



UNITED STATES
NUCLEAR WASTE TECHNICAL REVIEW BOARD
2300 Clarendon Boulevard, Suite 1300
Arlington, VA 22201
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AGENDA

Summer 2023 Board Meeting *August 30, 2023*

**Snake River Event Center
780 Lindsay Blvd, Idaho Falls, ID 83402**

<https://preconvirtual.com/nwtrb-gov-08-29-2023/>

Wednesday, August 30, 2023 (Pocatello Room)

8:00 a.m. MDT **Call to Order and Introductory Statement**
Nathan Siu, Board Chair

8:15 a.m. MDT **Update on U.S. Department of Energy's (DOE's) Consent-Based Siting Activities**
Natalia Saraeva and Juan Uribe, DOE, Office of Nuclear Energy (DOE-NE)

TOPICS/QUESTIONS TO BE ADDRESSED:

- What is the DOE consent-based siting process?
- What are the phases of the consent-based siting process and the key activities and expected outcomes in each phase?
- How are the requirements of the Nuclear Waste Policy Act (e.g., design requirements, affected units of local government, siting factors, etc.) reflected in the consent-based siting process and in DOE's activities?
- When in the consent-based siting process will DOE address decision-making by communities, Tribes, states, and the federal government that will be needed to construct one or more federal interim storage facilities?
- How is DOE addressing social acceptability and technical suitability in the consent-based siting process? Is DOE addressing them in parallel, in sequence, or in an integrated manner?
- What are the consent-based siting consortia and what role do they play in DOE's consent-based siting process?
- What are DOE's goals and expectations for the consortia?
- How does DOE plan to integrate the input from consortia members, as part of the mutual learning focus, beyond the consent-based siting process itself?
 - How will the questions consortia generate and information they

Note: The questions have been provided to the speakers in advance of the meeting to convey the Board's primary interests in the agenda topics and to aid in focusing the presentations.

provide be used to refine DOE’s tools, such as Stakeholder Tool for Assessing Radioactive Transportation (START), or the analyses or outputs provided by the tools?

- How will the questions consortia generate and information they provide be used to help develop or inform other DOE products that are needed for constructing one or more federal interim storage facilities (e.g., siting criteria, design considerations, National Environmental Policy Act documents)?

9:00 a.m. MDT *Questions, discussion*

9:20 a.m. MDT Overview of Environmental Justice in Consent-Based Siting

Marissa Bell (DOE-NE)

TOPICS/QUESTIONS TO BE ADDRESSED:

- What is the definition of environmental justice that DOE is using?
- Specifically, how is DOE incorporating environmental justice considerations into addressing the scientific and technical issues and tools that are necessary for informed consent?
- How is DOE removing barriers for participation?
- How will DOE’s current Tribal engagement framework change by explicitly considering environmental justice and Tribal recommendations on the siting process?
- How is DOE-NE integrating environmental justices initiatives in other DOE offices (e.g., Tribal specific agreements by DOE Office of Environmental Management) and other agencies into DOE-NE’s consent-based siting activities?
- How is DOE integrating environmental justice tools into existing DOE-NE tools [e.g., START and Land-area Identification, Tagging, and Exploration (LITE)]?

9:55 a.m. MDT *Questions, discussion*

10:15 a.m. MDT Break

10:25 a.m. MDT Incorporating Social Science into Consent-Based Siting

Marissa Bell and Tran Le (DOE-NE)

TOPICS/QUESTIONS TO BE ADDRESSED:

- How has DOE incorporated social science, behavioral science, and risk communication practices into consent-based siting activities?
- What scientific and technical literature, approaches, and expertise are being tapped for these efforts?
- How has DOE used social science, behavioral science, and risk communication expertise in the development and deployment (e.g., training and access) of system tools such as START?

11:00 a.m. MDT *Questions, discussion*

11:20 a.m. MDT Developing Digital Tools for Engagement

Tran Le and Angelica Gheen (DOE-NE)

TOPICS/QUESTIONS TO BE ADDRESSED:

- What digital tools has DOE developed and how does DOE envision that the consortia will engage or use them?
- How has DOE incorporated lessons learned from domestic and international experiences into developing and planned use of its digital tools?
- How is DOE planning to use other system analysis tools such as START and Next-Generation System Analysis Model (NGSAM) with the consortia?
- Are the digital tools that DOE has developed expected to form the basis for developing and tracking intra- and inter-consortium collaboration?

11:55 a.m. MDT *Questions, discussion*

12:15 p.m. MDT Public Comments

12:30 p.m. MDT Lunch Break (70 minutes)

1:40 p.m. MDT Update on DOE's Research and Development (R&D) Activities on High Burnup Spent Nuclear Fuel (SNF)

Ned Larson (DOE-NE), Scott Sanborn [Sandia National Laboratories (SNL)], and John Bignell (SNL)

TOPICS/QUESTIONS TO BE ADDRESSED:

- Please summarize the status of the high-burnup SNF R&D program; provide an update on recent significant results from the Phase 1 testing of high-burnup SNF.
- Based on the results of the Phase 1 testing, which technical information needs regarding high-burnup SNF have been closed or can be closed?
- What technical information needs remain open, what are their priorities and their importance, and how are they being incorporated into the Phase 2 test plan for high-burnup SNF?
- What is your strategy for completing acquisition of data to meet your objectives and analyzing and aggregating it to provide results to users?
- What are DOE's plans and schedule for updating its gap analysis report (addressing technical information needs) and its storage and transportation 5-year R&D plan?

- In which international collaboration activities is DOE involved and what is the nature of these involvements. Which collaborations provide the most valuable and relevant information applicable to the high-burnup SNF R&D efforts?

2:20 p.m. MDT *Questions, discussion*

2:40 p.m. MDT **Advanced Reactor Waste Disposition: Current Advanced Reactor Activities for Spent Fuel and Planned R&D Activities for the Future**
Ned Larson (DOE-NE) and Brady Hanson (Pacific Northwest National Laboratory)

TOPICS/QUESTIONS TO BE ADDRESSED:

- Please explain the DOE plans and process for gathering technical data about new nuclear fuel types from vendors developing advanced nuclear reactors and advanced nuclear fuel—i.e., technical information to support:
 - developing the technical basis for deciding from a technical perspective how the DOE could accept the resulting SNF or solidified high-level radioactive waste (HLW) for transportation and disposal.
 - informing DOE plans for managing and disposing of the resulting SNF and HLW.
- What is the composition of the expert team created by DOE to define the SNF data-collection effort and what guidance or instruction did DOE provide to the team?
- What are the key SNF and HLW characteristics or parameters being collected to support deciding from a technical perspective how the DOE could accept the resulting SNF and HLW for transportation and disposal and to define R&D technical information needs relative to managing and disposing of SNF and HLW?
- What are DOE’s plans and schedule to further develop and implement an R&D plan for advanced reactor SNF and HLW management and disposition?

3:20 p.m. MDT *Questions, discussion*

3:40 p.m. MDT **Public Comments**

3:55 p.m. MDT **Adjourn Public Meeting**