U.S. NUCLEAR WASTE TECHNICAL REVIEW BOARD

SYNOPSIS OF BOARD REPORT

REVIEW OF U.S. DEPARTMENT OF ENERGY ACTIVITIES TO PRESERVE RECORDS CREATED BY THE YUCCA MOUNTAIN REPOSITORY PROJECT

BACKGROUND

The Nuclear Waste Policy Act (NWPA) of 1982 authorized the U.S. Department of Energy (DOE) to evaluate potential sites for a deep-mined geologic repository to dispose of spent nuclear fuel and high-level radioactive waste. Congress amended the NWPA in 1987 and directed DOE to limit site characterization solely to a site at Yucca Mountain in Nevada. The 1987 Act also created the U.S. Nuclear Waste Technical Review Board. DOE submitted a license application for Yucca Mountain in 2008, but, in fiscal year 2011, funding for the Yucca Mountain Project (YMP) and for licensing of a Yucca Mountain repository was eliminated by the Administration of President Barack Obama. DOE's twenty-year investigation of the Yucca Mountain site generated very large amounts of technical and scientific information and analyses, and in 2010, responsibility for archiving and preserving Yucca Mountain scientific and engineering information was transferred from DOE's Office of Civilian Radioactive Waste Management to the DOE Office of Legacy Management (LM).

BOARD REVIEW

As part of the Board's ongoing technical and scientific review of DOE activities related to implementing the NWPA, and at the direction of the House Committee on Appropriations, the Board conducted a review of DOE activities related to the preservation of Yucca Mountain data and documents, after they were transferred to LM. As part of its review, the Board designed a spot-checking exercise to determine whether records could be retrieved from storage at the LM facility. Given the vast number of records, the Board's spot check could only include a small sample of the documents. In August 2013, the Board reported on the results of its review in a report to the U.S. Congress and the Secretary of Energy: *Review of U.S. Department of Energy Activities to Preserve Records Created by the Yucca Mountain Repository Project*. The Board's findings and recommendations are included in this synopsis. The full report can be found on the Board's website: http://www.nwtrb.gov/reports/NWTRB%20Legacy%20Mgmt.pdf.

BOARD FINDINGS

Based on the results of its review, the Board found in its report that as of August 2013:

- Yucca Mountain documents had been preserved and could be accessed and retrieved.
- With significant time and effort, LM personnel were able to search and retrieve relevant e-mail records.
- LM did not have the capability to load and execute most of the analytical software used on the YMP.
- Some boxes of YMP records being stored by LM contained physical objects, but the inventories of the contents vary in detail. Consequently, it was unclear what measures might be needed to preserve them or to create searchable databases for the objects.
- LM used approved National Archive and Records Administration schedules to identify what YMP records should be preserved permanently and what records would be preserved temporarily.
- The general public could access preserved records held by LM, but only through a Freedom of Information Act request.

BOARD RECOMMENDATIONS

Based on its findings, the Board made the following recommendations in its August 2013 report:

1. A retrieval exercise, similar to the one conducted in August 2012, should be repeated in three years to assess the level of record preservation and retrieval capability at that time.
2. Policy-makers should evaluate how much priority should be given to archiving and preserving YMP documents and physical materials. Without a continuing commitment of resources, it is unclear whether the current level of effort in this area can be sustained over time.
3. Additional project documents may still be forwarded to LM to be archived and preserved. Such records should be added to the Yucca Mountain Records Information System if they are determined to contain new technical information.
4. DOE should consider providing web access to the foundational documents developed as part of the YMP. These records may be of scientific, technical, and historical value and deserve to be easily accessible by the general public.
5. In the cases of boxes of physical objects being stored by LM, for which inventories are limited and/or not included in a searchable database, DOE policy-makers should evaluate whether to undertake additional efforts to develop informative inventories that could be placed into searchable databases.
6. Although not the responsibility of LM, materials from geologic investigations, such as rock cores and materials from experimental studies, such as metal coupons used in corrosion investigations, may have future value to ongoing DOE projects and may find application in broader scientific and technical studies. The report did not address or evaluate the fate of these materials; however, the Board recommended that an external review be initiated to determine what types of materials exist, where they are located, and what their potential value might be. Such a review should provide recommendations to DOE policy-makers on whether and how materials judged to be valuable should be preserved and made accessible.

The U.S. Nuclear Waste Technical Review Board is an independent federal agency established in the 1987 amendments to the Nuclear Waste Policy Act (NWPA). The Board evaluates the technical and scientific validity of U.S. Department of Energy activities related to implementing the NWPA and provides objective expert advice on nuclear waste issues to Congress and the Secretary of Energy. The eleven Board members are nominated by the National Academy of Sciences and are appointed by the President.