

# **RIC 2003**

## **Spent Fuel Storage, Transportation, and Disposal**

### **Session T4**

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#### **Technical and Scientific Review of DOE Disposal and Waste Management Activities**

*William D. Barnard*  
*Executive Director*  
*Nuclear Waste Technical Review Board*  
*April 17, 2002*



# Nuclear Waste Technical Review Board

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Technical and Scientific Review of  
DOE Disposal and Waste Management Activities

Regulatory Information Conference  
Washington, D.C., April 17, 2003

*Presentation by  
William D. Barnard  
Executive Director, NWTRB*

# About the Board

- Created by Congress in the Nuclear Waste Policy Amendments Act (NWPAA) of 1987
- 11 Board members – nominated by the NAS and appointed by the President
- All members serve part-time and are nominated solely on the basis of expertise
- Full Board meets 3-4 times per year, usually in Nevada; Board panels hold meetings, as needed

# Nuclear Waste Technical Review Board Members

**Chairman Michael L. Corradini, Ph.D.**, University of Wisconsin, Madison. Areas of expertise include nuclear and industrial safety.

**Mark D. Abkowitz, Ph.D.**, Vanderbilt University. Areas of expertise include the technology of transportation, risk management and risk assessment, and emergency preparedness.

**Daniel B. Bullen, Ph.D., P.E.**, Iowa State University. Areas of expertise include performance assessment modeling and materials science.

**Thure E. Cerling, Ph.D.**, University of Utah. Areas of expertise include terrestrial geochemistry and geochemistry processes.

**Norman L. Christensen, Jr., Ph.D.**, Duke University. Areas of expertise include biology and ecology.

**Paul P. Craig, Ph.D.**, professor emeritus, University of California, Davis. Areas of expertise include energy policy issues associated with global environmental change.

**David J. Duquette, Ph.D.**, Rensselaer Polytechnic Institute. Areas of expertise include physical, chemical, and mechanical properties of metals and alloys.

**Ronald M. Latanision, Ph.D.**, Massachusetts Institute of Technology. Areas of expertise include materials processing and corrosion of metals and other materials in aqueous environments.

**Priscilla P. Nelson, Ph.D.**, National Science Foundation. Areas of expertise include rock engineering and underground construction.

**Richard R. Parizek, Ph.D.**, The Pennsylvania State University. Areas of expertise include hydrogeology and environmental geology.

# The Board's Role

- NWPAA: Board to perform an independent evaluation of the technical and scientific validity of activities undertaken by the Secretary of Energy, including site characterization and transportation and packaging
- Board reports its findings and recommendations to Congress and the Secretary at least two times each year
- Board has no regulatory or implementing authority

# Board Panels

## Panel

- Panel on the Natural System
- Panel on the Engineered System
- Panel on Repository System Performance and Integration
- Panel on the Waste Management System

## Chair

Dick Parizek

Ron Latanision

Dan Bullen

Norm Christensen

# The Board's Future Role

- Since site recommendation, the repository program has changed in at least two major ways: First, the focus of DOE activities has shifted from characterization to compliance. Second, decision-making has moved from the White House and Congress to the NRC.
- The Board's congressional mandate is unchanged: to provide independent and ongoing evaluation of the DOE's activities.
- While continuing its ongoing review of DOE scientific activities, the Board's evaluation will reflect an expected increase in DOE work related to design and engineering and to the waste management system, including transportation.

# Possible Issues to Be Considered at May 2003 Board Meeting

- Potential thermal effects on repository and waste package design and performance
- Performance confirmation plans
- Results of DOE's igneous peer review

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