MAINE STATE LEGISLATURE

State Nuclear Safety Inspector Office
Maine CDC – DHHS

January 2012 Monthly Report to the Legislature

Executive Summary

As part of the State's long standing oversight of Maine Yankee's nuclear activities, legislation was enacted in the second regular session of the 123rd and signed by Governor John Baldacci requiring that the State Nuclear Safety Inspector prepare a monthly report on the oversight activities performed at the Maine Yankee Independent Spent Fuel Storage Installation facility located in Wiscasset, Maine.

The report covers activities at the storage facility, including the State's on-going environmental radiation surveillance and the post decommissioning groundwater monitoring program, the national debate over the licensing and construction of a geologic repository for the disposal of spent nuclear fuel at Yucca Mountain in Nevada. The report's highlights assist readers to focus on the significant activities that took place during the month, both locally and nationally.

LOCAL:

- Maine Yankee issued to the Department of Environmental Protection its final cost summary for the five year groundwater monitoring program. The final tally indicated a $28,268 overrun on the original agreement of $500,000. The letter closes out all tasks associated with the post decommissioning radiological groundwater monitoring Agreement between the State and Maine Yankee at its decommissioned complex.
- The Nuclear Regulatory Commission (NRC) issued its lowest violation, a Severity Level 4, to Maine Yankee stating that they violated NRC regulations on foreign ownership, control, or domination. The violations were also issued to Connecticut Yankee and Yankee Atomic, since all three Yankee companies are affected by the proposed merger of Northeast Utilities and NSTAR. According to the NRC's Notice of Violation Maine Yankee "is governed by a board of directors whose members are appointed, in part, by companies that are ultimately controlled by foreign entities, as follows: Central Maine Power Co. (38% - Iberdrola S.A.), New England Power Co. (24% - National Grid); Bangor Hydro-Electric and Maine Public Service Co. (12% - Emera)". Iberdrola is based in Spain. National Grid is based in the United Kingdom and Emera is based in Canada. Maine Yankee does not agree that the storage facility in Wiscasset is subject to foreign control or that there has been a violation of NRC regulations.
- A highlight that was not captured in the previous monthly reports were letters written by the Governor, the Commissioner of the Department of Health and Human Services, and the Director of the Maine Center for Disease Control and Prevention in response to the Northeast High-Level Radioactive Waste Transportation Task Force's (a project of the Council of State Governments' Eastern Regional Conference) appeal to the northeast states to comment in response to the Blue Ribbon Commission's public meeting held in Boston last October on the Commission's draft report. All three letters expressed concerns and the impacts associated with the extended storage of the spent nuclear fuel in Wiscasset. The letters were forwarded to the President's Blue Ribbon Commission.

- The fourth quarter results of the State's environmental radiation program continued to illustrate three distinct groupings with the same two stations that have been historically high. The highest stations recorded an average exposure of 26.6 as compared to normal background levels of 15 to 30 on the coast of Maine. However, all the fourth quarter TLD results averaged between three and four less exposure than the third quarter results. This was expected as frozen ground conditions and snow cover primarily impede the out gassing of Radon in the soils.

The national highlights primarily focused on the Nuclear Regulatory Commission's activities and the long awaited Blue Ribbon Commission report on managing the nation's nuclear stockpile as noted below:

National:

- The Nuclear Regulatory Commission and the State of Nevada filed their responses with the U.S. Court of Appeals for the D.C. Circuit on the lawsuit filed by the petitioners from the states of South Carolina and Washington, Nye County in Nevada, Aiken County in South Carolina, the National Association of Regulatory Utility Commissioners, and the three business leaders from the Tri-City area near Hanford, Washington. The filings set the stage for oral arguments on whether the Nuclear Regulatory Commission acted properly in ceasing the licensing proceedings on Yucca Mountain.
- The Blue Ribbon Commission on America's Future issued its long anticipated report on how the back end of the nuclear fuel cycle should be managed. The Commission recommended eight key elements to manage the nation's nuclear waste. Two recommendations are of considerable importance to Maine. The first is the prompt development of one or more consolidated storage facilities with the caveat that decommissioned or shutdown reactor sites receive first priority to ship their spent fuel. The second is the early preparation for the eventual transport of the used nuclear fuel to consolidated storage or disposal facilities with the stipulation to provide technical assistance and funding to state and local governments for training and emergency preparedness and response.
- The Nuclear Regulatory Commission (NRC) held a national webinar to discuss its background document that will provide the basis for a draft environmental impact statement on the NRC's long term confidence that spent nuclear fuel generated since the 1950's can be safely stored through the year 2250. The purpose was to seek input from stakeholders and interested parties as to whether the background document covered all the bases.

Introduction

As part of the Department of Health and Human Services' responsibility under Title 22, Maine Revised Statutes Annotated (MRSA) §666 (2), as enacted under Public Law, Chapter 539 in the second regular session of the 123rd Legislature, the foregoing is the monthly report from the State Nuclear Safety Inspector.

The State Inspector's individual activities for the past month are highlighted under certain broad categories, as illustrated below. Since some activities are periodic and on-going, there may be some months when very little will be reported under that category. It is recommended for reviewers to examine previous reports to ensure connectivity with the information presented as it would be cumbersome to continuously repeat prior information in every report. Past reports are available from the Radiation Control Program's web site at the following link: www.maineradiationcontrol.org and by clicking on the nuclear safety link in the left hand margin.

Commencing with the January 2010 report the glossary and the historical perspective addendum are no longer included in the report. Instead, this information is available at the Radiation Control Program's website noted above. In some situations the footnotes may include some basic information and may redirect the reviewer to the website.

Independent Spent Fuel Storage Installation (ISFSI)

During January the general status of the ISFSI was normal, with no instances of spurious alarms due to environmental conditions or fire-related impairments during the month.

There were two security-related impairments. The first occurred during the snowstorm on January 12th. Compensatory measures were instituted. Shift personnel assumed the measures were adequate. At the shift turnover at 2:00pm the on-coming security personnel noted that the measures put in place were not correctly compensated, thereby creating vulnerability for several hours. Since the measures were inadequate for longer than one hour, upon discovery Maine Yankee reported the incident to the U.S. Nuclear Regulatory Commission's (NRC) Operations Center. According to Title 10 of the Code of Federal Regulations, Maine Yankee will have 60 days to file a Licensee Event Report to the NRC on the event. The second security impairment was transient in nature and occurred during the evening shift on January 22nd.

Besides the security-related impairments, nineteen security events were logged. All the SELs, except one, were related to transient environmental issues. The remaining SEL addressed the planned, temporary loss of the computer system to complete a maintenance activity on the system.

There were eight condition reports[1] (CR) for the month of January and they are described below.

1st CR: Was written to document security equipment approaching its expiration date.
2nd-6th CRs: Were written for various aspects of the reportable security impairment mentioned above.
7th CR: Documented the review of the Self-Assessment Program and follow-up activities.
8th CR: Addressed the use of an outdated form by a medical provider.

[1] A condition report is a report that promptly alerts management to potential conditions that may be adverse to quality or safety. For more information, refer to the glossary on the Radiation Program's website.

Other ISFSI Related Activities

1. On January 17th the legislatively mandated oversight group, representing the Department of Environmental Protection, the State Police, the Public Advocate, the Department of Health and Human Services' Radiation Control Program and Maine Yankee, met for its quarterly meeting to discuss the State's and Maine Yankee's activities pertinent to the overseeing of the ISFSI. The State Police briefed the group on its activities with FBI intelligence and potential threats. The threat posture was characterized as quiet for Maine. Further discussions focused on the State Police equipment needs to maintain their terrorist readiness response. Next, Maine Yankee briefed the group on the status of its security exemption request before the Nuclear Regulatory Commission (NRC), its reporting to the NRC Operations Center of its partially degraded coverage during the snowstorm the previous week, Maine Yankee's final cost summary letter on groundwater monitoring to the Department of Environmental Protection, and the expectations of the Blue Ribbon Commission's recommendations that were due January 29th. The Manager of the Radiation Control Program then briefed the group on the international incident with the smelting of a large radioactive Cesium-137 source in metal in India. The metal was used to create very ornate metal covers for Kleenex tissue boxes and imported by Bed, Bath and Beyond. The metal covers were discovered in California. Bed, Bath, and Beyond has been working with State and Federal authorities and has recalled the items. None of the affected metal covers were distributed in Maine. The State Inspector briefed the group on his past and near term activities for the quarter and the Radiation Control staff's assistance in formulating a response from senior State Officials in response to the Blue Ribbon Commission's public stakeholder meeting held in Boston on managing the nation's nuclear waste.

2. On January 27th the Nuclear Regulatory Commission (NRC) issued a Severity Level 4 violation to Maine Yankee stating that they violated NRC regulations on foreign ownership, control, or domination (FOCD). The violations were also issued to Connecticut Yankee and Yankee Atomic, since all three Yankee companies are affected by the proposed merger of Northeast Utilities and NSTAR. According to the NRC's Notice of Violation Maine Yankee "is governed by a board of directors whose members are appointed, in part, by companies that are ultimately controlled by foreign entities, as follows: Central Maine Power Co. (38% - Iberdrola S.A.), New England Power Co. (24% - National Grid); Bangor Hydro-Electric and Maine Public Service Co. (12% - Emera)". Iberdrola is based in Spain. National Grid is based in the United Kingdom and Emera is based in Canada. Maine Yankee must respond within 30 days of the date of the letter. Maine Yankee does not agree that the storage facility in Wiscasset is subject to foreign control or that there has been a violation of NRC regulations. Copies of the NRC Notice and Maine Yankee's response points are attached.

Environmental

On January 23rd the State received the fourth quarter results from the field replacement of its thermoluminescent dosimeters[2] around the ISFSI and the Maine Yankee industrial site. The results from the quarterly TLD change out continued to illustrate three distinct exposure groups: elevated, slightly elevated, and normal. The high stations identified were G and K and averaged 26.6 milliRoentgens[3] (mR).

It was observed that station K had one element in one TLD that was excluded from the results due to a higher than expected reading. When this occurs the dosimetry company that analyzes the TLDs employs a statistical test to see if the data point is an outlier. If it is, it will be rejected and not included in their report. Upon further

[2] Thermoluminescent Dosimeters (TLD) are very small, passive radiation monitors requiring laboratory analysis. For a further explanation, refer to the glossary on the Radiation Program's website.

[3] A milliRoentgen (mR) is a measurement of radiation exposure. For a further explanation, refer to the glossary on the Radiation Program's website.

examination of the affected TLD for station K, the element readings ranged from 23 to 28 with an outlier reading of 39.4. In performing the statistical test for the outlier, the calculation demonstrated that the dosimetry company's rejection was valid up to the 97% confidence level. Therefore, the State accepted the vendor's characterization of the outlier and did not include the outlier in its station K results.

The moderately high group stations were E, F, L, O, and Q, and averaged 23.6 mR. For the second consecutive quarter there appeared to be a subset of the moderately high group which contained the station J with a slightly lower average of 22.3 mR. There appears to be no straightforward reason for the slightly elevated status except to possibly attribute it to localized background variability in the radiation levels at these stations. The stations appeared to trade places. For example, last quarter stations L and O were in this group. This quarter stations L and O went to the elevated group. Station J, which was in the moderately elevated group last quarter went down to the slightly elevated subset, whereas station P went from the moderately elevated group to the normal range. Station Q traded places with station P as it went from the normal range to the moderately elevated group. These deviations will be tracked over the next several quarters to see if a pattern develops. The remaining stations A, B, C, D, H, I, M, N and P averaged 20.6 mR.

The Maine Yankee industrial site TLDs averaged 20.6 mR, which is comparable to the normally expected background radiation levels of 15 to 30 mR on the coast of Maine. The background levels are highly dependent upon seasonal fluctuations in the out gassing of the naturally radioactive Radon gas, tidal effects, and local geology.

One of the industrial site TLDs had two of its three elements under responding. Their values were 5.0 and 5.8 as compared to the third element which read 23.9. Due to two of the three elements under responding the dosimetry company rejected all the data from this TLD. However, the second TLD had values of 20, 21, and 21. When the State performed the statistical test for the 23.9 value, the calculation failed to reject the data even at the 90% confidence level. Therefore, the State accepted the 23.9 and included it in its results. However, the two elements that under responded the State accepted the vendor's rejection of the data. The dosimetry company informed the State that the two elements had experienced some water damage from the local field conditions.

All the fourth quarter TLD results averaged between three and four mrem less exposure than the third quarter results. This was expected as frozen ground conditions and snow cover primarily impede the out gassing of Radon in the soils.

The control TLDs that are stored at the State's Radiation Control Program in Augusta averaged about 10.3 mR. The storing of the control TLDs at the Health and Environmental Testing Laboratory's (HETL) pre-World War II steel vault had an affect on the TLD values. The 10.3 mR is noticeably lower than last quarter's control results of 13.6 mR. The impact of the lower Radon gas also affected HETL's background radiation levels. The controls are part of a program to better quantify the individual impacts of storage and transit exposures to the thermoluminescent dosimeters (TLDs).

As a further application of this TLD assessment, on December 14th three of the seven control TLDs received for the first quarter of 2012 were returned to the State's TLD vendor, Global Dosimetry in California, for an analysis of the transportation exposures. The initial set of results from the control TLD badges returned indicated an average of 7.1 mR for the total exposure picked up between leaving the vendor, arriving at the State and then immediately being shipped back and received by the vendor. The 7.1 mR represented an increase of 1.5 mR when compared to last quarter's 5.6 transit badges. The increase could come from a varied number of sources in transit including some extra exposure received from the overnight stay in the State Inspector's office. The on-going assessment, which is expected to last about two years, will allow for more accurate comparisons between control TLDs and field results in addition to quantifying the actual radiological impact from the stored nuclear fuel.

The field control TLDs at Ferry Landing on Westport Island and the roof of the State's Health and Environmental Testing Laboratory read 22.8 and 19.0 mR, respectively. The TLDs at the Edgecomb Fire Station were lost as a tree fell on the structure that the TLDs were attached to. Since the local Fire Chief was unaware of the State's TLDs, the destroyed structure with the TLDs and the fallen tree were hauled off to the local dump. The local Fire Chief was present when a new set of TLDs were placed in proximity to the previous TLD station. As expected, the current values were less than the previous quarter's results.

As noted in earlier reports the State's maintains an environmental air sampler on the roof of the Health and Environmental Testing Laboratory for local or national events. The air sampler was extremely helpful during the Fukushima event in Japan last March and April as it was instrumental in quantifying the levels of radioactivity that was coming from the crippled reactors. The fourth quarter results did not identify any unusual radioactive elements and were within historical ranges for both gross beta[4] and Beryllium-7, a naturally radioactive cosmogenic element that is produced from cosmic rays interacting with the nitrogen and oxygen atoms in the atmosphere. The gross beta results ranged from 14.9 to 30.4 femto-curies per cubic meter (fCi/m^3)[5]. A composite of the seven bi-weekly air filter samples was used to measure the Beryllium-7's concentration of 55.8 fCi/m^3.

For informational purposes Figure 1 on page 7 illustrates the locations of the State's 17 TLD locations in the vicinity of the ISFSI. The State's locations are identified by letters with the two highest locations being stations G and K.

Groundwater Monitoring Program

On January 16th Maine Yankee submitted its unaudited cost summary report to the Department of Environmental Protection (DEP) on its 2011 groundwater monitoring costs. The letter also informed the DEP of the $528,268 that was expended for the five-year post decommissioning radiation groundwater monitoring program. The amount exceeded the original budgeted agreement cost of $500,000. The purpose of the monitoring program was to demonstrate that the Maine Yankee decommissioned site had met the State's enhanced residual clean-up criteria of 4 mrem[6] for groundwater.

Other Newsworthy Items

1. On January 3rd the Nuclear Regulatory Commission (NRC) issued a news release seeking public comments on their assumptions for environmental study of extended storage of spent nuclear fuel for as much as 200 years. The report discussed several scenarios including centralized storage sites and reprocessing. A copy of the release is attached.

2. On January 4th the Nuclear Regulatory Commission (NRC) issued a news release on the availability of a public meeting on a webinar on their draft report, "Background and Preliminary Assumptions for an Environmental Impact Statement – Long-Term Waste Confidence Update". The NRC was

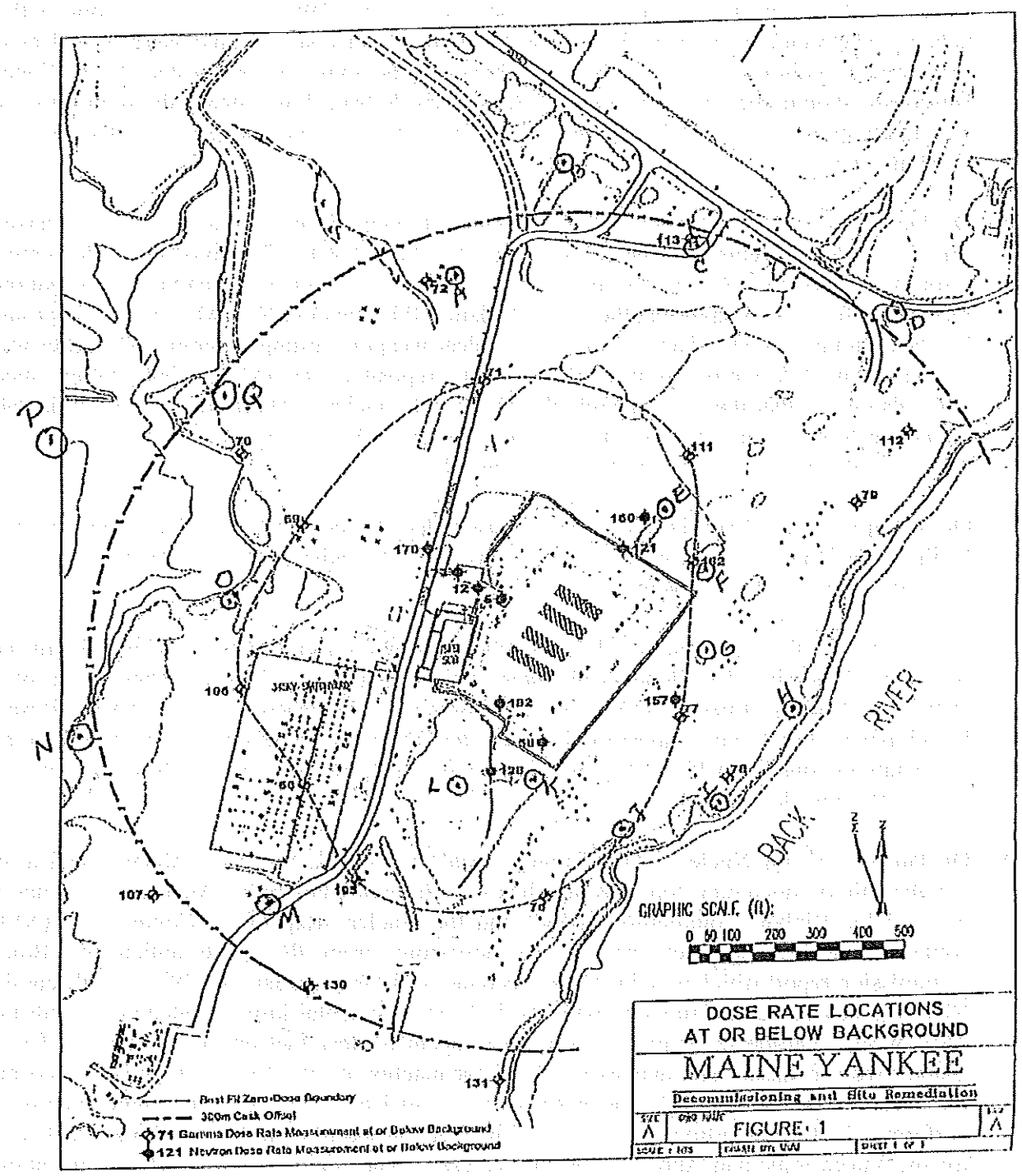
[4] Gross Beta is a simple screening technique that measures the total number of beta particles emanating from a potentially radioactive sample. High values would prompt further analyses to identify the radioactive species. Refer to the glossary on the website for further information.

[5] A fCi/m3 is an acronym for a femto-curie per cubic meter, which is a concentration unit that defines how much radioactivity is present in a particular air volume, such as a cubic meter. A "femto" is a scientific prefix for an exponential term that is equivalent to one quadrillionth (1/1,000,000,000,000,000).

[6] A mrem is a measure of how much radiation was absorbed by a person's body. For more information, refer to the glossary at the website.

seeking feedback on its report from stakeholders and the public through its webinar forum. A copy of the news release is attached.

Figure 1



3. On January 4th the Nuclear Regulatory Commission (NRC) issued a news release on the availability of a public meeting on a webinar on their draft report, "Background and Preliminary Assumptions for an Environmental Impact Statement – Long-Term Waste Confidence Update". The NRC was seeking feedback on its report from stakeholders and the public through its webinar forum. A copy of the news release is attached.

4. On January 5th the Las-Vegas Review Journal published an article on how an August 2011 report prepared by Sandia National Laboratories in New Mexico could shed new light on an alternate disposal medium for spent nuclear fuel other than Yucca Mountain. The report focused on granite formations that are prevalent along the eastern seaboard and the upper Midwest. Vermont has already declined any interest as they did back in the early 1980's when they, along with Maine's Sebago Lake region, were being investigated as potential host sites for the nation's nuclear stockpile. However, an editorial in Duluth News Tribune on the same day suggested that "Minnesota and Wisconsin should keep an open mind". Besides the Sebago Lake region the report also identified two additional granite deposits of interest, one near Baxter State Park and the other was an area in Washington County.

5. On January 6th the U.S. Nuclear Waste Technical Review Board sent a letter to the Department of Energy's (DOE) Deputy Assistant Secretary for Fuel Cycle Technologies. The letter was in response to a DOE request for the Board to review a proposed heating investigation of salt formations for waste disposal at the Waste Isolation Pilot Plant in New Mexico, the disposal grounds for the plutonium wastes from the nation's nuclear weapons testing program. The letter was critical in noting that DOE's proposal may impede future repository research in other geologic media. The letter also noted that that the research objectives were unclear. The Board could not decipher if the intent was to investigate salt as a medium for disposal or how a specific salt dome would respond to heat generated waste. A copy of the letter is attached.

6. On January 6th the Electricite de France suspended the construction of a nuclear waste storage facility near Bugey, France in the French Alps, when the administrative tribunal of Lyon canceled the building permit for the facility.

7. On January 9th the U.S. Nuclear Waste Technical Review Board held its winter Board meeting in Arlington, Virginia. The Board heard presentations principally from the Department of Energy's Office of Nuclear Energy, Office of Environmental Management, Fuel Cycle Research and Development, Used Fuel Disposition Program, and Disposal Operations. There were two additional presentations, one from Idaho National Laboratory and one from Sandia National Laboratory. A copy of the agenda is attached.

8. On January 11th the Nuclear Waste Strategy Coalition (NWSC) held a conference call to update its membership on upcoming congressional hearings, litigation before the Appeals Court, and activities of the Blue Ribbon Commission (BRC) and the Nuclear Regulatory Commission (NRC). The congressional hearings were set to hear testimony from the much anticipated Blue Ribbon Commission report which was due to the Secretary of Energy on January 29th. The discussion on the NRC focused on its assumptions with its draft environmental impact statement to substantiate its 2010 Waste Confidence Ruling for storage of spent nuclear fuel out to 200 years. The litigation issues involved the lawsuit against the NRC for inaction on the Yucca Mountain proceedings with the second case dealing with the suspension of nuclear waste fund fees until an assessment is performed by the Department of Energy. The Court is expected to hear oral arguments on May 2nd for the Yucca issue and April 13th on the fee case. The NWSC is an ad hoc organization of state utility regulators, state attorneys general, consumer advocates, electric utilities and associate members, that includes 40 organizations in more than 30 states.

9. On January 11th the Nuclear Regulatory Commission filed with the U.S. Court of Appeals for the District of Columbia their response to the petition submitted by the states of South Carolina and Washington, Aiken County in South Carolina, Nye County in Nevada, the National Association of Regulatory Utility Commissioners, and the Tri-City business leaders from near Hanford,

Washington. The petitioners' lawsuit claimed the NRC unreasonably withheld action in the Yucca Mountain license proceedings. The NRC listed five arguments why they acted reasonably. Three of the five arguments centered on Congress' failure to fund the Yucca Mountain license proceedings. Without proper funding the Department of Energy and the NRC are unable to complete the proceedings. In addition, the NRC also raised the issue of the Courts being unable to order federal agencies to continue projects without congressional appropriations.

10. On January 13th Chairman Jaczko of the Nuclear Regulatory Commission (NRC) sent a letter to the Co-Chairs of the Blue Ribbon Commission (BRC) inviting them to brief the NRC on the much anticipated BRC report due at the end of January. The discussion would focus on how the BRC's recommendations on managing the back end of the nation's fuel cycle would impact the NRC's regulatory programs for reactor regulation, fuel cycle, storage, transportation, disposal, and current federal and state co-operative agreements. Copies of the letter and the agenda are attached.

11. On January 13th an article published in "The Globe and Mail" noted that nine communities in Canada are vying to host a geologic disposal facility for spent nuclear fuel. The towns are scattered across Saskatchewan and Ontario. Some are old mining and lumber towns, others native reserves and the remainder cottage enclaves. Three of the nine were identified, Hornepayne and Ignace in Ontario and Creighton in Saskatchewan. Many of the towns have shrinking population and in dire circumstances to boost their local economies. The article also mentioned that five other Canadian communities are considering joining the nine to host a repository.

12. On January 13th the Arizona Daily Sun reported that State Senator Al Melvin proposed to finance public education in Arizona by levying a $50,000 fee per ton of nuclear waste disposed in the state. With the industry generating about 2,000 tons of spent nuclear fuel per year that would amount to $100 million dollars a year for public schools. The Senator suggested Picacho Peak, Safford, Holbrook, Kingman, and Luke Air Force Base near Phoenix as potential sites considering they are all located near underground salt deposits.

13. On January 18th the Pahrump Valley Times announced that Nye County, Nevada, home of Yucca Mountain, will receive a $3.8 million payment equal to taxes from the Department of Energy (DOE) as part of the Nuclear Waste Policy Act's mandate. Those payments essentially disappeared in fiscal years 2010 and 2011 when the Administration zeroed out the funding for Yucca Mountain.

14. On January 18th the State of Nevada filed its brief as an intervenor with the U.S. Court of Appeals for the D.C. Circuit in response to the petition submitted by the states of South Carolina and Washington, Aiken County in South Carolina, Nye County in Nevada, the National Association of Regulatory Utility Commissioners, and the Tri-City businessmen from near Hanford, Washington. Nevada sided with the Nuclear Regulatory Commission's earlier filing that it did not unreasonably delay the Yucca Mountain license proceedings.

15. On January 25th eighty-eight national, regional, and local environmental organizations along with three international groups sent a letter to Energy Secretary Chu urging him to reject the soon to be released Blue Ribbon Commission's report on America's nuclear waste management strategy. The groups took exception to the creation of temporary storage sites, the mass transportation of radioactive waste across the country, and reprocessing of the used nuclear fuel until a permanent isolation program is instituted. They advocated leaving the spent nuclear fuel at reactor sites and safeguarding the storage facilities by hardening those storage sites using the fees collected for the Nuclear Waste Fund. A copy of the letter is attached.

16. On January 25th Forbes ran an article on the "The town that wants America's worst nuclear waste". The article is about Carlsbad, New Mexico, home of the Waste Isolation Pilot Plant (WIPP), the burial facility for the nation's plutonium waste from the nuclear weapons testing era. With over 10,000 shipments logging twelve million miles without an incident over the last thirteen years and the successful burial of over 200,000 tonnes of wastes impregnated with plutonium in the salt domes has generated a very positive response from the local citizenry as well as state officials. The city also touted its highly specialized and technical workforce. City officials have advocated for not only storing the nation's spent nuclear fuel stockpile, but have also promoted burying it in their salt formations. It was estimated that it would cost two and one half times less to build a repository in Carlsbad ($30 billion) than at Yucca Mountain ($80 billion).

17. On January 26th the Blue Ribbon Commission on America's Nuclear Future issued its long awaited Report to the Secretary of Energy on how the nation should manage its used nuclear fuel. The cover letter to the report stressed that the failure to resolve this issue was damaging and costly, and that continued inaction will continue to be damaging and costly to the possibility of losing the nuclear energy option, to state and federal relations, to public confidence, and to America's global issues of nuclear safety, non-proliferation, and security. The letter further mentioned that their approach neither included nor excluded Yucca Mountain. The Commission's report recommended eight essential key elements.

    a) "A new consent-based approach to siting future nuclear waste management facilities.
    b) A new organization dedicated solely to implementing the waste management program and empowered with the authority and resources needed to succeed.
    c) Access to the funds nuclear utility ratepayers are providing for the purpose of nuclear waste management.
    d) Prompt efforts to develop one or more geologic disposal facilities.
    e) Prompt efforts to develop one or more consolidated storage facilities.
    f) Prompt efforts to prepare for the eventual large-scale transport of spent nuclear fuel and high-level waste to consolidated storage and disposal facilities when such facilities become available.
    g) Support for continued U.S. innovation in nuclear energy technology and for workforce development.
    h) Active U.S. leadership in international efforts to address safety, waste management, non-proliferation, and security concerns."

    The report proposed six legislative changes to affect its recommendations, with one recommendation broadening support to jurisdictions affected by transportation, including funding and technical assistance to public safety officials, states and tribes. Copies of the press release, letter and the report's executive summary are attached.

18. On January 26th six organizations, comprised of the National Association of Regulatory Utility Commissioners, the Nuclear Energy Institute, the Nuclear Waste Strategy Coalition, the American Public Power Association, the National Rural Electric Cooperative Association, and the Edison Electric Institute, issued a joint statement welcoming the Blue Ribbon Commission's final report. The organizations endorsed the Commission's eight recommendations, but emphasized that three should receive a high priority.

    a) Access to the Nuclear Waste Fund and ensure that fees collected are dedicated for nuclear waste management,
    b) Prompt development of consolidated interim storage sites, and
    c) The creation of a new federal corporation to manage the nation's nuclear waste program.

The group fundamentally believed in these points as a means to ensure the future success of the nuclear waste management program. A copy of the news release is attached.

19. On January 30th Maine Yankee, Connecticut Yankee and Yankee Atomic issued a combined statement on the January 26th release of the Blue Ribbon Commission's (BRC) report highlighting three favorable conclusions from the BRC report:

    a) A voluntary incentive program for the eventual licensing of a consolidated interim storage facility,
    b) The recommendation that permanently shutdown or decommissioned reactor sites would receive "first in line" priority for the movement of their spent fuel to a consolidated interim storage site, and
    c) Providing technical assistance, training and funds to state, local, and tribal efforts in preparation for the transportation of the used nuclear fuel to interim or disposal sites.

    The Yankee companies expressed their gratitude for the Commission's work on producing a long term strategy for managing the country's spent nuclear fuel and high-level waste. A copy of the statement is attached.

20. On January 30th the Nuclear Waste Strategy Coalition (NWSC) held its bi-weekly conference call to update its membership on the upcoming February 1st House hearing and February 2nd Senate hearing on the Blue Ribbon Commission's (BRC) report, litigation before the Appeals Court, and activities of the Nuclear Regulatory Commission (NRC) and the Department of Energy (DOE). The congressional hearings were set to hear testimony from stakeholders on the BRC's January 26th report. The NRC discussion focused on its assumptions with its draft environmental impact statement to substantiate its 2010 Waste Confidence Ruling for storage of spent nuclear fuel out to 200 years. The litigation issues involved those suing the NRC for inaction on the Yucca Mountain proceedings and the second case dealing with the suspension of nuclear waste fund fees until an assessment is performed by the Department of Energy. The Court is expected to hear oral arguments on May 2nd for the Yucca issue and April 13th on the fee case. The DOE discussion focused on the report that was mandated by the Fiscal Year 2012 Consolidated Appropriations Act on how the DOE will implement the recommendations of the BRC's report. The DOE report is due six months from the published date of the BRC report or July 26th.

21. On January 30th the petitioners from the states of South Carolina and Washington, Aiken County in South Carolina, Nye County in Nevada, the National Association of Regulatory Utility Commissioners, and the Tri-City businessmen near Hanford, Washington filed their reply brief with the U.S. Court of Appeals from the District of Columbia Circuit. The petitioners reiterate their position as to why the Court should conclude in their favor based on the process decreed in the Nuclear Waste Policy Act and that the actions resulting in the injury were traceable to the Nuclear Regulatory Commission.

22. On January 30th the House Committee on Energy and Commerce issued an internal memorandum to the Subcommittee on Environment and the Economy announcing the February 1st hearing on the "Recommendations of the Blue Ribbon Commission (BRC) on America's Nuclear Future". The panel of witnesses included the Co-Chairs of the BRC, past members of the Department of Energy's Office of Civilian Radioactive Waste Management and the U.S. Nuclear Waste Technical Review Board, the State of Nevada's legal representative, the Union of Concern Scientists, Citizens Against Government Waste, and the National Association of Regulatory Utility Commissioners. The memorandum raised two issues for discussion during the hearing, financial impacts of repository delays and Nuclear Waste Policy Act suggestions. A copy of the memorandum is attached.

23. On January 31st the Chair of the House Subcommittee on Environment and Economy commented on the Blue Ribbon Commission's report in Congress' blog. His remarks focused on Yucca Mountain and the Administration's actions to shutter the Project and the bureaucratic failure of the Nuclear Regulatory Commission and the Department of Energy "to carry out the law of the land". A copy of the blog is attached.

24. On January 31st the State Inspector along with over hundred participants nationwide took part in the Nuclear Regulatory Commission's webinar on its draft environmental impact statement on its Waste Confidence Ruling. The background document is the first step in a multi-part process that will end in 2019. The draft report explains the basis for the NRC's regulatory role and its confidence that spent nuclear fuel will be safely managed at storage facilities at reactor and decommissioned sites pending disposal in an available geologic repository. The Waste Confidence Ruling was mandated by the U.S. Court of Appeals for the D.C. Circuit in 1979, which based its decision on the National Environmental Policy Act. The report presented some bounding assumptions and typical scenarios. The State Inspector queried the NRC as to whether or not terrorist threats with specialized weaponry would be evaluated, to which they said yes. The final environmental impact statement will cover a storage period of 200 years starting mid century (2050). The overall timeframe will cover a period of about three hundred years starting with the naval nuclear fleet's spent fuel from the 1950's out to the year 2250.

25. On January 31st the Conference of (State) Radiation Control Program Director's E-5 Committee on Low-Level Waste held a conference call to discuss various issues. The State Inspector requested that the Committee discuss his concern over the Department of Energy's (DOE) recent labeling of Greater Than Class C (GTCC) waste as low-level waste. The nuclear industry perspective and recent court litigations indicate that GTCC should be entombed in a geologic repository like spent nuclear fuel. Maine Yankee has four dry casks with GTCC waste from the decommissioning stored at its ISFSI. The E-5 Committee agreed to review DOE's draft environmental impact statement on GTCC waste and send a letter to the DOE.

26. On January 31st – February 2nd the Institute of Nuclear Materials Management held its XXVII Spent Fuel Management Seminar in Arlington, Virginia. The first day focused on the Blue Ribbon Commission's final recommendations and impacts, and Japan's Fukushima reactor accidents and their impacts on fuel management. On the second day the seminar topics focused on spent fuel monitoring in storage and transportation, the Department of Energy's used fuel programs, spent fuel management projects dealing with regulatory issues and international projects, long term storage and technology development. On the last day of the conference the main topics were transportation and emerging issues, spent nuclear fuel storage options and international perspectives on repositories. A copy of the agenda is attached.

Other Related Topics

1. On October 12th the Blue Ribbon Commission (BRC) on America's Nuclear Future, in association with the Northeast High-Level Radioactive Waste Transportation Task Force (NEHLRWTTF), hosted a public meeting at the Harvard Medical School Conference Center in Boston to receive feedback from state, local and tribal stakeholders, as well as interested members of the public on its July 29th draft recommendations on how the federal government should manage the back end of the nuclear fuel cycle. The following day the Northeast Task Force urged its membership to provide comments on the BRC draft report as part of a unified set of comments from the northeast region. The State Nuclear Safety Inspector forwarded several comments to the NEHLRWTTF. At the urging of the State Inspector and the Manager of the Radiation Control Program, the Governor, the

Commissioner of Health and Human Services, and the Director of the Maine Center for Disease Control and Prevention each sent individual letters on November 9th to the Northeast Task Force expressing their concerns over the economic impact the storage of the spent nuclear fuel has on the Maine economy, the need for incentives to move the process forward and penalties for missing milestones, affirming the BRC's recommendation that decommissioned sites should be first in line to move their nuclear wastes, and the apparent de facto storage of the spent fuel on the Maine coast for decades, if not longer. Copies of the letters are attached.

2. On December 12th the Co-Chairs of the Blue Ribbon Commission on America's Nuclear Future sent a letter to President Obama urging prompt action to provide access to the Nuclear Waste Fund for the management and disposal of the nation's nuclear waste as originally intended as opposed to its current use of balancing the federal budget. They soberly warn that if action is not taken to restore the original intent of the Fund, then the strategy they propose will be doomed. They also stressed that nuclear utilities have successfully sued the federal government over its inability to meet its contractual obligation and the mounting liability will grow to $16 billion by the year 2020. They recommended that the Administration amend the standard contract with nuclear utilities so that utilities only pay into the Fund what Congress appropriates for waste management. The remainder of the fee would go into a trust account. The Co-Chairs requested that the President incorporate their recommendations in his Fiscal year 2013 budget proposal to Congress. A copy of the letter is attached.

NOTICE OF VIOLATION

Maine Yankee Atomic Power Company
Maine Yankee Atomic Power Station
Wiscasset, Maine

Docket Nos.: 50-309, 72-30
License No.: DPR-36
EA-2011-271

During an U.S. Nuclear Regulatory Commission (NRC or Commission) licensing review of a December 6, 2010, request from Maine Yankee Atomic Power Company (MYAPC), a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

A. 10 CFR 50.38 requires that "any person who is a citizen, national, or agent of a foreign country, or any corporation, or other entity which the Commission knows or has reason to believe is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government, shall be ineligible to apply for and obtain a license."

   Contrary to the above, since at least April 20, 2011, MYAPC has been owned, controlled or dominated by a foreign corporation. Specifically, MYAPC is governed by a board of directors whose members are appointed, in part, by companies that are ultimately controlled by foreign entities, as follows: Central Maine Power Co. (38% - Iberdrola S.A.), New England Power Co. (24% - National Grid); Bangor Hydro-Electric and Maine Public Service Co. (12% - Emera).

This is a Severity Level IV violation.

Pursuant to the provisions of 10 CFR 2.201, MYAPC is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Director, Office of Nuclear Safety and Safeguards and the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; EA-2011-271" and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken; and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html, to the extent possible, it should not include any personal privacy, proprietary, sensitive, or safeguards information, so that it can be made available to the public without redaction. If personal privacy, proprietary, or sensitive

information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Dated this 27th day of January, 2012.

Yankee Companies Statement in Response to NRC Notice of Violation, January 30, 2012

Background

- The Yankee Companies have received from the Nuclear Regulatory Commission ("NRC") Notices of Violation ("NOVs") asserting that the companies are in violation of Title 10 of the Code of Federal Regulations (C.F.R.) Section 50.38 related to foreign ownership, control, or domination ("FOCD").

- Section 50.38 states that no corporation which the NRC knows or has reason to believe is owned, controlled or dominated by a foreign corporation, shall be eligible to apply for or obtain a license. The NOVs, which are identical other than for their references to the foreign owners and their percentage ownership of each Yankee corporation, state, in part, that contrary to the FOCD prohibition, since at least April 20, 2011, the Yankees have been in violation of 10 CFR 50.38.

- Each Yankee Company has certain domestic sponsor companies that are subsidiaries of foreign companies. No one foreign-controlled sponsor company holds a majority or controlling interest in any one of the Yankee Companies.

Yankee Companies Response Points

- The Yankee Companies are reviewing the NOVs and will respond within 30 days in accordance with the NRC's request. The Yankee Companies do not agree that the spent fuel storage installations are subject to foreign control or that there has been a violation of NRC requirements. The NRC was notified of transactions resulting in foreign ownership of Yankee sponsor companies. The NRC NOV transmittal letters also state that NRC consent or approval was not required for the ownership changes that resulted in foreign owners of the three Yankees.

- The NOVs do not identify any present safety or security issue. Nor does NRC identify any instance in which a foreign entity exerted actual control over a safety or security matter. The NRC classified the NOVs as Severity Level IV violations. According to current NRC Enforcement Policy, Severity Level IV violations are the lowest level of NRC cited violations and involve matters "that resulted in no or relatively inappreciable potential safety or security consequences."

- In the cover letter accompanying each NOV, the NRC states that in April they notified the Yankees that NRC considered the ownership to be in violation of the FOCD requirements. The Yankee Companies formally responded to that concern on May 16, 2011 stating, in part, that because the facilities are no longer nuclear power plants, they do not fall under the statutory restrictions associated with FOCD and, to the extent that the NRC licenses fall within the regulatory provisions of 10 CFR Part 50, requested an exemption from those provisions. The NRC has not responded to that letter and states in the NOV transmittal letters that they are continuing to review the exemption request.

- In December 2011, the Boards of Directors of all three of the Yankee Companies adopted Negation Action Plans that respond to NRC FOCD concerns. These plans include specific governance measures to assure that there will be no inappropriate foreign influence or control over safety or security matters at the Yankee facilities. The Yankee Companies believe these measures are fully responsive to NRC's issue.

#

NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION
Office of Public Affairs Telephone: 301/415-8200
Washington, D.C. 20555-0001
E-mail: opa.resource@nrc.gov Site: www.nrc.gov
Blog: http://public-blog.nrc-gateway.gov

No. 12-001 January 3, 2012

NRC SEEKS PUBLIC COMMENT ON ASSUMPTIONS FOR ENVIRONMENTAL STUDY OF EXTENDED STORAGE OF SPENT NUCLEAR FUEL

The Nuclear Regulatory Commission seeks public comment on a report updating preliminary assumptions for an Environmental Impact Statement (EIS) the agency will develop to analyze the effects of storing spent nuclear fuel from the nation's commercial power reactors for as much as 200 years.

The EIS will be part of the agency's effort to update its Waste Confidence Decision and Rule, last updated in 2010. The report being made available for comment is an early effort to obtain public input about the general scope of the EIS before the NRC formally initiates the EIS "scoping" process. The EIS will include analyses of environmental impacts that are directly related to the long-term handling, storage and transportation of commercial spent fuel and high-level waste.

The report discusses several storage scenarios, including at nuclear power plants, regional or centralized storage sites or a combination of storage and reprocessing of spent fuel. A key assumption is that extended storage would be managed under a regulatory program similar to current regulation of spent fuel. To analyze the impacts associated with the scenarios, the staff will develop generic, composite sites for each scenario, and these sites will account for a range of characteristics of actual reactor and storage sites.

The report, entitled "Background and Preliminary Assumptions for an Environmental Impact Statement – Long-Term Waste Confidence Update," was posted Jan. 3 on the NRC website. The report updates assumptions first laid out in SECY-11-0029, dated Feb. 28, 2011.

As revised in 2010, the Waste Confidence Decision and Rule included the Commission's confidence that spent fuel can be safely managed until it undergoes final disposition. At the same time, the Commission directed the staff to prepare a long-term update to the Waste Confidence Decision and Rule that would cover extended storage of spent fuel. This long-term update is to be informed by the analysis and conclusions of the EIS anticipated in the current report.

January 4, 2012

PUBLIC MEETING NOTICE

MEMORANDUM TO:	James Rubenstone, Chief Science and Technology Branch Division of Spent Fuel Alternative Strategies Office of Nuclear Material Safety and Safeguards
FROM:	Christine Pineda, Senior Project Manager, NEPA */RA/* Project Management Branch Division of Spent Fuel Alternative Strategies Office of Nuclear Material Safety and Safeguards
SUBJECT:	NOTICE OF FORTHCOMING WEBINAR ON DRAFT REPORT FOR LONG-TERM WASTE CONFIDENCE UPDATE
DATE AND TIME:	January 31, 2012 2:00 p.m. to 3:30 p.m. (Eastern Standard Time)
LOCATION:	Web-based session, co-hosted by The Council of State Governments' Midwestern Office (CSG Midwest) and the U.S. Nuclear Regulatory Commission (NRC)
PURPOSE:	The NRC staff is seeking to engage the public regarding the Agency's plans to develop a draft environmental impact statement for an update of the NRC's Waste Confidence decision and rule. The NRC is holding this webinar to walk through and answer questions about the draft report "Background and Preliminary Assumptions for an Environmental Impact Statement—Long-Term Waste Confidence Update." The report can be found on the NRC's public involvement web page at http://www.nrc.gov/waste/spent-fuel-storage/public-involvement.html. The public comment period for this report ends February 17, 2012.

CATEGORY 3: This is a Category 3 Meeting. The public is invited to participate by providing comments and asking questions throughout the webinar. The NRC's Policy Statement, "Enhancing Public Participation on NRC Meetings," effective May 28, 2002, applies to this webinar. The policy statement may be found on the NRC website, www.nrc.gov.

The NRC provides reasonable accommodations to individuals with disabilities where appropriate. If you need reasonable accommodations to participate in the webinar or need this meeting notice or information about the webinar in another format, please notify the NRC's meeting contact. Determinations on requests for reasonable accommodations will be made on a case-by-case basis.

MEETING CONTACT: Christine Pineda, (301) 492-3154, Christine.Pineda@nrc.gov

PARTICIPANTS: Participants from the NRC include members of the Office of Nuclear Material Safety and Safeguards and other NRC organizations.

WEBINAR: Interested members of the public can participate in this webinar via registration at: https://www2.gotomeeting.com/register/844201962. We encourage those who are interested to register by January 25, 2012. After registering, instructions for joining the webinar (including a teleconference number and pass code) will be provided via email. All participants will be in "listen-only" mode during the presentation. Participants will have a chance to pose questions either orally after the presentation or in writing during the webinar.

ENCLOSURE: Agenda

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

January 6, 2012

Dr. Monica Regalbuto
Deputy Assistant Secretary, Fuel Cycle Technologies
Office of Nuclear Energy
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585-0620

Dear Dr. Regalbuto:

On behalf of the U.S. Nuclear Waste Technical Review Board, I am pleased to respond to your request to the Board for comments on *A Management Proposal for Salt Disposal Investigations with a Field Scale Heater Test at WIPP* (SDI proposal), which was prepared by the U.S. Department of Energy (DOE) Carlsbad Field Office and issued in June 2011.

As you know, Dr. Mark Nutt recently presented to the Board[1] a rationale for using features, events, and processes (FEPs) to identify research and development (R&D) issues that are linked to a generic safety assessment, and setting R&D priorities based on the importance of the issues to the generic safety case. The Board supports such "generic" R&D tasks in the context of geologic repository program development, as long as they: (1) are based on realistic concepts of host rock geology, (2) identify and evaluate significant FEPs and constitutive relationships, and (3) can be demonstrated to reduce uncertainties and adverse risk related to technical and scientific generic repository objectives.

The SDI proposal cites an approach similar to one presented by Dr. Nutt for evaluating knowledge gaps and data needs, and setting R&D priorities to support development of a generic repository safety case:

> *The core concept is the systematic reduction of uncertainty in models through the iterative process of model development, experimental studies, and repository modeling to assess geologic disposal viability... Therefore, residual uncertainties propagated through a generic model of a repository must be quantified, bringing in other relevant considerations and processes (e.g., scenario development, regulatory criteria, subsystem models) in order to fully define a Performance Assessment analysis. These results, vetted at regular intervals with stakeholders, are used to inform modification of the science program*[2] ...

However, the Board notes that the SDI proposal does not adhere to such an approach, nor does it specify the basis for the proposed work. Instead the proposal identifies gaps in experimental work and modeling and proposes R&D activities that do not appear to be ranked by their importance in meeting generic repository objectives. The Board believes that not presenting an explicit evaluation

[1] Mark Nutt, "Used Fuel Disposition Campaign Disposal R&D Roadmap Overview," NWTRB Fall 2011 Board Meeting, Salt Lake City, Utah, September 13, 2011.
[2] SDI proposal, p. 13.

of generic salt information needs in the context of a relevant uncertainty and risk assessment is a significant shortcoming of the proposal. Two additional specific comments on the content of the proposal are discussed in the following paragraphs.

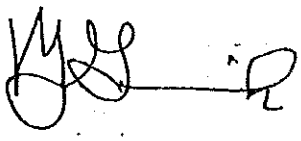
First, it is difficult to assess the importance of work in salt relative to other possible host rocks without knowing the basis for the selection of salt. Field tests are expensive, and a decision to proceed hastily with salt R&D might constrain resources for equally important, or more important, work in other geologic media. The Board cannot make a proper evaluation of the proposed work without knowing what alternatives are under consideration.

Second, the proposal includes references to salt formations and salt domes, but it is unclear whether the proposed tests at WIPP are intended to investigate the suitability of generic salt as a medium for disposing of heat-generating radioactive waste or if the tests are focusing only on the potential of bedded salt for such a purpose. In either case, the Board suggests that the proposal also should provide the technical basis for performing the proposed testing at WIPP.

The comments above raise questions about whether decision-makers have sufficient information to make the necessary decisions concerning prioritization of work related to R&D on salt. The presentation of the SDI proposal makes it appear to be essentially a qualitative list of information needs along with the proposed laboratory, field, and modeling tasks identified to supply the information. How important the individual tasks are to the engineering and science objectives is not addressed, and whether the work as proposed fits the stated objective of the SDI proposal to be "as productive, integrated, and efficient as can be achieved"[3] is unclear.

As you know, the Board is planning a trip to WIPP on March 6, 2012, in conjunction with our public meeting in Albuquerque, New Mexico, on March 7, 2012. If you would find it useful, we could use that opportunity to arrange a discussion of the SDI proposal with staff from your office and the DOE Carlsbad Field Office. As you also know, the public meeting is focused on geological disposal, so a discussion at that time may be particularly appropriate.

Sincerely,



B. John Garrick
Chairman

cc:
Dr. Peter Lyons, Assistant Secretary for Nuclear Energy
Dr. William Boyle, Director, Office of Used Nuclear Fuel Disposition, Research and Development
Mr. Jeff Williams, Deputy Director, Office of Used Nuclear Fuel Disposition, Research and Development

[3] SDI proposal, p. (v)

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

Agenda

Winter 2012 Board Meeting
January 9, 2012

Ritz-Carlton Hotel
1250 South Hayes Street
Arlington VA 22202
Telephone: 703-415-5000
Facsimile: 703-415-5060

8:00 a.m.	**Call to Order** John Garrick, Chairman, U.S. Nuclear Waste Technical Review Board
8:15 a.m.	**Overview—Office of Nuclear Energy** Peter Lyons Assistant Secretary for Nuclear Energy Office of Nuclear Energy
8:35 a.m.	*Questions and answers*
8:55 a.m.	**Overview—Office of Environmental Management** Frank Marcinowski Deputy Assistant Secretary for Technical and Regulatory Support Office of Environmental Management
9:10 a.m.	*Questions and answers*
9:30 a.m.	Break
9:45 a.m.	**Fuel Cycle Research and Development** Monica Regalbuto Deputy Assistant Secretary for Fuel Cycle Technologies Office of Nuclear Energy

Nuclear Energy System Evaluation and Screening

Roald Wigeland
National Technical Director
Fuel Cycle Options--System Analysis and Integration
Idaho National Laboratory

10:10 a.m. *Questions and answers*

10:30 a.m. **Compatibility of Commercial Storage Containers with the Waste Management System**

Jeffrey Williams
Deputy Director
Office of Used Nuclear Fuel Disposition Research and Development
Office of Nuclear Energy

Generic Repository Concepts and Thermal Analysis

Ernest Hardin
Technical Lead for Repository and Nuclear Fuel Cycle System Studies
Sandia National Laboratories

11:50 a.m. *Questions and answers*

12:30 p.m. **Lunch**

1:45 p.m. **Planning for Future Disposal of DOE-Owned HLW and SNF**

Christine Gelles
Director
Office of Disposal Operations
Office of Environmental Management

2:15 p.m. *Questions and answers*

2:35 p.m. **Tank Waste Projects**

Ken Picha
Acting Director for Safety Management
Office of Environmental Management

3:15 p.m. *Questions and answers*

3:35 p.m. **Break**

3:50 p.m. **Calcine Disposition Project**

Joel Case
Project Director
Idaho National Laboratory

4:25 p.m. *Questions and answers*

4: 50 p.m. **Public Comments**

January 13, 2012

The Honorable Lee H. Hamilton
The Honorable Brent Scowcroft
Blue Ribbon Commission on America's Nuclear Future
U.S. Department of Energy
c/o Mr. Timothy A. Frazier
1000 Independence Ave., SW
Washington, D.C. 20585

Dear Co-Chairmen Hamilton and Scowcroft:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I invite you, or your designee, to meet with the Commission at a public meeting on the final report of the Blue Ribbon Commission (BRC) on America's Nuclear Future. The Commission is interested in hearing about the Blue Ribbon Commission's recommendations on national policies for managing the back-end of the nuclear fuel and any potential implications for NRC regulatory programs. Enclosed is a copy of the draft meeting agenda. The NRC staff provided comments on the "Blue Ribbon Commission on America's Nuclear Future Draft Report to the Secretary of Energy" on October 31, 2011, and we understand the final report is expected to be issued by January 29, 2012.

The NRC Commission is available to meet on April 3 or 10, 2012, but we would be happy to look for alternate dates if either of these dates does not work for you. The meeting would be held in the Commissioners' Conference Room on the first floor of the NRC's Headquarters building at One White Flint North, Rockville, Maryland.

We hope you will be able to meet with us. Please contact me or have your staff contact Ms. Annette Vietti-Cook, Secretary of the Commission, at (301) 415-1969 or Annette.Vetti-Cook@nrc.gov, if you have any questions.

Sincerely,

/RA/

Gregory B. Jaczko

Enclosure: As stated

Draft: 01/13/12

SCHEDULING NOTE

Title:	**BRIEFING ON THE FINAL REPORT OF THE BLUE RIBBON COMMISSION ON AMERICA'S NUCLEAR FUTURE (Public)**
Purpose:	To provide the Commission with a discussion of Blue Ribbon Commission recommendations on national policies for managing the back-end of the nuclear fuel and potential implications for NRC regulatory programs.
Scheduled:	**April 2012 (3rd or 10th)** **9:00 am**
Duration:	Approx. 3 hours
Location:	Commissioners' Conference Room, 1st fl OWFN

Participants: **Presentation**

Blue Ribbon Commission Representative **30 mins.***
BRC Designated Federal Official

Topic: Overview of Blue Ribbon Commission charter and process used to develop final recommendations:

- Technical alternatives to current fuel-cycle approaches that could influence spent fuel storage and disposal.
- Storing spent nuclear fuel and high level waste while one or more final disposal locations are established.
- Establishing one or more disposal sites for high level radioactive wastes.

Commission Q & A **50 mins.**

Break **5 mins.**

NRC Staff Panel **40 mins.***

Bill Borchardt, Executive Director for Operations
Michael Weber, Deputy Executive Director for Materials, Waste, Research, State, Tribal, and Compliance Programs
Martin J. Virgilio, Deputy Executive Director for Reactor and Preparedness Programs

Cathy Haney, Director, Office of Nuclear Material Safety and Safeguards 20 mins.*
Topic: Current NRC waste storage and disposal activities and implications of Blue Ribbon Commission final recommendations for ongoing and near-term programs for fuel cycle, storage, transportation and disposal regulation.

Eric Leeds, Director, Office of Nuclear Reactor Regulation 10 mins.*
Topic: Implications of Blue Ribbon Commission final recommendations for ongoing and near-term nuclear reactor regulation.

Mark Satorius, Office of Federal and State Materials and Environmental Management Programs 10 mins.*
Topic: Implications of Blue Ribbon Commission final recommendations for FSME-related activities.

Commission Q & A **50 mins.**

Discussion – Wrap-up **5 mins.**

*For presentation only and does not include time for Commission Q & A's

Documents:
- The final Blue Ribbon Commission report is due to the Secretary of Energy no later than January 29, 2012.
- Information SECY paper on the status of current waste storage and disposal activities (i.e. on-going long-term research and gap analyses in the areas of extended storage/waste confidence and reprocessing) due 3/13/12.

Background material due to SECY: ten business days prior to the briefing.
Slides due to SECY: five business days prior to the briefing.

Note: The BRC charter expires on January 29, 2012, and it is not clear what role the current BRC Commissioners will play after that date.

January 25, 2012

Honorable Steven Chu
U.S. Secretary of Energy
1000 Independence Avenue
Washington, DC 20585

Dear Secretary:

Soon your Blue Ribbon Commission on America's Nuclear Future (Commission) will send you its recommendations. We, who represent communities around closed nuclear reactor sites, urge you to reject the Commission's finding that centralizing irradiated fuel at so-called "temporary" storage sites is an urgent national priority, and to roundly reject reprocessing of this waste. The Commission you appointed is claiming that it is acting in the interest of communities such as ours where closed nuclear power reactors are located, when in fact the Commission's recommendations are in opposition to our number one priority: isolation of radioactivity from our environment for as long as it is a hazard. Centralizing waste storage for purposes of expanded waste production or for reprocessing is contrary to this goal, and is not responsible policy.

Simply relocating the exact same waste storage technology as is currently in use at nuclear reactor sites to a new "interim" storage site is not logical. The underlying reasons that claim to make such an exercise attractive contradict the goal of isolating waste:

- First: the continuing production of more and more highly radioactive waste at existing and new nuclear reactors makes permanent isolation that much more of a challenge. The attitude of previous policymakers was that more waste simply required a bigger hole; but this neglects all the steps in the making of nuclear fuel and the management of the highly radioactive waste that results, many of which will lead to "incidental waste," leaks, accidents and cumulative impacts which multiply with the mass of waste handled.
- Second: reprocessing (plutonium separation) is the antithesis of isolation of radioactivity since the solid ceramic fuel rod is rendered into a series of additional wastes, sludge, caustic liquid, leaks, liquid discharges and gaseous emissions.
- Third: unnecessary transportation to and from the interim storage site(s) causes unnecessary risks (assuming that the "interim" site is actually temporary).

Secretary Chu, we ask you to apply the logic that is missing. Our community has made some unprecedented recommendations, in addition to our ongoing call to stop making more waste:

- Don't move the waste from the reactor sites for now--until a permanent isolation program is available. If an existing site is not qualified for interim waste storage, it is also not qualified for reactor operation.

- Harden waste storage at the reactors--heed, adopt and implement the Principles for Safeguarding Nuclear Waste at Reactor Sites as has been repeatedly presented to the Blue Ribbon Commission.

- Many organizations support the idea of using the Waste Fund or the Court-awarded-damages for the hardening of the waste at reactor sites, with a concomitant adjustment in waste fund fees collected.

- Unlike the Commission, we believe, along with the Department of Energy's former Office of Civilian Radioactive Waste Management and independent analysts such as those retained by the State of Nevada, that the thousands of shipments required to transport the nation's irradiated fuel will result in accidents--some of them very harmful and expensive. We are also concerned about greater security risks during shipment. For these reasons unnecessary or arbitrary movement of this waste must be avoided.

- Our sites are not suitable for waste "disposal" and so we will remain engaged until there is a path forward for permanent isolation of this waste for as long as it is a hazard.

Since there is no representation of any impacted community on the Commission, and comments that have been given in good faith by our community have been ignored by the Commission, we turn to you.

We are organizations that are actively engaged with radioactive waste policy and have been for a long time. Our members include those living near nuclear power reactors and also former reactor sites that we helped to close; we celebrate that no more radioactive waste is being generated at these closed sites and yet we remain engaged and willing to support a **responsible** waste policy going forward. Centralizing waste storage for purposes of expanded waste production or for reprocessing is not responsible. Plutonium that results from reprocessing is nothing but trouble; all the data support this.

Please do not let the situation at closed reactor sites be misused by the politics of the commercial nuclear industry to justify irresponsible policies that would be bad for all.

Sincerely,

Convening group--Signers representing organizations around closed reactor and reprocessing sites:

Christa Maria
Big Rock Point Intervenor
Charlevoix, MI

Victor McManemy
Citizens for Alternatives to Chemical Contamination
Lake, MI

Michael Welch
Redwood Alliance
Arcata, CA

Deb Katz
Citizen Awareness Network
Shelburne Falls, MA

Alice Hirt
Don't Waste Michigan
Holland MI

Michael J. Keegan
Coalition for a Nuclear Free Great Lakes
Monroe, MI

David Kraft
Nuclear Energy Information Service
Chicago, IL

William Linnell
Cheaper, Safer Power
Portland, ME

Charles K. Johnson
Center for Energy Research
Portland, OR

Nina Bell, J.D., Executive Director
Northwest Environmental Advocates
Portland, OR

Lois Gibbs
Center for Health and Environmental Justice
Falls Church, VA

Barbara Warren
Citizens Environmental Coalition
Albany, NY

Michael Mariotte
Nuclear Information and Resource Service
Takoma Park, MD

Kevin Kamps
Beyond Nuclear
Takoma Park, MD

Dave Hamilton
Sierra Club
Washington, DC

Catherine Thomasson, M.D.
Physicians for Social Responsibility
Washington, DC

Glenn Carroll
Nuclear Watch South
Atlanta, GA

The following groups engaged with nuclear policy sign in support:

Gretel Johnston
Mothers Against TN River Radiation
Scottsboro, AL

Patricia T. Birnie
GE Stockholders Alliance
Tucson, AZ

Russell Lowes
www.SafeEnergyAnalyst.org
Tucson, AZ

Dennis Larson
People's Action for a Safe Environment
Parthenon, AR

Bradley Angel
Greenaction for Health and Environmental Justice
San Francisco, CA

Elaine Holder
San Luis Obispo Mothers for Peace
San Luis Obispo, CA

Mary Beth Brangan, James Heddle
Ecological Options Network, EON
Bolinas, CA

Linda Seeley
Terra Foundation
San Luis Obispo, CA

Lillian Light
Environmental Priorities Network
Manhattan Beach, CA

Robin Bayer
Magic
Palo Alto, CA

Rinaldo Brutoco
World Business Academy
Santa Barbara, CA

David Hartsough
PEACEWORKERS
San Francisco, CA

Molly Johnson
Grandmothers for Peace/San Luis Obispo County Chapter
San Miguel, CA

Marylia Kelley
Tri-Valley CAREs (Communities Against a Radioactive Environment)
Livermore, CA

Alan Muller, Executive Director
Green Delaware
Port Penn, DE

Cara L. Campbell
Ecology Party of Florida
Ft. Lauderdale, FL

Nancy O'Byrne
Pax Christi Florida
St. Augustine, FL

Carolyn Treadway
No New Nukes
Normal, IL

Ellen Rendulich
Citizens Against Ruining the Environment
Lockport, IL

Laureen Dunne
C.A.R.E. Citizens Active in Reclaiming the Environment
La Grange, IL

Maureen Headington
Stand Up/Save Lives Campaign
Burr Ridge, IL

Franklin Dmitryev
Co-National Organizer of News and Letters Committees
Chicago, IL

Joyce Harant
Peoria Families Against Toxic Waste
Peoria, IL

Tracy Meints Fox
Global Warming Solutions
Peoria, IL

The Iowa Beyond Nuclear Coalition
Des Moines, IA

Jane E. Magers
EarthCare, Inc.
Des Moines, IA

Ken Bossong
SUN DAY Campaign
Takoma Park, MD

Dagmar Fabian
Crabshell Alliance
Cockeysville MD

Sandra Gavutis
C-10 Research & Education Foundation
Newburyport, MA

Marilyn Strong, RN
Solar Design Associates
Harvard, MA

David Agnew
Cape Downwinders
Harwich, MA

Hattie Nestel
Nuclear Free Future Coalition of Western Massachusetts
Athol, MA

Keith Gunter
Citizens Resistance at Fermi Two
Monroe, MI

Lea Foushee
North American Water Office
Lake Elmo, MN

Jesse P. Van Gerven
Missourians for Safe Energy
Columbia, MO

Chris Daum
Oasis Montana Inc.,
Stevensville, MT

Judy Treichel
Nevada Nuclear Waste Task Force
Las Vegas, NV

Doug Bogen
Seacoast Anti-Pollution League
Exeter, NH

Paula Gotsch
GRAMMEES
Normandy Beach, NJ

Joni Arends
Concerned Citizens for Nuclear Safety
Santa Fe, NM

Marian Naranjo
Honor Our Pueblo Existence (H.O.P.E.)
Espanola, NM

Tim Judson
Central New York-Citizens Awareness Network
Syracuse, NY

Gail Payne
RadiationTruth.org
Centerport, NY

Jessica Azulay
Alliance for a Green Economy
Syracuse, NY

Paul Connett, PhD
Fluoride Action Network
Canton, NY

Wells Eddleman
NC Citizens Research Group
Durham, NC

Mali Lightfoot
Helen Caldicott Foundation/NuclearFreePlanet.org
Asheville, NC

Robert F. Howarth, Board Member
Western North Carolina Physicians for Social Responsibility
Asheville, NC

Patricia Marida
Ohio Sierra Club Nuclear Issues Committee
Columbus, Ohio

Connie Kline
Ohio CARE - Citizens Against a Radioactive Environment
Cleveland, OH

Marilyn McCulloch
The Carrie Dickerson Foundation
Tulsa, OK

Maye Thompson, RN, PhD
Oregon Physicians for Social Responsibility
Portland, OR

Paige Knight
Hanford Watch
Portland, OR

Maureen Mulligan
Sustainable Futures Communications, LLC
Shermans Dale, PA

Erica Frank, MD, MPH
President, Next Generation University
Newtown, PA

Beth Pirolli
Families United for a Safe Environment
Tullytown, PA

Molly Rush on behalf of
Board of Directors
The Thomas Merton Center
Pittsburgh, PA

Finian Taylor
Hilton Head for Peace
Hilton Head, SC

Sandra Kurtz
Bellefonte Efficiency & Sustainability Team
Chattanooga, TN

Karen Hadden
Executive Director - SEED Coalition
Austin, TX

Tom "Smitty" Smith
Director, Public Citizen's Texas Office
Austin, TX

Cynthia Weehler
Energia Mia
San Antonio, TX.

Matt Pacenza
HEAL Utah
Salt Lake City, UT

Steve Erickson
Citizens Education Project
Salt Lake City, UT

Leslie Sachs
Safe and Green Campaign
Brattleboro, VT

Debra Stoleroff
Vermont Yankee Decommissioning Alliance
Montpelier, VT

Jennifer Olaranna Viereck, Ex. Director
HOME: Healing Ourselves & Mother Earth
N. Bennington, VT

Marianne Edain
Whidbey Environmental Action Network
Langley, WA

Chris Herman
Winter Sun Design
Edmonds, WA

Al Gedicks
Wisconsin Resources Protection Council
Tomahawk, WI

Marcia Halligan
Kickapoo Peace Circle
Viroqua, WI

International
Mary Madigan
Friends of Westernport
Victoria Australia

Matthias Reichl
Center for Encounter and Active Non-Violence
Bad Ischl, Austria

Karen Weingeist
Coalition for a Clean Green Saskatchewan
Saskatoon, Canada

BLUE RIBBON COMMISSION
ON AMERICA'S NUCLEAR FUTURE

BRC RELEASES THEIR FINAL REPORT

We are pleased to announce the release of our final commission report to the U.S. Energy Secretary. The report is the culmination of nearly two years of work by the commission and its subcommittees detailing comprehensive recommendations for creating a safe, long term solution for managing and disposing of the nation's spent nuclear fuel and high-level radioactive waste.

Final Commission Report (http://brc.gov/sites/default/files/documents/brc_finalreport_Jan2012.pdf)

Press Release (http://brc.gov/sites/default/files/brc_final_report_-_press_release_012612.pdf)

FOR IMMEDIATE RELEASE

Contact: John Kotek

January 26, 2012 (202) 460-2308

BLUE RIBBON COMMISSION ON AMERICA'S NUCLEAR FUTURE ISSUES FINAL REPORT TO SECRETARY OF ENERGY

WASHINGTON, D.C. – The Blue Ribbon Commission on America's Nuclear Future today released its final report to the U.S. Energy Secretary, detailing comprehensive recommendations for creating a safe, longterm solution for managing and disposing of the nation's spent nuclear fuel and high-level radioactive waste.

The report is the culmination of nearly two years of work by the commission and its subcommittees, which met more than two dozen times since March 2010, gathering testimony from experts and stakeholders, as well as visiting nuclear waste management facilities both domestic and overseas.

The commission, co-chaired by former Congressman Lee H. Hamilton and former National Security Advisor Brent Scowcroft, was tasked by Energy Secretary Steven Chu with devising a new strategy for managing the nation's sizable and growing inventory of nuclear waste. Scowcroft and Hamilton said they believe the report's recommendations offer a practical and promising path forward, and cautioned that failing to act to address the issue will be damaging and costly.

"The majority of these recommendations require action to be taken by the Administration and Congress, and offer what we believe is the best chance of success going forward, based on previous nuclear waste management experience in the U.S. and abroad," the Commissioners wrote in a letter to Chu that accompanied the report. "We urge that you promptly designate a senior official with sufficient authority to coordinate all of the DOE elements involved in the implementation of the Commission's recommendations."

The report noted that the Obama Administration's decision to halt work on a repository at Yucca Mountain in Nevada is the latest indicator of a nuclear waste management policy that has been troubled for decades and has now reached an impasse. Allowing that impasse to continue is not an option, the report said.

"The need for a new strategy is urgent, not just to address these damages and costs but because this generation has a fundamental, ethical obligation to avoid burdening future generations with the entire task of finding a safe, permanent solution for managing hazardous nuclear materials they had no part in creating," the Commission wrote in the report's Executive Summary.

The strategy outlined in the Commission report contains three crucial elements. First, the Commission [redacted]mmends a consent-based approach to siting future nuclear waste storage and disposal facilities, noting that

[redacted] to force such facilities on unwilling states, tribes and communities has not worked. Second, the Commission [redacted]mmends that the responsibility for the nation's nuclear waste management program be transferred to a new [redacted]ization; one that is independent of the DOE and dedicated solely to assuring the safe storage and ultimate [redacted]sal of spent nuclear waste fuel and highlevel radioactive waste. Third, the Commission recommends [redacted]ing the manner in which fees being paid into the Nuclear Waste Fund – about $750 million a year – are treated in the federal budget to ensure they are being set aside and available for use as Congress initially intended.

The report also recommends immediate efforts to commence development of at least one geologic disposal facility and at least one consolidated storage facility, as well as efforts to prepare for the eventual large-scale transport of spent nuclear fuel and high-level waste from current storage sites to those facilities. The report also recommends the U.S. continue to provide support for nuclear energy innovation and workforce development, as well as strengthening its international leadership role in efforts to address safety, waste management, non-proliferation and security concerns.

The Commission noted that it was specifically not tasked with rendering any opinion on the suitability of Yucca Mountain, proposing any specific site for a waste management facility, or offering any opinion on the role of nuclear power in the nation's energy supply mix.

"These are all important questions that will engage policy makers and the public in the years ahead," the Commission wrote. "However, none of them alters the urgent need to change and improve our strategy for managing the high-level wastes and spent fuel that already exist and will continue to accumulate so long as nuclear reactors operate in this country." What the Commission has endeavored to do is recommend a sound waste management approach that can lead to the resolution of the current impasse, and can and should be applied regardless of what site or sites are ultimately chosen to serve as the permanent disposal facility for America's spent nuclear fuel and other high-level nuclear wastes.

The United States currently has more than 65,000 tons of spent nuclear fuel stored at about 75 operating and shutdown reactor sites around the country. More than 2,000 tons are being produced each year. The DOE also is storing an additional 2,500 tons of spent fuel and large volumes of high-level nuclear waste, mostly from past weapons programs, at a handful of government-owned sites.

In addition to co-chairmen Hamilton and Scowcroft, members of the Commission included Mr. Mark H. Ayers, the Hon. Vicky A. Bailey, Dr. Albert Carnesale, Sen. Pete Domenici, Ms. Susan Eisenhower, Sen. Chuck Hagel, Mr. Jonathan Lash, Dr. Allison M. Macfarlane, Dr. Richard A. Meserve, Dr. Ernest J. Moniz, Dr. Per Peterson, Mr. John Rowe, and Rep. Phil Sharp.

The Commission's full report is available at: www.brc.gov

BLUE RIBBON COMMISSION
ON AMERICA'S NUCLEAR FUTURE

January 26, 2012

The Honorable Dr. Steven Chu
Secretary of Energy
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

Dear Secretary Chu:

At the direction of the President, you charged the Blue Ribbon Commission on America's Nuclear Future with reviewing policies for managing the back end of the nuclear fuel cycle and recommending a new plan. We thank you for choosing us to serve on the Commission.

We approached our task from different perspectives but with a shared sense of urgency. Put simply, this nation's failure to come to grips with the nuclear waste issue has already proved damaging and costly. It will be even more damaging and more costly the longer it continues: damaging to prospects for maintaining a potentially important energy supply option for the future, damaging to stare–federal relations and public confidence in the federal government's competence, and damaging to America's standing in the world—not only as a source of nuclear technology and policy expertise but as a leader on global issues of nuclear safety, non-proliferation, and security.

We have sought to ensure that our review is comprehensive, open and inclusive. Our Commission has heard from thousands of individuals and organizations on a wide range of issues through formal hearings, site visits, and written letters and comments submitted through the Commission web site. We have visited several communities across the country that have a keen interest in the matters before the Commission and have also visited a number of other countries to gain insights as to how the United States might proceed. We are indebted to the many people who have offered us their expertise, advice and guidance.

Attached for your consideration is the final report of our Commission. Our report includes recommendations covering topics such as the approach to siting future nuclear waste management facilities, the transport aud storage of spent fuel and high-level waste, options for waste disposal, institutional arrangements for managing spent nuclear fuel and high-level wastes, reactor and fuel cycle technologies, and international considerations. We also make recommendations regarding critical changes needed in the handling of nuclear waste fees and of the Nuclear Waste Fund. The majority of these recommendations require action to be taken by the Administration and Congress, and offer what we believe is the best chance of success going forward, based on previous nuclear waste management experience in the U.S. and abroad. We urge that you promptly designate a senior official with sufficient authority to coordinate all of the DOE elements involved in the implementation of the Commission's recommendations.

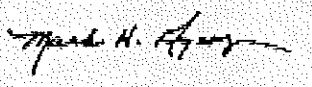
You directed that the Commission was not to serve as a siting body. Accordiugly, we have not evaluated Yucca Mouutain or any other location as a potential site for the storage of spent nuclear fuel or disposal of high level waste, nor have we taken a position on the Administration's request to withdraw the Yucca Mountain license application. What we have endeavored to do is recommend a sound waste management approach that can lead to the resolution of the current impasse; an approach that neither includes nor excludes Yucca Mountain as an option for a repository and can and should be applied regardless of what site or sites are ultimately chosen to serve as the permanent disposal facility for America's spent nuclear fuel and other high-level nuclear wastes.

We are committed to seeing action taken ou our recommendations because we believe it is long past time for the government to make good on its commitments to the American people to provide for the safe disposal of nuclear waste. This generation has an obligation to avoid burdening future generations with finding a safe permanent solurion for nuclear wastes they had no part in creating, while also preserving their energy options. To that end we commit ourselves to provide whatever assistance you deem necessary as you consider how to act on the final recommendations of our Commission. Please do not hesitate to call on us at any time.

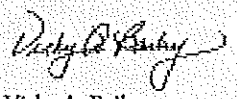
Respectfully submitted,

Lee H. Hamilton
Co-Chairman

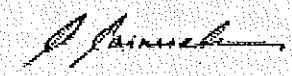
Brent Scowcroft
Co-Chairman



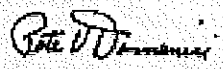
Mark H. Ayers



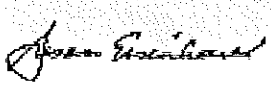
Vicky A. Bailey



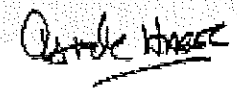
Albert Carnesale



Pete V. Domenici

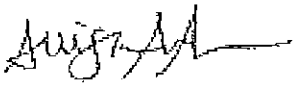


Susan Eisenhower



Chuck Hagel

Jonathan Lash

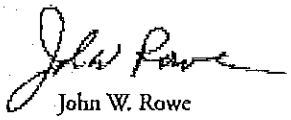


Allison M. Macfarlane

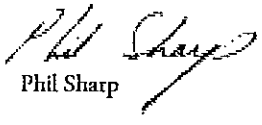
Richard A. Meserve

Ernest J. Moniz

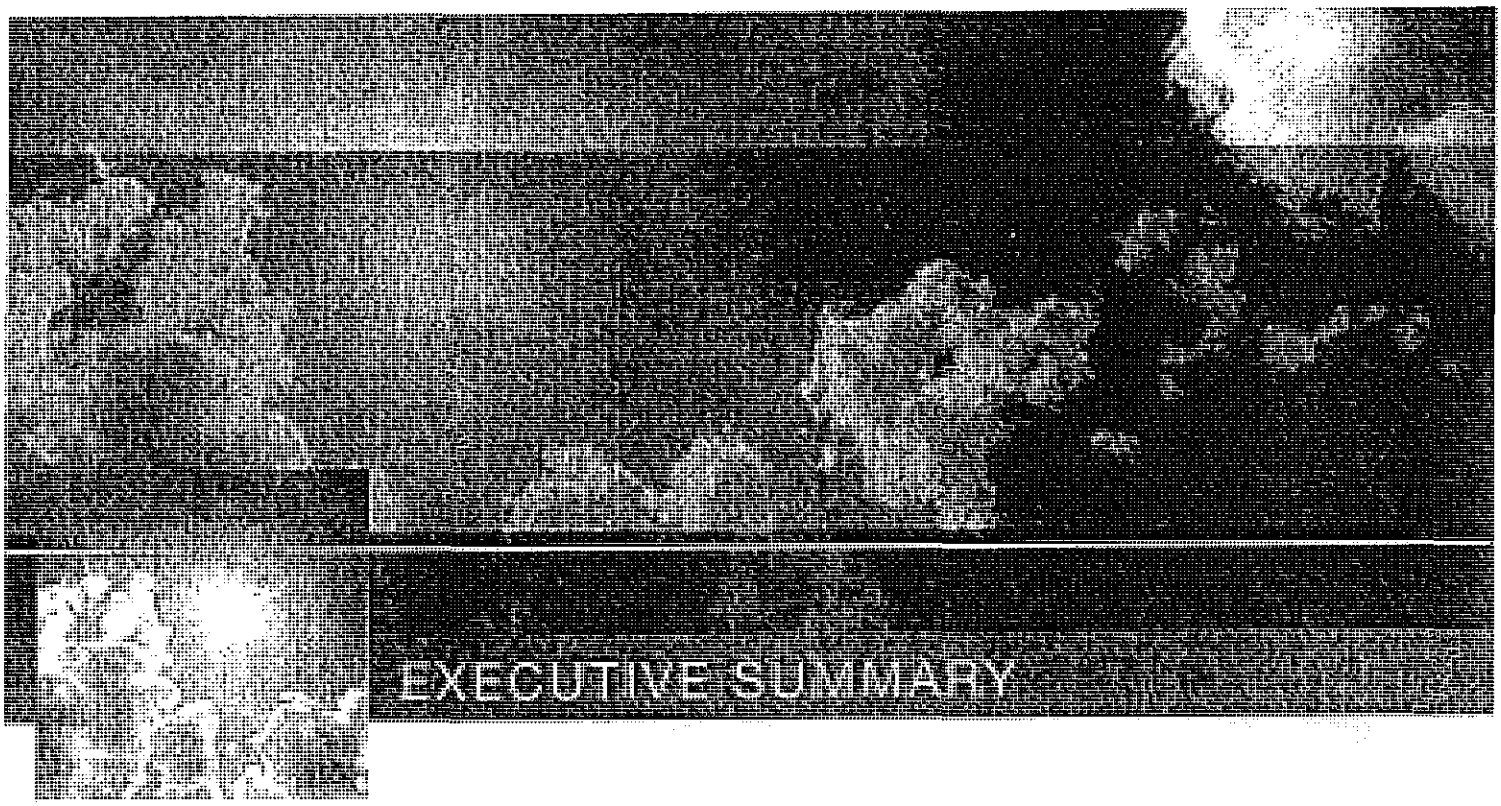
Per F. Peterson



John W. Rowe



Phil Sharp



EXECUTIVE SUMMARY

America's nuclear waste management program is at an impasse.

The Obama Administration's decision to halt work on a repository at Yucca Mountain in Nevada is but the latest indicator of a policy that has been troubled for decades and has now all but completely broken down. The approach laid out under the 1987 Amendments to the Nuclear Waste Policy Act (NWPA)—which tied the entire U.S. high-level waste management program to the fate of the Yucca Mountain site—has not worked to produce a timely solution for dealing with the nation's most hazardous radioactive materials. The United States has traveled nearly 25 years down the current path only to come to a point where continuing to rely on the same approach seems destined to bring further controversy, litigation, and protracted delay.

The Blue Ribbon Commission on America's Nuclear Future (the Commission) was chartered to recommend a new strategy for managing the back end of the nuclear fuel cycle. We approached this task from different perspectives but with a shared sense of urgency. Put simply, this nation's failure to come to grips with the nuclear waste issue has already proved damaging and costly and it will be more damaging and more costly the longer it continues: damaging to prospects for maintaining a potentially important energy supply option for the future, damaging to state–federal relations and public confidence in the federal government's competence, and damaging to America's standing in the world—not only as a source of nuclear technology and policy expertise but as a leader on global issues of nuclear safety, non-proliferation, and security. Continued stalemate is also costly—to utility ratepayers, to communities that have become unwilling hosts of long-term nuclear waste storage facilities, and to U.S. taxpayers who face mounting liabilities, already running into billions of dollars, as a result of the failure by both the executive and legislative branches to meet federal waste management commitments.

The need for a new strategy is urgent, not just to address these damages and costs but because this generation has a fundamental ethical obligation to avoid burdening future generations with the entire task of finding a safe permanent solution for managing hazardous nuclear materials they had no part in creating. At the same time, we owe it to future generations to avoid foreclosing options wherever possible so that they can make choices—about the use of nuclear energy as a low-carbon energy resource and about the management

of the nuclear fuel cycle—based on emerging technologies and developments and their own best interests.

Almost exactly one year after the Commission was chartered and less than five months before our initial draft report was due, an unforeseen event added yet more urgency to our charge and brought the problem of nuclear waste into the public eye as never before. A massive earthquake off the northeastern coast of Japan and the devastating tsunami that followed set off a chain of problems at the Fukushima Daiichi nuclear power station that eventually led to the worst nuclear accident since Chernobyl. In the weeks of intense media coverage that followed, many Americans became newly aware of the presence of tens of thousands of tons of spent fuel at more than 70 nuclear power plant sites around this country—and of the fact that the United States currently has no physical capacity to do anything with this spent fuel other than to continue to leave it at the sites where it was first generated.[1]

The strategy we recommend in this report has eight key elements:

1. A new, consent-based approach to siting future nuclear waste management facilities.
2. A new organization dedicated solely to implementing the waste management program and empowered with the authority and resources to succeed.
3. Access to the funds nuclear utility ratepayers are providing for the purpose of nuclear waste management.
4. Prompt efforts to develop one or more geologic disposal facilities.
5. Prompt efforts to develop one or more consolidated storage facilities.[2]
6. Prompt efforts to prepare for the eventual large-scale transport of spent nuclear fuel and high-level waste to consolidated storage and disposal facilities when such facilities become available.
7. Support for continued U.S. innovation in nuclear energy technology and for workforce development.
8. Active U.S. leadership in international efforts to address safety, waste management, non-proliferation, and security concerns.

The elements of this strategy will not be new to those who have followed the U.S. nuclear waste program over the years. All of them are necessary to establish a truly integrated national nuclear waste management system, to create the institutional leadership and wherewithal to get the job done, and to ensure that the United States remains at the forefront of technology developments and international responses to evolving nuclear safety, non-proliferation, and security concerns.

A few general points about the Commission's proposed strategy are worth emphasizing before we discuss each of the above elements in greater detail. First is the issue of cost. In this time of acute concern about the federal budget deficit and high energy prices, we have been sensitive to the concern that our recommendations—particularly those that involve launching a new approach and a new organization for nuclear waste management—could add to the financial burden on the U.S. Treasury and on American taxpayers and utility ratepayers.[3] Certainly it will cost something to implement a successful U.S. waste management program; however, trying to implement a deeply flawed program is even more costly, for all the reasons already mentioned. In fact, U.S. ratepayers are *already* paying for waste disposal (through a fee collected on each kilowatt-hour of nuclear-generated electricity)—but the program they're paying for isn't working. Taxpayers are paying too—in the form of damage payments from the taxpayer-funded Judgment Fund to compensate utilities for the federal government's failure to meet its contractual waste acceptance commitments.

Overall, we are confident that our waste management recommendations can be implemented using revenue streams *already dedicated for this purpose* (in particular the Nuclear Waste Fund and fee). Other Commission recommendations—particularly those concerning nuclear technology programs and international policies—are broadly consistent with the program plans of the relevant agencies.

Another overarching point concerns timing and implementation. All of our recommendations are interconnected and will take time to implement fully, particularly since many elements of the strategy we propose require legislative action to amend the NWPA and other relevant laws (see text box).

Nevertheless, prompt action can and should be taken in several areas, without waiting for legislative action, to get the waste management program back on track. The last chapter of this report (chapter 13) identifies a number of concrete next steps; in addition, the text box on page ix of this Executive Summary lists several ways to get started on the specific task of siting new waste disposal and consolidated storage facilities.

Finally, there are several questions the Commission was not chartered to address. We have not:

- Rendered an opinion on the suitability of the Yucca Mountain site or on the request to withdraw the license

[1] "Spent fuel" is sometimes also referred to as "used fuel." The difference in terminology in fact reflects a profound policy issue as to whether the material should be seen as a waste or a resource. We use the term "spent fuel" in this report, but, as discussed in chapter 11, we believe it is premature to resolve that policy debate.

[2] As used in this report, the term "disposal" is understood to mean permanent disposal; the term "storage" is understood to mean storage for an interim period prior to disposal or other disposition.

[3] Most ratepayers are, of course, also taxpayers (and vice versa). For clarity, we refer to taxpayers and ratepayers as distinct groups here and in the main body of the report.

PROPOSED LEGISLATIVE CHANGES

Fully implementing the Commission's recommendations will require several changes to the Nuclear Waste Policy Act or other legislation:

Establishing a new facility siting process – The NWPA, as amended in 1987, now provides only for the evaluation and licensing of a single repository site at Yucca Mountain, Nevada. The Act should be amended to authorize a new consent-based process to be used for selecting and evaluating sites and licensing consolidated storage and disposal facilities in the future, similar to the process established in the expired Nuclear Waste Negotiator provisions of the Act (but under new organizational leadership, as described below).

Authorizing consolidated interim storage facilities – The NWPA allows the government to construct one consolidated storage facility with limited capacity, but only after construction of a nuclear waste repository has been licensed. One or more consolidated storage facilities should be established, independent of the schedule for opening a repository. The Act should be modified to allow for a consent-based process to site, license, and construct multiple storage facilities with adequate capacity when needed and to clarify that nuclear waste fee payments can be used for this purpose.

Broadening support to jurisdictions affected by transportation – The NWPA provides funding and technical assistance for training public safety officials to states and tribes whose jurisdictions would be traversed by shipments of spent fuel to a storage or disposal facility. The Act should be amended to give the waste management organization the broader authorities given to DOE in the WIPP Land Withdrawal Act that supported the successful large-scale transport of transuranic waste to WIPP (including a public information program, support for the acquisition of equipment to respond to transportation incidents, and broad assistance for other waste-related transportation safety programs).

Establishing a new waste management organization – Responsibility for implementing the nation's program for managing spent nuclear fuel and high-level radioactive wastes is currently assigned to the U.S. Department of Energy. Legislation will be needed to (1) move this responsibility to a new, independent, government-chartered corporation focused solely on carrying out that program and (2) establish the appropriate oversight mechanisms.

Ensuring access to dedicated funding – Current federal budget rules and laws make it impossible for the nuclear waste program to have assured access to the fees being collected from nuclear utilities and ratepayers to finance the commercial share of the waste program's expenses. We have recommended a partial remedy that should be implemented promptly by the Administration, working with the relevant congressional committees and the Congressional Budget Office. A long-term remedy requires legislation to provide access to the Nuclear Waste Fund and fees independent of the annual appropriations process but subject to rigorous independent financial and managerial oversight.

Promoting international engagement to support safe and secure waste management – Congress may need to provide policy direction and new legislation to implement some measures aimed at helping other countries manage radioactive wastes in a safe, secure, and proliferation-resistant manner, similar to the expired NWPA provisions for technical assistance to non-nuclear weapons states in the area of spent nuclear fuel storage and disposal.

application for Yucca Mountain. Instead, we focused on developing a sound strategy for future storage and disposal facilities and operations that we believe *can and should be implemented regardless of what happens with Yucca Mountain.*

- Proposed any specific site (or sites) for any component of the waste management system.
- Offered a judgment about the appropriate role of nuclear power in the nation's (or the world's) future energy supply mix.

These are all important questions that will engage policy-makers and the public in the years ahead. However, none of them alters the urgent need to change and improve our strategy for managing the high-level wastes and spent fuel that already exist and will continue to accumulate so long as nuclear reactors operate in this country. That is the focus of the Commission's work and of the specific recommendations that follow.

1. A NEW CONSENT-BASED APPROACH TO SITING

Siting storage or disposal facilities has been the most consistent and most intractable challenge for the U.S. nuclear waste management program. Of course, the first requirement in siting any facility centers on the ability to demonstrate adequate protection of public health and safety and the environment. Beyond this threshold criterion, finding sites where all affected units of government, including the host state or tribe, regional and local authorities, and the host community, are willing to support or at least accept a facility has proved exceptionally difficult. The erosion of trust in the federal government's nuclear waste management program has only made this challenge more difficult. And whenever one or more units of government are opposed, the odds of success drop greatly. The crux of the

challenge derives from a federal/state/tribal/local rights dilemma that is far from unique to the nuclear waste issue—no simple formula exists for resolving it. Experience in the United States and in other nations suggests that any attempt to force a top-down, federally mandated solution over the objections of a state or community—far from being more efficient—will take longer, cost more, and have lower odds of ultimate success.

By contrast, the approach we recommend is explicitly adaptive, staged, and consent-based. Based on a review of successful siting processes in the United States and abroad—including most notably the siting of a disposal facility for transuranic radioactive waste, the Waste Isolation Pilot Plant (WIPP) in New Mexico, and recent positive outcomes in Finland, France, Spain and Sweden—we believe this type of approach can provide the flexibility and sustain the public trust and confidence needed to see controversial facilities through to completion.

In practical terms, this means encouraging communities to volunteer to be considered to host a new nuclear waste management facility while also allowing for the waste management organization to approach communities that it believes can meet the siting requirements. Siting processes for waste management facilities should include a flexible and substantial incentive program.

The approach we recommend also recognizes that successful siting decisions are most likely to result from a complex and perhaps extended set of negotiations between the implementing organization and potentially affected state, tribal, and local governments, and other entities. It would be desirable for these negotiations to result in a partnership agreement or some other form of legally enforceable agreement with the organization to ensure that commitments to and by host states, tribes, and communities are upheld. All affected levels of government must have, at a minimum, a meaningful consultative role in important decisions; additionally, both host states and tribes should retain—or where appropriate, be delegated—direct authority over aspects of regulation, permitting, and operations where oversight below the federal level can be exercised effectively and in a way that is helpful in protecting the interests and gaining the confidence of affected communities and citizens. At the same time, host state, tribal and local governments have responsibilities to work productively with the federal government to help advance the national interest.

In this context, any process that is prescribed in detail up front is unlikely to work. Transparency, flexibility, patience, responsiveness, and a heavy emphasis on consultation and cooperation will all be necessary—indeed, these are attributes that should apply not just to siting but to every aspect of program implementation.

This discussion raises another issue highlighted in numerous comments to the BRC: the question of how to define "consent." The Commission takes the view that this question ultimately has to be answered by a potential host jurisdiction, using whatever means and timing it sees fit. We believe a good gauge of consent would be the willingness of affected units of government – the host states, tribes, and local communities – to enter into legally binding agreements with the facility operator, where these agreements enable states, tribes, and communities to have confidence that they can protect the interests of their citizens.

All siting processes take time; however, an adaptive, staged approach may seem particularly slow and open-ended. This will be frustrating to stakeholders and to members of the public who are understandably anxious to know when they can expect to see results. The Commission shares this frustration—greater certainty and a quicker resolution would have been our preference also. Experience, however, leads us to conclude that there is no short-cut, and that any

SITING NEW NUCLEAR WASTE MANAGEMENT FACILITIES – GETTING STARTED

First, the Environmental Protection Agency and the Nuclear Regulatory Commission should develop a generic disposal standard and supporting regulatory requirements early in the siting process. Generally-applicable regulations are more likely to earn public confidence than site-specific standards. In addition, having a generic standard will support the efficient consideration and examination of multiple sites.

Once the new waste management organization is established it should:

- ***Develop a set of basic initial siting criteria*** – These criteria will ensure that time is not wasted investigating sites that are clearly unsuitable or inappropriate.
- ***Encourage expressions of interest from a large variety of communities that have potentially suitable sites*** – As these communities become engaged in the process, the implementing organization must be flexible enough not to force the issue of consent while also being fully prepared to take advantage of promising opportunities when they arise.
- ***Establish initial program milestones*** – Milestones should be laid out in a mission plan to allow for review by Congress, the Administration, and stakeholders, and to provide verifiable indicators for oversight of the organization's performance.

attempt to short-circuit the process will most likely lead to more delay. That said, we also believe that attention to process must not come at the expense of progress and we are sympathetic to the numerous comments we received asking us to include a more detailed and specific set of milestones in our final report. Obviously there is an inherent tension between recommending an adaptive, consent-based process and setting out deadlines or progress requirements in advance. But we agree that it will be important—without imposing inflexible deadlines—to set reasonable performance goals and milestones for major phases of program development and implementation so that Congress can hold the waste management organization accountable and so that stakeholders and the public can have confidence the program is moving forward. Other countries have taken this approach, in several cases identifying target timeframes, rather than specific dates for completing stages in their process. For example the implementing organization might consider a range of, say, 15 to 20 years to accomplish site identification and characterization and to conduct the licensing process for a geologic repository. A notional timeframe for siting and developing a consolidated storage facility would presumably be shorter, perhaps on the order of 5 to 10 years.

2. A NEW ORGANIZATION TO IMPLEMENT THE WASTE MANAGEMENT PROGRAM

The U.S. Department of Energy (DOE) and its predecessor agencies have had primary responsibility for implementing U.S. nuclear waste policy for more than 50 years. In that time, DOE has achieved some notable successes, as shown by the WIPP experience and recent improvements in waste cleanup performance at several DOE sites. The overall record of DOE and of the federal government as a whole, however, has not inspired widespread confidence or trust in our nation's nuclear waste management program. For this and other reasons, the Commission concludes that a new, single-purpose organization is needed to provide the stability, focus, and credibility that are essential to get the waste program back on track. We believe a congressionally chartered federal corporation offers the best model, but whatever the specific form of the new organization it must possess the attributes, independence, and resources to effectively carry out its mission.

The central task of the new organization would be to site, license, build, and operate facilities for the safe consolidated storage and final disposal of spent fuel and high-level nuclear waste at a reasonable cost and within a reasonable timeframe. In addition, the new organization would be responsible for arranging for the safe transport of waste and spent fuel to or between storage and disposal facilities, and for undertaking applied research, development, and demonstration (RD&D) activities directly relevant to its waste management mission (e.g., testing the long-term performance of fuel in dry casks and during subsequent transportation).

For the new organization to succeed, a substantial degree of implementing authority and assured access to funds must be paired with rigorous financial, technical, and regulatory oversight by Congress and the appropriate government agencies. We recommend that the organization be directed by a board nominated by the President, confirmed by the Senate, and selected to represent a range of expertise and perspectives. Independent scientific and technical oversight of the nuclear waste management program is essential and should continue to be provided for out of nuclear waste fee payments. In addition, the presence of clearly independent, competent regulators is essential; we recommend the existing roles of the U.S. Environmental Protection Agency in establishing standards and the Nuclear Regulatory Commission (NRC) in licensing and regulating waste management facilities be preserved but that steps be taken to ensure ongoing cooperation and coordination between these agencies.

Late in our review we heard from several states that host DOE defense waste that they agree with the proposal to establish a new organization to manage civilian wastes, but believe the government can more effectively meet its commitments if responsibility for defense waste disposal remains with DOE. Others argued strongly that the current U.S. policy of commingling defense and civilian wastes should be retained. We are not in a position to comprehensively assess the implications of any actions that might affect DOE's compliance with its cleanup agreements, and we did not have the time or the resources necessary to thoroughly evaluate the many factors that must be considered by the Administration and Congress in making such a determination.[4] The Commission therefore urges the Administration to launch an immediate review of the implications of leaving responsibility for disposal of defense waste and other DOE-owned waste with DOE versus moving it to a new waste management organization. The implementation of other Commission recommendations, however, should not wait for the commingling issue to be resolved. Congressional and Administration efforts to implement our recommendations can and should proceed as expeditiously as possible.

[4] These factors should include (but not be limited to) those contained in section 8 of the NWPA; see detailed discussion in section 7.3 of this report.

3. ACCESS TO UTILITY WASTE DISPOSAL FEES FOR THEIR INTENDED PURPOSE

The 1982 NWPA created a "polluter pays" funding mechanism to ensure that the full costs of disposing of commercial spent fuel would be paid by utilities (and their ratepayers), with no impact on taxpayers or the federal budget. Nuclear utilities are assessed a fee on every kilowatt-hour of nuclear-generated electricity as a *quid pro quo* payment in exchange for the federal government's contractual commitment to begin accepting commercial spent fuel by January 31, 1998. Fee revenues go to the government's Nuclear Waste Fund, which was established for the sole purpose of covering the cost of disposing of civilian nuclear waste and ensuring that the waste program would not have to compete with other funding priorities. In contrast, costs for disposing of defense nuclear wastes are paid by taxpayers through appropriations from the Treasury.

The Fund does not work as intended. A series of executive branch and congressional actions has made annual fee revenues (approximately $750 million per year) and the unspent $27 billion balance in the Fund effectively inaccessible to the waste program. Instead, the waste program must compete for federal funding each year and is therefore subject to exactly the budget constraints and uncertainties that the Fund was created to avoid. This situation must be remedied to allow the program to succeed.

In the near term, the Administration should offer to amend DOE's standard contract with nuclear utilities so that utilities remit only the portion of the annual fee that is appropriated for waste management each year and place the rest in a trust account, held by a qualified third-party institution, to be available when needed. At the same time, the Office of Management and Budget should work with the congressional budget committees and the Congressional Budget Office to change the budgetary treatment of annual fee receipts so that these receipts can directly offset appropriations for the waste program. These actions are urgent because they enable key subsequent actions the Commission recommends. Therefore, we urge the Administration to act promptly to implement these changes (preferably in fiscal year 2013). For the longer term, legislation is needed to transfer the unspent balance in the Fund to the new waste management organization so that it can carry out its civilian nuclear waste obligations independent of annual appropriations (but with congressional oversight)—similar to the budgeting authority now given to the Tennessee Valley Authority and Bonneville Power Administration.

We recognize that these actions mean no longer counting nuclear waste fee receipts against the federal budget deficit and that the result will be a modest negative impact on annual budget calculations. The point here is that the federal government is contractually bound to use these funds to manage spent fuel. The bill will come due at some point. Meanwhile, failure to correct the funding problem does the federal budget no favors in a context where taxpayers remain liable for mounting damages, compensated through the Judgment Fund, for the federal government's continued inability to deliver on its waste management obligations. These liabilities are already in the billions of dollars and could increase by hundreds of millions of dollars annually for each additional year of delay.

4. PROMPT EFFORTS TO DEVELOP A NEW GEOLOGIC DISPOSAL FACILITY

Deep geologic disposal capacity is an essential component of a comprehensive nuclear waste management system for the simple reason that very long-term isolation from the environment is the *only* responsible way to manage nuclear materials with a low probability of re-use, including defense and commercial reprocessing wastes and many forms of spent fuel currently in government hands. The conclusion that disposal is needed and that deep geologic disposal is the scientifically preferred approach has been reached by every expert panel that has looked at the issue and by every other country that is pursuing a nuclear waste management program.

Some commenters have urged the prompt adoption of recycling of spent fuel as a response to the waste disposal challenge, as well as a means to extend fuel supply. *It is the Commission's view that it would be premature for the United*

THE DIFFERENCE BETWEEN "STORAGE" AND "DISPOSAL"

Disposal, intended as the final stage of waste management, is isolation that relies in the long term only on the passive operation of natural environmental and man-made barriers, does not permit easy human access to the waste after final emplacement, and does not require continued human control and maintenance. Storage, intended as an intermediate step in waste management, is isolation that permits managed access to the waste after its emplacement, with active human control and maintenance to assure isolation. After a period in storage, waste is subject to disposal. As used in this report, the term "disposal" is understood to mean permanent disposal; the term "storage" is understood to mean storage for an interim period prior to disposal or other disposition.

States to commit, as a matter of policy, to "closing" the nuclear fuel cycle given the large uncertainties that exist about the merits and commercial viability of different fuel cycles and technology options. Future evaluations of potential alternative fuel cycles must account for linkages among all elements of the fuel cycle (including waste transportation, storage, and disposal) and for broader safety, security, and non-proliferation concerns. Moreover, all spent fuel reprocessing or recycle options generate waste streams that require a permanent disposal solution. In any event, we believe permanent disposal will very likely also be needed to safely manage at least some portion of the commercial spent fuel inventory even if a closed fuel cycle were adopted.

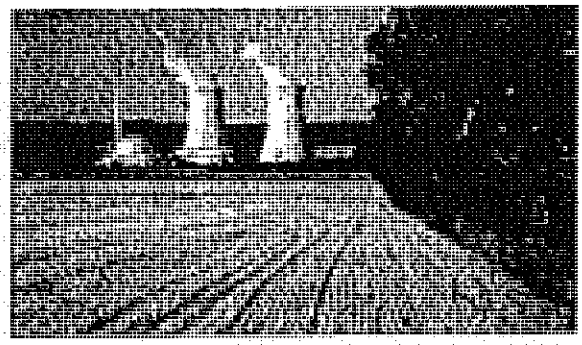
We recognize that current law establishes Yucca Mountain in Nevada as the site for the first U.S. repository for spent fuel and high-level waste, provided the license application submitted by DOE meets relevant requirements.

The Blue Ribbon Commission was not chartered as a siting commission. Accordingly we have not evaluated Yucca Mountain or any other location as a potential site for the storage or disposal of spent nuclear fuel and high-level waste, nor have we taken a position on the Administration's request to withdraw the license application.[5] We simply note that regardless what happens with Yucca Mountain, the U.S. inventory of spent nuclear fuel will soon exceed the amount that can be legally emplaced at this site until a second repository is in operation. So under current law, the United States will need to find a new disposal site even if Yucca Mountain goes forward. We believe the approach set forth here provides the best strategy for assuring continued progress, regardless of the fate of Yucca Mountain.

5. PROMPT EFFORTS TO DEVELOP ONE OR MORE CONSOLIDATED STORAGE FACILITIES

Safe and secure storage is another critical element of an integrated and flexible national waste management system. Fortunately, experience shows that storage—either at or away from the sites where the waste was generated—can be implemented safely and cost-effectively. Indeed, *a longer period of time in storage offers a number of benefits because it allows the spent fuel to cool while keeping options for future actions open.*

Developing consolidated storage capacity would allow the federal government to begin the orderly transfer of spent fuel from reactor sites to safe and secure centralized facilities independent of the schedule for operating a permanent



repository. The arguments in favor of consolidated storage are strongest for "stranded" spent fuel from shutdown plant sites. Stranded fuel should be first in line for transfer to a consolidated facility so that these plant sites can be completely decommissioned and put to other beneficial uses. Looking beyond the issue of today's stranded fuel, the availability of consolidated storage will provide valuable flexibility in the nuclear waste management system that could achieve meaningful cost savings for both ratepayers and taxpayers when a significant number of plants are shut down in the future, can provide back-up storage in the event that spent fuel needs to be moved quickly from a reactor site, and would provide an excellent platform for ongoing R&D to better understand how the storage systems currently in use at both commercial and DOE sites perform over time.

For consolidated storage to be of greatest value to the waste management system, the current rigid legislative restriction that prevents a storage facility developed under the NWPA from operating significantly earlier than a repository should be eliminated. At the same time, efforts to develop consolidated storage must not hamper efforts to move forward with the development of disposal capacity. To allay the concerns of states and communities that a consolidated storage facility might become a *de facto* disposal site, a program to establish consolidated storage must be accompanied by a parallel disposal program that is effective, focused, and making discernible progress in the eyes of key stakeholders and the public. Progress on both fronts is needed and must be sought without further delay.

Even with timely development of consolidated storage facilities, a large quantity of spent fuel will remain at reactor sites for many decades before it can be accepted by the federal waste management program. Current at-reactor storage practices and safeguards are being scrutinized in light of the lessons that are emerging from Fukushima. In addition, the Commission recommends that the National Academy of

[5] At the March 25, 2010 meeting of the Blue Ribbon Commission, Secretary of Energy Steven Chu told Commissioners "This is not a siting commission." The same point was reiterated in a February 11, 2011 letter from the Secretary to the BRC Co-Chairmen. Under the Federal Advisory Committee Act, which governs our proceedings, the Department of Energy sets the Commission's agenda.

Sciences (NAS) conduct a thorough assessment of lessons learned from Fukushima and their implications for conclusions reached in earlier NAS studies on the safety and security of current storage arrangements for spent nuclear fuel and high-level waste in the United States. This effort would complement investigations already underway by the NRC and other organizations. More broadly, it will also be vital to continue vigorous public and private research and regulatory oversight efforts in areas such as spent fuel and storage system degradation phenomena, vulnerability to sabotage and terrorism, full-scale cask testing, and others. As part of this process, it is appropriate for the NRC to examine the advantages and disadvantages of options such as "hardened" onsite storage that have been proposed to enhance security at storage sites.

6. EARLY PREPARATION FOR THE EVENTUAL LARGE-SCALE TRANSPORT OF SPENT NUCLEAR FUEL AND HIGH-LEVEL WASTE TO CONSOLIDATED STORAGE AND DISPOSAL FACILITIES

The current system of standards and regulations governing the transport of spent fuel and other nuclear materials appears to have functioned well, and the safety record for past shipments of these types of materials is excellent. But the current set of transport-related regulations will need to be updated to accommodate changes in fueling practices. Moreover, past performance does not guarantee that future transport operations will match the record to date, particularly as the logistics involved expand to accommodate a much larger number of shipments. Experiences in the United States and abroad, and extensive comments to the Commission, indicate that many people fear the transportation of nuclear materials. Thus greater transport demands are likely to raise new public concerns.

As with siting fixed facilities, planning for associated transportation needs has historically drawn intense interest. Transport operations typically also have the potential to affect a far larger number of communities. The Commission believes that state, tribal and local officials should be extensively involved in transportation planning and should be given the resources necessary to discharge their roles and obligations in this arena. Accordingly, DOE should (1) finalize procedures and regulations for providing technical assistance and funds for training to local governments and tribes pursuant to Section 180(c) of the NWPA and (2) begin to provide such funding, independent from progress on facility siting. While it would be premature to fully fund a technical assistance program before knowing with some certainty where the destination sites for spent fuel are going to be, substantial benefits can be gained from a modest early investment in planning for the transport of spent fuel from shutdown reactor sites.

Planning and providing for adequate transportation capacity while simultaneously addressing related stakeholder concerns will take time and present logistical and technical challenges. Given that transportation represents a crucial link in the overall storage and disposal system, it will be important to allow substantial lead-time to assess and resolve transportation issues well in advance of when materials would be expected to actually begin shipping to a new facility. For many years, states have been working cooperatively with DOE to plan for shipments, often through agreements with regional groupings of states and in ways that involve radiological health, law enforcement, and emergency response personnel. As has been shown with the WIPP program and other significant waste shipping campaigns, planning, training and execution involves many different parties and takes time. In addition, specialized equipment may be required that will need to be designed, fabricated and tested before being placed into service. Historically, some programs have treated transportation planning as an afterthought. No successful programs have done so.

7. SUPPORT FOR ADVANCES IN NUCLEAR ENERGY TECHNOLOGY AND FOR WORKFORCE DEVELOPMENT

Advances in nuclear energy technology have the potential to deliver an array of benefits across a wide range of energy policy goals. The Commission believes these benefits—in light of the environmental and energy security challenges the United States and the world will confront this century—justify sustained public- and private-sector support for RD&D on advanced reactor and fuel cycle technologies. In the near term, opportunities exist to improve the safety and performance of existing light-water reactors and spent fuel and high-level waste storage, transport, and disposal systems. Longer term, the possibility exists to advance "game-changing" innovations that offer potentially large advantages over current technologies and systems.

The Commission believes the general direction of the current DOE research and development (R&D) program is appropriate, although we also urge DOE to take advantage of the Quadrennial Energy Review[6] process to refine its nuclear R&D "roadmap." We are not making a specific recommendation concerning future DOE funding for

[6] For more information on the Quadrennial Energy Review and Quadrennial Technology Review, see http://energy.gov/articles/department-energy-releases-inaugural-quadrennial-technology-review-report.

nuclear energy RD&D; in light of the extraordinary fiscal pressures the federal government will confront in coming years, we believe that budget decisions must be made in the context of a broader discussion about priorities and funding for energy RD&D more generally.

One area where the Commission recommends increased effort involves ongoing work by the NRC to develop a regulatory framework for advanced nuclear energy systems. Such a framework can help guide the design of new systems and lower barriers to commercial investment by increasing confidence that new systems can be successfully licensed. Specifically, the Commission recommends that adequate federal funding be provided to the NRC to support a robust effort in this area. We also support the NRC's risk-informed, performance-based approach to developing regulations for advanced nuclear energy systems, including NRC's ongoing review of the current waste classification system. Changes to the existing system may eventually require a change in law.

Another area where further investment is needed is nuclear workforce development. Specifically, the Commission recommends expanded federal, joint labor-management and university-based support for advanced science, technology, engineering, and mathematics training to develop the skilled workforce needed to support an effective waste management program as well as a viable domestic nuclear industry. At the same time, DOE and the nuclear energy industry should work to ensure that valuable existing capabilities and assets, including critical infrastructure and human expertise, are maintained. Finally, the jurisdictions of safety and health agencies should be clarified and aligned. New site-independent safety standards should be developed by the safety and health agencies responsible for protecting nuclear workers through a coordinated joint process that actively engages and solicits input from all relevant constituencies. Efforts to support uniform levels of safety and health in the nuclear industry should be undertaken with federal, industry, and joint labor–management leadership. Safety and health practices in the nuclear construction industry should provide a model for other activities in the nuclear industry.

8. ACTIVE U.S. LEADERSHIP IN INTERNATIONAL EFFORTS TO ADDRESS SAFETY, NON-PROLIFERATION AND SECURITY CONCERNS

As more nations consider pursuing nuclear energy or expanding their nuclear programs, U.S. leadership is urgently needed on issues of safety, non-proliferation, and security/counter-terrorism. Many countries, especially those just embarking on commercial nuclear power development, have relatively small programs and may lack the regulatory and oversight resources available to countries with more established programs. International assistance may be required to ensure they do not create disproportionate safety, physical security, and proliferation risks. In many cases, mitigating these risks will depend less on technological interventions than on the ability to strengthen international institutions and safeguards while promoting multilateral cooperation and coordination. From the U.S. perspective, two further points are particularly important: First, with so many players in the international nuclear technology and policy arena, the United States will increasingly have to lead by engagement and by example. Second, the United States cannot exercise effective leadership on issues related to the back end of the nuclear fuel cycle so long as its own program is in disarray; effective domestic policies are needed to support America's international agenda.

The Fukushima accident has focused new attention on nuclear safety worldwide. Globally, some 60 new reactors are under construction and more than 60 countries that do not have nuclear power plants have expressed interest in acquiring them. These nations will have to operate their facilities safely and plan for safe storage and disposition of spent nuclear fuel. The United States should help launch a concerted international safety initiative—encompassing organizations like the International Atomic Energy Agency (IAEA) as well as regulators, vendors, operators, and technical support organizations—to assure the safe use of nuclear energy and the safe management of nuclear waste in all countries that pursue nuclear technology.

Nuclear weapons proliferation has been a central concern of U.S. nuclear policy from the earliest days of the nuclear era. These concerns are still prominent, especially where the deployment of uranium enrichment, reprocessing, and recycled fuel fabrication technology is being contemplated. As countries with relatively less nuclear experience acquire nuclear energy systems, the United States should work with the IAEA, nuclear power states, private industry, and others in the international community to ensure that all spent fuel remains under effective and transparent control and does not become "orphaned" anywhere in the world with inadequate safeguards and security.

Longer term, the United States should support the use of multi-national fuel-cycle facilities,[7] under comprehensive IAEA safeguards, as a way to give more countries reliable

[7] The term "multi-national fuel cycle facility" is commonly understood to encompass facilities associated with all aspects of the nuclear fuel cycle. The Commission wishes to stress that our support for multi-national management of such facilities should not be interpreted as support for additional countries becoming involved in enrichment or reprocessing facilities, but rather reflects our view that if these capabilities were to spread it would be far preferable—from a security and non-proliferation standpoint—if they did so under multi-national ownership, management, safeguards, and controls.

access to the benefits of nuclear power while simultaneously reducing proliferation risks. U.S. sponsorship of the recently-created IAEA global nuclear fuel bank is an important step toward establishing such access while reducing a driver for some states to engage in uranium enrichment. But more is needed. The U.S. government should propose that the IAEA lead a new initiative, with active U.S. participation, to explore the creation of one or more multi-national spent fuel storage or disposal facilities.

In addition, the United States should support the evolution of spent fuel "take-away" arrangements as a way to allow some countries, particularly those with relatively small national programs, to avoid the costly and politically difficult step of providing for spent fuel disposal on their soil and to reduce associated safety and security risks. An existing program to accept highly-enriched uranium fuel from research reactors abroad for storage in the United States has provided a demonstration—albeit a limited one—of the national security value of such arrangements. The capability to accept limited quantities of spent fuel from foreign commercial reactors could be similarly valuable from a national security perspective. As the United States moves forward with developing its own consolidated storage and disposal capacity, it should work with the IAEA and with existing and emerging nuclear nations to establish conditions under which one or more nations, including the United States, can offer to take foreign spent fuel for ultimate disposition.

The susceptibility of nuclear materials or facilities to intentional acts of theft or sabotage for terrorist purposes is a relatively newer concern but one that has received considerable attention since 9/11. The United States should continue to work with countries of the former Soviet Union and other nations through initiatives such as the Nunn-Lugar Cooperative Threat Reduction Program and the Global Initiative to Combat Nuclear Terrorism to prevent, detect, and respond to nuclear terrorism threats. Domestically, evolving terrorism threats and security risks must be closely monitored by the NRC, the Department of Homeland Security, and other responsible agencies to ensure that any additional security measures needed to counter those threats are identified and promptly implemented. The recent events at Fukushima have -- as they should -- prompted the NRC and the industry to re-examine the adequacy of "mitigative strategies" for coping with large-scale events (like an explosion or fire) or catastrophic system failures (like a sudden loss of power or cooling); as noted previously, we also recommend that Congress charter the National Academy of Sciences to assess lessons learned from Fukushima with respect to the storage of spent fuel.

TYING IT TOGETHER

The overall record of the U.S. nuclear waste program has been one of broken promises and unmet commitments. And yet the Commission finds reasons for confidence that we can turn this record around. To be sure, decades of failed efforts to develop a repository for spent fuel and high-level waste have produced frustration and a deep erosion of trust in the federal government. But they have also produced important insights, a clearer understanding of the technical and social issues to be resolved, and at least one significant success story – the WIPP facility in New Mexico. Moreover, many people have looked at aspects of this record and come to similar conclusions.

The problem of nuclear waste may be unique in the sense that there is wide agreement about the outlines of the solution. Simply put, we know what we have to do, we know we have to do it, and we even know how to do it. Experience in the United States and abroad has shown that suitable sites for deep geologic repositories for nuclear waste can be identified and developed. The knowledge and experience we need are in hand and the necessary funds have been and are being collected. Rather the core difficulty remains what it has always been: finding a way to site these inherently controversial facilities and to conduct the waste management program in a manner that allows all stakeholders, but most especially host states, tribes and communities, to conclude that their interests have been adequately protected and their well-being enhanced—not merely sacrificed or overridden by the interests of the country as a whole.

This is by no means a small difficulty—in fact, many other countries have not resolved this problem either. However, we have seen other countries make significant progress with a flexible approach to siting that puts a high degree of emphasis on transparency, accountability, and meaningful consultation. We have had more than a decade of successful operation of WIPP. And most recently, we have witnessed an accident that has reminded Americans that we have little physical capacity at present to do anything with spent nuclear fuel other than to leave it where it is. Against this backdrop, the conditions for progress are arguably more promising than they have been in some time. But we will only know if we start, which is what we urge the Administration and Congress to do, without further delay.

NEWS RELEASE

Katrina McMurrian, Executive Director
Nuclear Waste Strategy Coalition
337-656-8518
Katrina@theNWSC.org

Nuclear Energy Stakeholders Welcome Blue Ribbon Commission Report to DOE

WASHINGTON, D.C., Jan. 26, 2012—The National Association of Regulatory Utility Commissioners (NARUC), the Nuclear Energy Institute (NEI), the Nuclear Waste Strategy Coalition (NWSC), the American Public Power Association (APPA), the National Rural Electric Cooperative Association (NRECA) and Edison Electric Institute (EEI) welcome the final report of the Blue Ribbon Commission on America's Nuclear Future (BRC) to the Secretary of Energy. After two years of fact-finding and intense study, the commission has officially endorsed a number of strategic used-fuel management initiatives that our members and other experts have long supported and that will reform and re-energize the country's high-level radioactive waste program. The six groups collectively represent state public utility commissions, nuclear energy producers and suppliers, and other public and private organizations interested in used nuclear fuel management.

NARUC, NEI, NWSC, APPA, NRECA and EEI are committed to establishing a sustainable, integrated program to manage used nuclear fuel from commercial reactors that produce carbon-free electricity for one in five American homes and businesses. The commission acknowledges that this program must include safe and secure consolidated storage, transportation, and geologic disposal. We agree with the commission's eight key recommendations, and we believe that three recommendations, in particular, should be given high priority:

- assured access by the nuclear waste management program to the revenues generated by consumers' continuing fee payments and to the balance in the Nuclear Waste Fund
- prompt efforts to develop one or more consolidated interim storage facilities
- a new, congressionally chartered federal corporation dedicated solely to implementing the waste management program and empowered with the authority and resources to succeed.

-more-

If implemented in the near term, they would create a solid foundation on which to build a sustainable used fuel management program while development of a repository is pursued.

The commission recognized that the one-tenth of a cent fee paid by consumers of electricity from nuclear power plants, which totals about $750 million each year, is effectively unavailable for its intended purpose—to cover the cost of used fuel management and disposal. To resolve this situation and ensure that the consumers' fee payments are used as intended, the commission has outlined near-term actions that we urge the Obama administration to take.

We believe actions can be taken to encourage and achieve consolidated interim storage in a willing host community within the next 10 years, well before a repository could be opened. This facility would permit the federal government to begin meeting its contractual and statutory obligations under the Nuclear Waste Policy Act to remove used reactor fuel from decommissioned and operating nuclear power plants while reducing the taxpayer liabilities associated with the government's delay in accepting used fuel. The U.S. Department of Energy (DOE) was required to begin accepting used fuel by 1998. We understand that site selection for storage and disposal facilities was not within the scope of the BRC's work. However, we continue to believe that the Nuclear Regulatory Commission's review of the DOE's license application for the proposed Yucca Mountain, Nev., repository should be completed to determine whether it is a suitable site.

Creating a new management organization is a priority. It will provide strong and effective leadership for a focused mission of managing used nuclear fuel while better insulating the program from political interference. In addition to safeguarding consumer payments, fixing the funding issues will help ensure that the new organization, when enacted by Congress, will have a sustainable revenue stream to discharge its mission and cover its operating costs.

Nuclear energy is a key component of America's energy mix. The BRC recognizes this with its recommendation for stable, long-term support for advanced reactor and fuel cycle technology development that can help address the energy challenges facing future generations.

Although many of the key BRC recommendations require congressional action to be fully implemented, the Energy Department, under existing authority, can and should take action immediately to advance the recommendations. Our six organizations stand ready to work with the DOE, the administration and Congress to implement the BRC recommendations to advance the nation's economic, energy, environmental and national security imperatives by creating a sustainable integrated used nuclear fuel management program.

###

The **National Association of Regulatory Utility Commissioners** is the national association representing the State Public Service Commissioners who regulate essential utility services, including energy, telecommunications, and water. NARUC members are responsible for assuring reliable utility service at fair, just, and reasonable rates.

The **Nuclear Energy Institute** is the policy organization for the nuclear technologies industry. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel

fabrication facilities, nuclear material licensees, and other organizations and individuals involved in the nuclear energy industry. For more information on integrated used nuclear fuel management visit our website.

The **Nuclear Waste Strategy Coalition** is an ad hoc organization representing the collective interests of state utility regulators, state attorneys general, consumer advocates, electric utilities, and associate members, on nuclear waste policy matters. NWSC's primary focus is to protect ratepayer payments into the Nuclear Waste Fund and to support the removal and ultimate disposal of spent nuclear fuel and high-level radioactive waste currently stranded at numerous commercial, defense, research, and decommissioned sites in 39 states.

Based in Washington, D.C., **American Public Power Association** is the national service organization for the nation's more than 2,000 community- and state-owned not-for-profit electric utilities serving 46 million customers.

The **National Rural Electric Cooperative Association** is the national service organization that represents the nation's more than 900 private, not-for-profit, consumer-owned electric cooperatives, which provide service to 42 million people in 47 states.

The **Edison Electric Institute** is the association of U.S. Shareholder-Owned Electric Companies. EEI's members serve 95 percent of the ultimate customers in the shareholder-owned segment of the industry, and represent approximately 70 percent of the U.S. electric power industry.

The Yankee Companies

Maine Yankee Atomic Power Company
321 Old Ferry Road
Wiscasset, ME 04578

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road
East Hampton, CT 06424

Yankee Atomic Electric Company
49 Yankee Road
Rowe, MA 01367

Yankee Companies Statement Regarding the Final Report of the Blue Ribbon Commission on America's Nuclear Future – January 26, 2012

After nearly two years of careful study, the Blue Ribbon Commission on America's Nuclear Future (BRC) has issued its final report providing a roadmap for the establishment of a comprehensive, long-term strategy for safely managing the Nation's spent nuclear fuel and high-level nuclear waste. Among its principle conclusions are recommendations for:

- The prompt establishment of a voluntary, incentive-based siting program that would lead to the licensing of a consolidated interim storage facility (or facilities);
- The establishment of a "first in line" priority for the movement of spent fuel and other material being stored at permanently shutdown reactor sites to those licensed consolidated storage sites; and
- The prompt initiation of programs to coordinate federal, state and local efforts to plan for the transportation of this material to consolidated storage and disposal facilities.

The panel's final report also calls on Congress to create a new, single-purpose organization to implement a focused, integrated program for the transportation, storage and disposal of spent nuclear fuel and nuclear waste and to amend its budget rules so that this new organization would have assured access to the existing Nuclear Waste Fund and the revenues generated by annual payments to that fund. Finally, the panel cites the international consensus regarding the ultimate need for deep geologic disposal of this material and urges the creation of a siting process that provides incentives to host localities and states.

The Yankee Companies are appreciative that the BRC listened to what we, our community advisory boards, and others in New England provided as comments and that it makes no sense to keep this material at scattered sites around the region. New England ratepayers met their obligation to pay for the federal government to begin picking this material up in 1998 and it's time for the government to fix this program and put it on a footing that will lead to success in that mission.

The Yankee Companies believe that the members of the BRC have put forward a credible and solid set of recommendations. We hope that the President and Congress will carefully, but promptly, review and act to implement them. While some will obviously require changes to existing law, others, such as the initiation of transportation planning efforts and a dialogue with local communities that have expressed an interest in hosting

-more-

The Yankee Companies

Maine Yankee Atomic Power Company
321 Old Ferry Road
Wiscasset, ME 04578

Connecticut Yankee Atomic Power Company
362 Injun Hollow Road
East Hampton, CT 06424

Yankee Atomic Electric Company
49 Yankee Road
Rowe, MA 01367

one or more of these sites can be conducted under current law and should begin immediately. Several quotes from the report are below.

The 15-member BRC and its four subcommittees conducted more than two dozen meetings, receiving testimony from hundreds of experts and concerned citizens, traveled to a number of countries with active spent fuel and nuclear waste management programs and reviewed more than 2,500 written comments received since it was chartered by DOE Secretary Chu at the request of President Obama. Former National Security Advisor Brent Scowcroft and former Congressman Lee Hamilton co-chaired the Commission. Its final report can be found at http://www.brc.gov/.

Quotes from the Final Report of the Blue Ribbon Commission on America's Nuclear Future

"The arguments in favor of consolidated storage are strongest for "stranded" spent fuel from shutdown plant sites. Stranded fuel should be first in line for transfer to a consolidated facility so that these plant sites can be completely decommissioned and put to other beneficial uses." P. xii.

"Accordingly, DOE should (1) finalize procedures and regulations for providing technical assistance and funds for training to local governments and tribes pursuant to Section 180(c) of the NWPA and (2) begin to provide such funding, independent from progress on facility siting. While it would be premature to fully fund a technical assistance program before knowing with some certainty where the destination sites for spent fuel are going to be, substantial benefits can be gained from a modest early investment in planning for the transport of spent fuel from shutdown reactor sites." P. xiii

"The magnitude of the cost savings that could be achieved by giving priority consideration to shutdown sites appears to be large enough (i.e., in the billions of dollars) to warrant DOE exercising its right under the Standard Contract to move this fuel first. Although this action would disrupt the queue specified in the Standard Contract, as utilities continue to merge and a growing number of reactors reach the end of their operating licenses, every utility (or nearly every utility) will have one or more shutdown plants. In the context, giving priority to moving fuel from decommissioned sites is likely to be seen by all parties involved as being in everyone's interest." P. 42.

###

THE COMMITTEE ON ENERGY AND COMMERCE
INTERNAL MEMORANDUM

January 30, 2012

MEMORANDUM

To: Subcommittee on Environment and the Economy

From: Committee Staff

Subject: Hearing Entitled "Recommendations of the Blue Ribbon Commission on America's Nuclear Future"

On Wednesday, February 1, 2012, at 9:30 a.m. in room 2322 of the Rayburn House Office Building, the Subcommittee on Environment and the Economy will hold a hearing entitled "Recommendations of the Blue Ribbon Commission on America's Nuclear Future." The hearing will review the findings and recommendations of the Blue Ribbon Commission in its January 2012 Report to the Secretary of Energy and will focus on the future of America's nuclear waste management program.

I. Witnesses

Panel I:

The Honorable Lee H. Hamilton, Co-Chair
Blue Ribbon Commission on America's Nuclear Future
Director
The Center on Congress at The Indiana University
Former Member, U.S. House of Representatives (D-IN)

Lt. Gen. Brent Scowcroft (Ret.), Co-Chair
Blue Ribbon Commission on America's Nuclear Future
President, Scowcroft Group
Former National Security Advisor to Presidents Gerald Ford and George H.W. Bush

Panel II:

Mr. Lake H. Barrett, President
L. Barrett Consulting
Former Deputy Director, Office of Civilian Radioactive Waste Management
U.S. Department of Energy

Dr. D. Warner North, President
NorthWorks, Inc.
Former member, U.S. Nuclear Waste Technical Review Board

Mr. Martin G. Malsch, Partner
Egan, Fitzpatrick, Malsch & Lawrence

Mr. Edwin Lyman, Senior Staff Scientist
Union of Concerned Scientists

Mr. Thomas A. Schatz, President
Citizens Against Government Waste

Mr. David A. Wright, Chairman of the Board and President
National Association of Regulatory Utility Commissioners

II. Background

Thirty years ago, Congress began addressing management of the nation's growing stockpile of nuclear waste by directing the Department of Energy (DOE) to develop a system to collect and provide for the safe and final disposal of spent nuclear fuel and high-level radioactive waste. The Nuclear Waste Policy Act of 1982, as amended, (NWPA) requires DOE to take title to, remove, and transport spent nuclear fuel from commercial reactor sites to a permanent geologic repository or an interim storage facility before permanent disposal. NWPA also directs defense-related high-level waste and spent fuel to the same repository. Development of the repository would be paid for by the Nuclear Waste Fund (NWF), which is funded by ratepayers of nuclear-generated electricity.

In 1987, after DOE had conducted studies of nine potential repository sites located throughout the United States, Congress amended the NWPA and selected the Yucca Mountain site in Nye County, Nevada. In 2002, following extensive evaluation of the site by DOE and its national laboratories, the Secretary of Energy determined Yucca Mountain was suitable for repository development and recommended the President approve the site for development. Under the NWPA, Nevada submitted a notice of disapproval. Congress overrode the objection, and Congress passed and the President signed Public Law 107-200, which approved Yucca Mountain as the site for the repository.

On June 3, 2008, after additional scientific and engineering studies on development and design, DOE submitted a license application to the Nuclear Regulatory Commission (NRC) seeking construction authorization for the repository at Yucca Mountain. NRC docketed the license application in September 2008 and was directed, pursuant to the NWPA, to conduct its review within four years. The NRC then commenced a two-pronged review of the application: (1) a technical licensing review by the NRC staff to assess the technical merits of the repository design and to formulate a position on whether the proposed repository is safe and will protect the public and the environment and (2) adjudicatory hearings by the NRC's Construction Authorization Board to consider technical and legal challenges to the application. (Both those processes are presently suspended.)

In March 2010, asserting that the Secretary of Energy "has decided that a geologic repository at Yucca Mountain is not a workable option for long-term disposition" of nuclear waste, DOE filed a motion with the NRC's Construction Authorization Board to withdraw the license application. On June 29, 2010, the Board denied the DOE motion to withdraw the application.

Following President Obama's decision to halt work on an independent technical evaluation of the repository at Yucca Mountain, the Blue Ribbon Commission on America's Nuclear Future ("BRC" or "Commission") was assembled by the Secretary of Energy at the request of President Obama to conduct a comprehensive review of the back end of the nuclear fuel cycle and to recommend a strategy for better managing the nuclear waste issue. (A copy of the charter and the final report is available at brc.gov.)

Notably, in light of the Administration's decisions regarding the Yucca Mountain Program, the BRC was not set up to identify a site for the repository, either the Yucca Mountain site established in NWPA or some other site. After two years of study, fact-finding, regional public meetings, formal hearings, site visits, and a draft report on which the Commission sought public comment, the BRC provided a final report to the Secretary of Energy on January 26, 2012. The BRC Co-Chairmen explained to the Secretary of Energy in their cover letter:

> *"You directed that the Commission was not to serve as a siting body. Accordingly, we have not evaluated Yucca Mountain or any other location as a potential site for the storage of spent nuclear fuel or disposal of high level waste, nor have we taken a position on the Administration's request to withdraw the Yucca Mountain license application. What we have endeavored to do is recommend a sound waste management approach that can lead to the resolution of the current impasse; an approach that neither includes nor excludes Yucca Mountain as an option for a repository and can and should be applied regardless of what site or sites are ultimately chosen to serve as the permanent disposal facility for America's spent nuclear fuel and other high-level nuclear wastes."*

The report contains eight recommendations for legislative and administrative action to develop a "new" strategy to manage nuclear waste:

1) A new, consent-based approach to siting future nuclear waste management facilities.

2) A new organization dedicated solely to implementing the waste management program and empowered with the authority and resources to succeed.

3) Access to the funds nuclear utility ratepayers are providing for the purpose of nuclear waste management.

4) Prompt efforts to develop one or more geologic disposal facilities.

5) Prompt efforts to develop one or more consolidated storage facilities.

6) Prompt efforts to prepare for the eventual large-scale transport of spent nuclear fuel and high-level waste to consolidated storage and disposal facilities when such facilities become available.

7) Support for continued U.S. innovation in nuclear energy technology and for workforce development.

8) Active U.S. leadership in international efforts to address safety, waste management, non-proliferation, and security concerns.

I. Issues

Issues to be examined at the hearing may include:

- The financial impacts of delays on current repository development; and,
- Nuclear Waste Policy Act suggestions.

II. Staff Contacts

If you have any questions regarding this hearing, please contact Dave McCarthy (dave.mccarthy@mail.house.gov) or Peter Spencer (peter.spencer@mail.house.gov) of the Majority Committee staff at (202) 225-2927.

THE HILL

THE HILL'S Congress Blog
Where lawmakers come to blog

Commission calls for permanent nuclear waste facility

By Rep. John Shimkus (R-Ill.) - 01/31/12 10:01 AM ET

Nearly three decades since the debate over America's high-level nuclear waste disposal began, the science remains clear that permanent geological storage of spent fuel is superior to our present quagmire of on-site storage.

Yet in the wake of the Administration's political blockade of an independent technical evaluation of the repository at Yucca Mountain, the resulting Blue Ribbon Commission found what many of us have long been saying about the failed management of nuclear waste. The Commission's report correctly advises control of the Nuclear Waste Fund be removed from the purse strings of political ideologues and entrusted to "a new organization dedicated solely to implementing the waste management program" set forth under law.

It is clear the dysfunction within and between the Nuclear Regulatory Commission and the Department of Energy has rendered the current waste management structure ineffective. Future generations ought not be shouldered with the burden of 65,200 - and growing - metric tons of nuclear waste simply because of a bureaucratic failure to carry out the law of the land.

Yucca Mountain remains the most shovel-ready, thoroughly studied geological repository for spent nuclear fuel. Those who advocate abandoning this site do so for purely political purposes. Thirty years of scientific study, $15 billion, and, quite frankly, common sense, support the current requirement to secure high-level nuclear waste on federal property, under a mountain, in a desert.

The reality is if we cannot agree an old nuclear weapons test site is a better place to store radioactive waste than on the shores of Lake Michigan, the banks of the Savannah River, or the beaches of the Pacific Ocean - we will never reach an agreement.

Our nuclear waste is not going away for millions of years. The American people and Members on both sides of the aisle realize this. Even those who oppose this carbon-emission free energy must accept the sheer tonnage of what already exists. This debate is not about pro-nuclear or anti-nuclear.
As the Blue Ribbon Commission report shows, this debate is about the present legacy of irresponsibility we are leaving for future generations.

Possibly no other 230 square miles in the world have been examined and reexamined more by America's greatest scientific minds than Yucca Mountain.
We should let the experts complete the technical review and, when the science is settled yet again, move forward on Yucca Mountain as our secure, permanent geological repository for high-level nuclear waste.

INMM Spent Fuel Management Seminar XXVII

In Partnership with the U.S. Nuclear Infrastructure Council
January 31 – February 2, 2012
Marriott Gateway Hotel Crystal City
Arlington, VA

http://www.inmm.org/Spent_Fuel_Seminar_2011.html

Advance Agenda as of January 9, 2012

Monday, January 30, 2012

1700 - 1900	Registration

31 January 2012

0730 - 0830	Registration
0830 - 0845	Administrative and Introductions - Jeff England, INMM
0845 - 0900	Spent Fuel XXVII Opening - Ed Johnson, Honorary Chair
0900 - 0915	Welcoming Remarks - David Jones, Chairman Emeritus U.S. NIC
0915 - 1000	**Overview of BRC Report - Honorable Philip Sharp, Commissioner**
1000 - 1030	Break
1030 - 1200	Blue Ribbon Commission Recommendations/Impacts Chair, Ken Sorenson, SNL
1030 - 1100	Reactor and Fuel Technology Findings – Matt Milazzo, Deputy Staff Director
1100 - 1130	Transport, Disposal and Storage Findings – Alex Thrower, General Counsel
1130 - 1200	**Perspective on BRC Recommendations – Llewellyn King, Executive Producer and Co-Host, White House Chronicle, PBS**
1200 - 1330	Lunch

1330 - 1410 **NRC Perspective on Fukushima, Michael Weber, Deputy Executive Director, US Nuclear Regulatory Commission**

1410 - 1540 The Fukushima Event and Its Impact on Spent Fuel Management - Chair, Open

- 1410 - 1440 Review of the Fukushima Incident - Lake Barret
- 1440 - 1510 Impact of Fukushima Incident on Spent Fuel Management in Japan - Saegusa, Criepi
- 1510 – 1540 Industry Perspective on Fukushima – Everett Redmond, NEI

1540 - 1610 Break

1610 - 1710 Blue Ribbon Commission, Fukushima and New Reactor Technologies Impacts on Spent Fuel Management Chair, David Blee, NIC

* Ed Davis, Pegasus Group
* Margaret Harding, 4Factor Consulting
* Eric Knox, URS

1800-2000 Welcome Reception

1 February 2012

0830 - 0835	Opening Remarks, Jeff England
0835 - 0920	**DOE Perspective - Assistant Secretary Peter Lyons DOE/NE**
0920 - 1000	Spent Fuel Monitoring, Chair, Dr. Jim Shuler, DOE PCP
0920 - 0945	IAEA Safeguards for Spent Fuel Storage, Olli Heinonen, Harvard
0945 - 1005	Transportation Monitoring, Yung Liu, ANL
1005 - 1030	Break
1030 - 1200	DOE Used Fuel Campaigns (Chair – Dr. Tom Sanders)
1030 - 1100	DOE Used Fuel Disposition Management Program - Jeff Williams, DOE/NE
1100 - 1120	Used Fuel Disposition Transportation Program - Paul McConnell, SNL
1120 - 1140	Used Nuclear Fuel Management at SRS - Dave Rose, SRS
1140 - 1200	Used Fuel Disposition Storage Program - Ken Sorenson, SNL
1200 - 1330	Lunch
1330 - 1530	Spent Fuel Management Projects, Chair, Open
1330 - 1350	Duke Projects- Paul Bailey, Duke Energy
1350 - 1410	TVA Projects -- TBD
1410 - 1430	PG&E Projects -- TBD
1430 - 1450	Status of International Spent Fuel Storage Projects -TBD
1450 - 1520	Break
1520 - 1720	Spent Fuel Management Programs and Technology Development (Chair, TBD)
1520 – 1540	Long Term Storage EIS - TBD, NRC
1540 - 1600	NAC Technologies -- Charles Pennington, NAC
1600 - 1620	Transnuclear Technologies – Michael Mcmahon, TN
1620 - 1640	Holtec Technologies – Pierre Oneid, Holtec

2 February 2012

0830 - 0835	Opening Remarks, Jeff England
0835 – 0920	**NRC Storage and Transportation Initiatives – Doug Weaver, Acting Director, Division of Spent Fuel Storage and Transportation, US NRC**
0920 - 1000	Aging Management, Chair, Dr. Jim Shuler, DOE PCP
0920 - 0940	Aging Management in Dry Spent Fuel Cask Storage, Holger Völzke, BAM
0940 - 1000	Industry Perspective on Aging Management, Andrew Sowder, EPRI
1000 - 1030	Break
1030 - 1200	Transportation Emerging Campaigns & Emerging Issues, Chair, Steve Bellamy, SRNL
1030 - 1050	Spent Fuel Transportation Regulatory Issues - Earl Easton, NRC
1050 - 1110	Results of Analyses of Transport Accidents and Their Impact on Spent Fuel Transport - C. Bajwa, NRC
1110 - 1130	Post Irradiation Examination, TBD
1130 - 1150	DRR/FRR/Non-Proliferation Shipments, Jeffrey Galan, NNSA
1150 - 1330	Lunch
1330 - 1500	Closing-the-Fuel Cycle/Recycling Paradigms Panel Discussion, Chair, David Jones, NIC
	* Dan Stout, TVA
	* Christopher Guith, Institute for 21st Century Energy
	* Nigel Mote, Nuclear Waste Technical Review Board
	* Dorothy Davidson, AREVA
1500 - 1530	Break
1530 - 1650	Spent Nuclear Fuel Storage and Repository Options (Chair, Gary Lanthrum)
1530 - 1550	Government Liability, Megan Carroll, Congressional Budget Office
1550 - 1610	Where Do We Go with Yucca Mountain? - L. Barrett
1610 - 1630	Centralized Storage Options & Economics - Cliff Hamal, Navigant Economics
1630 - 1650	Salt as an Alternative Geology - Dr. Ned Elkins, LANL
1650 - 1710	Closing Remarks (Honorary Chair, Ed Johnson)

STATE OF MAINE
OFFICE OF THE GOVERNOR
1 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0001

Paul R. LePage
GOVERNOR

November 9, 2011

Mr. Cort Richardson, Director
Northeast High-Level Radioactive Waste Transportation Task Force
The Council of State Governments - Eastern Regional Conference
3 Shipman Place, Suite 101
Montpelier, Vermont 05602

Subject: Comments on Draft Report to Secretary of Energy

Dear Mr. Richardson:

The State of Maine would like to thank the Northeast High-Level Radioactive Waste Transportation Task Force for this opportunity to comment on the Blue Ribbon Commission on America's Nuclear Future's July 29, 2011, draft report for managing the back end of the nuclear fuel cycle.

As you know, Maine Yankee has High-Level Spent Nuclear Fuel stored on-site at its decommissioned facility in Wiscasset, Maine.

I am very concerned that the federal government's failure to timely resolve the management of the nuclear waste has led to:

- A potentially de facto permanent high-level nuclear waste storage facility within our borders,
- On-going ratepayer subsidies in the millions of dollars per year to properly secure and safeguard this waste, and
- The inability to redevelop prime coastal property for beneficial community use.

I hope that by voicing our concerns jointly in accord with the other northeast states as part of a larger set of unified comments that the President's Commission will appropriately weigh our comments and address the Northeast's pressing spent nuclear fuel issues.

Sincerely,

Paul R. LePage
Governor

PRINTED ON RECYCLED PAPER
PHONE: (207) 287-3531 (Voice) 888-577-6690 (TTY) FAX: (207) 287-1034
www.maine.gov

Department of Health and Human Services
Maine People Living Safe, Healthy and Productive Lives

Paul R. LePage, Governor Mary C. Mayhew, Commissioner

Department of Health and Human Services
Commissioner's Office
221 State Street
11 State House Station
Augusta, Maine 04333-0011
Tel. (207) 287-3707
Fax (207) 287-3005; TTY (800) 606-0215

November 9, 2011

Mr. Cort Richardson, Director
Northeast High-Level Radioactive Waste Transportation Task Force
The Council of State Governments - Eastern Regional Conference
3 Shipman Place, Suite 101
Montpelier, Vermont 05602

Subject: Comments on Draft Report to Secretary of Energy

Dear Mr. Richardson:

The Maine Department of Health and Human Services would like to thank the Northeast High-Level Radioactive Waste Transportation Task Force for this opportunity to comment on the Blue Ribbon Commission on America's Nuclear Future's July 29, 2011, draft report for managing the back end of the nuclear fuel cycle.

As the Commissioner of the Department of Health and Human Services I am charged with the oversight of the Interim Spent Fuel Storage Installation in Wiscasset, Maine. That oversight is further defined as protection of public health and safety and timely contract performance by the U.S Department of Energy (DOE) regarding removal of the spent nuclear fuel.

The Blue Ribbon Commission has defined a reasonable and thoughtful path forward that may be successful. My concern is that there needs to be significant incentives for achievements and penalties for missing milestones that will guarantee a success that was not accomplished the first time around in 1982.

I believe that the high level radioactive waste and the greater than class C waste that is stored at single unit decommissioned nuclear reactor sites, such as the waste stored in Wiscasset, Maine, should be the first waste moved to the new facility. These single unit sites are paying the highest prices for the U.S. DOE's continuing default of its obligations. These are the highest cost sites in all categories and should be addressed first.

I hope that by voicing the State's concerns with the other northeast states as part of a larger set of unified comments that the President's Blue Ribbon Commission will appropriately weigh our comments and heed the Northeast's pressing spent nuclear fuel issues.

Sincerely,

Mary C. Mayhew
Commissioner

Maine Center for Disease Control and Prevention
An Office of the Department of Health and Human Services
Paul R. LePage, Governor Mary C. Mayhew, Commissioner

Department of Health and Human Services
Maine Center for Disease Control and Prevention
286 Water Street
11 State House Station
Augusta, Maine 04333-0011
Tel. (207) 287-8016
Fax (207) 287-9058; TTY (800) 606-0215

November 9, 2011

Mr. Cort Richardson, Director
Northeast High-Level Radioactive Waste Transportation Task Force
The Council of State Governments - Eastern Regional Conference
3 Shipman Place, Suite 101
Montpelier, Vermont 05602

Subject: Comments on Draft Report to Secretary of Energy

Dear Mr. Richardson:

The Maine CDC would like to thank the Northeast High-Level Radioactive Waste Transportation Task Force for this opportunity to comment on the Blue Ribbon Commission on America's Nuclear Future's July 29, 2011, draft report for managing the back end of the nuclear fuel cycle.

As the State's Health Director, I am responsible for the health and welfare of all Maine people. I am very concerned that we continue to store high-level spent nuclear fuel at the Maine Yankee site in Wiscasset, Maine. Storage of this waste at this site was intended to be a short-term solution while a permanent respository was being developed. Unfortunately, it now appears that progress toward developing a permanent site has stalled indefinitely. This continues to cost the State and our energy resource centers much time and money, and increased resources.

I am particularly concerned about the storage of highly radioactive and long lived hazardous waste in the marine environment, and the consequences of any site problems or terrorist activity on the health and safety of the people of Maine and our marine environment.

I hope that by voicing the State's concerns with the other northeast states, as part of a larger set of unified comments, the President's Blue Ribbon Commission will appropriately weigh our comments and heed the Northeast's pressing spent nuclear fuel issues.

Sincerely,

Dr. Sheila G. Pinette

Dr. Sheila G. Pinette
Director, Maine CDC
State Health Officer

BLUE RIBBON COMMISSION
ON AMERICA'S NUCLEAR FUTURE

December 12, 2011

President Barack Obama
The White House
1600 Pennsylvania Avenue, NW
Washington, DC 20500

Dear Mr. President:

At your direction, the Secretary of Energy established the Blue Ribbon Commission on America's Nuclear Future to review policies for managing the back end of the nuclear fuel cycle and recommend a new strategy. We are pleased to be serving as Co-Chairmen of the Commission, and we are writing to you to highlight an important action we strongly believe should be reflected in your Fiscal Year 2013 baseline budget projections.

In our draft report to the Secretary, issued in July of this year, the Commission recommends several actions that should be taken to get the nuclear waste management program back on track. High on our list of recommendations are actions that can and should be taken soon to provide assured access to utility waste disposal fees for their intended purpose. Unless action is taken in the near-term to fix the way these fees are treated in the federal budget, the nuclear waste strategy we recommend cannot succeed.

Funds for the disposal of spent nuclear fuel from commercial power reactors are collected regularly through the assessment of a nuclear waste fee on nuclear-generated electricity as a *quid pro quo* payment in exchange for the federal government's contractual commitment to begin accepting commercial spent fuel for disposal beginning by January 31, 1998. These fee payments, which total approximately $750 million per year, go to the government's Nuclear Waste Fund, which was established for the sole purpose of covering the cost of disposing of civilian nuclear waste and ensuring that the waste program would not have to compete with other funding priorities.

As we have learned through our investigation, the Nuclear Waste Fund does not work as intended. A series of Executive Branch and Congressional actions has made annual fee revenues and the unspent $26 billion balance in the Fund effectively inaccessible to the nuclear waste management program. Instead, the waste program must compete for federal funding each year and is therefore subject to exactly the budget constraints and uncertainties that the Fund was created to avoid. This situation must be remedied to allow the program to succeed.

In the meantime, with the federal government having failed to meet its contractual obligation to begin receiving spent fuel beginning in 1998, nuclear utilities have successfully sued the government for failure to perform and are receiving damage payments from the federal Judgment Fund. The government estimates its liability will grow to $16 billion by 2020 and will increase by several hundred million dollars per year thereafter until it begins accepting spent fuel for disposal.

We have recommended that your Administration offer to amend the standard nuclear waste contract with nuclear utilities, which you are authorized to do under current law, so that utilities remit only the portion of the annual nuclear waste fee that is appropriated for waste management each year. The rest of the funding would be placed in a trust account, held by a qualified third-party institution, to be available when needed. At the same time, we have recommended that the Office of Management and Budget work with the Congressional budget committees and the Congressional Budget Office to change the budgetary treatment of annual fee receipts so that these receipts can directly offset appropriations for the waste program.

These actions are vital to enabling key subsequent actions the Commission recommends. Therefore, we respectfully request that you act promptly to implement these changes in your Fiscal Year 2013 budget proposal. We have heard repeatedly from those following our work that they expect our recommendations to lead to prompt action on the nuclear waste issue; we firmly believe that implementing our funding recommendations is an essential first step.

We recognize that our recommendations, if adopted, would mean the nuclear waste fee receipts could no longer be counted against the federal budget deficit and that the result will be a negative impact of approximately $750 million on annual budget calculations. We appreciate that any budgetary actions that increase the size of the deficit are especially difficult to take in the present fiscal climate. However, it is clear that the federal government is contractually bound to use these funds to provide for ultimate disposal of spent nuclear fuel. In our view, a failure to correct the funding problem does the federal budget no favors in a context where taxpayers remain liable for mounting damages, compensated through the Judgment Fund, for the federal government's continued inability to deliver on its waste management obligations.

In preparing our draft proposal we consulted with former Office of Management and Budget and Congressional budget staff, and our proposal enjoys the support of both the National Association of Regulatory Utility Commissioners, representing the ratepayers, and the Nuclear Energy Institute, representing the nuclear utilities. We should note that the federal government's failure to deliver on its statutory obligations with respect to commercial spent fuel disposal has prompted these organizations to pursue legal action against the government aimed at suspending entirely the collection of fees until such time as a new waste management plan for the country has been finalized.

We believe our recommended actions are essential to the future success of the nuclear waste management program and we urge you to reflect our recommendations in your Fiscal Year 2013 budget proposal.

With best regards,

Lee H. Hamilton
Co-Chairman

Brent Scowcroft
Co-Chairman

cc: Secretary Steven Chu