IHLRWM 2019

International High-Level Radioactive Waste Management (IHLRWM) Conference

"Robust Collaboration on the Safe, Secure, and Sustainable Management of High-Level Radioactive Materials Over Multiple Generations."

April 14-18, 2019 | Knoxville, TN | Knoxville Convention Center

CALL FOR PAPERS

EXECUTIVE CHAIRS

Technical Program Chair
Eric Pierce, ORNL

Assistant Technical Program Cochairs
Steve Skutnik, UT
Mark Nutt, ANL
Yifeng Wang, SNL

ABSTRACT DEADLINE: FRIDAY, NOVEMBER 9, 2018

- **NOVEMBER** → SUBMISSION OF ABSTRACTS: **Friday, November 9, 2018**
- **NOVEMBER** → AUTHOR NOTIFICATION OF ACCEPTANCE: **Monday, November 16, 2018**
- **JANUARY** → DRAFT FULL PAPERS: **Monday, January 7, 2019**
- **JANUARY** → REVIEW NOTIFICATION: **Monday, January 28, 2019**
- **FEBRUARY** → FINAL FULL PAPERS/COPYRIGHT: **Monday, February 11, 2019**

CONFERENCE PURPOSE

This conference provides an international forum for discussing the current challenges and recent advances in science and engineering that are poised to transform how the U.S. and international community store, dispose, and transport spent fuel and high-level waste (HLW). As reflected in this year's theme, the conference is also intended to emphasize that spent fuel and HLW long-term storage, transportation, and disposal are urgent, global needs that will be thrust on the shoulders of future generations that were born well after the development of this power source. Transferring information to these generations requires active participation from industry, government, academia, policy-makers, and the interested public. Thus, student participation is strongly encouraged as the conference anticipates a special focus on information sharing with the graduating engineers and scientists who will work toward realistic storage and disposal solutions that benefit their generation.

SPONSOR

American Nuclear Society: Cooperation is 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 purposes. Both abstracts and full papers will be reviewed prior to acceptance. Submissions should contain new data and investigations in technical areas that are of general interest; address problems of interdisciplinary significance; or include in-depth discussions of scientific and technical issues or waste management 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 (describe below) is also part of the acceptance requirements. Both abstracts and full papers must be submitted electronically to 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.

SUBMIT A PAPER

ans.org/meetings/ihlrwm

PROCEEDINGS COORDINATOR

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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 ASCII text or HTML formats, 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 preview 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 – 15 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.

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.

PAPER PREPARATION FOR PUBLICATION IN CONFERENCE PROCEEDINGS IMPORTANT INFORMATION

- Accepted papers will be included in the USB Flash Drive Proceedings Publication that will be distributed at the beginning of the conference.
- After the abstract review is completed by the Technical Program Committee (TPC), there will be information at ans.org/meetings/c_2 under this meeting on the meeting page.
- 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 $100.
- Refer to required template and guidelines at ans.org/meetings/c_2 under this meeting title.
- Changes to accepted papers will be limited to revisions or changes requested by the TPC.

SUBJECT CATEGORIES FOR ABSTRACTS

The list of topics for the technical tracks given below may be expanded or reduced based on the submitted papers. This list is designed to appeal to traditional IHLRWM focus areas, and also includes several new areas to broaden the scope of the meeting.

SITE SELECTION/CHARACTERIZATION AND ASSESSMENT OF GEOLOGICAL DISPOSAL SYSTEMS

- Consent- versus Science-Based Siting
- Selection Criteria: Deep Borehole, Crystalline Rock, etc.
- Site Characterization: In situ Property Measurements of Subsurface Properties
- Post Closure Assessment: Definition, Preparation, Documentation of a Safety Case
- Regulatory and Policy Issues: Licensing and Certification, Regulatory Review, Institutional Frameworks, QA/QC, Safety Margins

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

- High Burn-up and Mixed Oxide Spent Nuclear Fuel
- Dry and Wet Storage
- Cask Integrity Analysis and Testing
- Transportation and Storage (issues with regional versus centralized storage)
- Issues Associated with Direct Disposal of Storage Canisters

BARRIER SYSTEM PERFORMANCE, DESIGN, AND MODELING

- Waste Form Performance (Used Fuel, HLW glass, and Ceramics)
- Engineered Barrier Performance
- Modeling Near-field and Far-field Processes: (hydrologic, chemical, thermal, and mechanical processes)
- Interfaces between Barrier Subsystems
- Studies of Engineer Barrier Components in Underground Research Facilities

BIOSPHERE PROCESSES

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