



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

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*For Immediate Release*

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## **NWTRB Panel to Discuss Yucca Mountain Water Flow and Radionuclide Transport at March Meeting**

Members of the U.S. Nuclear Waste Technical Review Board's Panel on the Natural System will meet in Las Vegas, Nevada, on Tuesday, March 9, and Wednesday, March 10, 2004. The panel will discuss issues related to a proposed repository at Yucca Mountain in Nevada, particularly how components of the natural geologic system would work together to isolate radioactive waste. The meetings will be open to the public, and opportunities for public comment will be provided. The Board is charged by Congress with reviewing the technical and scientific validity of activities undertaken by the U.S. Department of Energy (DOE) as stipulated in the Nuclear Waste Policy Amendments Act.

The panel meeting will be held at the Crowne Plaza Hotel; 4255 South Paradise Road; Las Vegas, NV 89109; (tel.) 702-369-4400; (fax) 702-369-3770. The meetings are tentatively scheduled to begin at 8:00 a.m. each day. Meeting times will be confirmed when agendas are issued, approximately one week before the meeting dates.

The purpose of the meeting is to examine aspects of the natural system that control transport of radionuclides from Yucca Mountain. Water flow will be the primary factor controlling that transport. The meeting is structured to consider the aspects of water flow and associated hydrogeologic phenomena that are important for estimating the amount of time required for the transport of radionuclides from the repository horizon to the regulatory boundary. The meeting is designed to gather information to help address the following questions.

- *What is the median travel time of a molecule of water from the repository horizon at Yucca Mountain to the regulatory boundary?*
- *How much might travel time change for a radionuclide in that water, considering all factors relevant to radionuclide transport? Are all of the factors equally likely?*
- *Are the DOE's radionuclide transport estimates conservative, realistic, or optimistic?*

- *What is the technical basis for these estimates? What is the Board's assessment of the technical validity of the technical basis? What can be done to improve the technical basis of the DOE estimates?*
- *How much could the technical basis be improved by 2010 if the DOE pursues a rigorous scientific program?*

On Tuesday, the meeting will focus on features and processes relevant to water flow and radionuclide transport in the unsaturated zone. Presentations will be made on unsaturated flow, sorption, matrix diffusion, colloid-facilitated transport, and radionuclide transport abstractions for total system performance assessment (TSPA). Evidence in the rock strata for evaluating the influence of climate change in the repository also will be presented.

On Wednesday, the features and processes relevant to water flow and radionuclide transport in the saturated zone will be discussed. Presentations will be made on the role of climate in the deposition of sediment that can slow radionuclide transport, the representation of climate in TSPA, ground-water flow of the Death Valley region and the Yucca Mountain site, sorption, matrix diffusion, colloid-facilitated transport, and radionuclide transport abstractions for TSPA.

The agendas on both days will conclude with roundtable discussions of the topics presented. Time will be made available at the end of each day for public comments. Those wanting to speak are encouraged to sign the public-comment register at the check-in table. A time limit may have to be set on individual remarks, but written comments of any length may be submitted for the record.

Detailed agendas will be available approximately one week before the meeting. Copies of the agendas can be requested by telephone or obtained from the Board's Web site at [www.nwtrb.gov](http://www.nwtrb.gov). Transcripts of the meetings will be available on the Board's web site, by e-mail, on computer disk, and on a library-loan basis in paper format from Davonya Barnes of the Board's staff, beginning on April 9, 2004.

A block of rooms has been reserved at the Crowne Plaza hotel for meeting participants. When making a reservation, please state that you are attending the Nuclear Waste Technical Review Board meeting. To receive the meeting rate, reservations should be made by February 20, 2004.

For more information, contact the NWTRB: Karyn Severson, External Affairs; 2300 Clarendon Boulevard, Suite 1300; Arlington, VA 22201-3367; (tel.) 703-235-4473; (fax) 703-235-4495.

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