

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

**Winter Board Meeting
January 25 and 26, 2000**

**Addressing Uncertainty
Repository Safety Strategy
Scientific Programs Update**

Alexis Park Hotel
375 East Harmon Ave.
Las Vegas, Nevada 89109
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Tuesday, January 25

- 8:30 a.m.** **Call to Order**
Jared Cohon
Chairman
Nuclear Waste Technical Review Board (NWTRB)
- 8:35 a.m.** **Perspectives on the Program**
[Ivan Itkin](#)
Director
Office of Civilian Radioactive Waste Management (OCRWM)
- 9:00 a.m. Questions and discussion*
- 9:15 a.m.** **Perspectives on the Yucca Mountain Project**
[J. Russell Dyer](#)
Project Manager
Office of Licensing and Regulatory Compliance
Yucca Mountain Site Characterization Office (YMSCO)
- 9:35 a.m. Questions and discussion*
- 9:45 a.m.** **NARUC Views on the Program**
[Greg White](#), Staff Assistant
Michigan Public Service Commission
- 9:55 a.m. Questions and discussion*

10:00 a.m. **Nye County Drilling: Phase 2**
[Nick Stellavato](#), Nye County

10:10 a.m. Questions and discussion

10:15 a.m. **BREAK (15 minutes)**

Addressing Uncertainty

Session Chairman
Norman Christensen
Member, NWTRB

10:30 a.m. **Uncertainty in Complex Analyses: Sources and Types**
[Daniele Veneziano](#), Massachusetts Institute of Technology

11:00 a.m. Questions and discussion

11:15 a.m. **Decision-Making Under Uncertainty**
[D. Warner North](#), NorthWorks

11:45 p.m. Questions and discussion

12:00 p.m. **LUNCH (one hour)**

1:00 p.m. **Regulatory Views on Uncertainty in Licensing a Yucca Mountain Repository**
Budhi Sagar, Technical Director
Center for Nuclear Waste Regulatory Analyses

1:30 p.m. Questions and discussion

1:45 p.m. **Addressing Uncertainty at Yucca Mountain: Overview**
[Abraham van Luik](#), YMSCO

- The different kinds of uncertainty and how they should be treated
- The display of uncertainty in a manner that best communicates its nature and extent
- Different ways of incorporating and considering uncertainty in decision-making

2:15 p.m. Questions and discussion

2:30 p.m. **BREAK (15 minutes)**

2:45 p.m. **Panel Discussion: Addressing Uncertainty at Yucca Mountain**
Previous speakers, State of Nevada, AULG, etc.

4:45 p.m. **Public Comments**
Jared Cohon
Chairman, NWTRB

5:00 p.m. **Recess until Wednesday, January 26, 8:30 a.m.**

Wednesday, January 26

Repository Safety Strategy

Session Chairman

Debra Knopman

Member, NWTRB

7:15 a.m. **Continental Breakfast, Public and Board Members**

8:30 a.m. **Update on the Yucca Mountain Repository Safety Strategy**
[Jack Bailey](#), Management & Operating Contractor (M&O)

9:00 a.m. Questions and discussion

9:15 a.m. **Application of Principal Factors: Seepage Studies**
[Bo Bodvarsson](#), Lawrence Berkeley National Laboratory (LBNL)

- How was seepage identified as a principal factor?
- How does seepage affect uncertainties in TSPA? What is the relationship between seepage and tunnel stability?
- What supporting data exist for estimating seepage?
- What are the goals for addressing uncertainties through additional studies of seepage? How (and when) will those goals be achieved?
- How much information on seepage does the DOE believe is needed to support the site recommendation? The license application?

9:40 a.m. Questions and discussion

9:55 a.m. **BREAK (15 minutes)**

10:10 a.m. **Application of Principal Factors: Drip Shield Design**
[Thomas Doering](#), M&O

- How was drip shield performance identified as a principal factor?
- How do drip shields affect uncertainties in TSPA?
- What supporting data exist for projecting drip shield performance?
- What are the goals for addressing uncertainties by adding drip shields to the repository design? How (and when) will those goals be achieved?

- How much information about the drip shield design does the DOE believe is needed to support the site recommendation? The license application?

10:35 a.m. Questions and discussion

10:50 a.m. Simplified TSPA Capability
[Mark Nutt](#), Golder Associates

11:20 a.m. Questions and discussion

11:35 a.m. Public Comments

12:00 p.m. LUNCH (one hour)

Scientific Programs Update

Session Chairman

Donald Runnells

Member, NWTRB

1:00 p.m. Update on Ongoing Work: Overview
[Mark Peters](#), Los Alamos National Laboratory (LANL)

2:00 p.m. Questions and discussion

2:30 p.m. Natural Analog Studies
[Ardyth Simmons](#), LBNL

2:50 p.m. Questions and discussion

3:00 p.m. Natural Analog Studies
 John Stuckless, U.S. Geological Survey

3:20 p.m. Questions and discussion

3:30 p.m. BREAK (15 minutes)

3:45 p.m. Fluid Inclusions: Capabilities and Limitations
[Robert Bodnar](#), Virginia Polytechnic Institute and State University

4:15 p.m. Questions and discussion

4:30 p.m. Fluid Inclusions: Results of Yucca Mountain Studies
[Jean Cline](#), University of Nevada, Las Vegas

5:00 p.m. Questions and discussion

5:15 p.m. Busted Butte Studies and Update on Site-Scale Flow-and-Transport Modeling
Paul Dixon, LANL

5:45 p.m. Questions and discussion

6:00 p.m. Public Comments

6:15 p.m. Closing Remarks and Adjournment
Jared Cohon
Chairman, NWTRB