



UNITED STATES  
NUCLEAR WASTE TECHNICAL REVIEW BOARD  
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**Board Releases Report for 1997**

In a report released today, the Nuclear Waste Technical Review Board (the Board) details its 1997 activities and offers recommendations related to the Department of Energy's (DOE) program to manage and dispose of the nation's spent fuel and high-level radioactive waste.

The report, entitled *1997 Findings and Recommendations*, covers, among other topics, the DOE's viability assessment, due later this year; the continued underground exploration of the candidate repository site at Yucca Mountain, Nevada, including the enhanced characterization of the repository block; what happens when radioactive waste reaches the water table beneath Yucca Mountain; transportation of spent fuel on our nation's railways and highways; and thermal testing above ground and in the exploratory studies facility.

The four recommendations made by the Board in the report concern (1) alternative design concepts for a repository, (2) the DOE's interim performance measure for Yucca Mountain, (3) biosphere data and modeling, and (4) expert elicitation.

The Board first recommends that the DOE begin work now on alternative design concepts for a potential repository at Yucca Mountain. The Board suggests that cost estimates of potential alternative design concepts and sensitivity studies showing the effects of these concepts on long-term repository performance be considered for inclusion in the viability assessment, if doing so would not delay the delivery of the viability assessment to Congress.

Second, the Board recommends that for its interim performance measure related to Yucca Mountain, the DOE should estimate and state the likely variation in doses for alternative candidate critical groups characterized by different locations, ages, and lifestyles. In particular, potential doses to children should be compared with doses to adults within each candidate group.

Third, the Board recommends that the DOE evaluate the need for site-specific data for supporting the biosphere modeling needed for license application, especially soil-to-plant transfer factors. The evaluation should include an estimate of the length of time over which

measurements of such parameters would be needed to produce a reliable data set. Plans for obtaining the necessary data should be developed now.

Finally, the DOE should make full and effective use of expert elicitations, both as direct input to performance assessment and design and for the technical insights they provide. The DOE should provide a rationale for the way it intends to aggregate the views of different experts and how the individual views of the experts will be treated in performance assessment. The DOE also should develop guidelines on how the results of expert elicitations will be treated as new data are obtained.

This, and other Board reports and information, are available from the Board's Arlington, Virginia, office and also may be downloaded from the Board's web site at [www.nwtrb.gov](http://www.nwtrb.gov). Requests for copies of reports or other information may be made by telephone (703-235-4473), fax (703-235-4495), or e-mail ([info@nwtrb.gov](mailto:info@nwtrb.gov)).

The Board was created by Congress in the Nuclear Waste Policy Amendments Act of 1987 to evaluate the validity of technical and scientific activities undertaken by the Secretary of Energy related to the DOE's program to manage and dispose of the nation's spent nuclear fuel and defense high-level waste, including activities related to site characterization and the handling and transport of spent fuel and high-level waste.

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