

U.S. NUCLEAR WASTE TECHNICAL REVIEW BOARD



**STRATEGIC PLAN
FISCAL YEARS 2014-2018
MARCH 2014**

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MESSAGE FROM THE CHAIRMAN

March 2014



In accordance with the Government Performance and Results Modernization Act of 2010, it is my pleasure to present the U.S. Nuclear Waste Technical Review Board's *Strategic Plan for Fiscal Years 2014 - 2018*. This plan supersedes the Board's *Strategic Plan for Fiscal Years 2011 - 2016*, which was published in 2010. The updated plan describes the Board's mission and the vision and values that underlie the Board's work and the development of the Board's Strategic Goals and Objectives.

As an independent Federal agency in the Executive Branch, the Board is committed to effectively carrying out its legislative mandate to "... evaluate the technical and scientific validity of the Department of Energy's activities related to managing and disposing of spent nuclear fuel and high-level radioactive waste." The Board's *Strategic Plan for Fiscal Years 2014 - 2018* provides a roadmap to guide us in achieving our Strategic Goals and Objectives and a benchmark, against which to evaluate the Board's performance in meeting those Goals and Objectives in the years ahead.

Rodney C. Ewing
Chairman



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U.S. NUCLEAR WASTE TECHNICAL REVIEW BOARD

STRATEGIC PLAN

FISCAL YEARS 2014-2018

MISSION

The U.S. Nuclear Waste Technical Review Board was established in the 1987 Nuclear Waste Policy Amendments Act (NWPAA) (P.L. 100-203) to "...evaluate the technical and scientific validity of activities [related to 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 recorded in the Legislative History of the NWPAA, the purpose of the Board is to provide independent expert advice to Congress and the Secretary of Energy on technical and scientific issues and to review the technical and scientific validity of the U.S. Department of Energy's (DOE) implementation of the Nuclear Waste Policy Act (NWPA) (P.L. 97-425, as amended). In accordance with this mandate, the Board conducts objective, ongoing, and integrated technical and scientific peer review of DOE activities related to the management and disposition of commercial spent nuclear fuel (SNF) and of DOE SNF and high-level radioactive waste (HLW). The Board reports its findings, conclusions, and recommendations to Congress and the Secretary of Energy 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 and scientific validity of DOE activities related to the management and disposition of SNF and HLW and to informing, from a technical and scientific perspective, policy discussions undertaken by decision-makers on options for managing and disposing of SNF and HLW. The Board provides objective and relevant technical and scientific information to Congress, the Administration, DOE, and the public on a wide-range of technical and scientific issues related to the management and disposition of such waste.

VALUES

The Board's conduct of its technical and scientific peer review reflects the following values:

- Objectivity.** Board members have no real or perceived conflicts of interest related to the Board's mission. Board findings and recommendations are based on impartial evaluations of the technical and scientific validity of the Secretary's activities.

- ✚ **Openness.** Board deliberations are transparent and are conducted in such a way that the Board’s integrity and objectivity are above reproach. The Board encourages public comment and discussion of Board findings, conclusions, and recommendations.
- ✚ **Technical and Scientific Competence.** Board findings, conclusions, and recommendations are technically and scientifically sound and are based on the best available technical and scientific information and analyses.
- ✚ **Timeliness.** Board findings, conclusions, and recommendations are communicated clearly and in time for them to be useful to Congress, the Secretary, and the public.

MEMBERS

The Board is composed of eleven 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, of a National Laboratory under contract to DOE, or of an entity performing HLW or SNF activities under contract to DOE.

POWERS

The NWPAA 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 of the NWPAA, Congress provided such access to allow the Board to review and comment on DOE decisions, plans, and actions as they occur, not after the fact.

HISTORY AND CONTINUING ROLE

For more than 20 years, DOE focused on developing a deep geologic repository for the permanent disposal of SNF and HLW at Yucca Mountain in Nevada. Throughout this period, the Board provided technical and scientific findings, conclusions, and recommendations on the technical and scientific validity of DOE’s efforts. DOE submitted a license application (LA) for the Yucca Mountain repository to the U.S. Nuclear Regulatory Commission (NRC) in June 2008. In early 2010, DOE petitioned the NRC for permission to withdraw the LA. Also in early 2010, then Secretary of Energy Steven Chu appointed the Blue Ribbon Commission on America’s Nuclear Future (BRC) to consider alternatives for managing the back end of the nuclear fuel cycle. The BRC submitted its recommendations to the Secretary in January 2012, and DOE issued its *Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste* one year later. In August 2013, the U.S. Court of Appeals for the DC Circuit ruled that NRC must resume its review of the Yucca Mountain license application.

Even as options for managing nuclear waste are evaluated, DOE continues to have responsibility under the NWPA for the management and disposition of SNF and HLW. Similarly, the Board's statutory responsibility for conducting ongoing technical and scientific peer review of these DOE activities and for advising Congress and the Secretary on technical and scientific issues related to nuclear waste management and disposal remains unchanged.

STRATEGIC GOALS

The Board has established the following Strategic Goals to guide the implementation of its Mission:

- ✚ The Board will help enhance the technical and scientific validity of DOE activities related to implementing the NWPA.
- ✚ The Board will help inform, from a technical perspective, policy discussions and decision-making related to managing and disposing of SNF and HLW.

The Goals are used to allocate resources and guide internal decision-making related to accomplishing Board priorities and improving outcomes.

STRATEGIC OBJECTIVES

In line with its Strategic Goals, the Board has developed three Strategic Objectives for fiscal years (FY) 2014-2018. The Strategic Objectives reflect the Board's continuing technical and scientific evaluation of activities undertaken by DOE's Office of Nuclear Energy (DOE-NE) related to managing and disposing of commercial SNF and activities undertaken by the Office of Environmental Management (DOE-EM) related to disposing of DOE's SNF and HLW.

During FY 2014-2018:

- ✚ The Board will continue its ongoing technical and scientific evaluation of DOE activities related to implementation of the NWPA. Based on its evaluation, the Board will report its findings, conclusions, and recommendations to Congress and the Secretary.
- ✚ The Board will develop objective technical and scientific information to advise Congress and the Secretary on issues related to SNF and HLW management and disposal. The Board will communicate such information in reports, correspondence, and testimony.
- ✚ The Board will compile technical and scientific information and report to Congress and the Secretary on its findings, conclusions, and recommendations from experience gained over more than twenty years of reviewing the U.S. nuclear waste management and disposal program and from observing waste management efforts in other countries.

ACHIEVING THE STRATEGIC GOALS AND OBJECTIVES

- ✦ **Authority under the Law.** The Board has the necessary authority, under current law, to achieve its Strategic Goals and Objectives.
- ✦ **Establishing the Strategic Objectives and Annual Performance Goals.** The Board's Strategic Objectives are established in the Strategic Plan. The Board also identifies, on an annual basis, shorter-term Performance Goals that will lead to the accomplishment of the Strategic Objectives and includes the Strategic Objectives and Performance Goals in its annual Performance Plan.
- ✦ **Technical Analysis.** Analysis of technical information is performed by Board members with assistance from a small, full-time senior professional staff. On the basis of these analyses, the Board reports its findings and recommendations to Congress and the Secretary of Energy. When necessary, the Board is authorized to hire expert consultants to support its in-depth reviews of specific technical and scientific topics.
- ✦ **Evaluating Board Performance.** The Board includes in its annual Budget Submittal an evaluation of the Board's performance in achieving its annual Performance Goals for the preceding year. The process for evaluating Board performance is discussed below. Progress toward achieving the Board's Performance Goals is reviewed quarterly by Board management, and appropriate actions are taken to facilitate the achievement of the goals during the time period. This information is taken into account in developing the Board's annual budget submittal.
- ✦ **Coordinating and Focusing Board Activities.** Board members are assigned by the Chairman to lead or participate in Board activities, as appropriate. The work of the Board members is supported by the Board's senior professional staff. The Board maintains the option of organizing panels or working groups of Board members and staff members to help facilitate, integrate, and focus its technical review, and for other purposes.
- ✦ **Information Gathering.** Much of the Board's peer review and information gathering takes place at the Board's open public meetings where technical information is presented by representatives of DOE and of other relevant organizations according to an agenda prepared by the Board. Following the presentations, Board members and staff question presenters on related technical issues, and time is provided at the meetings for input and comments from interested members of the public. The Board holds two or three public meetings each year. Board panels and other small groups of Board members and staff hold other meetings, as needed, to investigate specific technical and scientific topics. The Board's public meetings are announced in the *Federal Register*, typically 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 DOE and national laboratory and contractor staff working on relevant projects and programs. Board members and staff attend national and international technical and scientific symposia and conferences related to SNF and HLW management and disposition. From time to time, Board members and staff travel to other countries to meet with representatives of organizations involved in the management of SNF and HLW to observe their technical and scientific programs, discuss best practices, perform

benchmarking, and assess potential analogs, among other things. The information gathered is used to inform the Board's technical and scientific review of DOE programs and to advise Congress.

- ✚ **Involving the Public.** In conducting its on-going technical and scientific peer review, the Board provides extensive opportunities for public participation at its open public meetings. Over the years, the Board's meetings have become a unique forum for the interested public to interact directly with the Board and its staff; DOE managers, scientists, engineers, and consultants; and other program participants. Public comments offered at the meetings are included in meeting transcripts, and written public comments and other materials submitted in conjunction with the meetings are included in the meeting records on the Board's website.
- ✚ **Communicating Board Findings, Conclusions, and Recommendations.** On the basis of the Board's evaluations and other evidence, the Board reports its technical and scientific findings, conclusions, and recommendations to Congress and the Secretary of Energy. The Chairman and other members of the Board and Board staff testify before Congress, as requested. As discussed above, all Board reports, testimony, correspondence, and meeting agendas, transcripts, presentations, and public comments are posted on the Board's website at www.nwtrb.gov.

CROSSCUTTING FUNCTIONS

Many organizations and entities are involved in some aspect of managing and disposing of SNF and HLW, including, but not limited to, Congress, DOE, the NRC, the Environmental Protection Agency, the Department of Transportation, the NAS, the Government Accountability Office, affected Native American Tribes, Affected Units of Local Government, the National Association of Regulatory 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 and scientific evaluation is at once different from and complementary to the activities of most of these entities. The Board is (1) unconstrained by any stake, beyond technical and scientific validity, 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, factors that are outside the Board's control could affect the Board's ability to achieve its Strategic Goals or Objectives.

- ✚ *The Board has no statutory authority to implement its recommendations.* The Board is a technical and scientific peer-review body that makes findings, conclusions, and recommendations. The Board's enabling statute does not obligate DOE to comply with Board recommendations. However, according to the Legislative History of the NWPAA, Congress expected that DOE would accept Board recommendations or indicate why the recommendations could not or should not be implemented. If DOE does not accept a Board recommendation, the Board can reiterate its recommendation, advise Congress, or both.

- ✦ *Funding levels may not be consistent or may be insufficient for the Board to fully meet its performance goals on the timetable planned.* Funding constraints can affect the Board’s ability to complete its review of DOE activities and provide its technical and scientific findings, conclusions, and recommendations to Congress and the Secretary of Energy in accordance with its annual Performance Goals. Funding levels and allocation decisions may affect the nature and extent of activities undertaken by DOE that are subject to the Board’s ongoing technical and scientific review, which also may affect the Board’s activities and schedules.
- ✦ *Administrative, judicial, or legislative actions may alter nuclear waste policy.* As discussed above, the U.S. Court of Appeals for the DC Circuit has ruled that NRC must resume its review of the Yucca Mountain license application, and most DOE activities related to implementing the NWPA have transitioned from the now defunct Office of Civilian Radioactive Waste Management to DOE-NE. Most activities related to the management and disposal of DOE SNF and all the activities related to the management and disposal of HLW are the responsibility of DOE-EM. Decisions or activities undertaken by any of these entities could affect the nature or extent of the Board’s technical and scientific review.

The Board’s ongoing technical and scientific 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 necessary, update its Strategic Objectives and Performance Goals as appropriate.

EVIDENCE-BASED EVALUATION OF BOARD PERFORMANCE

The Board’s progress in meeting its Strategic Objectives and annual Performance Goals is evaluated quarterly, and adjustments are made, as necessary. At the end of the fiscal year, the Board’s performance in achieving its annual Performance Goals is reported in its annual Budget Submittal. The Board uses the evaluation of its performance as input in revising, as necessary, its Strategic Objectives and in developing its annual Performance Goals for the following fiscal year.

The reliability of the evidence and data used to evaluate the Board’s performance in relation to its annual Performance Goals is high and can be verified by accessing the referenced documents and the records of meetings on the Board’s website at www.nwtrb.gov.

TRANSPARENCY

In developing its Strategic Plan for FY 2014-2018, the Board will solicit comments from OMB, Congress, DOE, and members of the public and will provide electronic copies of the Strategic Plan to NRC, NAS, and other interested parties. The Strategic Plan will be posted on the Board’s website.