



U.S. Nuclear Waste Technical Review Board Strategic Plan

Fiscal Years 2011-2016

Revised September 13, 2010



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FY 2011-2016

Mission

The U.S. Nuclear Waste Technical Review Board was established in the 1987 amendments to the Nuclear Waste Policy Act (NWPA) to "...evaluate the technical and scientific validity of activities [for managing and disposing of spent nuclear fuel and high-level radioactive waste] undertaken by the Secretary [of Energy], including

- (1) site characterization activities; and
- (2) activities relating to the packaging or transportation of high-level radioactive waste or spent nuclear fuel."

As set forth in the legislative history, the purpose of the Board is to provide independent expert advice to Congress and the Secretary on technical issues and to review the technical validity of the U.S. Department of Energy's (DOE) implementation of the NWPA (P.L. 97-145, as amended). In accordance with this mandate, the Board conducts an objective, ongoing, and integrated technical peer review of DOE activities related to the management, transportation, packaging, storage, and disposal of commercial spent nuclear fuel and of DOE-owned spent nuclear fuel and high-level radioactive waste. The Board reports its findings, conclusions, and recommendations to Congress and the Secretary at least twice yearly.

Vision

By performing ongoing and independent technical and scientific peer review of the highest quality, the Board makes a unique and essential contribution to increasing confidence in the technical validity of DOE activities related to the management and disposition of spent nuclear fuel and high-level radioactive waste. The Board provides technical and scientific information to decision-makers in Congress, the Administration, DOE, and the public on the full range of technical issues related to the management and disposition of such waste.

Values

The Board conducts its technical and scientific peer review according to the following values:

- Board members have no real or perceived conflicts of interest related to the Board's mission.
- Board findings and recommendations are based on objective and unbiased evaluations of the technical and scientific validity of the Secretary's activities.
- The Board's deliberations are transparent and conducted in such a way that its integrity and objectivity are above reproach.

- The Board's findings, conclusions, and recommendations are technically and scientifically sound and are based on the best available technical analysis and information.
- The Board's findings, conclusions, and recommendations are communicated clearly and in time for them to be most useful to Congress, the Secretary, and the public.
- The Board encourages public comment and discussion of DOE activities and Board findings, conclusions, and recommendations.

Members

The Board is composed of 11 members who are appointed by the President from a list of nominees submitted by the National Academy of Sciences (NAS). Nominees to the Board must be eminent in a field of science or engineering and are selected solely on the basis of established records of distinguished service. The Board is nonpartisan and apolitical. By law, no nominee to the Board may be an employee of DOE, a National Laboratory under contract to DOE, or an entity performing high-level radioactive waste or spent nuclear fuel activities under contract to DOE.

Powers

The law grants significant investigatory powers to the Board. The Board may hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence as it considers appropriate. At the request of the Board and subject to existing law, DOE is required to provide all records, files, papers, data, and information necessary for the Board to conduct its technical review, including drafts of work products and documentation of work in progress. According to the legislative history, Congress provided such access with the expectation that the Board will review and comment on DOE decisions, plans, and actions as they occur, not after the fact.

Continuing Role

For 20 years, DOE focused on developing a deep geologic repository for the permanent disposal of spent nuclear fuel and high-level radioactive waste at Yucca Mountain in Nevada. In January 2010, Secretary of Energy Steven Chu appointed a Blue Ribbon Commission on America's Nuclear Future (BRC) that was established to consider alternatives for managing the back end of the nuclear fuel cycle. At approximately the same time, DOE petitioned the Nuclear Regulatory Commission (NRC) for permission to withdraw the license application (LA) for constructing a repository for disposal of spent nuclear fuel and high-level radioactive waste at Yucca Mountain.

Even as new options for managing nuclear waste are evaluated, DOE continues to have responsibility under the NWPAA for the management and disposition of DOE-owned spent nuclear fuel and high-level radioactive waste and for the disposition of spent nuclear fuel from commercial reactors. Similarly, the Board's statutory responsibility for conducting ongoing technical peer review of DOE's nuclear waste management and disposition activities and for advising Congress and the Secretary on the technical and scientific validity of those activities remains unchanged.

Strategic Goals

Given the Board's ongoing peer review role, the Board's overarching strategic goals are the following:

- The Board will perform ongoing and objective technical and scientific peer review of DOE activities related to the management, packaging, transportation, storage, and disposition of spent nuclear fuel and high-level radioactive waste.
- The Board will make findings and recommendations that are based on its ongoing peer review related to the technical and scientific validity of DOE activities.
- The Board will report its findings and recommendations to Congress and the Secretary and will provide technical and scientific information to policy-makers to help inform decision-making and increase confidence in the validity of the technical and scientific process.

Performance Goals for FY 2011-2016

To accomplish its strategic goals, the Board has established three performance goals for fiscal years (FY) 2011-2016. The performance goals refocus the work of the Board to reflect plans, discussed in DOE's FY 2011 budget justification document, for transitioning activities related to DOE obligations under the NWPAs from the Office of Civilian Radioactive Waste Management (DOE-RW) to the Office of Nuclear Energy (DOE-NE). The performance goals also reflect the Board's continuing evaluation of activities undertaken by the Office of Environmental Management (DOE-EM) related to DOE-owned spent nuclear fuel and high-level radioactive wastes that require treatment, storage, and eventual disposal. The Board has the necessary authority, under current law, to achieve its performance goals.

During FY 2011-2016, the Board will do the following:

- Compile objective technical information required to perform its technical review of DOE nuclear waste management activities and to advise Congress and the Secretary on the technical implications of alternatives for nuclear waste management.
- Continually update and report on Board experience with the U.S. nuclear waste program and programs in other countries.
- Review and report on the technical and scientific validity of DOE activities related to implementation of the NWPAs, including the activities transitioning from the DOE-RW to DOE-NE and DOE-EM.

Achieving the Performance Goals

Priority Goals. For each performance goal, shorter-term "priority goals" have been established and are expected to be completed by the end of FY 2012. The priority goals are discussed in more detail in the Board's performance budget for FY 2012. The Board will evaluate its performance in achieving the priority goals in its performance budget and will update them as appropriate.

Board Panels. The Board maintains the option of organizing panels and working groups that correspond with its performance and priority goals to help facilitate and focus its technical review.

Information Gathering. Much of the Board's peer review and information gathering takes place at open public meetings where technical information is presented according to an agenda prepared by the Board. At the meetings, Board members and staff question presenters, and time is provided for comments from interested members of the public. The Board typically holds two or three public meetings each year. Board panels and smaller groups of Board members and staff meet, as needed, to investigate specific technical topics. The Board's public meetings are announced in the *Federal Register* four to six weeks before the meetings are held.

The Board also gathers information from site visits, visits to National Laboratories and facilities, and meetings with individuals working on specific projects and programs. Board members and staff attend national and international symposia and conferences related to the science and technology of nuclear waste management and disposition. From time to time, Board members and staff visit other countries to meet with organizations involved in the management of spent nuclear fuel and high-level radioactive waste to review best practices, perform benchmarking, and assess potential analogs.

Technical Analysis. Technical information is analyzed by Board members with assistance from a full-time senior professional staff. When necessary, the Board is authorized to hire expert consultants to perform in-depth reviews of specific technical and scientific topics. On the basis of the analyses, the Board reports its findings and recommendations to Congress and the Secretary of Energy. Board reports, testimony, correspondence and meeting agendas, transcripts, presentations, and public comments are posted on the Board's Web site at www.nwtrb.gov.

Crosscutting Functions

Many agencies, organizations, and entities are involved in some aspect of managing spent nuclear fuel and high-level radioactive waste, including, but not limited to, Congress, DOE, the BRC, the NRC, the Environmental Protection Agency (EPA), the Department of Transportation, the NAS, the Government Accountability Office, the State of Nevada and affected units of local governments in Nevada and California, the National Association of Utility Commissioners, the National Governors' Association and regional governors' groups, the National Conference of State Legislatures, the Nuclear Energy Institute, the Electric Power Research Institute, and environmental organizations, such as the Natural Resources Defense Council.

The Board's technical evaluation is at once different from and complementary to the activities of most of these groups in that the Board is (1) unconstrained by any stake, beyond technical and scientific credibility, in the outcome of the activities it reviews, (2) limited by its statutory mandate to reviewing the technical and scientific validity of DOE activities (not the policy implications or regulatory compliance), and (3) a permanent independent federal agency whose members are appointed by the President.

Key External Factors

As discussed below, some factors that are outside the Board's control can alter nuclear waste policy and could require the Board to revise its strategic goals to enable it to fulfill its mandated responsibilities.

- *The Board has no authority to implement its recommendations.* The Board is, by statute, a technical and scientific peer-review body that makes findings and recommendations. According to the legislative history, Congress expected that DOE would accept Board recommendations or indicate why the recommendations could not or should not be implemented. However, the statute does not obligate DOE to comply with Board recommendations. If DOE does not accept a Board recommendation, the Board can advise Congress, reiterate its recommendation to DOE, or both.
- *Funding levels may not be consistent or adequate.* Funding constraints can affect the Board's ability to conduct its comprehensive review of DOE activities and provide technical and scientific findings and recommendations to Congress and the Secretary. Funding levels and allocation decisions also affect the kinds and extent of activities undertaken by DOE that are subject to the Board's ongoing technical and scientific review.
- *Administrative, judicial, or legislative actions may alter nuclear waste policy.* As discussed in an earlier section, in the last year, DOE has petitioned NRC to withdraw the LA for constructing a repository at Yucca Mountain in Nevada, and a decision by NRC is expected soon. Court challenges to DOE's decision to withdraw the LA already have been filed, and more can be expected once NRC makes a final decision on DOE's petition. Many DOE activities related to its obligations under the NWPA are transitioning from DOE-RW to DOE-NE, while others remain with DOE-EM. The BRC was established to consider alternatives for managing the back-end of the nuclear fuel cycle, and, if implemented, the BRC recommendations may be expected to change further national policy on nuclear waste management.

The Board's ongoing technical peer review is especially important in enhancing confidence in the technical and scientific process during periods of uncertainty. The Board will continue to evaluate the status of these external factors, identify any new factors, and, if warranted, modify the "external factors" section of the strategic plan as part of the annual program evaluation described below.

Evaluating Board Performance

To measure its performance in a given year, for each priority goal, the Board considers the following criteria:

1. Did the Board undertake the activities needed to complete the priority goal effectively and efficiently?
2. Did the Board complete its review of DOE's work on schedule and at reasonable cost?
3. Were the findings and recommendations associated with the priority goal communicated in a timely, understandable, and appropriate way to Congress, the Secretary of Energy, and the public?

Progress in meeting the priority goals will be evaluated quarterly, and adjustments will be made, as necessary. At the end of the fiscal year, the Board's success in meeting each of the performance criteria will be measured on a numerical scale of 1 to 5, with 1 being minimally successful and 5 being fully successful. Each priority goal will be given an overall performance measure based on the sum for the three criteria. The Board will use the evaluation of its performance as input in developing its annual performance goals and performance budget for subsequent years. The results of the Board's annual performance evaluations are included in its summary reports.

Transparency

In developing its Strategic Plan for FY 2011-2016, the Board consulted with the Office of Management and Budget and will solicit comment from Congress, the Department of Energy, and members of the public. Copies of the strategic plan will be provided to NRC, NAS, and other interested parties and will be posted on the Board's Web site for a 90-day comment period. After incorporating comments, the final plan will be posted on the Board's Web site.