



U.S. Nuclear Waste Technical Review Board

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Presented to:

Spring 2024 Board Meeting

Presented By:

Dr. Nathan Siu, Chair

May 22, 2024

Meeting Agenda (May 21)

- 8:15 a.m. EDT** **Opening Remarks**
Tim Gunther, DOE, Office of Nuclear Energy
- 8:30 a.m. EDT** **Overview of Disposal Research and Development (R&D) Activities**
Dave Sassani, Sandia National Laboratories
- 9:30 a.m. EDT** **Overview of Activities Related to Disposal in Crystalline Host Rock**
Emily Stein and Yifeng Wang, Sandia National Laboratories
- 10:30 a.m. EDT** **Break**
- 10:40 a.m. EDT** **Geophysical Techniques for Site and Excavated Disturbed Zone
Characterization**
Patrick Dobson, Lawrence Berkeley National Laboratory
- 11:35 a.m. EDT** **Physical and Geochemical Processes that Impact Flow and Transport
Processes in Crystalline Host Rock**
Matthew Sweeney, Los Alamos National Laboratory
- 12:15 p.m. EDT** **Lunch**



Meeting Agenda (May 21) (continued)

- 1:15 p.m. EDT** **Buffer Extrusion, Erosion, and Clogging**
Yifeng Wang, Sandia National Laboratories
- 1:55 p.m. EDT** **R&D Activities to Address High Temperature and High pH Conditions in the Engineered Barrier System**
Yifeng Wang, Sandia National Laboratories
- 2:35 p.m. EDT** **Break**
- 2:45 p.m. EDT** **Geologic Disposal Safety Assessment R&D Activities Related to Crystalline Host Rock**
Paul Mariner & Rosie Leone, Sandia National Laboratories
- 4:00 p.m. EDT** **The Central Role of Geometry in Fracture Behavior**
Laura Pyrak-Nolte, Purdue University
- 5:00 p.m. EDT** **Public Comments**
- 5:15 p.m. EDT** **Adjourn Day 1**



Meeting Agenda (May 22)

- 8:05 a.m. EDT** **Spent Nuclear Fuel Disposal in Crystalline Rock – Current Status and Lessons Learned From Finland**
Erika Holt, Finnish Technical Research Centre, Finland
- 9:05 a.m. EDT** **Crystalline Rock Site Characterization by Canada’s Nuclear Waste Management Organization**
Andrew Parmenter, Nuclear Waste Management Organization, Canada
- 10:00 a.m. EDT** **Break**
- 10:10 a.m. EDT** **Overview of Commercial Spent Nuclear Fuel Degradation Rate Models**
Dave Sassani, Sandia National Laboratories; Brady Hanson, Pacific Northwest National Laboratory
- 11:10 a.m. EDT** **Fuel Matrix Degradation Modeling and Electrochemical Testing**
Paul Mariner, Sandia National Laboratories; Sara Thomas, Argonne National Laboratory
- 12:10 p.m. EDT** **Public Comments**
- 12:15 p.m. EDT** **Adjourn Public Meeting**

