

International High-Level Radioactive Waste Management Conference



April 28 - May 2, 2013 · Albuquerque, New Mexico, USA · Albuquerque Marriott

“Integrating Storage, Transportation, and Disposal”

CONFERENCE PURPOSE:

The conference is a forum for the discussion of the scientific, technical, social and regulatory aspects of the “back end” of the nuclear fuel cycle. These issues include waste generation, transportation, storage, treatment, disposal, and associated aspects (such as facility remediation, regulation, and stakeholder involvement). The conference is an opportunity for an exchange of information on current topics of interest among the international participants in nuclear-waste activities. The conference will appeal to an international audience as an opportunity to share information across programmatic, disciplinary, and international boundaries. Intended participants and audiences include personnel working on all aspects of irradiated fuel and HLW management such as: geologic waste-disposal systems, interim storage systems, spent nuclear fuel reprocessing systems, transportation systems, facility remediation systems, the governmental and private organizations using these systems, regulators, and those involved in scientific and societal issues related to policy questions for these systems. Conference participants are encouraged to focus their submissions (either as oral or poster presentations) on the theme of this conference.

SPONSOR:

Sponsor: American Nuclear Society.

Cooperation is expected from numerous professional and technical societies, national laboratories, federal agencies, and commercial organizations throughout the world.

TECHNICAL PROGRAM CHAIRS:

Kevin McMahon, *Sandia National Laboratories*
Barry Butterfield, *HDR Inc.*

PAPER ACCEPTANCE CRITERIA:

Papers are expected to contain descriptions of work that is new, significant, and relevant to the conference purposes. Both abstracts and full papers will be reviewed prior to acceptance. Submissions should contain new data and investigations in scientific or program areas that are of general interest, address problems of interdisciplinary significance, or include in-depth discussions of scientific and technical issues related to public-policy questions.

Criteria for selection include originality of work, relevance of topic, validity of method, clarity and conciseness of communication, and adherence to the scientific method (if appropriate). Compliance with content and length guidelines (following) are also part of the acceptance requirements. Both abstracts and full papers must be submitted electronically to www.ans.org/meetings/ihlrwm. Papers may be submitted for oral or poster presentation; papers may be designated for submission to a refereed journal. All submissions must be in English.

ELECTRONIC SUBMISSIONS:

To submit a paper electronically, please refer to the detailed instructions available on the Internet at: www.ans.org/meetings/ihlrwm.

INSTRUCTIONS TO AUTHORS FORMAT OF ABSTRACT FOR REVIEW:

1. Abstracts must be submitted electronically in ASCII text, HTML, Word, WordPerfect, and/or PDF (Adobe Acrobat) format.
2. Use SI units (with English units following in parenthesis, if desired). Exceptions are made for *ev* and barns.
3. List references numerically at the end of the abstract, and use numbers in the text, enclosed within brackets.
4. If using the ASCII text or HTML format, please include tables or figures in GIF or JPEG format. Also, please upload your original source document for use in the printed program, if available.

PLEASE NOTE:

- The title of your abstract will be used as the title of your presentation in the preliminary program.
- Authors of accepted papers will be expected to register for the conference. There are no funds available in the conference budget to support travel fees or complimentary conference registration.

ABSTRACT LENGTH:

1. Title Maximum - 10 words.
2. Text Minimum - 250 words.
3. Text Maximum - 500 words.
4. Figures and Tables - One figure and/or table maximum.

CONTENT:

The contents of the abstract must include the objectives of the study/investigation and the methodology used. It should also briefly describe the main findings and their potential applications. Sufficient information should be included for an independent reviewer to determine its suitability for the conference.

DEADLINE:

Your abstract must be submitted electronically no later than September 28, 2012, in order to ensure that it is included in the review process.

AUTHOR'S ORGANIZATIONAL APPROVAL:

- All internal reviews and organization approvals must be completed prior to submittal of the final paper.
- It is the responsibility of the author to protect proprietary information.

CALL FOR PAPERS - Abstract Deadline: September 28, 2012

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PAPER PREPARATION FOR PUBLICATION IN CONFERENCE PROCEEDINGS

IMPORTANT INFORMATION:

- Accepted papers will be included in the CD-ROM Proceedings that will be distributed at the beginning of the conference.
- After the full paper review is completed by the Technical Program Committee, authors of accepted papers will receive information for preparation of final papers in camera-ready format via email.
- Authors of accepted papers will be allowed 8 pages for publication at no charge. Authors who exceed the 8 page limit will be billed a per-page charge of \$150.
- All type and illustrations should appear within designated margins—dimensions are 7 in. (178 mm) by 9 in. (229 mm). We recommend 10-point type with 12 points of leading (spacing between lines). Use Times Roman typeface or an equivalent.
- Indent each paragraph 1/4 inch (use tab; do not use the space bar to indent). Single-space your text in two-column format. Your equations, figures, and tables do not need to comply with the two-column format. In other words, equations, figures, and tables may span the columns.
- Changes to accepted papers must be limited to revisions or changes requested by the Technical Program Committee.

IMPORTANT DATES:

- Abstract Deadline: September 28, 2012
- Notification to Authors: October 15, 2012
- Full Draft Papers Due for Review: December 14, 2012
- Notification to Authors: January 14, 2013
- Final Paper for CD-ROM Publication*: February 22, 2013
- Early Registration Deadline: April 5, 2013
- Conference: April 28 - May 2, 2013

*Full paper revisions must be submitted electronically to www.ans.org/meetings/ihlrwm. Full papers will be reviewed.

The ANS Scientific Publications Department may be contacted at the address and phone number below:

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SUBJECT CATEGORIES FOR ABSTRACTS:

1. Total Repository System (Generic and Site-Specific)

- Site Selection Criteria
- Post-Closure Safety Assessment
- Interface Between Subsystems
- Modeling Near Field and Far Field Interactions
- Sensitivity Analyses
- Uncertainty Management and Confidence Building
- Performance Demonstration, Confirmation and Safety Research
- Definition, Preparation, and Documentation of a Safety Case
- Safety Case and Regulatory Reviews
- Alternate Lines of Arguments
- Data and Information Systems

2. Natural Systems for Disposal (Generic and Site-Specific)

- Site Characterization Techniques
- In-Situ Measurement of Properties and Their Scaling
- Hydrologic, Chemical, Thermal, and Mechanical Processes
- Seismic, Volcanic, and Tectonic Processes
- Climate, Environmental, and Natural Hydrogeologic Process Modeling
- Natural Analog Studies
- Studies in Underground Research Facilities
- Geo-scientific Data Synthesis

3. Engineered Systems for Disposal

- Surface and Underground Facilities
- Waste Handling, Storage, and Emplacement at Disposal Facility
- Engineered Barriers (e.g., Waste Package, Backfill, etc.) Design and Performance
- Near-Field Environment Modeling
- Thermal Load Management
- Pre-Closure Operational Issues (safety, QA/QC, constructability)

4. Biosphere

- Defining Generic and Site-Specific Biosphere Characteristics
- Estimating Impact on Environment
- Pathway Analysis and Dose Modeling
- Exposure Scenarios

5. Regulatory Topics

- International, National and Sub-national Regulations, Requirements and Guidance
- Prescriptive versus Risk-Informed Regulations
- Time Scales, Safety Measures, and Confidence Measures
- Safety Margins and Statement of Confidence
- Licensing and Hearing Processes and Procedures
- Quality Assurance, Quality Control, and Inspections

6. Institutional Topics (With Emphasis on Lessons Learned)

- Roles and Relationships of Sub-national Regulatory and Oversight Authorities
- International Successes with High-Level Waste Management
- Stakeholder Confidence Building/ Techniques of Public Involvement
- Risk Perception, Public Communications, and Media Coverage
- Institutional Issues in Site Selection
- Site Selection Strategies for Storage and Disposal Facilities
- National Programs and Policies
- Retrievability and Reversibility
- Alternative Institutional Structures

7. Storage of Used Nuclear Fuel and High Level Waste

- Long-term (>60 years) Storage
- Dry and Wet Storage
- High Burn-up and Mixed Oxide Spent Nuclear Fuel
- Integrated Safety Analysis
- Developing Consent Based Approaches for Siting
- Site Specific vs. Regional vs. Centralized Storage
- Waste Management Systems Analysis
- Options for Direct Disposal of Storage Canisters

8. Advanced Fuel Cycles: Impacts on Waste Management

- Fuel Cycle Modeling
- Radionuclide Inventories and Waste Forms
- Waste Management Impacts from Reprocessing
- Fuel Cycle and Waste Management System Optimization

9. High-level Radioactive Waste Transportation

- Cask Integrity Analysis and Testing
- Transportation Risk (Rail, Road, and Marine)
- High Burn-up and Mixed Oxide Spent Nuclear Fuel Transportation

10. Security, Safeguards, and Non-Proliferation

- Implementing Non-Proliferation and Security Measures
- Transportation Safety and Safeguards
- Multinational Cooperation in Waste Management

11. Emerging Issues in Waste Management

- Large Volume Cleanup Waste
- Damaged Fuel and Core Waste
- Specialized Repositories