

## Call for Papers – Summary Deadline: June 5, 2003



A topical meeting embedded within the ANS/ENS International Winter Meeting

### Conference Scope

The GLOBAL series of international conferences has been about future nuclear energy systems with emphasis on their associated advanced fuel cycles. Carrying on in that tradition, the 2003 conference encourages submission of papers on new nuclear systems that are in various stages of conceptualization, research, development, demonstration and early application. Examples are research activities that evolve from the current Generation-IV initiative and results of ongoing nuclear waste transmutation research and development. This will also be an excellent opportunity for reviews and discussion of significant national decisions and policies affecting the future of nuclear energy. These national reviews include progress on establishing national waste repositories, requirements for an acceptable nonproliferation regime for an advanced nuclear fuel cycle and national plans for expanding nuclear energy production. For additional information please visit our website at :

<http://fcwmd.ans.org/global2003/>



### Sponsors

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### Publication Plan

Summaries will be submitted and reviewed electronically. The deadline for summaries is June 5, 2003. Following acceptance of the summary, authors will be required to submit a full paper that will be published on a CD-ROM to be made available at the meeting. Authors will present their papers orally at the meeting, and are expected to register for the meeting. Full papers must be submitted no later than **September 8, 2003**. Authors are also encouraged to submit their papers for peer review and subsequent publication in special issues of *Nuclear Technology* or *Nuclear Science and Engineering*.



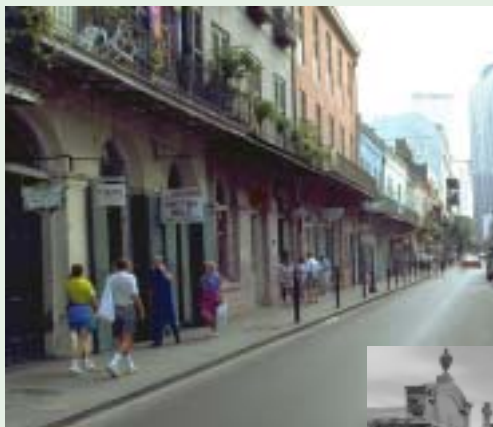
## Session Topics

### *Topic 1: Advanced Reactor Concepts*

- 1A: Supercritical Water Reactors
- 1B: Integral Primary System Reactors
- 1C: Advanced Pressure Tube Reactors
- 1D: Other Advanced Light Water Reactors
- 1E: Fast Spectrum Gas Reactors
- 1F: Gen IV Very High-Temperature Gas Reactors
- 1G: Progress in Gas Reactor Design
- 1H: Sodium-Cooled Reactors
- 1I: Lead-Cooled Reactors
- 1J: Reactors Systems for Transmutation
- 1K: Sub-Critical Minor Actinide Burners
- 1L: Non-Classical Reactor Concepts

### *Topic 2: Advanced Fuels and Materials Development*

- 2A: Coolant/Material Interactions in Advanced Reactor Systems
- 2B: Nuclear Fuels for Generation IV Concepts
- 2C: Fuels for Minor Actinide Transmutation and Plutonium Burning
- 2D: Advances in Nuclear Materials - Ceramics
- 2E: Advances in Nuclear Materials - Metal Alloys



### *Topic 3: Advanced Integrated Fuel Cycle Concepts*

- 3A: Transmutation in Thermal Reactors
- 3B: Transmutation in Fast Reactors
- 3C: Sustainable Fuel Cycle Options
- 3D: Integrated Fuel Cycle Concepts
- 3E: Systems Analyses for Nuclear Futures

### *Topic 4: Spent Nuclear Fuel Reprocessing*

- 4A: Current Commercial Reprocessing Experience
- 4B: Transplutonium Isotope Separations
- 4C: Historical Perspectives on Reprocessing

### *Topic 5: Advanced Reprocessing Technology*

- 5A: Advanced Aqueous Processes
- 5B: High-Temperature Molten Salt Processes
- 5C: Room Temperature Ionic Liquid Applications

### *Topic 6: Advances in Waste Management Technology*

- 6A: Improvements in the Vitrification of High-Level Waste
- 6B: Advanced Engineered Waste Forms for High-Level Waste
- 6C: Engineered Products for Long-Term Storage



***Topic 7: Novel Concepts for Repository Development***

- 7A: Status of the International SNF Storage Initiative
- 7B: Novel Approaches for Enhancing Repository Capacity
- 7C: Repository Transportation Issues

***Topic 8: Nuclear Energy Sustainability***

- 8A: Nuclear Energy Sustainability Panel Discussion
- 8B: International Viewpoints on Nuclear Energy Sustainability

***Topic 9: Transition to a Hydrogen Economy***

- 9A: Hydrogen Generation - 2003 and Beyond
- 9B: Options for Hydrogen Distribution
- 9C: Technologies for Hydrogen Storage
- 9D: Fuel Cell Technology - Putting Hydrogen to Work

***Topic 10: Developments in Nuclear Nonproliferation Technology, Policy and Implementation***

- 10A: Nonproliferation Challenges in the 21st Century
- 10B: Atoms for Peace 1953 - 2003: What are the Promises of the Future?
- 10C: Technology for Preventing Nuclear Terrorism
- 10D: Russian-American Fissile Materials Disposition Programs



***Topic 11: Preventing Nuclear Terrorism***

- 11A: Vulnerabilities of Nuclear Materials and Facilities to Nuclear Terrorism
- 11B: Nuclear Terrorism Threats
- 11C: Radiological Terrorism
- 11D: Techniques for Combating Radiological Terrorism

***Topic 12: Developments in International Cooperation on Nuclear Energy***

- 12A: International Cooperation to Improve the Operation of Existing Nuclear Facilities
- 12B: International Efforts to Develop Next-Generation Nuclear Energy Systems
- 12C: International Cooperation on the Back-End of the Fuel Cycle
- 12D: The Importance of International Cooperation to the Expanded Use of Nuclear Technology - the Perspectives of Policymakers
- 12E: International Cooperation on Safeguards Technology

***Topic 13: Hot Topics and Emerging Issues***

- 13A: Hot Topics and Emerging Issues in the Nuclear Fuel Cycle



## Instructions to Authors

Authors submitting papers to GLOBAL 2003 are 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 preparation of full papers will be sent to the authors upon acceptance of their summary.**

Required Template and “Guidelines for TRANSACTIONS Summary Preparation”:  
[www.ans.org/pubs/transactions](http://www.ans.org/pubs/transactions)

## Content

1. Introduction – State the purpose of the work.
2. Work Description – review methods and/or analyses.
3. Results – Provide data or information gained from the study.
4. References – Must be closely related published works. Please 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 and figures.
4. Limit title to ten words; limit authors to three or fewer if possible.
5. Exclude references from word count.

## Deadlines

Submission of Summaries: June 5, 2003

Author Notification of Acceptance:  
August 1, 2003

Submission of Full Papers: September 8, 2003

**Submit a Summary**

<http://www.ans.org/meetings>

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