U.S. Nuclear Waste Technical Review Board

Fiscal Year 2008 Performance and Accountability Report (PAR)

UNITED STATES
NUCLEAR WASTE TECHNICAL REVIEW BOARD
2300 Clarendon Boulevard, Suite 1300
Arlington, VA 22201–3367

November 17, 2008

The Honorable Jim Nussle
Director
Office of Management and Budget
725 17th Street, NW
Washington, DC 20503

Dear Director Nussle:

Enclosed is the United States Nuclear Waste Technical Review Board's (Board) Fiscal Year (FY) 2008 Performance and Accountability Report (PAR).

The Board was created by Congress in the Nuclear Waste Policy Amendments Act (NWPAA) of 1987 and charged with evaluating the technical and scientific validity of activities undertaken by the Secretary of Energy related to disposing of, transporting, and packaging civilian spent nuclear fuel and defense high-level radioactive waste. In conducting its ongoing review, the Board has made numerous recommendations designed to enhance the technical validity of the Department of Energy's (DOE) civilian radioactive waste management program. The Board performs ongoing, independent, and expert technical oversight of these important DOE activities. The Board also must report its findings and recommendations to Congress and the Secretary of Energy at least twice yearly. The Board only can make recommendations; it cannot compel DOE to comply. The Board strives to provide Congress and the Secretary of Energy with independent, credible, and timely technical and scientific program evaluations and recommendations arrived at through peer review of the highest quality.

FY 2008 Performance Evaluation Summary

The Board's annual performance evaluations and its assessments of priority technical issues are used to develop its annual performance goals and to inform spending allocations in the Board's performance-based budget for subsequent years. The Board's evaluation of its success in achieving its performance goals for FY 2008 is presented in the enclosed report.

The Board accomplishes its goals by engaging in some or all of the following:

- Holding meetings involving the full Board with DOE and DOE contractor personnel and other interested parties or holding meetings of Board panels, as needed.

Telephone: 703–235–4473 Fax: 703–235–4495

- Holding fact-finding sessions involving small groups of Board members who focus in-depth on specific technical topics.

- Reviewing critical technical documents provided by DOE and its contractors, including total system performance assessment (TSPA), preclosure safety analyses (PCSA), contractor reports, analysis and modeling reports (AMR), and design drawings and specifications.

- Visiting Yucca Mountain, analog sites, and sites being investigated in other countries; observing ongoing technical and scientific activities, including those conducted at the National Laboratories or internationally.

FY 2008 Financial Audit Report Summary

The Board contracted with Martin & Walls, CPA, to perform an independent audit of the Board's financial posture in FY 2008. Martin & Wall, P.C., provided the Board with an "unqualified opinion." As you will read in the attached report, they did not identify any material weaknesses or reportable conditions related to internal control over financial reporting and they did not identify any instances of non-compliance with laws and regulations required to be tested by the Office of Management and Budget and the Government Accounting Office.

If you have questions related to any part of the PAR, please contact me.

Sincerely,

William D. Barnard
Executive Director

Enclosures

U.S. Nuclear Waste Technical Review Board
Management and Discussion Analysis
Fiscal Year 2008

Nuclear Waste Technical Review Board's Mission Statement

The Nuclear Waste Policy Amendments Act of 1987 directed the U.S. Department of Energy (DOE) to characterize one site, at Yucca Mountain in Nevada, to determine its suitability as the location of a permanent repository for disposing of commercial spent nuclear fuel and high-level radioactive waste from defense activities. The Act also established the U.S. Nuclear Waste Technical Review Board as an independent agency within the executive branch of the United States Government. The Act directs the Board to evaluate continually the technical and scientific validity of activities undertaken by the Secretary of Energy related to disposing of, transporting, and packaging the waste. The Board also must report its findings and recommendations to Congress and the Secretary of Energy at least twice yearly. The Board only can make recommendations; it cannot compel DOE to comply. The Board strives to provide Congress and the Secretary of Energy with independent, credible, and timely technical and scientific program evaluations and recommendations arrived at through peer review of the highest quality.

Board Performance Criteria and Method of Evaluation

The Board believes that measuring its effectiveness by directly correlating Board recommendations with improvements in the technical and scientific validity of DOE activities would be ideal. However, the Board cannot compel DOE to comply with Board recommendations. Consequently, a judgment about whether a specific recommendation had a positive effect on DOE actions or technical activities could be (1) subjective or (2) an imprecise indicator of Board performance because implementation of Board recommendations is outside the Board's direct control. Therefore, the Board has developed the following criteria for measuring its annual performance in achieving its individual performance goals.

Criterion #1: Did the Board undertake the reviews, analyses, or other activities needed to evaluate the technical and scientific validity of the DOE activity identified in the annual performance goal?

Criterion #2: Were the results of the Board's evaluation communicated in a timely, understandable, and appropriate way to Congress, the Secretary of Energy, the DOE Office of Civilian Radioactive Waste Management (OCRWM), or the public?

If both criteria are met in relation to a specific goal, the Board's performance in meeting that goal will be considered effective. If only one criterion is met, the performance of the Board in achieving that goal will be judged minimally effective. Failing to meet both performance measures without sufficient and compelling explanation will result in a judgment that the Board has been ineffective in achieving that performance goal. If the performance goal is deferred or outdated, that will be noted in the evaluation.

The Board uses its annual performance evaluations, together with its assessment of current or potential priority technical issues, to develop its annual performance goals and to inform spending allocations in its performance-based budget for subsequent years. The Board's evaluation of its success in achieving its performance goals for FY 2008 will be submitted to the

Office of Management and Budget (OMB), attached to the Board's budget request to Congress for FY 2010, included in the Board's summary report for 2008, and posted on the Board's Web site: www.nwtrb.gov.

The Board accomplishes its goals by engaging in some or all of the following:

- Holding meetings involving the full Board with DOE and DOE contractor personnel and other interested parties or holding meetings of Board panels, as needed.

- Holding fact-finding sessions involving small groups of Board members who focus in-depth on specific technical topics.

- Reviewing critical technical documents provided by DOE and its contractors, including total system performance assessment (TSPA), preclosure safety analyses (PCSA), contractor reports, analysis and modeling reports (AMR), and design drawings and specifications.

- Visiting Yucca Mountain, analog sites, and sites being investigated in other countries; observing ongoing technical and scientific activities, including those conducted at the National Laboratories or internationally.

Evaluation of Board Performance for FY 2008

The following goal-by-goal analysis of the Board's performance for FY 2008 is divided into three topical areas that correspond to the Board's panel structure. The numbering of the performance goals correlates with the Board's general goals and strategic objectives set forth in the Board's strategic plan for FY 2008-2013. Each performance goal is followed by a bullet that contains a description of the activities undertaken by the Board that satisfy the performance criteria discussed above. The description is followed by an overall evaluation of the Board's performance in achieving the specific performance goal.

The reliability of the performance 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 meetings on the Board's Web site at www.nwtrb.gov.

1. Performance Goals Related to Preclosure Operations

1.1.1. Review DOE analyses of facilities, systems, and component designs related to implementation of the transportation, aging, and disposal (TAD) canister concept.

- ***Evaluation of 1.1.1: Criterion #1 is satisfied with the following activities***: The Board held a meeting on September 19, 2007, at which these issues were discussed and will hold a meeting on September 24, 2008, on these and related issues.

  Criterion #2 is satisfied by the following: The Board sent a letter to Office of Civilian Radioactive Waste Management (OCRWM) director, Edward Sproat, on January 16,

2008, following up on discussions at the September 19, 2007, Board meeting. In the letter, the Board observed that although the transportation, aging, and disposal (TAD) canister is a promising concept, its success depends on its being effectively integrated by DOE into the overall waste management system. DOE has established requirements for a TAD-based repository design assuming that 90 percent of commercial spent nuclear fuel (CSNF) will arrive at the repository in TAD canisters. Some nuclear power plants appear to lack the necessary infrastructure for using TAD canisters. The Board recommended that DOE carry out a comprehensive analysis to understand better the implications of not achieving the 90 percent TAD utilization rate and that DOE actively study all possible options for dealing with spent nuclear fuel in dual-purpose canisters. The letter goes on to say that DOE should consider adding supplemental features to current facility layouts, such as increasing the capacity of the Wet Handling Facility (WHF), adding a welding station to the WHF, and increasing the number of welding stations in the Canister Receipt and Closure Facility (CRCF).

Board Chairman B. John Garrick reiterated the Board's comments on 90 percent utilization of TAD canisters in testimony before the House Subcommittee on Energy and Air Quality, Committee on Energy and Commerce, on July 15, 2008. Dr. Garrick noted that if TAD utilization falls below the planned 90 percent, the lower rate could adversely affect surface-facility throughput and may require constructing additional waste handling facilities or increasing the amount of spent nuclear fuel that must be placed in storage at the repository site. Dr. Garrick conveyed the Board's recommendation that operational and design contingencies should be considered if the TAD utilization rate falls below 90 percent.

By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

1.1.2 Review DOE procedures for ensuring that waste accepted for disposal has been suitably characterized.

- ***Evaluation of 1.1.2: Criterion #1 is satisfied by the following activity***: This issue will be discussed at a Board meeting scheduled for September 24, 2008.

  Criterion #2 is deferred: the Board will send a follow-up letter to DOE on issues discussed at the September 24, 2008, meeting in FY 2009.

  By satisfying Criterion #1 and deferring Criterion #2 until FY 2009, the Board's performance in relation to this goal is judged minimally effective.

1.2.1 Evaluate the design of surface facilities, including the fuel handling and aging facilities, and how the design affects and is affected by the thermal management of the repository.

- ***Evaluation of 1.2.1: Criterion #1 is satisfied by the following activity:*** These issues were discussed at meetings held by the Board on September 19, 2007, and on January 16,

2008.

Criterion #2 is satisfied by the following: In a letter to Edward Sproat dated April 22, 2008, the Board noted that DOE's 96°C midpillar temperature limit is controlling. The Board questioned the technical basis for the limit and asked for a better justification of the thermal limit and its relationship to water movement near the repository. The Board noted that if the 96°C limit were eliminated, the 200°C drift-wall temperature would be the controlling thermal limit. This could increase flexibility in thermal loading of the repository and waste package sequencing. The Board also recommended that DOE consider the feasibility and technical advantages of determining the thermal conditions at repository closure and varying the duration of the ventilation as needed to achieve thermal limits. The Board also noted that because DOE's current thermal limits will produce waste package surface temperatures that exceed 150°C, the potential for deliquescence-induced localized corrosion should be analyzed.

In July 2008, Board staff under the leadership of Board member Andrew Kadak developed a White Paper: *Thermal-Response Evaluation of Yucca Mountain During the Preclosure and Postclosure Phases* that address these and other thermal issues.

By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

1.3.1 Evaluate DOE's analysis of the comparative risks of alternative transportation modes and routes.

- ***Evaluation of 1.3.1: Criteria #1 is satisfied with the following activities:*** The Board received updates on related issues at meetings held on September 19, 2007, and on January 16, 2008. During the week of August 18, 2008, Board member Mark Abkowitz and two staff members toured the proposed Caliente, Nevada, rail route.

  Criteria #2 is satisfied by the following: The Board commented on these issues in two letters to Edward Sproat. In its letter dated January 18, 2008, the Board noted that given the current configuration of the waste management system, the Nevada rail line is a critical factor that potentially will affect the viability of the entire waste management system. At that time, DOE did not consider alternative transportation modes. The Board pointed out that technical, economic, political, and legal issues could create significant programmatic risks for the transportation system that DOE proposes to implement.

  In its letter to DOE on April 22, 2008, the Board noted that DOE had acknowledged that constructing the Nevada rail line would present significant institutional challenges. The Board therefore reiterated its recommendation that DOE initiate contingency planning to identify alternatives to rail that can be implemented if significant delays are encountered during construction of the rail spur. The Board also acknowledged DOE's review of the capability of short-line railroads to move loaded TAD canisters from utility sites to mainline connections. The Board looks forward to the results of this study.

In testimony before the House Subcommittee on Energy and Air Quality on July 15, 2008, Dr. Garrick identified dependence on a Nevada rail line as an issue that would benefit from additional study.

In the coming fiscal year, the Board may update its recommendations related to Nevada rail based on information gathered on the tour of the proposed route by Board member Abkowitz.

By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

1.3.2. Review DOE efforts to develop criteria for routing decisions.

- ***Evaluation of 1.3.2: The performance goal is deferred, pending future DOE activities.***

1.3.3 Evaluate logistics capabilities of the transportation system.

- ***Evaluation of 1.3.3: Criterion #1 was satisfied by the following:*** The Board received a briefing on related issues at its meetings held on September 19, 2007, and January 16, 2008.

  Criterion #2 was satisfied by the following: The Board sent a letter to Edward Sproat, on January 16, 2008, following up on discussions at the September 19, 2007, Board meeting. In the letter, the Board observed that although the TAD canister is a promising concept, its success depends on its being effectively integrated by DOE into the overall waste management system. DOE has established requirements for a TAD-based repository design assuming that 90 percent of CSNF will arrive at the repository in TAD canisters. Some nuclear power plants may lack the necessary infrastructure for using TAD canisters. The Board recommended that DOE carry out a comprehensive analysis to understand better the implications of not achieving the 90 percent TAD utilization rate and that DOE actively study all possible options for dealing with spent nuclear fuel in dual-purpose canisters. The letter goes on to say that DOE should consider adding supplemental features to current facility layouts, such as increasing the capacity of the WHF, adding a welding station to the WHF, and increasing the number of welding stations in the CRCF.

  Chairman Garrick reiterated the Board's comments on 90 percent utilization of TAD canisters in testimony before the House Subcommittee on Energy and Air Quality, Committee on Energy and Commerce, on July 15, 2008. Dr. Garrick noted that if TAD utilization falls below the planned 90 percent, the lower rate could adversely affect surface-facility throughput and may require constructing additional waste handling facilities or increasing the amount of spent nuclear fuel that must be placed in storage at the repository site. Dr. Garrick conveyed the Board's recommendation that operational and design contingencies should be considered if the TAD utilization rate falls below 90 percent.

By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

1.3.4. Evaluate DOE plans for enhancing safety capabilities along transportation corridors, and review DOE planning and coordination activities, accident prevention activities, and emergency response activities.

- ***Evaluation of 1.3.4:*** DOE has deferred work in this area, pending additional funding.

  The performance goal is deferred.

2. Performance Goals Related to Postclosure Repository Performance

2.1.1 Evaluate DOE efforts to analyze the source term and to estimate the time it will take for radionuclides to be mobilized and transported through the natural system.

- ***Evaluation of 2.1.1:*** Except for analysis related to developing the license application, DOE did not undertake these specific activities during the period covered by the report. The Board plans to hold a panel meeting on source term in November 2008.

  The performance goal is deferred.

2.1.2. Evaluate activities undertaken by DOE to develop a risk profile for specific radionuclides.

- ***Evaluation of 2.1.2:*** Except for analysis related to developing the license application, DOE did not undertake this specific activity during the period covered by the report. The Board plans to hold a panel meeting on source term in November 2008.

  The performance goal is deferred.

- 2.2.1. Review updates of Total System Performance Assessment (TSPA) models; identify models and data that should be updated.

- ***Evaluation of 2.2.1: Criterion #1 is satisfied by the following:*** The Board held a meeting on May 29, 2008, at which this topic was discussed extensively.
  Criterion #2 is satisfied by the following: The Board commented on issues related to TSPA-LA in a letter to Edward Sproat on September 4, 2008. In the letter, the Board noted that the understanding and representation of the natural and engineered systems at Yucca Mountain have improved, but there are notable uncertainties related to TSPA-LA calculations. For example, according to DOE analyses, in the nominal scenario, none of the drip shields fail before 265,000 years and, on average, more than 99 percent of waste packages containing civilian spent nuclear fuel remain sealed at least 500,000 years after

repository closure. However, the extent to which the drip shield reduces calculated doses by extending waste package lifetime is uncertain because it has not been analyzed. Some of the underlying assumptions in TSPA-LA may overestimate radioactive dose: for example, rather than trying to predict the location and extent of an igneous intrusion, DOE assumes that such an intrusion will damage all 11,629 waste packages in the repository. On the other hand, an important waste package failure mechanism does not seem to be treated conservatively in TSPA-LA. Deliquescence-induced localized corrosion, if it were to cause penetration of the waste packages, would have potentially significant performance implications. Because DOE's assumptions are not always conservative, the overall degree of conservatism of the assumptions in TSPA-LA is difficult to assess. The Board recommended that DOE improve the technical basis for screening out deliquescence-induced localized corrosion, develop prototypes of novel engineered systems used at Yucca Mountain, and continue to enhance fundamental understanding of the geologic environment.

By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

2.2.2. Review plans and work carried out on possible analogs for the natural components of the repository system.

- ***Evaluation of 2.2.2:*** DOE has deferred work in this area.

  This performance goal is deferred, pending future DOE activities.

2.2.3. Evaluate results of studies undertaken by the science and technology program related to reducing uncertainties about the performance of the natural and engineered components of the repository.

- ***Evaluation of 2.2.3:*** The science and technology program has been eliminated.

  The performance goal is deferred, pending future DOE activities.

2.2.4. Evaluate information from the science and technology program on secondary mineral phases and neptunium and plutonium mobilization.

- ***Evaluation of 2.2.4:*** The science and technology program has been eliminated.
  The performance goal is deferred, pending future DOE activities.

2.2.5. Review DOE efforts to develop and articulate a repository safety case.

- ***Evaluation of 2.2.4: Criterion #1 is satisfied by the following***: Board staff obtained a copy of DOE's simplified TSPA and is reviewing it.

Criterion #2 was not satisfied.

By satisfying criterion #1 and partially satisfying criterion #2, the Board's performance in relation to this performance goal is judged minimally effective.

2.3.1. Monitor the results of flow-and-transport studies to obtain information on the potential performance of the saturated zone as a natural barrier in the repository system.

- ***Evaluation of 2.3.1: Criterion #1 is satisfied by the following:*** The Board discussed related issues at its meeting on May 29, 2008.

  Criterion #2 is partially satisfied by the following: In its letter to Edward Sproat dated September 4, 2008, the Board stated that a sound fundamental understanding of the geologic environment is important for predicting both the environmental controls on EBS degradation and subsequent radionuclide transport.

  By satisfying Criterion #1 and partially satisfying Criterion #2, the Board's performance in relation to this performance goal is judged minimally effective.

2.3.2. Review new infiltration work undertaken in response to questions about quality assurance (QA) procedures used to obtain previous infiltration estimates.

- ***Evaluation of 2.3.2: Criterion #1 was satisfied by the following:*** Before and after holding a meeting on March 14, 2007, on DOE's infiltration work, staff conducted field studies and interviews, reviewed papers and analyses, and supported the work of the Board's hydrologist who analyzed these issues.

  Criterion #2 is satisfied by the following: In December 2007, the Board issued a significant report in which the Board presented its views on revised DOE estimates of water infiltration at Yucca Mountain. Among the Board's findings in the report were the following. Minor deficiencies in the USGS model were identified, but no significant errors in USGS infiltration estimates were found. The Board found no significant errors in the computational approach used for estimating infiltration by either the USGS model or the Sandia National Laboratory (SNL) model. When the values and variables are specified as being the same, the infiltration estimates from the two approaches are similar. USGS estimates of infiltration were based on an extensive suite of site-specific data and are consistent with multiple lines of evidence. In contrast, the SNL model does not include all available site-specific data; however, the SNL procedure has a more complete representation of parameter uncertainties than the one used by USGS. As a result, SNL estimates of present-day infiltration are about three times higher than the USGS estimates. The SNL estimates also are less consistent with multiple lines of evidence. SNL estimates, for example, do not include consideration of evapotranspiration, and the SNL model was not calibrated to infiltration data at Yucca Mountain. To make the SNL estimates compatible with observed site data in the TSPA, DOE used a statistical process that does not have a strong technical basis. The Board acknowledged the importance of

the QA program to the regulatory program but noted that valuable data can be obtained from scientific endeavors not conducted in strict compliance with QA procedures and that strict observance of QA procedures does not guarantee sound technical analysis and data. In the report, the Board made the following recommendations: DOE should use all site-specific data in estimating infiltration and calibrating infiltration models. DOE should include parameterization—including associated uncertainty—that represents evapotranspiration from shallow buried bedrock in its model. The Board does not endorse the use of the statically modified SNL infiltration estimates in TSPA.

By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

2.4.1. Evaluate data from studies of the effects of corrosion and the waste package environment on the predicted performance of materials being proposed for engineered barriers.

- ***Evaluation of 2.4.1: Criterion #1 was satisfied by the following:*** The Board held meetings on January 16, 2008, and on May 29, 2008, at which these issues were discussed.

  Criterion #2 was satisfied by the following: In a letter to Edward Sproat dated April 22, 2008, the Board noted that DOE research plans do not appear to address issues raised by the Board related to deliquescence-induced localized corrosion. The Board explicitly described work that could be undertaken by DOE to strengthen the technical basis for screening out deliquescence-induced localized corrosion as has currently been done in DOE's TSPA-LA. The Board told DOE that providing the evidence asked for in previous Board letters is important because DOE's repository design will produce temperatures that far exceed the boiling point of water for the first 2,000 years after repository closure. The Board urged DOE to make use of USGS dust data in characterizing the evolution of likely waste package environments after repository closure.

  By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

2.4.2. Review thermal-mechanical and rock-stability testing on potential conditions in repository tunnels.

- ***Evaluation of 2.4.2: Criterion #1 was partially satisfied by the following:*** Staff reviewed and reported to the Board on pertinent DOE documents.

  Criterion #2 was satisfied by the following: Dr. Garrick discussed the implications of drift degradation for drip shield installation when he appeared before the House Subcommittee on Energy and Air Quality on July 15, 2008.

  By partially satisfying criterion #1 and satisfying criterion #2, the Board's performance in relation to the performance goal is judged minimally effective.

2.5.1. Review DOE efforts in addressing questions related to possible seismic and igneous events and consequences.

- ***Evaluation of 2.5.1*: Criterion #1 was satisfied by the following:** The Board utilized the services of expert consultants who analyzed DOE work on seismic ground motion and igneous consequences and reported to the Board.

  Criterion #2 was partially satisfied by the following: In his testimony before the House Subcommittee on Energy and Air Quality on July 15, 2008, Dr. Garrick identified these issues as being among those that would continue to be followed by the Board. The Board plans to hold panel meetings on these issues later in 2008.

  By satisfying Criterion #1 and partially satisfying Criterion #2, the Board's performance in relation to this performance goal is judged minimally effective.

3. Performance Goals Related to System Integration.

3.1.1. Evaluate the accuracy and completeness of the technical bases for repository and waste package designs.

- ***Evaluation of 3.1.1: Criterion #1 is satisfied by the following:*** The Board held meetings on September 19, 2007, and May 29, 2008, at which these and related issues were discussed.

  Criterion #2 is satisfied by the following: The Board commented on repository design, specifically the thermal strategy, and on issues related to the corrosion resistance of materials used in the waste packages in its letter to Edward Sproat dated April 22, 2008.

  By satisfying both criteria, the Board's performance in relation to the performance goal is judged effective.

3.1.2. Evaluate the integration of subsurface and repository designs, layout, and operational plans into an overall thermal management strategy.

- ***Evaluation of 3.1.2: Criterion #1 is satisfied by the following:*** The Board held meetings on September 19, 2007, and May 29, 2008, at which these and related issues were discussed.

  Criterion #2 is satisfied by the following: The Board commented on repository design, specifically the thermal strategy, and on issues related to the corrosion resistance of materials used in the waste packages in its letter to Edward Sproat dated April 22, 2008.

  By satisfying both criteria, the Board's performance in relation to the performance goal

is judged effective.

3.2.1. Assess the integration of scientific studies into engineering designs for the repository and the waste package.

- ***Evaluation of 3.2.1: Criterion #1 is satisfied by the following:*** The Board held meetings on September 19, 2007, and May 29, 2008, at which these and related issues were discussed.

  Criterion #2 is satisfied by the following: The Board commented on repository design, specifically the thermal strategy, and on issues related to the corrosion resistance of materials used in the waste packages in its letter to Edward Sproat dated April 22, 2008.

  By satisfying both criteria, the Board's performance in relation to the performance goal is judged effective.

3.2.2. Review DOE efforts in integrating results of scientific studies related to the behavior of the natural system into repository designs.

- ***Evaluation of 3.2.2: Criterion #1 is satisfied by the following:*** The Board held a meeting on May 29, 2008, at which this and related topics were discussed.

  Criterion #2 is satisfied by the following: The Board commented on related issues in a letter to Edward Sproat on September 8, 2008. In the letter, the Board noted that although the understanding and representation of the natural and engineered systems at Yucca Mountain have improved, the extent to which the drip shield reduces calculated doses by extending waste package lifetime is uncertain because it has not been analyzed. In addition, deliquescence-induced localized corrosion, if it were to cause penetration of the waste packages, would have potentially significant performance implications. The Board recommended that DOE improve the technical basis for screening out deliquescence-induced localized corrosion, develop prototypes of novel engineered systems, and continue to enhance fundamental understanding of the geologic environment.

  By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

3.2.3. Evaluate the integration of the repository facility, including the surface and subsurface components.

Evaluation of 3.2.3: Criterion #1 is satisfied by the following activity: These issues were discussed at meetings held by the Board on September 19, 2007, and on January 16, 2008.

Criterion #2 is satisfied by the following: In a letter to Edward Sproat dated April 22, 2008, the Board noted that if the 96°C controlling heat limit were eliminated, the 200°C drift-wall temperature would be the controlling thermal limit. This could increase

flexibility in thermal loading of the repository and waste package sequencing. The Board also recommended that DOE consider the feasibility and technical advantages of determining the thermal conditions at repository closure and varying the duration of the ventilation as needed to achieve thermal limits.

In a letter to Director Sproat dated January 16, 2008, the Board noted that DOE has established requirements for a TAD-based repository design assuming that 90 percent of CSNF will arrive at the repository in TAD canisters. Some nuclear power plants appear to lack the necessary infrastructure for using TAD canisters. The Board recommended that DOE carry out a comprehensive analysis to understand better the implications of not achieving the 90 percent TAD utilization rate and that DOE actively study all possible options for dealing with spent nuclear fuel in dual-purpose canisters. The letter goes on to say that DOE should consider adding supplemental features to current facility layouts, such as increasing the capacity of the WHF, adding a welding station to the WHF, and increasing the number of welding stations in the CRCF.

Board Chairman B. John Garrick reiterated the Board's comments on 90 percent utilization of TAD canisters in testimony before the House Subcommittee on Energy and Air Quality on July 15, 2008. Dr. Garrick noted that if TAD utilization falls below the planned 90 percent, the lower rate could adversely affect surface-facility throughput and may require constructing additional waste handling facilities or increasing the amount of spent nuclear fuel that must be placed in storage at the repository site. Dr. Garrick conveyed the Board's recommendation that operational and design contingencies should be considered if the TAD utilization rate falls below 90 percent.

By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

3.3.1. Review the potential and limits of the Total System Model (TSM).

- ***Evaluation of 3.3.1:*** DOE did not undertake work in this area.

The performance goal is deferred.

3.4.1. Review DOE analyses and integration of designs for facilities, systems, and repository components, including the TAD canister concept.

- ***Evaluation of 3.4.1: Criterion #1 is satisfied with the following activity***: The Board held a meeting on September 19, 2007, at which these issues were discussed.

Criterion #2 is satisfied by the following: The Board sent a letter to Office of Civilian Radioactive Waste Management (OCRWM) director, Edward Sproat, on January 16, 2008, following up on discussions at the September 19, 2007, Board meeting. In the letter, the Board observed that although the TAD canister is a promising concept, its success depends on its being effectively integrated by DOE into the overall waste management system. DOE has established requirements for a TAD-based repository

design assuming that 90 percent of CSNF will arrive at the repository in TAD canisters. Some nuclear power plants appear to lack the necessary infrastructure for using TAD canisters. The Board recommended that DOE carry out a comprehensive analysis to understand better the implications of not achieving the 90 percent TAD utilization rate and that DOE actively study all possible options for dealing with spent nuclear fuel in dual-purpose canisters. The letter goes on to say that DOE should consider adding supplemental operational features to current facility layouts, such as increasing the capacity of the WHF, adding a welding station to the WHF, and increasing the number of welding stations in the CRCF.

Board Chairman B. John Garrick reiterated the Board's comments on 90 percent utilization of TAD canisters in testimony before the House Subcommittee on Energy and Air Quality, Committee on Energy and Commerce, on July 15, 2008. Dr. Garrick noted that if TAD utilization falls below the planned 90 percent, the lower rate could adversely affect surface-facility throughput and may require constructing additional waste handling facilities or increasing the amount of spent nuclear fuel that must be placed in storage at the repository site. Dr. Garrick conveyed the Board's recommendation that operational and design contingencies should be considered if the TAD utilization rate falls below 90 percent.

By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

3.4.2. Evaluate DOE efforts to assess and integrate information on surface facilities and infrastructure at nuclear utility reactor sites.

- ***Evaluation of 3.4.2: Criterion #1 is satisfied with the following activity***: The Board held a meeting on September 19, 2007, at which these issues were discussed.

  Criterion #2 is satisfied by the following: The Board sent a letter to Edward Sproat on January 16, 2008, commenting on these issues. In the letter, the Board noted that some nuclear power plants appear to lack the necessary infrastructure for using TAD canisters. The Board recommended that DOE carry out a comprehensive analysis to understand better the implications of not achieving the 90 percent TAD utilization rate and that DOE actively study all possible options for dealing with spent nuclear fuel in dual-purpose canisters.

  By satisfying both criteria, the Board's performance in relation to this performance goal is judged effective.

U.S. Nuclear Waste Technical Review Board
Financial Audit
Fiscal Year 2008

U.S. NUCLEAR WASTE TECHNICAL REVIEW BOARD

GENERAL FUND

FINANCIAL STATEMENTS

As of and for the Years Ended September 30, 2008 and 2007

TABLE OF CONTENTS

MARTIN & WALL
CERTIFIED PUBLIC ACCOUNTANTS

Tel. 202.332.3566 · Fax 202.332.3672 · www.martinwallcpa.com

Independent Auditors' Report

Chairman, Executive Director and Board of Directors
U.S. Nuclear Waste Technical Review Board
Arlington, VA

In accordance with the Accountability of Tax Dollars Act of 2002, we are responsible for conducting audits of the U.S. Nuclear Waste Technical Review Board. In our audits of the U.S. Nuclear Waste Technical Review Board for fiscal years ended September 30, 2008 and 2007, we found:

- The financial statements are presented fairly, in all material respects, in conformity with U.S. generally accepted accounting principles.
- No material weaknesses in internal control over financial reporting (including safeguarding assets) and compliance with laws and regulations.
- No reportable noncompliance with laws and regulations we tested.

The following sections discuss in more detail (1) these conclusions, (2) our conclusions on Management Discussion and Analysis and other supplementary information, (3) our audit objectives, scope and methodology, and (4) agency comments and our evaluation.

Opinion on Financial Statements

The financial statements including the accompanying notes present fairly, in all material respects, in conformity with U.S. generally accepted accounting principles, U.S. Nuclear Waste Technical Review Board's assets, liabilities, and net position as of September 30, 2008 and 2007; and net costs; changes in net position; and budgetary resources for the years then ended.

Consideration of Internal Control

In planning and performing our audit, we considered the U.S. Nuclear Waste Technical Review Board's internal control over financial reporting and compliance. We did this to determine our procedures for auditing financial statements and to comply with OMB audit guidance, not to express an opinion on internal control. Accordingly, we do not express an opinion on internal control over financial reporting and compliance or on management's assertion on internal control included in Management's Discussion and Analysis. However, for the controls we tested, we found no material weakness in internal control over financial reporting (including safeguarding assets) and compliance.

A material weakness is a control deficiency that results in more than a remote likelihood that the design or operation of one or more internal controls will not allow management or employees, in the normal course of performing their duties, to promptly detect or prevent errors, fraud, or noncompliance in amounts that would be material to the financial statements. Our internal control work would not necessarily disclose all deficiencies in internal control that might be material weaknesses or other significant deficiencies. We provided a separate management letter dated November 14, 2008 communicating internal control matters not considered to be material weaknesses or significant deficiencies.

Compliance with Laws and Regulations

Our tests of the U.S. Nuclear Waste Technical Review Board's compliance with selected provisions of laws and regulations for fiscal year 2008 disclosed no instances of noncompliance that would be reportable under U.S. generally accepted government auditing standards or OMB audit guidance. However, the objective of our audit was not to provide an opinion on overall compliance with laws and regulations. Accordingly, we do not express such an opinion.

Consistency of Other Information

The U.S. Nuclear Waste Technical Review Board's Management's Discussion and Analysis, required supplementary information (including stewardship information), and other accompanying information contain a wide range of information, some of which is not directly related to the financial statements. We do not express an opinion on this information. However, we compared this information for consistency with the financial statements and discussed methods of measurement and presentation with U.S. Nuclear Waste Technical Review Board officials. Based on this limited work, we found no material inconsistencies with the financial statements, U.S. generally accepted accounting principles, or OMB guidance.

Objectives, Scope, and Methodology

U.S. Nuclear Waste Technical Review Board's management is responsible for (1) preparing the financial statements in conformity with U.S. generally accepted accounting principles, (2) establishing, maintaining, and assessing internal control to provide reasonable assurance that the broad control objectives of the Federal Managers' Financial Integrity Act are met, and (3) complying with applicable laws and regulations.

We are responsible for obtaining reasonable assurance about whether the financial statements are presented fairly, in all material respects, in conformity with U.S. generally accepted accounting principles. We are also responsible for (1) obtaining a sufficient understanding of internal control over financial reporting and compliance to plan the audit, (2) testing compliance with selected provisions of laws and regulations that have a direct and material effect on the financial statements and laws for which OMB audit guidance requires testing, and (3) performing limited procedures with respect to certain other information appearing in the Annual Financial Statement.

In order to fulfill these responsibilities, we

- examined, on a test basis, evidence supporting the amounts and disclosures in the financial statements;
- assessed the accounting principles used and significant estimates made by management;
- evaluated the overall presentation of the financial statements;
- obtained an understanding of the entity and its operations, including its internal control related to financial reporting (including safeguarding assets), and compliance with laws and regulations (including execution of transactions in accordance with budget authority);
- tested relevant internal controls over financial reporting, and compliance, and evaluated the design and operating effectiveness of internal control;
- considered the design of the process for evaluating and reporting on internal control and financial management systems under the Federal Managers' Financial Integrity Act; and
- tested compliance with selected provisions of the following laws and regulations: the Anti-Deficiency Act, the Pay and Allowance System for Civilian Employees as provided primarily in Chapters 51-59 of title 5, United States Code, the Prompt Payment Act, and the Nuclear Waste Policy Act Amendments of 1987, as amended and Public Law 100-203, which defined the agency's public purpose, governing structure, and reporting requirements

We did not evaluate all internal controls relevant to operating objectives as broadly defined by the Federal Managers' Financial Integrity Act, such as those controls relevant to preparing statistical reports and ensuring efficient operations. We limited our internal control testing to controls over financial reporting and compliance. Because of inherent limitations in internal control, misstatements due to error or fraud, losses, or noncompliance may nevertheless occur and not be detected. We also caution that projecting our evaluation to future periods is subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with controls may deteriorate. In addition, we caution that our internal control testing may not be sufficient for other purposes.

We did not test compliance with all laws and regulations applicable to the U.S. Nuclear Waste Technical Review Board. We limited our tests of compliance to selected provisions of laws and regulations that have a direct and material effect on the financial statements and those required by OMB audit guidance that we deemed applicable to the U.S. Nuclear Waste Technical Review Board's financial statements for the fiscal year ended September 30, 2008. We caution that noncompliance may occur and not be detected by these tests and that such testing may not be sufficient for other purposes.

We performed our audit in accordance with U.S. generally accepted government auditing standards and OMB audit guidance.

Agency Comments and Our Evaluation

In commenting on a draft of this report (see Appendix A), the U.S. Nuclear Waste Technical Review Board concurred with the facts and conclusions in our report.

Martin & Wall P.C.

Washington, DC
November 14, 2008

Nuclear Waste Technical Review Board
Balance Sheet
As of September 30, 2008 and 2007

		2008	2007
Assets:			
Intragovernmental:			
Fund Balance With Treasury	(Note 3)	$ 648,736	$ 503,203
Total Intragovernmental		648,736	503,203
General Property, Plant and Equipment	(Note 4)		3,739
Total Assets		$ 648,736	$ 506,943
Liabilities:	(Note 5)		
Accounts Payable		1,357	29,903
Other	(Note 6)	255,146	265,016
Total Liabilities		256,504	294,919
Net Position:			
Cumulative Results of Operations - Other Funds		392,232	212,024
Total Net Position		392,232	212,024
Total Liabilities and Net Position		$ 648,736	$ 506,943

*Amounts may be off by a dollar due to rounding.

The accompanying notes are an integral part of these statements

Nuclear Waste Technical Review Board

Statement of Net Cost

For the Years Ended September 30, 2008 and 2007

		2008	2007
Program Costs:			
Program A:			
Gross Costs	(Note 8)	$ 3,548,502	$ 3,725,330
Net Program Costs		3,548,502	3,725,330
Net Cost of Operations		$ 3,548,502	$ 3,725,330

*Amounts may be off by a dollar due to rounding.

The accompanying notes are an integral part of these statements

Nuclear Waste Technical Review Board
Statement of Changes in Net Position
For the Year Ended September 30, 2008

	2008			
	Earmarked Funds	All Other Funds	Eliminations	Consolidated Total
Cumulative Results of Operations:				
Beginning Balances	$	$ 212,024	$	$ 212,024
Other Financing Resources (Non-Exchange):				
Transfers-In/Out Without Reimbursement		3,621,000		3,621,000
Imputed Financing		107,710		107,710
Other				
Total Financing Sources		3,728,710		3,728,710
Net Cost of Operations (+/-)		3,548,502		3,548,502
Net Change		180,208		180,208
Cumulative Results of Operations	$	$ 392,232	$	$ 392,232
Net Position	$	$ 392,232	$	$ 392,232

*Amounts may be off by a dollar due to rounding.

The accompanying notes are an integral part of these statements

Nuclear Waste Technical Review Board
Statement of Changes in Net Position
For the Year Ended September 30, 2007

	2007			
	Earmarked Funds	All Other Funds	Eliminations	Consolidated Total
Cumulative Results of Operations:				
Beginning Balances	$	$ 219,181	$	$ 219,181
Other Financing Resources (Non-Exchange):				
Transfers-In/Out Without Reimbursement		3,591,406		3,591,406
Imputed Financing		126,766		126,766
Other				
Total Financing Sources		3,718,172		3,718,172
Net Cost of Operations (+/-)		3,725,330		3,725,330
Net Change		(7,158)		(7,158)
Cumulative Results of Operations	$	$ 212,024	$	$ 212,024
Net Position	$	$ 212,024	$	$ 212,024

*Amounts may be off by a dollar due to rounding.

The accompanying notes are an integral part of these statements

Nuclear Waste Technical Review Board
Statement of Budgetary Resources
For the Years Ended September 30, 2008 and 2007

		2008 Budgetary	2008 Non-Budgetary Credit Program Financing Accounts	2007 Budgetary	2007 Non-Budgetary Credit Program Financing Accounts
Budgetary Resources:					
Unobligated Balance:					
Beginning of Period		$ 293,971	$	$ 206,161	$
Recoveries of Prior Year Obligations		1,175		57,587	
Budget Authority:					
Appropriations Received		3,621,000		3,591,406	
Earned					
Collected		1,154			
Subtotal		$ 3,622,154		$ 3,591,406	
Permanently Not Available					
Total Budgetary Resources		$ 3,917,300	$	$ 3,855,154	$
Status of Budgetary Resources:					
Obligations Incurred	(Note 9)				
Direct		$ 3,608,867	$	$ 3,561,183	$
Subtotal		$ 3,608,867		$ 3,561,183	
Unobligated Balances					
Apportioned					
Exempt from Apportionment		308,434		293,971	
Subtotal		$ 308,434		$ 293,971	
Unobligated Balances - Not Available					
Total Status of Budgetary Resources		$ 3,917,300	$	$ 3,855,154	$
Change in Obligated Balances:					
Obligated Balance, Net:					
Unpaid Obligations, Brought Forward, October 1		$ 209,232	$	$ 227,824	$
Total, Unpaid Obligated Balance, Brought Forward, Net		$ 209,232		$ 227,824	
Obligations Incurred		3,608,867		3,561,183	
Gross Outlays (-)		(3,476,621)		(3,522,188)	
Recoveries of Prior-Year Unpaid Obligations, Actual (-)		(1,175)		(57,587)	
Obligated Balance, Net, End of Period:					
Unpaid Obligations (+)	(Note 8)	340,302		209,232	
Total, Unpaid Obligated Balance, Net, End of Period		$ 340,302	$	$ 209,232	$
Net Outlays:					
Gross Outlays (+)		3,476,621		3,522,188	
Offsetting Collections (-)		(1,154)			
Net Outlays		$ 3,475,467	$	$ 3,522,188	$

*Amounts may be off by a dollar due to rounding.

The accompanying notes are an integral part of these statements

NOTE 1 – OVERVIEW OF REPORTING ENTITY

Reporting Entity

The U.S. Nuclear Waste Technical Review Board ("NWTRB") is an independent agency of the Executive Branch of the United States Government. The NWTRB performs technical and scientific peer reviews of the Department of Energy's activities pertaining to the management and disposal of the nation's commercial spent nuclear fuel. These activities include characterizing Yucca Mountain, Nevada, as a potential repository site, as well as packaging and transporting commercial spent nuclear fuel and defense high-level wastes. The NWTRB serves as an independent source of technical and scientific analysis of these issues for the U.S. Congress, U.S. Secretary of Energy, and the public.

The NWTRB's major program activities include: reviewing scientific research papers prepared by U.S. Department of Energy (DOE), holding public meetings on scientific findings, and preparing two public reports per year for Congress and DOE. This is accomplished through three scientific panels:

1. Preclosure Operations
2. Postclosure Performance
3. System Integration

The NWTRB was established by the Nuclear Waste Policy Amendments Act of 1987, Public Law 100-203, which also established a governance structure and a requirement to report to the U.S. Congress twice a year. The Nuclear Waste Policy Amendments Act authorized a board of 11 part-time members. The National Academy of Sciences recommends candidates to the President of the United States, who then makes the appointments. The NWTRB maintains strict conflict of interest policies for board members.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

These financial statements have been prepared from the accounting records of the NWTRB in accordance with Generally Accepted Accounting Principles (GAAP), and the form and content for entity financial statements specified by the office of Management and Budget (OMB) in OMB Circular A – 136, *Financial Reporting Requirements*. GAAP for Federal entities are standards prescribed by the Federal Accounting Standards Advisory Board (FASAB), which has been designated the official accounting standards-setting body for the Federal Government by the American Institute of Certified Public Accountants.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

OMB Circular A – 136 requires agencies to prepare financial statements, which include a Balance Sheet, a Statement of Net Cost, a Statement of Changes in Net Position, and a Statement of Budgetary Resources. The Balance Sheet presents, as of September 30, 2008, amounts of future economic benefits owned or managed by NWTRB (assets), amounts owed by NWTRB (liabilities), and amounts, which comprise the difference (net position). The Statement of Net Cost reports the full cost of the program, both direct and indirect costs of the output, and the costs of identifiable supporting services provided by other segments within NWTRB and other reporting entities. The Statement of Budgetary Resources reports an agency's budgetary activity.

Basis of Accounting

Transactions are recorded on the accrual accounting basis in accordance with OMB Circular A - 136. Under the accrual basis of accounting, revenues are recognized when earned, and expenses are recognized when a liability is incurred, without regard to receipt or payment of cash.

Use of Estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates.

Revenues and Other Financing Sources

NWTRB is an appropriated – no year fund. In FY 2008, budgetary resources for NWTRB included unobligated balances at the beginning of the period, Transfers In during the period, and recoveries of prior year obligations. Other financing sources for NWTRB consist of imputed financing sources which are costs financed by other Federal entities on behalf of NWTRB, as required by Statement of Federal Financial Accounting Standard (SFFAS) No. 5, *Accounting for Liabilities of the Federal Government*.

NOTE 3 – FUND BALANCE WITH TREASURY

Treasury performs cash management activities for all Federal agencies. The net activity represents Fund Balance with Treasury. Fund Balance with the Treasury is the aggregate amount of funds in the entity's accounts with Treasury for which the entity is authorized to make expenditures and pay liabilities. The fund balance is increased by receiving appropriations and other revenues; it is reduced by disbursements and other outflows.

All of NWTRB's fund balance with treasury relates to unobligated balances at the beginning of the period and amounts transferred in during the period. No trust, revolving or other fund type is used to fund NWTRB's activities. NWTRB operates as a no-year fund, where unobligated balances carry forward and are available to finance activities in subsequent periods.

A. Fund Balance with Treasury	2008	2007
General Funds	$648,736	$503,203
B. Status of Fund Balance with Treasury		
1) Unobligated Balance		
a) Available	308,434	293,971
2) Obligated Balance not yet Disbursed	340,302	209,232
Total	$648,736	$503,203

NOTE 4 – GENERAL PROPERTY, PLANT AND EQUIPMENT, NET

Fixed assets consist of property that is used in NWTRB's operations and consumed over time. General equipment consists of office equipment and computer software. Depreciation expense and accumulated depreciation are calculated and recorded based on the actual acquisition cost and on the useful life. The following summarizes the capitalization and depreciation policy for each category:

- Equipment with an initial acquisition cost of $10,000 or more and an estimated service life of greater than two years is capitalized. Equipment is capitalized at acquisition cost and is depreciated using the straight-line method over its estimated useful life.

- All computer software with an initial acquisition cost of $10,000 or more and an estimated service life of two years or greater is capitalized. The computer software is capitalized at acquisition cost and is depreciated using the straight-line method over a period of three years. There is no salvage value.

NOTE 4 – GENERAL PROPERTY, PLANT AND EQUIPMENT, NET (CONTINUED)

As of September 30, 2008, NWTRB shows Equipment – Administrative total cost of $18,696 and a net book value of $0. The Accumulated Depreciation to date is $18,696. NWTRB also shows Leasehold Improvements with a total cost of $68,582 and a net book value of $0. The Accumulated Amortization to date is $68,582.

2008	Equipment	Leasehold	Total
Cost	$18,696	$68,582	$87,278
Accum. Depr.	($18,696)	($68,582)	($87,278)
Net Book Value	$0	$0	$0

2007	Equipment	Leasehold	Total
Cost	$18,696	$68,582	$87,278
Accum. Depr.	($14,957)	($68,582)	($83,538)
Net Book Value	$3,739	$0	$3,739

NOTE 5 – LIABILITIES NOT COVERED BY BUDGETARY RESOURCES

Liabilities of NWTRB are classified as liabilities covered or not covered by budgetary resources. As of September 30, 2008, NWTRB showed liabilities covered by budgetary resources of $89,794 and liabilities not covered by budgetary resources of $166,709. As of September 30, 2007, NWTRB showed liabilities covered by budgetary resources of $138,727 and liabilities not covered by budgetary resources of $156,192.

As of September 30, 2008, liabilities covered by budgetary resources was composed of Accounts Payable $1,357 and Accrued Funded Payroll and Leave $88,437. As of September 30, 2007, liabilities covered by budgetary resources is composed of Accounts Payable $29,903 and Accrued Funded Payroll and Leave $108,824.

With the Public	2008	2007
Other	$166,709	$156,192
Total liabilities not covered by budgetary resources	166,709	156,192
Total liabilities covered by budgetary resources	89,794	138,727
Total liabilities	$256,504 *	$294,919

*Rounding

NOTE 6 – OTHER LIABILITIES

As of September 30, 2008, other liabilities with the public consist of Accrued Funded Payroll and Leave of $88,437 and Unfunded Leave in the amount of $166,709. As of September 30, 2007, other liabilities with the public consist of Accrued Funded Payroll and Leave of $108,823 and Unfunded Leave in the amount of $156,192.

	With the Public	Non-Current	Current	Total	
2008	Other Liabilities	$166,709	$88,437	$255,146	
2007	Other Liabilities	$156,192	$108,823	$265,016	*

*Rounding

NOTE 7 – LEASES

Entity as Lessee

The NWTRB leases office space at 2300 Clarendon Boulevard, Arlington, VA. The lease was entered into May 2008 and became effective June 2008. The lease contains one renewal option for a five year yerm.

The following is a schedule of minimum lease payments required by the lease:

Fiscal Year Ended	Minimum Lease Payments
September 30, 2009	$203,093.00
September 30, 2010	204,672.00
September 30, 2011	206,299.00
July 31, 2012	171,236.00
	$785,300.00

NOTE 8 – INTRAGOVERNMENTAL COSTS AND EXCHANGE REVENUE

Intragovenmental costs are those of good/services purchased from a federal entity.

	Total 2008	Total 2007
Program A		
Intragovernmental costs	490,730	422,870
Public costs	3,057,772	3,302,460
Total Program A costs	3,548,502	3,725,330
Total Program A	3,548,502	3,725,330

NOTE 9 – APPORTIONMENT CATEGORIES OF OBLIGATIONS INCURRED: DIRECT VS. REIMBURSABLE OBLIGATIONS

NWTRB is not subject to apportionment, nor does it have reimbursable authority. Therefore, all obligations are direct, exempt.

	2008	2007
Direct		
Category A	0	0
Category B	0	0
Exempt from apportionment	$3,608,867	$3,561,183

NOTE 10 – UNDELIVERED ORDERS AT THE END OF THE PERIOD

The amount of Unpaid Obligated Balance, Net, End of Period shown on the Statement of Budgetary Resources includes obligations relating to Undelivered Orders (goods and services contracted for but not yet received at the end of the year) and Accounts Payable (amounts owed at the end of the year by NWTRB for good and services received). The amount of each is as follows:

	Undelivered Orders	Accounts Payable	Unpaid Obl. Balance, Net
2008	$250,508	$89,794	$340,302
2007	$70,505	$138,727	$209,232

NOTE 9 – RECONCILIATION OF NET COST OF OPERATIONS (PROPRIETARY) TO BUDGET (FORMERLY THE STATEMENT OF FINANCING)

	2008	2007
Resources Used to Finance Activities:		
Budgetary Resources Obligated		
Obligations Incurred	$ 3,608,867	$ 3,561,183
Less: Spending Authority from Offsetting Collections and Recoveries	2,329	57,587
Net Obligations	3,606,538	3,503,596
Other Resources		
Imputed Financing from Costs Absorbed by Others	107,710	126,766
Net Other Resources Used to Finance Activities	107,710	126,766
Total Resources Used to Finance Activities	3,714,248	3,630,362
Resources Used to Finance Items not Part of the Net Cost of Operations		
Change in Budgetary Resources Obligated for Goods Services and Benefits Ordered But Not Yet Provided	180,003	(73,152)
Resources that Finance the Acquisition of Assets		
Total Resources Used to Finance Items Not Part of the Net Cost of Operations	180,003	(73,152)
Total Resources Used to Finance the Net Cost of Operations	3,534,245	3,703,514
Components of the Net Cost of Operations that will not Require or Generate Resources in the Current Period:		
Components Requiring or Generating Resources in Future Periods:		
Increase in Annual Leave Liability	10,518	8,652
Total Components of Net Cost of Operations that will Require or Generate Resources in Future Periods	10,518	8,652
Components Not Requiring or Generating Resources:		
Depreciation and Amortization	3,739	13,164
Total Components of Net Cost of Operations that will not Require or Generate Resources	3,739	13,164
Total Components of Net Cost of Operations that will not Require or Generate Resources in the Current Period	14,257	21,816
Net Cost of Operations	3,548,502	3,725,330

*Amounts may be off by a dollar due to rounding.

NOTE 9 – RECONCILIATION OF NET COST OF OPERATIONS (PROPRIETARY) TO BUDGET (FORMERLY THE STATEMENT OF FINANCING) (CONTINUED)

Liabilities not covered by budgetary resources total $166,709 and the Change in components requiring or generating resources in future period shows $10,518. The $10,518 is the net increase in Annual Leave Liability for FY07 and FY08. Accrued funded payroll liability is covered by budgetary resources and is included in the net cost of operations. Whereas, the unfunded leave liability includes the expense related to the increase in annual leave liability for which the budgetary resources will be provided in a subsequent period.

	2008	2007
Liabilities not covered by budgetary resources	$166,709	$156,192
Change in components requiring/generating resources	$10,518	$8,652

APPENDIX A –

NUCLEAR WASTE TECHNICAL REVIEW BOARD COMMENTS ON

DRAFT AUDIT REPORT

UNITED STATES
NUCLEAR WASTE TECHNICAL REVIEW BOARD
2300 Clarendon Boulevard, Suite 1300
Arlington, VA 22201–3367

November 14, 2008

Martin & Wall, P.C.
Attn. John J. Wall, CPA
1633 Q Street, NW
Suite 230
Washington, DC 20009

Dear Mr. Wall:

We have reviewed the draft audit report provided to us relating to your audit of the U.S. Nuclear Waste Technical Review Board for the fiscal year ended September 30, 2008. We concur with the facts and conclusions in the draft report.

Sincerely,

William D. Barnard
Executive Director

Telephone: 703–235–4473 Fax: 703–235–4495