U.S. Nuclear Waste Technical Review Board

Fiscal Year (FY) 2016 Congressional Budget Justification

Including Board Performance Goals for FY 2015-2016
And Performance Evaluation for FY 2014

February 2, 2015

U.S. Nuclear Waste Technical Review Board
Budget Request Submittal
Fiscal Year 2016

Summary

The U.S. Nuclear Waste Technical Review Board (Board) is an independent federal agency in the Executive Branch. The Board performs ongoing unbiased peer review of the technical and scientific validity of activities undertaken by the Secretary of Energy related to the implementation of the Nuclear Waste Policy Act (NWPA) (P.L. 97-425, as amended), including the storage, transportation, and disposal of spent nuclear fuel (SNF) and high-level radioactive waste (HLW). The Board also advises and makes recommendations to Congress and the Secretary on technical and scientific issues related to nuclear waste management and disposal. The Board's independent technical and scientific perspective and its objective evaluation are intended to enhance confidence in the technical and scientific process.

The Board's budget request for fiscal year (FY) 2016 is $3,600,000. The requested amount will support the Board's efforts to achieve the goals of its Performance Plan for FY 2015-2016, as well as, to increase public accessibility to the Board's deliberations, add important technical expertise to its professional staff, enhance its review of DOE activities related to SNF and HLW transportation, and fund expanded eligibility under the Federal Employees Health Benefits Program and increase contributions to Federal Employee Retirement System plans in accordance with federal requirements. The Board's request reflects its continued commitment to sound budgeting and cost-effective management practices.

The Board's Mission

The Board was established in the 1987 amendments to the NWPA 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 set forth in the Legislative History of the Nuclear Waste Policy Amendments Act (NWPAA), the purpose of the Board is to provide independent expert advice to Congress and the Secretary of Energy based on its review of the U.S. Department of Energy's (DOE) implementation of the NWPA. 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 SNF and of DOE SNF and HLW. The Board reports its findings, conclusions, and recommendations to Congress and the Secretary of Energy.

The Board's Continuing Role

For more than 20 years, DOE activities related to nuclear waste management focused on developing a deep geologic repository for the permanent disposal of SNF and HLW at Yucca Mountain in Nevada and the Board provided technical and scientific findings and recommendations on the technical and scientific validity those efforts. DOE submitted a license application (LA) for authorization to construct a repository at Yucca Mountain to the U.S. Nuclear Regulatory Commission (NRC) in June 2008. In early 2010, DOE petitioned the NRC for permission to withdraw the LA. At approximately the same time, the Secretary of Energy announced the formation of the Blue Ribbon Commission on America's Nuclear Future (BRC) to consider alternatives for managing the back end of the nuclear fuel cycle, and in 2011, the NRC suspended its review of the LA. 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 District of Columbia District ruled that NRC must resume consideration of DOE's LA for the Yucca Mountain repository; in 2014, the NRC published Volumes 3 and 4 of its safety evaluation report (SER) on Yucca Mountain. Volume 1 had been issued previously, in 2010.

Even though DOE's program for managing nuclear waste has evolved over the years, DOE continues to have responsibility under the NWPA for managing and disposing of DOE SNF and HLW and for disposing of SNF from commercial nuclear power plants. Similarly, the Board's statutory responsibility for evaluating these DOE activities and for advising Congress and the Secretary remains unchanged.

The Board's Performance Plan for FY 2015-2016

The Board identifies on an annual basis Performance Goals that will lead to the accomplishment of Strategic Objectives established in the Board's Strategic Plan for the relevant period. The Strategic Objectives from the Strategic Plan for the period FY 2014-2018 are presented below, together with the applicable Performance Goals for FY 2015-2016.

Strategic Objective #1: *The Board will continue its 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.*

Performance Goal 1-A: In FY 2015-2016, the Board will continue to evaluate and report on the technical and scientific validity of activities undertaken by DOE's Office of Nuclear Energy (DOE-NE) related to implementing the NWPA, including disposal-related research and development and related actions identified in DOE's *Strategy*. Those activities include:

- Evaluation of whether direct disposal of existing storage containers used at utility sites can be accomplished in various geologic media
- Evaluation of various types and design features of engineered barrier systems and materials
- Evaluation of various geologic media for their impacts on waste isolation
- Evaluation of thermal management options for various geologic media
- Establishing cooperative agreements with international programs
- Developing an R&D plan for deep borehole disposal

- Planning for a large-scale transportation program
- Evaluating options for transportation of SNF from shutdown reactors

Performance Goal 1-B. In FY 2015-2016, the Board will continue to review DOE activities related to its R&D program on the long-term dry storage of SNF, including high burnup SNF.

Performance Goal 1-C: In FY 2015-2016, the Board will finalize and issue a report on DOE SNF being stored at federal facilities that will eventually require disposal in a deep geologic repository. The report is the culmination of a four-year study by the Board of, among other things, the status of DOE SNF, the characteristics of the potential high-level radioactive waste forms resulting from processing SNF that will require disposal, the condition of the DOE SNF, and the amounts of DOE SNF being stored at Hanford, the Idaho National Laboratory, the Savannah River Site, and Fort St. Vrain.

Performance Goal 1-D: In FY 2015-2016, the Board will continue to evaluate technical and scientific activities undertaken by DOE's Office of Environmental Management (DOE-EM) related to the management of SNF and HLW, including the classification of HLW waste forms for management and/or disposal.

Strategic Objective #2: *The Board will develop objective technical and scientific information to advise Congress and the Secretary on technical and scientific issues related to SNF and HLW management and disposal. The Board will communicate such information to Congress and the Secretary in reports, correspondence, and testimony.*

Performance Goal 2-A: In November 2013, the Board held a workshop on the impacts of SNF dry-storage container design on the waste management system and the geologic disposal of SNF in the United States. The workshop included participation by DOE, NRC, the nuclear industry, international experts, and the interested public. In FY 2015, the Board will publish a report to Congress and the Secretary on technical information and issues that will be important to decision-makers related to the topics discussed at the workshop.

Performance Goal 2-B: In FY 2015-2016, the Board will issue a report summarizing its activities during the period January 1, 2013, through December 31, 2014. The report will include archival material such as testimony and correspondence to DOE and Congress.

Performance Goal 2-C: In FY 2015-2016, the Board will develop "factsheets" on technical and scientific topics related to DOE's implementation of the NWPA. The factsheets will be posted on the Board's website.

Performance Goal 2-D: In FY 2015-2016, the Board will develop two documents related to its system analysis tool, NUWASTE:

- A report on different options for the disposition of SNF from light-water reactors in the United States, including (1) long term dry-storage of SNF, (2) permanent disposal of SNF in a geologic repository, and (3) a combination of reprocessing and geologic disposal.
- A reference document on NUWASTE, which will describe the system and its capabilities and include sample results to illustrate how it can be used to analyze and compare different waste management strategies.

Strategic Objective #3: *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.*

Performance Goal 3-A: In FY 2015-2016, the Board will update and extend the analyses presented in the Board's December 2009 Survey of National Programs Report.

Performance Goal 3-B: In FY 2015 -2016, the Board will issue a report on designing a process for repository site selection, including discussion of the approaches that have been used by the United States and other countries.

Achieving the Board's Strategic Objectives and Performance Goals in FY 2015-2016

Authority under the Law. The Board has the necessary authority, under current law, to achieve its Strategic Objectives and Performance Goals.

Establishing the Strategic Objectives and Annual Performance Goals. The Board's Strategic Goals and Objectives are established in its current Strategic Plan, which covers the period from FY 2014 to FY 2018. The Board identifies, on an annual basis, shorter-term Performance Goals that will lead to the accomplishment of the Strategic Objectives. Strategic Objectives and Performance Goals are included in the Board's annual Performance Plan. The Performance Plan is the basis for the Board's annual Budget Request Submittal.

Technical Analysis. Analyses of technical information are performed by Board members, who serve part time, with assistance from a small, full-time senior professional staff. On the basis of these analyses, the Board reports its findings, conclusions, 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 also includes in its annual Budget Request Submittal an evaluation of the Board's performance in achieving its annual Performance Goals for the preceding year. Progress toward achieving the Board's Performance Goals is reviewed quarterly by Board management.

Coordinating and Focusing Board Activities. Board members are assigned by the Chairman to lead 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 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 open public meetings organized by the Board, where technical information is presented by DOE, its contractors, and representatives of other relevant organizations according to an agenda prepared by the Board. At these meetings, Board members and staff question presenters, and time is provided 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 specific projects and programs. Board members and staff attend national and international symposia and conferences related to the science and technology of SNF and HLW management and disposition. From time to time, Board members and/or staff travel to other countries to meet with organizations involved in the management of SNF and HLW to observe their technical and scientific programs and best practices, perform benchmarking, and assess potential analogs, among other things. The information gathered as a result of these visits is used to enhance the Board's technical and scientific evaluation of DOE programs and to advise Congress and the Secretary of Energy.

Communicating Board Findings, Conclusions, and Recommendations and Providing Access to Board Deliberations. On the basis of the Board's evaluations and other information, 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. Board reports, testimony, correspondence and meeting agendas, transcripts, presentations, and public comments are posted on the Board's website at www.nwtrb.gov. The Board will investigate and implement, where appropriate, methods for increasing public access to its deliberations, including the potential "webcasting" of its open public meetings.

Management Goals for FY 2015–2016. To enhance the effectiveness and efficiency of Board activities supporting the achievement of its Strategic Objectives and Performance Goals, the Board has identified the following Management Goals for FY 2015-2016:

- The Board will maintain effective communications among Board members who are geographically dispersed. The Board will also facilitate communication among the Board members and the senior professional staff members who support the Board's technical and scientific review of DOE activities from the Board's offices in Arlington, Virginia.
- The Board will, to the extent feasible, increase access to Board discussions and deliberations by interested members of the public, potentially through webcasting its meetings and by other means.
- The Board will endeavor to obtain information and conduct its review in the most cost-effective means possible.
- The Board will take actions to ensure that its institutional memory and expertise can be passed on to succeeding Board members and staff, as well as to Congress, the Secretary of Energy, and interested members of the public. The Board will also provide opportunities for undergraduates or graduate students in fields related to the backend of the nuclear fuel cycle to gain practical experience by participating in a summer internship program sponsored by the Board.

The Board will regularly update its technological resources and capabilities and assess the core technical and scientific competencies of its senior professional staff. The Board will develop and implement initiatives to identify, recruit when necessary, and retain, highly qualified professionals with the technical and scientific knowledge needed to support the work of the Board members and help the Board achieve its Strategic Objectives.

Evaluation of Board Performance in FY 2014

The Board's progress in meeting its annual Performance Goals is evaluated quarterly, and adjustments are made, as necessary. The Board uses the evaluations of its performance as input in developing its annual Performance and Management Goals for the following fiscal year and revising, as necessary, it's Strategic Objectives. The Performance Evaluation also is used as input for the development of the Board's budget submittal for the subsequent year.

Confidence in the basis for evaluating the Board's performance in achieving its annual Performance Goals is high and can be verified by accessing the referenced documents and records of the referenced meetings on the Board's Web site at www.nwtrb.gov.

Following is an evaluation of the Board's performance in completing the "Priority Tasks" (equivalent to Performance Goals) it established for FY 2014.

Priority Tasks Related to Performance Goal 1

Task 1-A. The Board will evaluate and report on the technical validity of activities proposed or undertaken by DOE's Office of Nuclear Energy (DOE-NE) related to SNF and HLW management, including the following:

- Generic research and development (R&D) on potential geologic media for deep geologic disposal, including thermal modeling in granite, clay, and salt
- Generic R&D on repository designs, including deep borehole disposal
- Generic R&D on the engineered barrier system, including the implications of repackaging dry-storage casks for repository disposal
- R&D on the technical bases for very long-term storage of SNF, and subsequent transportation of dry-storage casks

Board Performance in FY 2014 Related to Task 1-A

- On November 20, 2013, the Board held a meeting at which DOE presented its plans for research and development activities being sponsored by the DOE-NE Office of Fuel Cycle Technology. The R&D included an evaluation of the attributes of potential geologic media that might be suitable for the disposal of the full inventory of SNF and HLW waste forms. The Board commented on DOE's plans in a letter dated January 29, 2014.

- The Board held a meeting on March 19, 2014, that focused on DOE's generic studies of the attributes of salt as a potential geologic media for the disposal of SNF and HLW. The Board made three general observations and a number of specific recommendations to DOE in a June 4, 2014, letter following the meeting. The general recommendations included the following:
  - "The Board recommends that DOE develop a framework for bringing together the different modeling groups to encourage model comparison, integration, and computational performance improvement . . ."
  - "…the Board recommends that DOE continue its efforts on coupled-process model validation using published laboratory and *in situ* field-scale test data."

- "The Board recommends that attention be given to these factors [potential disadvantages of salt] in order to ensure a balanced evaluation of the performance of salt as a medium for a geologic repository."

- At the meeting on November 20, 2013, DOE presented the results of a study of waste forms/disposal options, including the potential use of deep boreholes for nuclear waste disposal. In its January 29, 2014 letter, the Board noted that DOE's position regarding the use of deep borehole disposal was unclear; one presentation seemed to suggest that the disposal option could be used for both SNF and HLW and another DOE presentation seemed to conclude that deep borehole disposal would not be possible for large vitrified waste containers or for dual-purpose canisters being used to store commercial SNF. The Board observed that to dispose of any of these wastes in a deep borehole would likely require significant modification of the waste forms. The Board cautioned that deep borehole disposal has no real prospect for replacing a mined deep geologic repository and recommended that activities related to evaluating this disposal method not divert funding from work related to SNF storage and development of a mined deep geologic repository.
- On November 18-19, 2013, the Board held a day-and-a-half long workshop to explore the impacts of dry-storage canister designs currently in use on the future handling, storage, transportation, and geologic disposal of commercial SNF. More than 120 people attended the workshop, which included participation by representatives of DOE, NRC, other federal agencies, national laboratories, the nuclear industry in this and other countries, affected and interested groups and non-governmental organizations, the media, and the general public. All workshop documents, including a summary of the workshop and the issues identified, are available on the Board's website at www.nwtrb.gov. The Board is in the process of writing a report on the topic discussed at the workshop and expects to release it in FY 2015.
- During the workshop, issues were raised and discussed related to the effects and potential consequences of extended storage and subsequent transportation of SNF. At the Board meeting on November 20, 2013, following the workshop, DOE presented its plans for R&D to increase the understanding of potential changes in the condition of SNF during extended storage and transportation.

Task 1-B. As directed by the U.S. House of Representatives Subcommittee on Energy and Water Development, Committee on Appropriations, the Board will evaluate and report on activities undertaken by DOE's Office of Legacy Management (DOE-LM) related to preserving Yucca Mountain project data and documents.

Board Performance in FY 2014 Related to Task 1-B

This task was completed in August 2013 with the completion of the Board's report, *Review of U.S. Department of Energy Activities to Preserve Records Created by the Yucca Mountain Repository Project*.

Task 1-C. The Board will evaluate and report on the technical validity of activities undertaken by DOE's Office of Environmental Management (DOE-EM) related to the disposal waste form and the storage, transportation, and disposal of DOE-owned SNF and HLW.

Board Performance in FY 2014 Related to Task 1-C

The entire agenda for the Board's August 6, 2014, meeting was devoted to issues related to DOE SNF, including fuel-drying activities at Hanford and INL, management of DOE SNF and HLW at INL, waste form development at INL, and managing the aging of SNF storage facilities at INL and Hanford. The Board is completing a report on DOE SNF management and disposal that will be issued in FY 2015.

Performance Goal 2. *The Board will develop and compile objective technical information to advise Congress and the Secretary on technical issues related to SNF and HLW management.*

Priority Tasks Related to Goal 2

Task 2-A. The Board will use its computer-based systems analysis tool, the Nuclear Waste Assessment System for Technical Evaluation (NUWASTE) to analyze waste management options such as separation and partitioning of radioisotopes, evaluate the implications of such options for the final wastes forms to be disposed of, and identify factors related to SNF transportation that could be used to evaluate proposed locations for consolidated storage facilities for SNF.

Board Performance in FY 2014 Related to Task 2-A

NUWASTE was used extensively to develop information that was used as a basis for discussion at the Board's Workshop on Dry-Storage Canister Design in November 2013, and some of this information is also being used in the preparation of the Board's report on this subject, which is planned for issue in FY 2015. In addition, NUWASTE is being used to provide source material for a report being prepared on options for the disposition of SNF from light-water reactors in the United States, which is planned for release in FY 2015-2016.

Task 2-B. The Board will continue to assess the implications of the trend to higher fuel burnups on SNF management and disposal.

Board Performance in FY 2014 Related to Task 2-B

Among the topics that were discussed at the Board's meeting on November 20, 2013, were DOE experiments and a field demonstration to collect data on the properties of high-burnup SNF and storage systems during long-term dry storage. In a January 29, 2014, letter to DOE, the Board commented to the DOE on these activities. The Board observed that the testing of high-burnup fuel cladding alloys being proposed by DOE, while useful, was limited in scope, and urged DOE to take advantage of work that had been done in this area in other R&D programs in the United States and other countries. In the letter, the Board commended DOE for initiating the "Cask Demonstration Project (CDP)," which is intended to provide data on changes in the properties of high-burnup fuel and potential degradation of storage system materials during dry storage. The Board noted that DOE currently has no facility that can be used to open a dry-storage cask in a dry environment.

In a letter to DOE dated June 5, 2014, the Board provided extensive comment on DOE's R&D program related to long-term dry storage of high burnup SNF. In particular, the Board noted the value of the project, but also pointed to a number of needs associated with the work, including: the need for the scope to be expanded to include additional instrumentation to allow more data to be collected, the need for more than one demonstrations cask to be

monitored, and the need for a facility to be modified or constructed to allow the demonstration cask to be opened and the SNF to be accessed for inspection and post-irradiation examination. The Board also noted the possibility that the loaded cask might not be certified by NRC and that additional actions are necessary to ensure that SNF can be transported away from the INL site at the end of the R&D program.

Task 2-C. The Board will assess the benefits of taking burnup credit in the licensing of equipment and facilities for storage, transportation, and disposal of SNF.

Board Performance in FY 2014 Related to Task 2-C

Issues investigated by the Board related to burnup credit are being used both in the preparation of the Board report on the impact of dry-storage canister designs and in its review of DOE's R&D program to support extended storage, transportation, and disposal of high burnup SNF. It is not intended to represent the basis for a stand-alone activity or a separate Board report.

Performance Goal 3. *The Board will gather information and report findings 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.*

Priority Tasks Related to Goal 3

Task 3-A. The Board will continue to update and extend the analyses presented in the *Survey of National Programs Report* issued in December 2009 and is planning to issue a revised report during FY 2016.

Board Performance in FY 2014 Related to Task 3-A

The update of the 2009 "Survey" report has been deferred until FY 2015-2016. Changes are pending to national programs for disposal of SNF and HLW in a number of countries. Deferring the revised report will permit a more comprehensive update of the 2009 report.

Task 3-B. The Board will continuously gather information on work undertaken to characterize repository sites in other countries and will issue reports, factsheets, and letters when there is significant new information.

Board Performance in FY 2014 Related to Task 3-B

The Board currently is developing a report on designing a process for siting a repository, which includes discussion of the approaches used by programs in the United States and other countries. The Board plans to issue the report in FY 2015.

Management Goals for 2014. To enhance the effectiveness and efficiency of Board activities supporting the achievement of its Strategic Objectives and Performance Goals, the Board had identified several Management Goals for FY 2014-2015, which included: improving internal and external communications, initiating new efforts to facilitate succession planning, maintaining the technical and scientific competencies of the Board's senior professional staff, and updating the Board's technological resources and capabilities.

Board Performance in FY 2014 Related to Management Goals

- The Board has established an electronic "drop box" system that has facilitated Board member ease of access to source materials and draft Board documents and has reduced the need for production of multiple paper copies of documents.
- The Board is evaluating the costs versus the benefits of establishing remote-access capability for electronically transmitting its meetings (e.g. using webcasting or webinar software).
- The Board has taken proactive steps to increase public participation in its meetings and to reduce the costs of attendance for meeting participants by holding its meetings in venues that are adjacent to DOE facilities or sites where the work that is being reviewed is undertaken.
- The Board has reinstated its earlier practice of producing reports summarizing its activities and program developments for specified periods. Such reports include archival lists of Board reports and meetings, archival copies of Board testimony and correspondence, biographies of Board members, and other information. The Board has also initiated a summer internship program to provide the opportunity for graduate students to gain practical experience by participating in the Board's work.
- After conducting the assessment of the core competencies of the senior professional staff, the Board has filled key vacancies in the last year, which has significantly increased its ability to support the ongoing work of the Board members.
- The Board is also undertaking a comprehensive review of its IT systems in order to ensure that it is taking advantage of recent technological advances and systems that introduce economies in time and cost commitments in meeting its mandated responsibilities.

U.S. Nuclear Waste Technical Review Board

Salaries and Expenses

(Including Transfer of Funds)

For necessary expenses of the U. S. Nuclear Waste Technical Review Board, as authorized by Public Law 100-203, section 5051, *$3,600,000* to be derived from the Nuclear Waste Fund and to remain available until expended.

Details of Budget Request Justification

To fulfill its statutory mandate for reviewing the technical and scientific validity of activities undertaken by the Secretary of Energy related to nuclear waste management and for providing independent technical information and advice to Congress and the Secretary, the Board requests $3,600,000 for FY 2016. The Board's FY2016 request reflects its commitment to efficient and cost-effective budget management practices.

A detailed explanation of the Board's request by Object Class follows.

Object Class 11.0, Salaries: $1,967,000

The estimate for this object class includes funding for 11 part-time Board members, Executive Schedule senior professional staff, and General Schedule support staff. The 11 part-time Board members are Special Government Employees and, in accordance with the Board's enabling legislation, each member is compensated at the rate of pay of Executive Schedule Level III. The senior professional staff members support the work of the 11 part-time Board members in evaluating the technical and scientific validity of DOE activities related to SNF and HLW management and disposal. The General Schedule staff members perform administrative activities related to the Board's ongoing technical and scientific evaluation and the operation of the organization. Administrative support activities include budget preparation and financial management, dissemination of Board publications, information technology activities, facilities management, travel planning, management of meeting logistics, and preparation and implementation of Board responses to federal directives. The amount requested for Board member and staff salaries includes provision for a pay raise of 1.3 percent in accordance with OMB Circular A-11 (2014).

Object Class 12.0, Civilian Personnel Benefits: $485,000

The estimate for this object class represents the government's contribution for employee benefits for staff and Board members. The amount requested includes a projected increase to the agency's contributions to the Federal Employee Retirement System in accordance with the revised estimates noted in OMB Circular A-11 (2014).

Object Class 21.1, Travel and Transportation: $250,000

The estimate for this object class includes travel costs for Board members, staff, and consultants who are required to travel to Board meetings, professional meetings, conferences, orientation activities, national laboratories, and other events and venues related to accomplishing the Board's strategic objectives and performance goals as detailed in the Board's Performance Plan.

Object Class 23.0, Rental Payments to the General Services Administration (GSA): $238,000

The estimate for this object class represents the amount that the Board will pay to the General Services Administration (GSA) under its contract for rental of the Board's office space in Arlington, VA.

Object Class 23.3, Communication, Utilities, Miscellaneous: $65,000

The estimate for this object class represents costs for long-distance and local telephone service, postage, local courier services, video teleconferencing, webcasting support, internet, and mailing services.

Object Class 24.0, Printing and Reproduction: $40,000

The estimate for this object class is for costs associated with creating and publishing Board reports that are required by statute to be sent to Congress and the Secretary of Energy at least twice per year. The estimate also includes the costs associated with the publication of additional reports, and technical materials, as well as the costs associated with publishing meeting notices in the *Federal Register*.

Object Class 25.0, Consultants: $60,000

The estimate for this object class includes funding for consultants to support and supplement Board and staff analyses of specific technical and scientific issues as authorized by Congress. Requested funding for this object class category also includes estimates for creative consultants to assist the Board in developing and implementing methods that will increase public on-line access to its deliberations, informational resources, and other Board matters.

Object Class 25.1/2, Contractual Services - Other: $270,000

The estimate for this object class includes contractual costs associated with accomplishing the Board's mission. Estimated commercial contract costs includes meeting-room rentals, stenography services and audio visual, webcasting, and video recording equipment rentals for Public Board Meetings, facility maintenance agreements, and professional development for Board supervisors and staff. Other program support contracts include services for contracted commercial IT support and report production and editing.

Object Class 25.3, Services from Other Government Agencies: $100,000

The Board's enabling legislation authorizes the procurement of necessary administrative services from the GSA on a reimbursable basis. The estimate for the object class includes funding for administrative support services such as payroll, accounting services, human resource related support related to management of official personnel folders, recording various personnel actions, and initiating personnel clearances. Other support includes legal advice from GSA, security clearances through the Office of Personnel Management, building security services from the Department of Homeland Security, website hosting services from the Government Printing Office, and other support provided through miscellaneous interagency agreements.

Object Class 26.0, Supplies and Materials: $60,000

This estimate includes anticipated expenses for office supplies, subscriptions to technical publications and on-line academic journals and research databases, meeting supplies, and off-the-shelf technical reports and studies.

Object Class 31.0, Equipment: $65,000

The estimate for this object class includes costs to purchase information management equipment, including computer hardware and software. The object class includes funding for the continuation of upgrades and ongoing maintenance to the Board's IT and physical security, continuity of operations (COOP), support of E-Gov telecommuting efforts, and technical support for the management of the Board's electronic records and e-mail in accordance with the Office of Management and Budget and the National Archives and Records Administration's directives for "Managing Government Records and Email."

U.S. Nuclear Waste Technical Review Board

FY2016 Budget Request by Object Classification

(Figures Rounded in Thousands of Dollars)

Object Class Code	Description	FY2014 Actual	FY2015 Actual	FY2016 Request
11.0	Salaries	$1,802	$1,938	$1,967
12.0	Benefits	431	436	485
21.1	Travel and Transportation	288	225	250
23.0	Rent	228	233	238
23.3	Communications and Utilities	40	40	65
24.0	Printing and Reproduction	60	60	40
25.0	Consultants	64	58	60
25.1/2	Contractual Services - Other	298	200	270
25.3	Contractual Services - Federal	79	100	100
26.0	Supplies and Materials	60	50	60
31.0	Equipment	50	60	65
	Total Budgetary Request	**$3,222**	**$3,400**	**$3,600**
	Total Full Time Equivalent (FTE) Employees	13	14	14