

## **SUBMIT A SUMMARY**

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PROGRAM SPECIALIST epsr@ans.org 2025 International High Level Radioactive Waste Management Conference

FOR SUSTAINABLE NUCLEAR ENERGY

### EMBEDDED IN THE 2025 ANS WINTER CONFERENCE AND EXPO

November 9–12, 2025 | Washington, DC | Washington Hilton

### **EXECUTIVE CHAIRS**

General Chair Sylvia Saltzstein (SNL) Technical Program Chair Emily Stein (SNL) Assistant Program Chairs Chammi Miller (SNL) Jens Birkholzer (LBNL) Erika Holt (VTT) Hiroyuki Umeki (NUMO)

## SUMMARY DEADLINE: JUNE 24, 2025

SUBMISSION OF SUMMARIES JUNE 24, 2025 AUTHOR NOTIFICATION OF ACCEPTANCE JULY 18, 2025 REVISED SUMMARIES DUE JULY 31, 2025

### **CONFERENCE PURPOSE**

The landscape of nuclear energy has evolved dramatically since our last International High-Level Radioactive Waste Management Conference (IHLRWM) in 2022. As advanced reactor development accelerates, stakeholders increasingly recognize the essential role of nuclear energy in achieving clean energy goals, enhancing energy security, and providing reliable long-term baseload power. Management of the "back end" of the fuel cycle is an important issue for all countries using or considering nuclear power. As this conference demonstrates, solutions are found through integration of science, technology, and society. IHLRWM provides an international forum for the discussion of all aspects of storage, transportation, recycling, and disposal of used/spent fuel, high-level, and long-lived waste. Innovative approaches, progress, and lessons learned will be shared amongst participants from industry, government, academia, and the interested public. Young generation and student participation is welcomed and encouraged to enrich the exchange of ideas and experiences.

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

#### **GUIDELINES FOR SUMMARIES**

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. Summaries are presented orally at the conference, and presenters are expected to register for the conference. All submissions must be in English. Non-U.S. attendees requesting a visa invitation letter: registrar@ans.org.

Summaries should be a maximum of four (4) pages and a minimum of one (1) page; references, tables, figures, and acknowledgements are counted as pages. Authors will be billed a per page charge of \$100 for all pages over four.

#### 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.
- 6. If a disclaimer is required (e.g., relating to the author's employer), it is the author's responsibility to include the disclaimer in the summary as either an end-of-summary note (preferred) or footnote. Please ensure such footnotes do not interfere with the bottom margin, and do not format disclaimers as headers or footers.

## See p. 2 for formatting & publishing guidelines and subject categories.



# 2025 International High Level Radioactive Waste Management Conference

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#### FORMATTING AND PUBLISHING

- 1. Use the provided template for summaries.
- 2. Summaries must be submitted as Adobe Acrobat PDF documents. After you save your document as a PDF, verify that it still meets the page-length requirements.
- 3. Limit the title to ten words if possible. Limit listing of authors to three or fewer if possible.
- 4. Do not use all capital letters for the title or any part of any authors' names. For the title of the summary, Capitalize the First Letter of Major Words. Author names should be First Name or Initial(s) followed by Last Name.
- 5. The names of all authors should be entered into the Authors' page in the EPSR. List the authors in the same order in which their names appear on the summary. The conference program is derived from the information entered into the EPSR, not from the summary itself.

- 6 In the EPSR, authors' affiliations should match the affiliation provided on the summary itself. If an author has multiple affiliations, enter the ONE that should be included in the program and in the conference proceedings, assuming the summary is accepted.
- 7. Do not use page numbers, headers, footers, or cover pages. Do not save your PDF as "read only."
- 8. Keep the bottom margin clear so there is space for the ANS-applied footer and page number.
- 9. All accepted and presented summaries will be included in the conference's proceedings, which will publish digitally shortly after the conference concludes.
- 10. Full papers based on summaries may be published elsewhere, but the summaries become the property of ANS. Under no circumstances should a summary be published in any other publication before presentation at the ANS conference. It is the author's responsibility to protect classified, export-controlled, or proprietary information.

#### SUBJECT CATEGORIES FOR PAPERS

The list of topics below is meant as guidance for areas of particular interest. Summaries in areas not specifically mentioned but part of the conference scope are encouraged. Contributions from international, next-generation experts, and university communities are highly encouraged.

#### **INTERNATIONAL PROGRESS IN DEEP GEOLOGIC DISPOSAL**

# Advancements in the science, engineering, implementation, and optimization of deep geologic disposal facilities.

• Topics of interest include site evaluation and characterization, repository system science and engineering, design of engineered barrier systems, safety and performance assessment, and the treatment of uncertainties.

• We welcome contributions that highlight lab, field, and underground research and demonstration; advances in process understanding and modeling; and progress in siting, licensing, construction, and operation of disposal facilities.

#### INNOVATIONS IN PREDISPOSAL WASTE MANAGEMENT

# Optimization of used/spent fuel and radioactive waste management between generation and disposal.

• Topics of interest include waste characterization, treatment and conditioning, recycling/reprocessing and transmutation, storage and transportation, inspection and acceptance, and aging management.

• We welcome contributions that discuss methods, modeling, new materials, testing and demonstration, circular economy aspects, as well as contributions on the design and implementation of facilities and systems for any of the above.

#### **PROGRAM DEVELOPMENT, STRATEGY, AND POLICY**

# Effective strategies for implementation of a waste management program.

• Topics of interest include engagement and communication, legal and regulatory frameworks, economic business models, waste hierarchy principles, and life cycle and system analyses.

• We welcome contributions that present new approaches, progress, or lessons learned on topics such as decision-making and policy implementation, financing, public confidence, stakeholder engagement, siting processes and participation, waste management system integration, and multinational cooperation.

#### **EMERGING TECHNOLOGIES**

#### Technologies inspiring the future of waste management.

• Topics of interest include advanced reactors and advanced fuel cycles, artificial intelligence and machine learning, digital engineering, and opportunities and challenges on the horizon.

• We welcome contributions that explore the unique characteristics of advanced waste streams; applications of Al and ML; development and demonstration of robotic, sensing, and monitoring technologies; and advances in digital tools such as digital twins and the digital safety case.

#### CROSS-CUTTING

#### Common challenges across all areas of radioactive waste management.

• Topics of interest include operational safety; safeguards, security, and nonproliferation; information, data, and knowledge management; quality assurance; and knowledge transfer and workforce development.