



UNITED STATES  
NUCLEAR WASTE TECHNICAL  
REVIEW BOARD  
2300 Clarendon Boulevard, Suite 1300  
Arlington, VA 22201  
703-235-4473

**AGENDA**  
**Fall 2020 Fact-Finding Meeting**  
*November 4-5, 2020*  
*Virtual Meeting*

**Wednesday, November 4, 2020**

**12:30 p.m. EST**      **Welcome, Opening Remarks, Introductions and Agenda Discussion**  
Board representative and DOE representative

**12:45 p.m. EST**      **Non-Site-Specific Disposal Research Program: Program Overview, Purpose, Scope, and Goals**  
Tim Gunter, DOE

QUESTIONS TO BE ADDRESSED:

- What are the objectives of the program?
- How is DOE developing the technical bases to achieve its objectives and assessing the adequacy of its efforts?
- What are the reference cases and disposal concepts under consideration?
- Which DOE disposal concepts differ from other nation's disposal concepts and how will the technical bases for those differing concepts be developed and demonstrated?
- How has DOE used the Research and Development (R&D) Roadmap, R&D Roadmap Update, and the recent 5-year disposal research plan to guide its program?

**1:30 p.m. EST**      **Technical Approach and Prioritization of Activities**  
David Sassani, Sandia National Laboratories

QUESTIONS TO BE ADDRESSED:

- How has DOE identified technical information needs and knowledge gaps?
- How has DOE prioritized its activities to address the gaps?
- How are performance assessments and the Geologic Disposal Safety Assessment Framework integrated into the technical approach and used in prioritization of activities?
- What lessons have been learned in the R&D Roadmap efforts?

**2:20 p.m. EST Break**

**2:50 p.m. EST**

**Crystalline Host Rock: Reference Disposal Concept(s) and Key Considerations**

Yifeng Wang, Sandia National Laboratories

QUESTIONS TO BE ADDRESSED:

- What is (are) the disposal concept(s)?
- What is (are) the post-closure safety strategy(ies)?
- What are the key characteristics of the host rock and the availability of technology for characterization?
- What are the gaps in understanding?
- What activities is DOE pursuing to address the gaps?
- How are activities in a specific cross-cut research and development area integrated with other disposal research activities?

**3:35 p.m. EST**

**Salt Host Rock: Reference Disposal Concept(s) and Key Considerations**

Kris Kuhlman, Sandia National Laboratories

QUESTIONS TO BE ADDRESSED:

- What is (are) the disposal concept(s)?
- What is (are) the post-closure safety strategy(ies)?
- What are the key characteristics of the host rock and the availability of technology for characterization?
- What are the gaps in understanding?
- What activities is DOE pursuing to address the gaps?
- How are activities in a specific cross-cut research and development area integrated with other disposal research activities?

**4:20 p.m. EST Discussion of Materials Presented**

Feedback for public meeting presentations

**5:00 p.m. EST Adjourn**

**Thursday, November 5, 2020**

**12:30 p.m. EST**

**Opening Remarks**

Board representative and DOE representative

**12:40 p.m. EST**

**Argillite Host Rock: Reference Disposal Concept(s) and Key Considerations**

Carlos Jové Colón, Sandia National Laboratories

**QUESTIONS TO BE ADDRESSED:**

- What is (are) the disposal concept(s)?
- What is (are) the post-closure safety strategy(ies)?
- What are the key characteristics of the host rock and the availability of technology for characterization?
- What are the gaps in understanding?
- What activities is DOE pursuing to address the gaps?
- How are activities in a specific cross-cut research and development area integrated with other disposal research activities?

**1:25 p.m. EST**

**Prioritization of Cross-Cutting Research and Development Activities: Unsaturated Alluvium Reference Case, Disposal of Dual-Purpose Canisters,<sup>1</sup> and Geologic Disposal Safety Assessment**

Emily Stein, Sandia National Laboratories

**QUESTIONS TO BE ADDRESSED:**

- What are the gaps in understanding?
- What activities is DOE pursuing to address the gaps?
- How are activities in a specific cross-cut research and development area integrated with other disposal research activities?
- In addition, for the unsaturated alluvium reference case, what is the disposal concept and what is its status of development relative to the other reference cases?

**2:10 p.m. EST Break**

**2:40 p.m. EST**

**Prioritization of Cross-Cutting Research and Development Activities: Engineered Barrier System**

Ed Matteo, Sandia National Laboratories and LianGe Zheng, Lawrence Berkeley National Laboratory

**QUESTIONS TO BE ADDRESSED:**

- What are the gaps in understanding?
- What activities is DOE pursuing to address the gaps?

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<sup>1</sup> This can be a summary given that the details were presented at the last Board meeting.

- How are activities in a specific cross-cut research and development area integrated with other disposal research activities?
- What is the status of the fuel matrix dissolution modeling effort?
- What experiments are being conducted to validate the model?
- What is the status of and timeline for the HotBENT experiment?
- Which disposal concepts and reference cases does the HotBENT experiment support?
- Which gaps in knowledge will HotBENT address and how will the information obtained resolve the gaps?

**3:35 p.m. EST**

**Prioritization of International Activities and Moving Forward: Disposal Research 5-Year Plan**

Jens Birkholzer, Lawrence Berkeley National Laboratory and David Sassani, Sandia National Laboratories

**QUESTIONS TO BE ADDRESSED:**

- What factors are considered in prioritizing international activities?
- How are the international activities integrated with the other non-site-specific disposal activities?
- In addition to R&D activities, are collaborations with other countries' demonstration activities considered?
- What is the purpose of the disposal research 5-year plan?
- How will the disposal research 5-year plan be implemented?
- How are the disposal research activities integrated with other DOE Office of Spent Fuel & Waste Science and Technology activities and with Office Integrated of Waste Management activities?
- Is there any work being done by other DOE offices that could provide valuable input to DOE's R&D program?

**4:25 p.m. EST Discussion of Materials Presented**

Feedback for public meeting presentations

**5:00 p.m. EST Adjourn**