



2022 International High Level Radioactive Waste Management Conference

EMBEDDED IN THE 2022 ANS WINTER MEETING

November 13-17, 2022 | Phoenix, Arizona | Arizona Grand Resort

CALL FOR PAPERS

EXECUTIVE CHAIRS

General Chair

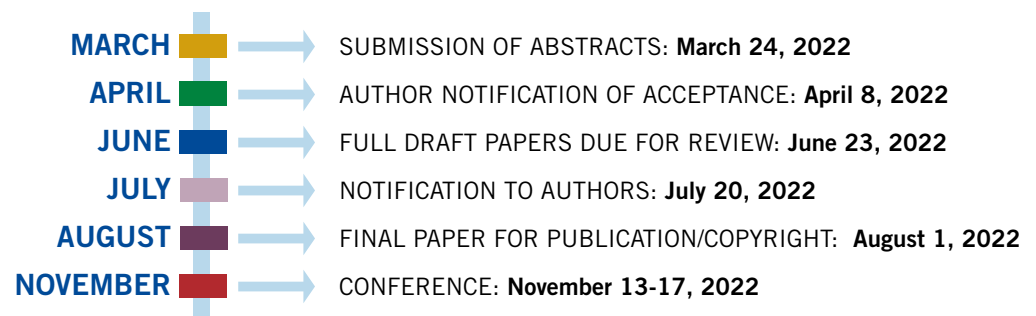
Sylvia Saltzstein, SNL

Technical Program Chairs

Brady Hanson, PNNL

Rob Howard, PNNL

IMPORTANT DATES: ABSTRACT DEADLINE: MARCH 24, 2022



CONFERENCE PURPOSE

This conference provides an international forum for the discussion of the scientific, technical, social, and regulatory aspects associated with the storage, extended storage, transportation, recycling, and disposal of used/spent fuel, high-level and other radioactive waste, including decommissioning waste. As nuclear power is being looked at globally to address climate change, a proactive focus on resolving “back end” of the fuel cycle issues is paramount. Consent-based siting of both centralized interim storage facilities and geologic repositories will be instrumental to fostering this growth. Lessons learned and innovative approaches will be shared amongst participants from industry, government, academia, policymakers, and the interested public. International and student participation are highly encouraged to facilitate knowledge transfer to countries pursuing a nuclear future and to the generation that will be responsible for implementation.

SPONSOR

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

PAPER ACCEPTANCE CRITERIA

Papers are expected to contain descriptions of work that is new, significant, and relevant to the conference purpose. Both abstracts and full papers will be reviewed before 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 or waste management regulatory and policy issues.

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) is also part of the acceptance requirements. Both abstracts and full papers must be submitted electronically to the IHLRWM EPSR at <https://epsr.ans.org/meeting/?m=361>. All submissions must be in English.

SUBMIT AN ABSTRACT

<https://epsr.ans.org/meeting/?m=361>

PROGRAM SPECIALIST

Janet Davis
708-579-8253
jdavis@ans.org



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INSTRUCTIONS TO AUTHORS

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1. Abstracts must be submitted electronically in PDF (Adobe Acrobat) format.
2. The Abstract title is limited to 15 words maximum.
3. The Abstract is limited to one page, 11 pt. font minimum, including figures and/or tables. Sufficient information should be included for an independent reviewer to determine its suitability for the conference.
4. Use SI units (with English units following in parentheses, if desired). Exceptions are made for eV and barns.
5. List references numerically at the end of the abstract or paper, and use numbers in the text, enclosed within brackets.
6. The title of your abstract will be used as the title of your presentation in the program.
7. Refer to the required template and guidelines at <https://www.ans.org/meetings/ihlwm2022/> under International High-Level Radioactive Waste Management.
8. All internal reviews and organization approvals must be completed before submittal of the final paper.
9. It is the responsibility of the author to protect classified, export-controlled, or proprietary information.
10. 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.
11. Full paper length is at the discretion of the author, but authors will be billed a per page charge of \$25 for all pages. A minimum of 4 pages is encouraged. A template for full papers will be provided. Authors will submit full papers as camera-ready PDFs.
12. Changes to accepted papers will be limited to revisions or changes requested by the Technical Program Committee.

SUBJECT CATEGORIES FOR ABSTRACTS

The list of topics is meant as guidance for areas of particular interest. Abstracts in areas not specifically mentioned but part of the conference purpose are encouraged.

SITE SELECTION/CHARACTERIZATION OF RADIOACTIVE WASTE MANAGEMENT FACILITIES

- Consent-Based Siting
- Influence of Governmental Structures (National vs State/Province/Canton)
- Stakeholder Engagement and Coordination
- Centralized vs. At-Reactors
- Selection Criteria
- Site Characterization
- Site Design
- Regulatory and Policy Issues

STORAGE & TRANSPORTATION OF USED/SPENT NUCLEAR FUEL AND HIGH-LEVEL WASTE

- Used Fuel Characterization and Evolution Until Disposal
- Wet and Dry Storage
- Aging Management
- Inspection, Mitigation, and Repair
- Cask Integrity Analysis and Testing
- Transportation
- Standard vs. High Burnup/MOX/Advanced Fuels
- Regulatory Changes (e.g., Risk-Informed Approach)

REPOSITORY SYSTEMS

- Total System Performance Assessment/Safety Case
- Disposal Concepts
- Waste Form Performance
- Engineered Barrier Performance
- Direct Disposal of Storage Canisters
- Waste Inventories, Streams, and Forms
- Natural Systems
- Near-Field and Far-Field Processes
- Natural Analogs

REPOSITORY SYSTEMS (CONTINUED)

- Thermal Load Management
- Thermal, Hydrologic, Mechanical, Chemical and Biological Processes
- Biosphere
- Uncertainty Quantification/Sensitivity Analyses
- Quality Assurance
- Regulatory and Licensing

ADVANCED FUEL CYCLES

- Impacts on Waste Management
- Integration of Front- and Back-End/System Optimization
- Accident Tolerant Fuels for Light Water Reactors
- Advanced Non-Light Water Reactor Fuels
- Recycling Wastes
- Policy and Regulatory Activities

SECURITY, SAFEGUARDS, AND NON-PROLIFERATION

- Materials Control and Accountability
- Implementing Non-Proliferation and Security Measures
- Multinational Cooperation in Waste Management
- Instrumentation, Sensors, and Remote Monitoring
- Safeguards by Design
- Digital Twins

EMERGING WASTE ISSUES

- Classification and Disposition of Depleted Uranium
- Waste from Severe Accidents
- Decontamination and Decommissioning Wastes

NUCLEAR ENERGY UNIVERSITY PROGRAMS

- Student Poster and Oral Sessions