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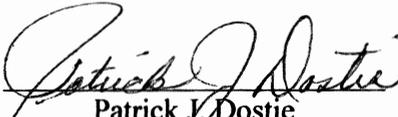
January 11, 2010

**To: Honorable Ms. Elizabeth Mitchell, President of the Senate
Honorable Ms. Hannah Pingree, Speaker of the House**

**Subject: State Nuclear Safety Inspector Office's December 2009 Monthly Report to the Maine
Legislature**

New 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.

Enclosed please find the Inspector's December 2009 monthly activities report. Should you have questions about its content, please feel free to contact me at 207-287-6721, or e-mail me at pat.dostie@maine.gov.


Patrick J. Dostie
State Nuclear Safety Inspector

Enclosure

cc:

**Mr. E. William Brach, U.S. Nuclear Regulatory Commission
Ms. Nancy McNamara, U.S. Nuclear Regulatory Commission, Region I
Mr. James Connell, Site Vice President, Maine Yankee
Ms. Brenda Harvey, Commissioner, Department of Health and Human Services
Mr. Geoff Green, Deputy Commissioner, Department of Health and Human Services
Ms. Lucky Hollander, Director of Legislative Relations, Department of Health and Human Services
Dr. Dora Mills, Director, Maine Center for Disease Control and Prevention
Mr. Patrick Ende, Senior Policy Advisor, Governor's Office
Mr. David Littell, Commissioner, Department of Environmental Protection
Mr. Richard Davies, Maine Public Advocate
Lt. William Snedeker, Special Services Unit, Maine State Police
Ms. Nancy Beardsley, Director, Division of Environmental Health
Mr. Jay Hyland, PE, Manager, Radiation Control Program**

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State Nuclear Safety Inspector Office

December 2009 Monthly Report to the Legislature

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 under this new legislation.

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.

Since the footnotes are expanded definitions of some scientific terms, for simplicity they were placed in a glossary at the end of the report. In addition, to better understand some of the content of the topics, some effort was placed in providing some historical information. However, for the time being this historical context will be provided as an addendum to the report.

Independent Spent Fuel Storage Installation (ISFSI)

During December the general status of the ISFSI was normal, except for December 9th, when additional measures were put in place for the snowstorm and high winds. Similar measures were instituted for the storm on December 19th and the impending three day snowstorm starting New Year's Day. There were 2 instances of spurious alarms due to environmental conditions. All alarms were investigated and no further actions were warranted.

There were no fire or security related impairments in December. There were 20 security events logged. Each was associated with transient camera issues due to temporary environmental conditions.

There were five condition reports¹ (CRs) for the month of December. The first CR was written on December 13th due to the top of the sand tent coming partially undone and causing a safety issue. The sand tent was fixed the following day. Permanent alterations will be made within the next couple weeks. The second CR was written on December 15th due to some data not being properly copied when the security computers were being swapped. A third CR was written on December 16th to track open items from a review of the Fire Protection Program. A fourth CR was written on the 23rd to address intermittent printing problems with one of the printers. A fifth CR was written on December 28th for the North Hydrant. The monthly inspection found the supply valve partially open when it should have been shut.

Other ISFSI Related Activities

On December 22nd Maine Yankee submitted a proposed amendment to their Physical Security Plan and an exemption request from NRC Regulations. Since the proposed amendment contains safeguards information, disclosure to the public is not permitted. The exemption request is to remove the central alarm station from within the protected area. The exemption would be comparable to those already approved for stand alone ISFSI's, such as Yankee Rowe in Massachusetts and Connecticut Yankee.

¹ Refer to page 5 in the Glossary.

Environmental

In addition to its periodic air sampling at the old Bailey Farm House, the State's Radiological Environmental Monitoring Program (REMP) quarterly sampling regimen of freshwater, saltwater, and seaweed took place on December 28th along with the field change-out of the thermoluminescent dosimeters (TLDs)² within the surrounding communities. The State Nuclear Safety Inspector will perform his quarterly field replacement of the TLDs monitoring the ISFSI and Bailey Cove in early January. The results of the TLD monitoring are expected to be reported in the January report. The results from the REMP's fourth quarterly sampling will be reported as soon as the results are available from the State's Health and Environmental Testing Laboratory.

It should be noted that the State's air sampler at the Old Bailey Farm House at the Maine Yankee site was permanently discontinued on December 30th. Power to the air sampler required an underground electrical conduit to meet OSHA standards to eliminate a safety hazard. In reviewing the historical air data information and taking into account the leak tightness of the spent fuel casks, it was determined that there was no technical basis to continue the air monitoring location. The air sampling location was in operation since 1970, a span of 39 years.

Maine Yankee Decommissioning

At present, there are eleven confirmatory reports that are essentially complete. Due to the extensive delays in ongoing commitments and emerging issues, the confirmatory summary report was partially drafted in December and a final draft is expected by the end of January.

Groundwater Monitoring Program

On December 1st the State Nuclear Safety Inspector (SNSI) notified Maine Yankee that the sampling results from September 2008 were still missing from its latest submittal involving Maine Yankee's fourth Annual Radiological Groundwater Report to the Department of Environmental Protection (DEP) on the monitoring of its former, decommissioned industrial site. The report covers the period from September 2008 to June 2009. On December 4th Maine Yankee electronically provided the missing data set.

On December 21st Maine Yankee responded to the DEP and the SNSI comments to their third annual groundwater report. Maine Yankee's comments addressed the DEP's review of their recommendations for eliminating the testing of certain chemicals and the abandonment of one well from further groundwater monitoring. Maine Yankee's comments also responded to the recurrent issues raised by the SNSI. Since there were some outstanding issues, Maine Yankee requested to meet with the State in late January to discuss these issues.

Other Newsworthy Items

1. On December 2nd the Nuclear Waste Strategy Coalition (NWSC) held a conference call to discuss the Congressional FY 2010 appropriations and options if the Department of Energy (DOE) terminates their license application for the Yucca Mountain repository. The DOE's proposed FY 2011 funding request to terminate the license application generated broader discussions on potential litigation and lawsuits and suspension of the Nuclear Waste Fund fee. There were no new developments relative to the Blue Ribbon Commission. Although not specifically addressed in the call, the language and allocations agreed to in the House and Senate Conference Reports to the FY 2010 Appropriations Act passed into law in October of 2009 states that the mandates be complied with unless explicitly addressed to the contrary. This would

² Refer to page 6 in the Glossary.

require the DOE to submit in writing its intentions to move appropriations into other accounts before it could terminate license activities or other program activities.

2. On December 2nd the quarterly conference call of the Federal Energy Regulatory Commission (FERC) rate case settlement briefings relevant to Maine Yankee, Connecticut Yankee and Yankee Rowe in Massachusetts was held. Updates were received on the status of the three Yankee's lawsuits against the DOE. The briefing also indicated that the NRC review of the DOE license application was slowing down due to funding cutbacks and staff reductions. The briefings provide updates to both state and private officials in the states affected by the FERC settlements on the status of the Yankee companies' lawsuits as well as regional and national issues on spent nuclear fuel storage.
3. On December 4th the Sustainable Fuel Cycle Task Force (SFCTF) issued a statement in response to the Government Accountability Office Report (GAO-10-48) on nuclear waste management. The SFCTF took issue with the GAO's methodology to discount future costs for storing and disposing of nuclear wastes. According to the SFCTF the discounting technique is appropriate in comparing choices in the near term. Since nuclear waste management is a multi-decade, if not a multi-century undertaking, discounting costs beyond a decade masks the costs that will be paid by taxpayers and ratepayers. The SFCTF estimates the cost for storing spent fuel for over 100 years will more likely total over \$100 billion as compared to the GAO costs of \$13 to \$34 billion. The approach advocates paying the higher up front capital costs for Yucca Mountain now as oppose to paying on-going storage costs for 100 years and then paying the construction and operating costs for a geologic repository.
4. During the week of December 7th the Department of Energy (DOE) met a filing deadline for briefs with the Nuclear Regulatory Commission's Atomic and Safety Licensing Board on the DOE's Yucca Mountain license application. The filing signaled that the DOE lawyers are moving forward in their defense of the license application. Nevada also met the deadline by submitting their brief covering about ten legal questions, one of which addressed the postponement for 100 years the installation of drip shields. The parties have 30 days to file responses with the court with a hearing for oral arguments scheduled for late January in Las Vegas.
5. On December 9th the Nuclear Regulatory Commission's (NRC) Atomic Safety and Licensing Board admitted four new Nevada contentions to its Yucca Mountain licensing proceedings. The contentions range from climate-change processes over the 1 million year period to the Department of Energy's updated probabilistic volcanic hazard analysis to deficiencies in Alloy-22 corrosion testing.
6. On December 16th the New England Governor's Conference forwarded their letter to Secretary of Energy Chu advocating the expedited removal of spent nuclear fuel from decommissioned and operating sites. The letter also expressed concerns over the long term storage of canisters and "the potential for significant safety and environmental issues" should the canisters not receive their periodic 20 year relicensing from the NRC. Governor Baldacci is the current Chairman of the New England Governor's Conference. A copy of the letter is attached at the end of the report.
7. On December 16th the NWSC held a follow-up conference call to discuss the outcome of the Appropriations Act of FY 2010 that passed on October 1st and its impact on the Department of Energy's (DOE) Nuclear Waste Disposal Program. There were further discussions on the DOE'S FY 2011 funding request, the status of the license application, the 180 day time clock for filing lawsuits should the license application be terminated, and the suspension of the Nuclear Waste Fund fee. The NWSC is an ad hoc group of state utility regulators, state attorneys general, electric utilities and associate members representing 47 stakeholders in 31 states, committed to reforming and adequately funding the U.S. civilian high-level nuclear waste transportation, storage, and disposal program.

8. On December 17th the Energy Community Alliance (ECA) sent a letter to Secretary Energy Chu questioning the Department of Energy's (DOE) plans for defense high level waste (HLW) stored at sites across the country. The letter was sent in response to the Administration's position that Yucca Mountain was no longer a viable disposal option. Local communities that hosted DOE sites accepted the defense HLW from other states and sites on the presumption that the storage was temporary until the Yucca Mountain repository opened. The ECA letter is calling on the DOE to a) "engage local communities and governments on high-level waste decisions and impacts, b) analyze the impact of DOE's decision to leave defense high-level waste in communities, and c) appoint a local government official to the Blue Ribbon Panel". The ECA is a non-profit organization of local governments adjacent to and impacted by DOE sites. A copy of the letter is attached at the end of the report.
9. On December 18th Nevada's Attorney General announced Nuclear Regulatory Commission's (NRC) adoption of new transportation security requirements. The outcome was based on a petition filed by Nevada's Attorney General in June of 1999. 23 other states supported the petition. The proposed rulemaking is a victory for Nevada as the NRC adopts five of the seven regulatory changes requested by Nevada. A copy of the press release is attached to the end of the report.
10. On December 21st the 2nd U.S. Circuit Court of Appeals denied appeals by New York, Connecticut and Massachusetts to raise the fire risk levels of spent fuel pools set by the Nuclear Regulatory Commission (NRC). Connecticut's Attorney General vowed to continue legal actions to force the NRC to create a central national site to store nuclear waste.
11. On December 22nd the Congressional Research Service issued a report, entitled "The Yucca Mountain Litigation: Breach of Contract Under the Nuclear Waste Policy Act of 1982". The report addresses key issues that have surfaced due to protracted waste storage litigation, explains the jurisdictional conflict between the U.S. Court of Appeals for the Federal Circuit and the U.S. Court of Appeals for the District of Columbia Circuit, and reflects on the potential for future liability from storage and disposal delays.

Other Noteworthy Items:

1. On October 27th the U.S. Nuclear Waste Technical Review Board sent a letter to Speaker of the House Nancy Pelosi, Senate President Pro Tempore Robert Byrd and Secretary Energy Chu outlining the Board's mission under the Nuclear Waste Policy Act as amended in 1987, its continuing role and, in light of the Administration's position on Yucca Mountain, a realigning of the Board's priority goals to be of service to Congress, to the Secretary of Energy and the proposed Blue Ribbon Commission in evaluating alternatives to the nation's nuclear waste management program. A copy of the letter is attached at the end of the report.
2. On October 30th the U.S. Nuclear Waste Technical Review Board issued a report to Congress and the Secretary of Energy, entitled "Survey of National Programs for Managing High Level Radioactive Waste and Spent Nuclear Fuel". The report surveys and describes 30 technical and institutional attributes of nuclear waste programs in 13 countries which account for 83% of the worldwide nuclear power generating capacity. The Board did not evaluate or make judgments about any of the programs but rather provided an overview of lessons learned for Congress and Secretary Chu to consider and incorporate in evaluating options for managing the nation's nuclear waste stockpile.
3. On November 19th Representative Mike Simpson from Idaho wrote a letter to Energy Secretary Chu on the Department of Energy's (DOE) draft internal memorandum indicating that the DOE will terminate in December the licensing support for the Yucca Mountain application currently under review by the Nuclear Regulatory Commission. The letter reiterated Congresses' mandate for the DOE to continue its support of the licensing process. Representative Simpson requested a response on the intent of the draft memorandum and for Secretary Chu to share with him the DOE's FY 2010 spending plan for Yucca Mountain. A copy of the letter is attached at the end of the report.

Glossary

Condition Report (CR): A report that promptly alerts management to potential conditions that may be adverse to quality or safety. The report is generally initiated by a worker at the ISFSI facility. The report prompts management to activate a process to identify causal factors and document corrective and preventative measures stemming from the initial report.

Decay Series: There are three naturally occurring decay series of heavy elements that transform into a series of various radioactive elements by releasing energy in the form of particles, (such as alpha or beta), and/or gamma rays to end in a stable form of non-radioactive Lead. All three decay series start with extremely long lived radioactive, heavy elements that can be measured in geologic time units. They are Uranium-238 with an approximate half-life of 4.5 billion years, Uranium -235 with a half-life of about 700 million years, and Thorium-232 with a half-life of 14 billion years. All three series contain some more well-known radioactive species, Radium and Radon.

Dose is the amount of radiation that is absorbed by a person's body. In the radiation field the term dose is sometimes used interchangeably with dose equivalent, which is defined as the rem and described below.

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 curie, named after its discoverers Pierre and Marie Curie, is defined as the rate at which a radioactive element transforms itself into another element that is most often another radioactive element. It is mathematically equivalent to 37 billion disintegrations or transformations per second. A "femto" is a scientific prefix for an exponential term that is equivalent to one quadrillionth (1/1,000,000,000,000,000).

Half-life is a measure of how fast half the mass of a radioactive element will transform itself into another element. Each radioactive element has its own unique rate of transformation. Consequently, if a radioactive element, such as Iodine-131 has a half-life of 8 days, then in 8 days half of the original amount of Iodine-131 will be gone; in another 8 days half of that half will be left and so on.

Gamma Spectroscopy is a scientific method used to analyze gamma rays emanating from radioactive elements. The analytical system determines the gamma ray energy which acts as a "fingerprint" for specific radioactive materials. For example, Potassium-40 (K-40) has a very, distinctive gamma energy at 1460 keV. This uniqueness allows the instrument to positively identify the K-40 1460 energy as its own unique fingerprint. A keV is an abbreviation for kilo electron volt, which is a measure of energy at the atomic level. A kilo is a scientific prefix for the multiplier 1,000.

Gross Beta is a simple screening technique employed to measure the total number of beta particles emanating from a potentially radioactive sample, with higher values usually indicating that the sample contains natural and/or man-made radioactive elements. High values would prompt further analyses to identify the radioactive species. A beta is a negatively charged particle that is emitted from the nucleus of an atom with a mass equal to that of an orbiting electron.

Liquid Scintillation is an analytical technique by which Tritium and many other radioactive contaminants in water are measured. A sample is placed in a special glass vial that already contains a special scintillation cocktail. The vial is sealed and the container vigorously shaken to create a homogeneous mix. When the tritium transforms or decays it emits a very low energy beta particle. The beta interacts with the scintillating medium and produces a light pulse that is counted by the instrument. Although a different scintillation cocktail is used, this is basically how radon in well water is measured.

mrem or millirem is one thousandth (1/1000) of a rem. The rem is defined below.

milliRoentgen (mR) is one thousandth (1/1000) of a Roentgen, which is defined below.

pCi/kg is an acronym for a pico-curie per kilogram, which is a concentration unit that defines how much radioactivity is present in a unit mass, such as a kilogram. A “pico” is a scientific prefix for an exponential term that is equivalent to one trillionth (1/1,000,000,000,000).

pCi/L is an acronym for a pico-curie per liter, which is a concentration unit that defines how much radioactivity is present in a unit volume, such as a liter.

Rem is an acronym for roentgen equivalent man. It is a conventional unit of dose equivalent that is based on how much of the radiation energy is absorbed by the body multiplied by a quality factor, which is a measure of the relative hazard of energy transfer by different particles, (alpha, beta, neutrons, protons, etc.), gamma rays or x-rays. In comparison the average natural background radiation dose equivalent to the United States population is estimated to be 292 millirems per year, or 0.8 millirem per day, with 68 % of that dose coming from radon. A millirem is one thousandth, (1/1000), of a rem.

Roentgen is a special unit of exposure named after the discoverer of X-Rays, Wilhelm Roentgen. It is a measure of how much ionization is produced in the air when it is bombarded with X-Rays or Gamma Rays. Ionization is the removal of an orbital electron from an atom.

Skyshine is radiation from a radioactive source that bounces off air molecules in the sky, much like a cue ball does off the banking of a billiard table, and is scattered/redirected back down to the earth.

Thermoluminescent Dosimeters (TLD) are very small plastic-like phosphors or crystals that are placed in a small plastic cage and mounted on trees, posts, etc. to absorb any radiation that impinges on the material. Special readers are then used to heat the plastic to release the energy that was stored when the radiation was absorbed by the plastic. The energy released is in the form of invisible light and that light is counted by the TLD reader. The intensity of the light emitted from the crystals is directly proportional to the amount of radiation that the TLD phosphor was exposed to.

Tritium (Hydrogen-3 or H-3) is a special name given to the radioactive form of Hydrogen usually found in nature. All radioactive elements are represented as a combination of their chemical symbol and their mass number. Therefore, Tritium, which is a heavy form of the Hydrogen molecule with one proton and two neutrons in the nucleus of its atom, is abbreviated and represented by its chemical symbol, H, for Hydrogen and 3 for the number of particles in its nucleus, or mass number. Similarly, other radioactive elements, such as Potassium-40, can be represented and abbreviated as K-40, and so on.

Addendum

Historical Perspectives

Independent Spent Fuel Storage Installation (ISFSI)

In 1998 the Department of Energy (DOE) was required to take title and possession of the nation's spent nuclear fuel as mandated by the Nuclear Waste Policy Act (NWPA) of 1982. When the NWPA was enacted, Congress assumed that a national repository would be available for the disposal of the spent fuel. Since the licensing and construction of the high level waste repository at Yucca Mountain in Nevada had experienced significant delays, DOE is currently projecting that the Yucca Mountain site will not be available until at least the year 2020 or later.

DOE's inaction prompted Maine Yankee to construct an ISFSI during decommissioning to store the more than 1434 spent fuel assemblies that were previously housed in the spent fuel pool in the plant, into 60 storage casks on-site. Another four casks contain some of the more radioactive components of the reactor internals that were cut up during decommissioning, since their radioactive concentrations were too high to dispose at a low level radioactive waste facility. These are expected to be shipped along with the spent fuel to the Yucca site should the repository open. Since then the Obama Administration and Energy Secretary Chu have advocated that the Yucca Mountain site is no longer a viable option for disposing of the nation's high level waste and spent nuclear fuel and plan to assemble a Blue Ribbon Panel of experts to review alternative strategies for managing these waste forms.

Environmental

Since 1970 the State has maintained an independent, radiological environmental monitoring program of the environs around Maine Yankee. Over the years there was an extensive quarterly sampling and analysis program that included such media as salt and fresh water, milk, crabs, lobsters, fish, fruits, vegetables, and air. Since the decommissioning the State's program has been reduced twice to accommodate decreased revenues for sample analyses at the State's Health and Environmental Testing Laboratory (HETL). Presently, the State monitors one freshwater location, one saltwater and seaweed location, and one air sample location. The State maintains a quarterly sampling regimen, except for the air sample, which is performed bi-weekly near the old Bailey Farm House. Besides the media sampling, over the years the State has maintained a robust thermoluminescent dosimeter (TLD) program to measure the radiation environment. The TLDs were placed within a 10 to 20 mile radius of the plant to measure the background radiation levels and later, when the plant was operating, any potential increases in background levels due to plant operations. Over time the number of TLDs nearly doubled to address public concerns over the clam flats in Bailey Cove and the construction of the ISFSI. After the plant's decommissioning the State reduced the number of TLDs around Bailey Cove, but maintained the same number for the environmental surveillance of the ISFSI. A further evaluation of reducing the State's radiological environmental monitoring program is planned for the fall of 2009.

Maine Yankee Decommissioning

Maine Yankee's decommissioning was completed in the fall of 2005. At that time the State Nuclear Safety Inspector (SNSI) also commenced his final walk down survey of the site. Certain areas such as the transportation routes exiting the plant site were surveyed after the plant industrial area was decommissioned. Due to the length of the egress routes, it took a considerable amount of time to complete both half-mile east and west access routes and the two thirds of a mile of the railroad track. In addition, seven specific areas, including the dirt road, were also examined as part of the final site survey. The State's final survey of the dirt road leading to the old softball field

was extended in the fall of 2007 when the State discovered three localized elevated areas on the road that were contaminated. At that time, extensive bounding samples were taken to determine the extent of the contamination.

Because of the State's findings the original Class III designation of little or no potential for small areas of elevated activity was deemed incorrect. Therefore, the Dirt Road systematic sampling was necessary to ensure that all the State's findings would still pass Maine Yankee's License Termination Plan (LTP) Class I criteria. The State and Maine Yankee findings both indicated that the random concentration of the Cesium-137 was low and comparable to what is normally found in nature from past weapons testing during the 1950's and 1960's. On October 31st the State issued a letter to Maine Yankee stating that, based on the recent systematic sampling and bounding efforts on the elevated areas, the results demonstrated that Maine Yankee had met its Class I LTP criteria. Therefore, the State concluded that there were no further outstanding issues relative to the Dirt Road and considered the issue closed. Even though some residual radioactivity remains, due to the localized nature of the contaminant and the restricted security access to the site, the contamination found does not present a public health hazard.

With the closure of the Dirt Road, the only remaining walk down survey left to be performed on-site is the portion of the East Access Road adjacent to the ISFSI bermed area. This area remains as the background radiation levels from the ISFSI were initially too high to survey, (greater than 30,000 counts per minute), and could mask potential elevated areas. Since then the State has been monitoring the levels every spring and has observed a steady decrease in the ambient radiation levels down to 25,000 counts per minute (cpm). When the levels reach about 20,000 cpm the area will be surveyed to close out all transportation routes at the Maine Yankee site.

The State will publish its decommissioning findings in a confirmatory summary that is expected in October of 2009. As part of that process the State will condense over 40 major survey areas into eleven confirmatory reports that are being worked on by an outside consultant. The independent consultant has been collecting all the State's findings and summarizing them in confirmatory reports that the State Nuclear Safety Inspector will use to complete the State's confirmatory summary.

Groundwater Monitoring Program

In June of 2004, the State, through the Department of Environmental Protection's (DEP) authority under 38 MRSA §1455, signed an agreement with Maine Yankee for a five year, post decommissioning radiological groundwater monitoring program at the site. Presently, the program is in its fourth year. The details of how the agreement would be carried out relative to the quality assurance facets of the monitoring, sampling and analyses would be captured in Maine Yankee's Radiological Groundwater Monitoring Work Plan.

The normal sampling regimen for the groundwater monitoring program is March, June and September of each year. However, since the first sampling took place in September of 2005, the annual sampling constitutes the September sampling of the current calendar year and finishes with the June sampling of the following year.

It should be noted that the Agreement between the State and Maine Yankee set an administrative limit of 2 mrems per year per well as a demonstration that it has met the State's groundwater decommissioning standards of a 4 mrem dose per year above background values. If a well exceeds the 2 mrem value after the five year monitoring program ends, Maine Yankee would allow the State to continue monitoring that well. To-date fifteen of the sixteen wells sampled have not exceeded one tenth of the limit, or 0.2 mrems/yr. Only well number MW-502 has come close to exceeding the 2 mrems administrative limit and that was back in March of 2006 when the dose was 1.96 mrems. Since then the Tritium in this well has been steadily decreasing. It is expected that this well will remain elevated for some time as the water infiltration rates are very low. Consequently, the decrease will be slow and steady.

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December 16, 2009

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

Dear Secretary Chu:

We are writing regarding your announced intention to appoint a Blue Ribbon Commission to examine alternatives to the current federal program for managing and disposing of spent nuclear fuel and high-level radioactive waste. We hope this initiative will lead to the development of a sustainable, long-term policy that appropriately recognizes and balances national, regional, and state interests.

As you know, New England is home to three permanently shut down single unit reactor sites. At each of these sites, all decommissioning and site restoration activities have been completed in areas removed from the Nuclear Regulatory Commission license for each site. Spent nuclear fuel storage areas and activities remain licensed by the Nuclear Regulatory Commission. Accordingly, all three sites could be fully returned to the benefit of the local communities, but for the fact that the used nuclear fuel and high level radioactive waste has not been removed by the federal government as required by law and contract. In addition, the ratepayers of New England continue to pay tens of millions of dollars annually for the continued storage of such material at both decommissioned and operating nuclear reactor sites. We would further note that all of the nuclear waste material at these sites is stored in dual-purpose canisters that have been licensed by the Nuclear Regulatory Commission for transportation.

There is growing consensus that the expedited removal and consolidation of spent nuclear fuel and high-level waste from decommissioned reactor sites is sound public policy. The Department of Energy has heard this message from, among others: members of New England's Congressional delegation; the New England Council; the Maine Public Utilities Commission; the National Association of Regulatory Utility Commissioners; the National Conference of State Legislatures; the National Commission on Energy Policy; the American Physical Society; the National Research Council; and the Nuclear Waste Strategy Coalition.

We also request that you direct the Blue Ribbon Commission to develop policy alternatives and recommendations that will lead to the removal of the spent nuclear fuel and high level waste stored at decommissioned and operating reactor sites at the earliest possible date. As you know, the Nuclear Regulatory Commission generally licenses canisters for spent nuclear fuel storage for only 20 years. After this time the Nuclear Regulatory Commission must review the storage system and may only relicense canisters for additional 20 year periods. This uncertainty in the

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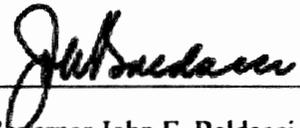
Governor
JAMES H. DOUGLAS
Vermont

storage time for the canisters presents the potential for significant safety and environmental issues if a system fails to receive relicensing for decommissioned reactor sites that no longer have the ability to move spent nuclear fuel and high level waste between canisters.

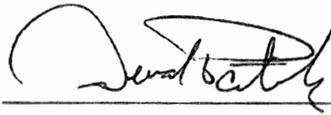
We are pleased to learn that you recently stated your intention to appoint a Commission member with experience managing spent nuclear fuel at decommissioned reactor sites. It is crucial that this type of expertise be represented on the Commission.

Thank you for considering our views as you approach this most important task.

Sincerely,



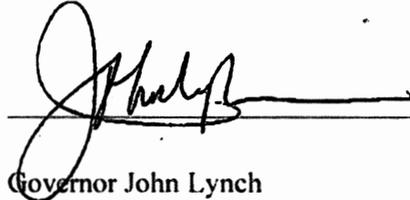
Governor John E. Baldacci, Chair
Maine



Governor Deval L. Patrick, Vice Chair
Massachusetts



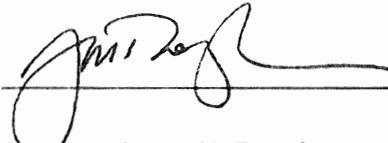
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December 17, 2009

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

Subject:

1. **Engage Local Communities and Governments on High-Level Waste Decisions and Impacts**
2. **Analyze the Impact of DOE's decision to Leave Defense High-Level Waste in Communities**
3. **Appoint a Local Government Official to the Blue Ribbon Panel**

Dear Secretary Chu:

The U.S. Department of Energy (DOE) has announced that the current Administration no longer plans to dispose of high-level waste at Yucca Mountain. Local communities have been assured that DOE is committed to pursuing alternatives to Yucca Mountain, DOE will study the alternatives through a "Blue Ribbon" panel and that DOE remains committed to meeting its obligations for managing and ultimately disposing of spent nuclear fuel and high-level radioactive waste. Energy Communities Alliance (ECA), the organization of the local communities adjacent to and impacted by DOE facilities, believes that **DOE should formally engage local communities and governments in a dialogue at the national level on the future of spent nuclear fuel and high-level waste in their communities.**

Prior to these DOE announcements, local communities that host DOE activities accepted high-level nuclear waste from other states and sites assuming that they would store the waste only temporarily while Yucca Mountain was being built. These communities supported the defense missions and accepted DOE's commitments about the future of the waste—they did not believe that they would become long-term repositories for high-level nuclear waste. The Administration's new position in regards to Yucca Mountain changes the terms of these agreements.

ECA calls on DOE to do the following:

1. Engage Local Communities and Governments on High-Level Waste Decisions and Impacts

As the communities most affected, ECA is calling on DOE to formally engage the local communities and governments in a dialogue on the future of spent nuclear fuel and high-level radioactive waste in their communities. Over the past several years DOE has made several commitments to local communities—primarily, that high-level radioactive waste in local communities will be stored only temporarily and will then be moved to Yucca Mountain for

permanent disposal. Now DOE is essentially telling communities that they may become long-term storage sites for this high-level radioactive waste.

ECA believes that any decision made by DOE should take into account the impact on the states, tribes and local governments that currently host DOE sites with defense waste. **DOE should engage in a formal dialogue with these local community representatives prior to making any decisions regarding high-level waste disposal/storage at sites that have already accepted waste or where waste is being stored. A formal meeting hosted by DOE would provide an opportunity for community representatives to express their concerns about the future of high-level waste.**

2. Analyze the Impact of DOE's Decision to Leave Defense High-Level Waste in Communities

As you know, defense high-level radioactive waste is self-regulated by the DOE. Neither the U.S. Environmental Protection Agency nor the state regulators have authority over these wastes. In the past, the communities have not raised concerns since DOE assured them that both the storage and processing of the waste was safe and temporary. However, some within DOE now are telling ECA that DOE is planning to actively amend agreements with states on the storage of this waste. This will affect local communities all around the country. **Since DOE has not studied the impacts nor engaged our communities regarding the impacts, ECA believes that the discussion needs to start now.** For example, Yucca Mountain is going through a Nuclear Regulatory Commission licensing action but its termination may be imminent. Is DOE now considering opening itself to third party regulation to ensure protection of our communities and the environment? Does DOE know if its decision impacts the safety of our communities? DOE owes local communities answers to this kind of question.

In order to answer these questions, **DOE should begin to analyze the safety and the impact on the environment as a result of these decisions. DOE should provide local governments with grants to hire third party technical assistance to analyze the impacts on our communities.** Communities believe that the analysis of long term storage at our sites should be as comprehensive as the studies completed for Yucca Mountain. Communities expect that the proper environmental impact studies will be performed at sites that may be forced to store high-level waste for an extended period of time.

3. Appoint a Local Government Official to the Blue Ribbon Panel

The local governments around the DOE sites have asked for a seat at the table on the "Blue Ribbon" panel since the communities host spent nuclear fuel and high-level radioactive waste storage facilities. However, to date we have not received a response from DOE on our request. ECA is concerned that without a local government representative, communities will not have sufficient representation in high-level waste decisions. ECA has heard rumors that the panel will consist of mostly scientists and academics. ECA is concerned that the panel will lack the understanding and knowledge of how a site operates. Without a local government representative the main concerns of communities around the sites might be ignored. An ECA

representative on the panel would represent all local communities and governments and ensure that their concerns are considered by the panel.

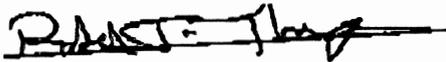
Of the current options for consideration – interim storage, reprocessing/recycling, permanent geologic disposal - all will impact local governments and all will ultimately need support from local communities at both sender and receiver sites to be fully and successfully pursued. Two key factors contributing to the successful siting and operation of the Waste Isolation Pilot Plant were the local community's early support for hosting the repository, and DOE's engagement with affected communities through a process that heavily involved local communities and governments around the country (and ECA).

Conclusion

ECA is very knowledgeable on these defense high-level waste issues and has worked with communities, DOE, Congress and industry - most recently on discussions of reprocessing and interim storage. ECA hopes to continue our work with you to find a sustainable path forward that is both environmentally sound and in the taxpayers' best interest. ECA believes a meeting with local community representatives and the appointment of an ECA local government member on the proposed Blue Ribbon panel are critical first steps in finding a solution for the disposal of high-level waste.

If you have any questions, please contact me or Seth Kirshenberg, Executive Director, at Energy Communities Alliance at 202-828-2494.

Sincerely,



Robert Thompson, Chair
Energy Communities Alliance,
Council Member, Richland, WA

cc: Energy Communities Alliance Board of Directors
Deputy Secretary Poneman, DOE
Administrator Thomas D'Agostino, National Nuclear Security Administration
Assistant Secretary Inés Triay, DOE-EM
Dr. David Miller, Office of Nuclear Energy, DOE
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Senator Robert Bennett, Ranking Member, Senate Committee on Appropriations Subcommittee on Energy and Water Development
Senator Jeff Bingaman, Chair, Senate Committee on Energy and Natural Resources
Senator Lisa Murkowski, Ranking Member, Senate Committee on Energy and Natural Resources
Senator Carl Levin, Chair, Senate Armed Services Committee

Senator John McCain, Ranking Member, Senate Armed Services Committee
Representative Peter Visclosky, Chair, House Committee on Appropriations
Subcommittee on Energy and Water Development
Representative Rodney P. Frelinghuysen, Ranking Member, House Committee on
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Representative Henry Waxman, Chair, House Committee on Energy and Commerce
Representative Joe Barton, Ranking Member, House Committee on Energy and
Commerce
Representative Ike Skelton, Chair, House Armed Services Committee
Representative Howard McKeon, Ranking Member, House Armed Services Committee
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FOR IMMEDIATE RELEASE
RELEASE DATE: December 18, 2009

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ATTORNEY GENERAL MASTO ANNOUNCES NRC ADOPTION OF NEW TRANSPORTATION SECURITY REQUIREMENTS

Move Is Long-Delayed Victory for Nevada

Carson City: Attorney General Catherine Cortez Masto has announced new regulations governing the transportation of spent nuclear fuel shipments.

More than two years before the September 11, 2001 terrorist attacks, the State of Nevada undertook an in-depth evaluation of the potential for terrorist attacks against spent nuclear fuel shipments. Nevada's evaluation documented the vulnerability of spent fuel shipments using information readily available from public sources.

In June 1999, as a result of that evaluation, the Nevada Attorney General's office petitioned the U.S. Nuclear Regulatory Commission (NRC) seeking amendments to regulations governing the safety of SNF shipments and for a comprehensive assessment of the consequences of terrorism and sabotage. The Western Governors Association endorsed the petition on behalf of 18 western states, and five other states (LA, MI, OK, VA, & WV) also endorsed all or part of the petition.

"After more than 10 years, NRC belatedly responded to Nevada's petition and proposed new rules which will adopt most of Nevada's requested actions," stated Nevada Attorney General Catherine Cortez Masto. "Our sensitivity concerning the transportation of nuclear waste has changed dramatically since 9/11 and the public needs adequate protection and a responsive, responsible NRC."

NRC's proposal for rulemaking recommends adopting five of the seven regulatory changes requested by Nevada. These changes would significantly improve security by:

- clarifying and expanding the definition of "radiological sabotage;"
- adopting route approval measures that would minimize movement of SNF through highly populated areas;
- requiring armed escorts for the entire route for truck shipments;

- requiring armed escorts for the entire route for rail shipments; and
- requiring additional planning and scheduling to avoid unnecessary delays and stops and ensure early involvement of affected states in selection of shipping routes.

NRC denied certain parts of Nevada's requests, including a request for a reevaluation of the Design Basis Threat (the threat scenario used in judging whether protective measures are adequate to protect the public); a request for a comprehensive assessment of terrorism consequences; and a request that the use of dedicated trains for spent fuel shipments by rail be made mandatory. Even these denials, however, reflect NRC's acknowledgement of the legitimacy of Nevada's petition.

The denial of Nevada's request for public reexamination of the Design Basis Threat was based on security considerations and does not dispute Nevada's argument that shipping casks are vulnerable to certain types of weapons and attack scenarios.

The denial of Nevada's request for a comprehensive assessment of terrorism consequences was likewise based on procedural and security considerations and is offset by NRC's decision to admit six Nevada contentions (or challenges) dealing with the same transportation terrorism and sabotage issues in the Yucca Mountain licensing proceeding. DOE has acknowledged the vulnerability of shipping casks to sabotage events in the 2008 Yucca Mountain Supplemental Environmental Impact Statement.

NRC's denial of Nevada's request for mandatory dedicated trains for rail shipments of SNF, a major issue in 1999, is less significant now that the utilities and DOE have subsequently (and largely in response to pressure from Nevada, other states and regional groups) declared their intention to use dedicated trains voluntarily.

"Our one major disappointment is that DOE's SNF shipments are exempt from NRC safeguards regulations," said Attorney General Mastro. "Because the Nuclear Waste Policy Act does not specifically require it, NRC has indicated that its safeguards regulations would not apply to shipments to Yucca Mountain or any future federal repository site."



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

October 27, 2009

The Honorable Nancy P. Pelosi
Speaker of the House
United States House of Representatives
Washington, DC 20515

The Honorable Robert C. Byrd
President Pro Tempore
United States Senate
Washington, DC 20510

The Honorable Steven Chu
Secretary
United States Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Speaker Pelosi, Senator Byrd, and Secretary Chu:

This letter is intended to update Congress and the Secretary of Energy on the U.S. Nuclear Waste Technical Review Board's mission, continuing role, and refocused goals as the U.S. approach to managing spent nuclear fuel and high-level radioactive waste (HLW) is evolving. The letter is issued in accordance with provisions of the Nuclear Waste Policy Amendments Act of 1987, Public Law 100-203, which direct the Board to report to Congress and the Secretary of Energy at least two times each year.

The Board's Mission

The Board was established as an independent agency in the executive branch in the 1987 amendments to the Nuclear Waste Policy Act. As described in the legislative history, the purpose of the Board is to provide independent expert advice to Congress and the Secretary of Energy on technical issues and to review U.S. Department of Energy (DOE) efforts to implement the nuclear waste program. Several elements of the Board's congressional mandate combine to make the Board unique among federal agencies: (1) the Board is independent; (2) the Board advises both Congress and the Secretary of Energy on technical issues; and (3) the Board performs an ongoing and integrated technical peer review of all DOE activities related to managing spent nuclear fuel and high-level radioactive waste, including waste acceptance, transportation, packaging and handling, facility operation and design, and waste storage and disposal.

The Board's Continuing Role

For the last 20 years, DOE has focused on developing a permanent geologic repository at Yucca Mountain in Nevada. During that time, the Board has reported on the technical validity of DOE's efforts to Congress and the Secretary of Energy in twice yearly reports, in testimony, and in correspondence. The Administration recently indicated its intention to terminate funding for the Yucca Mountain repository program and to appoint a Blue Ribbon Commission to consider alternatives for nuclear waste management. As Secretary Steven Chu has observed, even as new options for managing nuclear waste are evaluated, DOE continues to have responsibility under existing law for the long-term management and disposition of DOE-owned spent nuclear fuel and HLW and for the disposition of spent nuclear fuel from commercial reactors. Similarly, the Board's statutory responsibility for conducting ongoing technical peer review of DOE's waste management efforts and for advising Congress and the Secretary on related issues is unchanged.

Refocusing the Board's Priority Goals

In accordance with its continuing peer review responsibilities, the Board has refocused its priority goals to provide technical findings and information that can be used by Congress, the Secretary of Energy, and a Blue Ribbon Commission in evaluating alternatives for managing nuclear waste. The Board also will continue reviewing DOE's ongoing nuclear waste management activities. Issues on which the Board will focus include the technical implications of very long-term dry storage of commercial spent nuclear fuel, the characteristics and inventories of DOE-owned spent nuclear fuel and HLW, and the characteristics and quantities of waste associated with adopting alternatives for spent nuclear fuel management that include reprocessing and recycling. The Board also is developing a capability to analyze the effects of various waste management approaches on the waste management system.

Based on the activities described above and on others planned for the future, the Board will create information products that can inform, from a technical perspective, the discussion of waste management alternatives. In addition, the Board will soon issue a report to Congress and the Secretary that is a survey of the nuclear waste management approaches used by 13 countries, including the United States. The survey, which is a compilation of basic information, will be followed by a report on "lessons learned" from experiences in the United States and other countries. A list of the Board's priority goals and their associated tasks is enclosed with this letter.

The Board looks forward to providing objective technical information that will support the decision-making process as alternatives for managing nuclear waste are considered.

Sincerely,

{Signed By}

B. John Garrick
Chairman

Enclosures

NUCLEAR WASTE TECHNICAL REVIEW BOARD PRIORITY GOALS

At its June 2009 public meeting in Las Vegas, Nevada, the U.S. Nuclear Waste Technical Review Board's Chairman, Dr. B. John Garrick, articulated three priority goals that are intended to focus and direct the Board's future work. Since that meeting, the Board has made significant progress in implementing the goals. The following is a discussion of what the Board has accomplished with respect to each of the priority goals and what it plans to do in the future.

Goal 1. The Board will develop and compile objective technical information to inform the evaluation of waste management alternatives by Congress, the Secretary of Energy, and a Blue Ribbon Commission. In developing such information, the Board will look broadly at an integrated waste management system and potential waste management alternatives. Specific tasks related to this goal are described below.

A. Systems Analysis. The Board recently began development of a computerized model of various U.S. alternatives for nuclear waste management and disposal. The model has been designed with sufficient flexibility so that it can represent a wide range of nuclear technologies, separation processes, and implementation time frames. The resulting analyses will enable the Board to provide Congress, DOE, a Blue Ribbon Commission, and other interested parties with an assessment of the technical implications of various alternatives under consideration. Such assessments will include issues associated with on-site and centralized interim storage as well as transportation and final disposition.

B. "Stranded" DOE Spent Nuclear Fuel and High-Level Radioactive Waste (HLW). The termination of the Yucca Mountain repository program leaves thousands of tons of government-owned spent nuclear fuel and HLW with no place to go—at least temporarily. The wastes, which are mostly from defense-related activities, are stored primarily at Hanford in Washington, at Idaho National Laboratory in Idaho, and at the Savannah River Site in South Carolina. Much of the waste is subject to legal agreements between the federal government and the respective states. The agreements include timely transportation off the site to a final disposal location. The Board visited Hanford recently to ascertain the amounts and characteristics of such wastes at that site and the plans for disposition of the wastes under current legal agreements. Board meetings with the same objectives are scheduled for January 2010 and June 2010 at the Savannah River Site and Idaho National Laboratory, respectively. The Board intends to hold more meetings of this kind, including a trip to the West Valley Demonstration Project in the state of New York that is planned but not yet scheduled. A report that summarizes the amounts and characteristics of the waste, discusses the alternatives under consideration for their management and disposition, and identifies technical issues that need to be resolved will be prepared after the Board completes its planned site visits.

C. Very-Long-Term Dry Storage. A likely consequence of a decision not to proceed with the Yucca Mountain repository program is that commercial spent nuclear fuel will remain in storage for periods that may be much longer than previously anticipated. In late FY 2009, the Board convened a panel of experts to discuss research and data needs for very-long-term dry storage of commercial spent nuclear fuel. On the basis of those discussions and its own research, the Board is preparing a “white paper” on technical needs for very-long-term dry storage. The Board expects the results of this effort to serve as a framework for evaluating DOE technical activities related to long-term dry storage and for advising Congress, the Secretary, and a Blue Ribbon Commission.

Goal 2. The Board will compile information gained from its extensive experience with the U.S. nuclear waste program and from observing waste management efforts in other countries. Specific tasks related to this goal are described below.

A. Survey of National Programs. Over the years, the Board has visited several countries whose long-term waste management programs are relatively mature. The Board visited Finland’s underground research laboratory (URL) in the construction phase and has gone into URLs in Belgium, Canada, France, Germany, Sweden, and Switzerland. The Board also has exchanged information and discussed with international scientists and engineers the technical challenges of developing a repository in a variety of host rocks, including granite, salt, clay, and argillite. In addition, the Board has visited facilities and held detailed technical exchanges with operators of reprocessing plants in France and Japan and has investigated technical issues associated with developing centralized interim-storage facilities for spent nuclear fuel in Germany, Switzerland, and Sweden. In November 2009, the Board will travel to the United Kingdom, where it will meet with officials from the Nuclear Decommissioning Authority, talk with local community participants in the United Kingdom’s “Managing Radioactive Waste Safely” initiative, and visit the reprocessing facilities at the Sellafield site.

In the next few weeks, the Board will issue a report entitled, *Survey of National Programs for Managing High-Level Radioactive Waste and Spent Nuclear Fuel*. In the document, the Board provides up-to-date factual information to Congress and the Secretary of Energy about the wide range of institutional arrangements and technical approaches that have been adopted in 13 countries.

B. Study of “Lessons Learned.” On the basis of its experience and understanding of waste management programs in other countries, its in-depth technical reviews of the Yucca Mountain Project, and the *Survey of National Programs for Managing High-Level Radioactive Waste and Spent Nuclear Fuel*, the Board will perform a study that focuses on lessons learned. This effort will explore the technical and scientific aspects of nuclear waste management and disposal, including the generic and specific issues associated with the various media that have been considered worldwide for developing a deep geologic repository. The Board’s technical expertise and its 20-year history of performing objective technical analysis will enable it to make a unique contribution to the national discussion of alternative strategies for waste management and to provide advice on implementing whatever strategy is subsequently adopted.

C. Source Term. As part of its examination of lessons that can be taken from the U.S. repository program and applied to any potential future repository, the Board is preparing a paper that describes the application of risk assessment to repository performance by identifying the source term and the movement of radionuclides significant to dose through geologic barriers.

Goal 3. To the extent that DOE engages in new technical work related to managing and disposing of high-level radioactive waste and spent nuclear fuel, the Board will continue to monitor and evaluate that work and report on the technical validity of the work to Congress and the Secretary. Specific tasks related to this goal are described below.

A. Office of Nuclear Energy. DOE's Office of Nuclear Energy (NE) fuel-cycle research and development program has an ongoing advanced fuel-cycle initiative program underway to explore alternatives to fuel cycles and associated waste management strategies. The Board will evaluate the technical validity of activities that are being conducted under the auspices of the fuel-cycle research and development program in the waste management area. In particular, the Board will carefully scrutinize whether data developed in laboratories and pilot plants are consistent with predicted effects on waste management and disposal.

Most of the Board's September 2009 public meeting focused on proposals from vendors on closing the nuclear fuel cycle. The proposals were sponsored by NE under the former Global Nuclear Energy Partnership program. The discussions at the September 2009 meeting will help the Board formulate a specific set of technical issues for exploring in depth in the future. (See Goal 1A)

B. Corrosion. Deliquescence-induced localized corrosion and general corrosion rates long have been technical issues of interest to the Board and may be important to other options for permanent underground disposal or for long-term dry storage of spent nuclear fuel and high-level radioactive waste. Several Board members and staff are scheduled to visit Sandia National Laboratory in December 2009 to observe and discuss work that has been undertaken on those issues. The Board will report on its findings and recommendations related to the current program in its next summary report to Congress and the Secretary. These issues will be part of the Board's examination of lessons that can be learned about the engineered system from the experience of the U.S. program.

C. Office of Environmental Management. In contrast to the HLW at Hanford and Savannah River, which is mostly in liquid or sludge form in tanks, most of the high-level waste at Idaho National Laboratory is in a solid, granular form in bins. There is a question about how much additional treatment this waste needs, if any, to be a suitable waste form for disposal in a geologic repository. Options include: (1) no additional treatment, (2) mixing the waste with cement, (3) hot isostatic pressing, and (4) vitrification. In the coming year, the Board intends to examine the technical bases and process for selecting the preferred option. This will guide future work that will be undertaken by the Board, as discussed below.

Most DOE-owned spent nuclear fuel is in dry storage or soon will be moved to dry storage. All vitrified high-level radioactive waste is in dry storage. The Board plans to evaluate the design bases for dry-storage facilities, beginning with the facilities at Savannah River. The objective of the evaluation will be to determine whether the design bases are suitable for supporting longer facility lifetimes and what additional data or analyses are needed.

D. Office of Civilian Radioactive Waste Management. Virtually no new technical work is being undertaken by the Office of Civilian Radioactive Waste Management (OCRWM). OCRWM has several approved but unfunded programs that are applicable to any repository. Chief among them are burnup credit and waste form programs. If new work is funded and undertaken, the Board will evaluate the technical validity of that work.

U.S. NUCLEAR WASTE TECHNICAL REVIEW BOARD Members

The Board is nonpartisan and apolitical. Its 11 members are appointed by the President from a list of nominees submitted by the National Academy of Sciences (NAS). The NAS makes its nominations solely on the basis of the eminence and expertise of the candidates in relevant scientific and engineering disciplines.

B. John Garrick, Ph.D., P.E., is Chairman of the Board. A founder of PLG, Inc., he retired from the firm in 1997 and is a private consultant. His areas of expertise include nuclear science and engineering, specializing in probabilistic risk assessment and the application of the risk sciences to natural and engineered systems.

Mark D. Abkowitz, Ph.D., is professor of civil and environmental engineering at Vanderbilt University and director of the Vanderbilt Center for Environmental Management Studies. His areas of expertise include the strategic and operational deployment of intelligent transportation systems, enterprise risk management methods and practices, and assessing the impacts of energy choices and climate change.

William Howard Arnold, Ph.D., P.E., is a private consultant with long experience as a top executive in the nuclear industry. He retired from a 40-year career, first with Westinghouse and then with Louisiana Energy Services, in 1996. He holds a doctorate in physics and has special expertise in nuclear project management, organization, and operations.

Thure E. Cerling, Ph.D., is Distinguished Professor of Geology and Geophysics and Distinguished Professor of Biology at the University of Utah. His areas of expertise include field geology, isotope geology, and geochemical processes occurring near the Earth's surface.

David J. Duquette, Ph.D., is John Tod Horton '52 Professor of Engineering in the Department of Materials Science and Engineering at Rensselaer Polytechnic Institute. His areas of expertise include the physical, chemical, and mechanical properties of metals and alloys.

George M. Hornberger, Ph.D. is a Distinguished University Professor at Vanderbilt University where he is Director of the Vanderbilt Institute for Energy and Environment. He also is the Craig E. Philip Professor of Engineering and a Professor of Earth and Environmental Sciences there. His areas of expertise include catchment hydrology and hydrochemistry and transport of solutes and colloids in geologic media.

Andrew C. Kadak, Ph.D., is Professor of the Practice in the Nuclear Science and Engineering Department at the Massachusetts Institute of Technology. His areas of expertise include fundamental nuclear engineering, reactor operations, and the development of advanced reactors.

Ronald M. Latanision, Ph.D., is emeritus professor of materials science and engineering and of nuclear engineering at the Massachusetts Institute of Technology and a Corporate Vice President of the engineering consulting firm, Exponent. His areas of expertise include materials processing and corrosion of metals and other materials in aqueous environments.

Ali Mosleh, Ph.D., is Nicole J. Kim Professor of Engineering, director of the Reliability Engineering Program, and director of the Center for Risk and Reliability at the University of Maryland. His areas of expertise include methods for probabilistic risk analysis and reliability of complex systems.

William M. Murphy, Ph.D., is professor of Geological and Environmental Sciences at California State University, Chico. His research focuses on geochemistry, including the interactions of nuclear wastes and geologic media. He also is a technical administrative judge on the Atomic Safety and Licensing Board Panel of the U.S. Nuclear Regulatory Commission.

Henry Petroski, Ph.D., P.E., is Aleksandar S. Vesic Professor of Civil Engineering and professor of history at Duke University. His areas of expertise include the interrelationship between success and failure in design, the nature of invention, and the history of technology.

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RANKING MEMBER

ENERGY AND WATER DEVELOPMENT

COMMITTEE ON BUDGET

November 19, 2009

The Honorable Steven Chu
U.S. Secretary of Energy
1000 Independence Avenue S.W.
Washington, D.C. 20585

Dear Secretary Chu:

I am writing to you today regarding Department of Energy (DOE) FY2010 funding for the Yucca Mountain licensing application.

The FY2010 Energy and Water Development House Report provided clear direction that the funding provided was to "support the licensing activities on the Yucca Mountain nuclear waste repository." This direction supported the Department of Energy's own budget request which stated that "the OCRWM FY2010 budget request is dedicated solely to supporting to the Nuclear Regulatory Commission license application process at the minimum level practicable." The House Appropriations Committee was even more specific in its report, which required that \$70 million of the appropriated Yucca funding would be "for the management contractor to retain the sufficient legal, scientific and technical expertise necessary to maintain and update the Yucca Mountain license application and its supporting documentation as may be required by the Nuclear Regulatory Commission." The reports clearly demonstrate Congress's determination that DOE should continue its support of the license application even as it explores other waste disposal options.

It has come to my attention that a recent internal Department of Energy document includes a statement indicating that DOE intends to terminate all licensing support activities in December 2009. Not only would such a decision be in direct breach of congressional direction as provided by the Appropriations Committee and approved by Congress, but it would force the Nuclear Regulatory Commission to end its review of the license application, prevent the orderly termination of the licensing process, and potentially trigger numerous lawsuits from the utilities and states currently housing spent nuclear fuel and high-level defense waste.

As a Member of the Energy and Water Subcommittee as well as a Member of Congress representing a high-level waste cleanup site, I am greatly concerned by these rumors. I would strongly urge you to continue the licensing process for Yucca Mountain as directed by Congress. I respectfully ask you to share with me the Department's FY2010 spending plan for the support of the Yucca Mountain licensing application process. In addition, I would appreciate your expeditious response in regards to this memo and DOE's intent to terminate funding for all licensing support activities at the end of this calendar year.

I appreciate your consideration of this request and look forward to your response.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Simpson".

Mike Simpson
Member of Congress