail and recent activities related to the disposal of high-level nuclear waste have added to this acceptance. This will be the Sixth Conference on Nuclear Applications of Accelerator Technology. The official call for papers will be issued in September 2002. We will solicit papers for both oral and poster presentations. All papers (up to 8 pages in length) received and reviewed before or at the meeting will appear in the Proceedings, which will be published in both CD and hard copy.

Online Submission of Summaries
Please refer to <www.ans.org/meetings> for updates and more information.

Embedded Topical Meeting: Decommissioning and Spent-Fuel Management

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Summary Deadline
Submission of Summaries: *November 1, 2002–January 17, 2003*
Author Notification of Acceptance: *February 18, 2003*

About the Meeting
The 2003 conference program will include commercial and government project updates and technology developments.

Topical Areas
Track 1: Decommissioning—Progress, Lessons Learned, and Industry Initiatives
- Commercial Decommissioning Historical Review: Current Status and Future Plan
- Technology and Project Successes in Decommissioning Activities
- Licensing and Regulatory Initiatives in Decommissioning Activities
- DOE Decommissioning Historical Review, Current Status Report, and Future Plans
- Decommissioning Cost Management and Performance

Track 2: Spent Fuel and Waste Disposal Forum
- Nuclear Industry Update in Dry Cask Storage Implementation
- Regulatory Advancements in Dry Fuel Storage
- Advancements in Dry Cask Storage Technologies
- Perspective on Radiological Low-Level Waste Disposal and Treatment and State Activities

Online Submission of Summaries
Please refer to <www.ans.org/meetings> for information

Embedded Topical Meeting: Risk Management—Now More Than Ever

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Electronic Submission Deadlines
Submission of Summaries: *January 17, 2003*
Full Papers Due: *June 1, 2003*

About the Meeting
This conference is a follow-on planned to the very successful embedded topical meeting "Risk Management—Expanding Horizons." The "Expanding Horizons" went beyond both insurance and conduct of quantitative or probabilistic risk assessment—areas to which the term *risk management* is frequently applied. It addresses the broadest possible perspective on (a) the wide range of risks that face the nuclear industry, other high-hazard industries in the nation and world as a whole as we now understand in the aftermath of events of 9/11/2001, and (b) the innovative risk management approaches now used to balance asset protection, safety, and cost. Full papers will be published in book form.

Information
Please refer to <www.ans.org/meetings>.