

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

Spring Meeting Tuesday May 18, 2004

Embassy Suites Hotel 1250 22nd Street, NW Washington, DC 20037 Voice: (202) 875-3388 Fax: (202) 293-3173

- 8:00 a.m. Call to Order and Introductory Statement David Duquette, Chair, Executive Committee, Nuclear Waste Technical Review Board (NWTRB), Member
- 8:10 a.m. Program Overview Margaret Chu, Director, Office of Civilian Radioactive Waste Management (OCRWM), U.S. Department of Energy (DOE)
 - 8:20 a.m. Questions, discussion
- 8:25 a.m. Transportation Update Gary Lanthrum, Director of National Transportation, Office of Strategy and Program Development, OCRWM
 - 8:40 a.m. Questions, discussion
- 8:50 a.m. Yucca Mountain Project Status W. John Arthur III, Deputy Director for Repository Development, Office of Repository Development, OCRWM
 - 9:05 a.m. Questions, discussion
- 9:15 a.m. Science Update Mark Peters, Project Manager, Los Alamos National Laboratory

10:00 a.m. Questions, discussion

- 10:15 a.m. BREAK (15 min.)
- **10:30 a.m.** Seismic Update Jon Ake, Geophysicist, U.S. Bureau of Reclamation

11:00 a.m. Questions, discussion

11:15 a.m. Session on Corrosion During the Thermal Pulse Session Chair, Ron Latanision, NWTRB Member

The Board's Evaluation (based on the Board's October 21, 2003, letter and November 25, 2003, report)

- 11:15 a.m. Introductory Remarks and Overview Ron Latanision, Panel Chair, Engineered System, NWTRB Member
- 11:25 a.m. Evolution of Environments on Waste Package Surfaces Thure Cerling, NWTRB Member
- 11:45 p.m. Corrosion David Duquette, NWTRB Member
- 12:00 noon Public Comment Period
- 12:25 p.m. LUNCH (1 hour 5 min)
- **1:30 p.m.** Session on Corrosion During the Thermal Pulse (cont'd) Session Chair, Dan Bullen, NWTRB Member

The Nuclear Regulatory Commission (NRC): Views and Recent Research

- 1:30 p.m. Regulatory Perspective on Corrosion of Alloy 22 Tim McCartin, Senior Advisor for Performance Assessment, NRC
- 1:35 p.m. Near-Field Chemical Environment Roberto Pabalan, Principal Scientist, Center for Nuclear Waste Regulatory Analyses (CNWRA)
- **1:50 p.m.** Factors Influencing the Uniform and Localized Corrosion of Alloy 22 Darrell Dunn, Principal Engineer, CNWRA
- 2:10 p.m. Sensitivity Analysis of Waste Package Corrosion Tae Ahn, Senior Materials Engineer, NRC and Tim McCartin, NRC
 - 2:25 p.m. Questions, discussion

State of Nevada: Views and Recent Research

2:45 p.m. Evolution of Near-Field Environments Don Shettel, Chairman and Geochemist, Geoscience Management Institute, Inc.

3:10 p.m. Corrosion

Roger Staehle, Materials Science and Engineering Consultant

3:40 p.m. Questions, discussion

4:00 p.m. BREAK (15 min)

Electric Power Research Institute (EPRI): Views and Recent Research

- 4:15 p.m. Overview John Kessler, EPRI
- 4:25 p.m. Effect of Desert Dust Composition on WP Environment Don Langmuir, Geochemist
- **4:45 p.m. Corrosion** Fraser King, Principal, Integrity Corrosion Consulting, Ltd.
- **5:00 p.m. Summary** Mick Apted, Executive Consultant, Monitor Scientific, LLC

5:05 p.m. Questions, discussion

- 5:25 p.m. Public Comment Period
- 5:45 p.m. Adjourn for the day

Wednesday May 19, 2004

Session on Corrosion During the Thermal Pulse (cont'd) Session Chair, David Duquette, NWTRB Member

- 8:00 a.m. Call to Order and Opening Remarks David Duquette, NWTRB Member
- 8:05 a.m. Regulatory Requirements Margaret Chu, Director, OCRWM

8:15 a.m. Questions, discussion

8:25 a.m. Introduction to Presentations Robert Andrews, Manager Postclosure Safety, Bechtel SAIC Company (BSC)

9:05 a.m. Questions, discussion

9:20 a.m. Thermal Hydrological Environment and Thermal Seepage Gudmundur Bodvarsson, Director, Earth Sciences Division, Lawrence Berkeley National Laboratory (LBNL)

10:05 a.m. Questions, discussion

- 10:25 a.m. BREAK (15 min.)
- **10:40 a.m.** The In-Drift Chemical Environment During the Above-Boiling Period Carl Steefel, Geochemist, LBNL

11:40 a.m. Questions, discussion

- 12:05 p.m. LUNCH (1 hour 25 min.)
- **1:30 p.m.** Session on Corrosion During the Thermal Pulse Session Chair, Ron Latanision, NWTRB Member
- **1:30 p.m.** The In-Drift Chemical Environment during the Below-Boiling Period Carl Steefel, Geochemist, LBNL
 - 2:15 p.m. Questions, discussion
- 2:35 p.m. Corrosion Resistance of Alloy 22 Joe Payer, Professor of Materials Science and Engineering, Case-Western Reserve University
 - 3:35 p.m. Questions, discussion
- 4:05 p.m. Summary of Presentations Robert Andrews, Manager Postclosure Safety, BSC
 - 4:15 p.m. Questions, discussion
- 4:20 p.m. BREAK (30 min.)
- 4:50 p.m. Opportunity for Brief Wrap-up Statements
- 5:20 p.m. Public Comment Period
- 5:50 p.m. Adjourn