



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

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November 18, 2014

MEMORANDUM

TO: Senator Justin L. Alfond, President of the Senate
Representative Mark Eves, Speaker of the House,
Senator John Cleveland, Co-Chair of the Joint Standing Committee on Energy, Utilities and
Technology
Representative Barry Hobbins, Co-Chair of the Joint Standing Committee on Energy, Utilities and
Technology

FROM: Mary C. Mayhew, Commissioner
Department of Health and Human Services

SUBJECT: 2013 Report to the Legislature on the State Nuclear Safety Inspector's Oversight Activities of the
Maine Yankee Independent Spent Fuel Storage Installation (ISFSI) in Wiscasset, Maine

Legislation enacted in the spring of 2008 requires the State Nuclear Safety Inspector, in cooperation with the Director of the Division of Environmental Health in the Maine Center for Disease Control and Prevention, to prepare an annual report of the State Inspector's activities to the Legislature. The report must be submitted annually to the Legislature with oversight from the Joint Standing Committee on Energy, Utilities and Technology by July 1. The report focuses on activities at the site and includes highlights of the national debate on storing and disposing the used nuclear fuel.

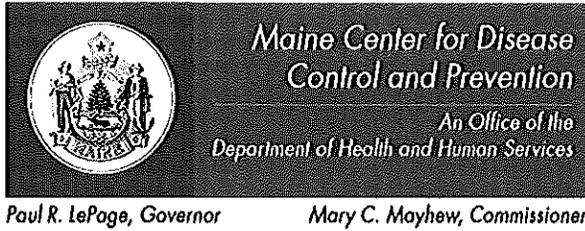
The enclosed report provides the information required under Title 22 of the Maine Revised Statutes Annotated §666, as enacted under Public Law, Chapter 539, in the second regular session of the 123rd Legislature.

Should you have questions about its content, please feel free to contact Mr. Patrick J. Dostie, State Nuclear Safety Inspector, at 287-6721.

MCM/klv

Enclosure

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2013 Report to the Legislature-
on the
State Nuclear Safety Inspector's Oversight Activities
of the
Independent Spent Fuel Storage Installation (ISFSI)
at the
Maine Yankee Site in Wiscasset, Maine

Prepared for
**Joint Standing Committee on
Energy, Utilities, and Technology**
Pursuant to 22 MRSA §666(2)

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Executive Summary

The following report details the State Nuclear Safety Inspector's oversight activities for the calendar year 2013 performed at the Maine Yankee site and the Independent Spent Fuel Storage Installation (ISFSI) in Wiscasset. The State Nuclear Safety Inspector's oversight role includes the following tasks:

- Reviews daily the operational and security reports from the on-site security staff;
- Performs environmental surveillance of the Maine Yankee environs to include field measurements of the local radiation levels;
- Participates in the biennial Nuclear Regulatory Commission inspection of the facility;
- Participates in the ISFSI's annual emergency plan exercise;
- Reports activities monthly and annually to the Legislature;
- Provides an annual accounting to the Legislature of the funds received and disbursed out of the Interim Spent Fuel Storage Facility Oversight Fund;
- Interfaces with various state agencies also performing oversight functions at the ISFSI;
- Reviews and comments, if appropriate, on Maine Yankee submittals to the Nuclear Regulatory Commission;
- Participates in regional and national organizations involved in the Yucca Mountain project in Nevada and the development of a national transportation network for moving used nuclear fuel to consolidated interim storage sites; and
- Investigates and monitors websites to keep abreast of national developments on spent nuclear waste management and research.

The Maine Yankee plant was decommissioned over an eight year period from 1997 to 2005. Because the Department of Energy was unable to fulfill its contractual obligations to accept the spent nuclear fuel by January 1998, Maine Yankee was compelled to construct an ISFSI in Wiscasset to store the high level waste in casks until a consolidated interim facility is constructed to store the waste, or a national repository becomes available to dispose of the used nuclear fuel.

The storage of the high level waste in Wiscasset is an important issue to the State. It creates an undue burden to the local community and State by not being able to reuse or redevelop prime, coastal real estate. Moreover, it sets up a possible terrorist target that could result in future unintended consequences. Furthermore, it potentially imposes on our citizens a de facto high-level waste dump site in Maine. Secretary of Energy Chu's decision to withdraw the Department of Energy's license application before the Nuclear Regulatory Commission, effectively terminating the Yucca Mountain repository, means that the high level waste stored in Wiscasset may be there for 100 years or more, as per the Nuclear Regulatory Commission's 2010 waste confidence update, or, as some fear, potentially indefinitely. However, in June 2012, the U.S. Court of Appeals for the D.C. Circuit vacated the NRC's Waste Confidence Rule since the NRC failed to meet its obligations under the National Environmental Policy Act (NEPA). The Court remanded the Rule back to the NRC to perform an environmental assessment or impact statement for extended storage out to 120 years and beyond. The Commission directed its staff to develop a Generic Environmental Impact Statement (GEIS) to support an updated Waste Confidence Decision and Rule that would address the Court's concerns and meet its NEPA obligations. In September of 2013 the staff published a draft GEIS for comment after extensive stakeholder input and held twelve meetings the remainder of the year throughout the continental U.S. to gather public input on the draft GEIS. The initial conclusion of the draft GEIS was that the anticipated impacts on resources were essentially small in most cases, whether the storage was for 100 years, 240 years or indefinitely.

The President's Blue Ribbon Commission on America's Nuclear Future issued a report in January 2012 that provided a blueprint on how the nation should manage its used nuclear fuel. The Blue Ribbon Commission's

report contained eight essential key elements and proposed six legislative changes to affect its recommendations. Of the eight recommendations, two would be instrumental in moving the used nuclear fuel from the Wiscasset facility. The first is the construction of one or more consolidated interim storage facilities. The second is the provision that used nuclear fuel stranded at decommissioned sites receives first priority in the movement of their spent fuel. In January of the following year, the Department of Energy issued its strategy for the management and disposal of use nuclear fuel and high-level radioactive waste. Their document incorporates some of the Blue Ribbon Commission's key principles such as a consent-based process and a storage and disposal framework for the disposition of the nation's nuclear stockpile. This strategy favors a system that would include a pilot interim storage facility, a larger full-scale storage facility, and a geologic disposal repository with priority given to shut-down reactor sites. However, congressional legislation would be required to enact portions of the Administration's integrated strategy. This has proven difficult as Congress is at an impasse with the House fixated on the Nuclear Waste Policy Act and Yucca Mountain Project while the Senate is more focused on moving beyond Yucca Mountain and enacting new legislation that would embody some of the Blue Ribbon Commission's key recommendations. Even with this stalemate there are some willing communities seeking to host spent nuclear fuel facilities. The community of Carlsbad, New Mexico is seeking to host an interim storage facility to house the nation's nuclear stockpile. The States of Texas and Mississippi are also considering becoming a hot state. Despite State opposition Nye County in Nevada has reaffirmed their commitment to host the Yucca Mountain repository.

This year the federal Court's involvement expanded in the on-going litigation over the Yucca Mountain Project. In August the U.S. Court of Appeals for the District of Columbia Circuit issued its decision and ruled in favor of the writ of mandamus ordering the Nuclear Regulatory Commission to resume the terminated Yucca Mountain Licensing Process. In November the Appeals Court followed suit and issued an Order for the Energy Department to cease collecting the Nuclear Waste Fund fee until such time Yucca Mountain is revived or Congress authorizes an alternative waste management plan.

1.0 Introduction

1.1 Historical Perspective

The State had one nuclear power plant, called the Maine Yankee Atomic Power plant, and it was located in Wiscasset, Maine. It operated from the fall of 1972 to December 1996. The Maine Yankee Plant was initially rated at about 825 megawatts electric or 2440 megawatts thermal and by the end of its life the Maine Yankee plant was producing slightly over 900 megawatts electric.

At the time of its last shutdown in December 1996 the plant owners were facing some major issues, principally cable separation and the aftermath of the Nuclear Regulatory Commission's (NRC) Independent Safety Assessment Team (ISAT) findings pertaining to plant safety systems. The State was a participant in the ISAT process. In 1997 the plant owners decided that the likelihood of the nuclear plant operating at a profit was non-existent in light of Maine's electric restructuring act passed that same year. With the availability of cheaper power from Canada, the plant was no longer considered economically viable. In May 1997 Maine Yankee announced that it would either sell or close the plant if there were no buyers. Even though there was a serious assessment performed by Philadelphia Electric Company to purchase the Maine Yankee plant, in July 1997 both parties could not come to an agreement. In August 1997 the Board of Directors voted to shut down the plant permanently and commence the immediate dismantlement of the nuclear facility. The planning process for the site's decommissioning began shortly after the official closure and the decommissioning lasted nearly eight years.

When the Nuclear Waste Policy Act (NWPA) was enacted in 1982, Congress assumed that a national repository would be available by 1998 for the disposal of the spent fuel. The NWPA mandated the Department of Energy (DOE) to take title and possession of the nation's spent nuclear fuel in 1998. Since the high level waste repository at Yucca Mountain in Nevada had experienced significant licensing and construction delays, DOE was unable to take title and possession of the nation's spent fuel and consequently breached its legal contracts with all the nation's nuclear power utilities.

Early during the Maine Yankee decommissioning it became evident that at DOE's current pace the Yucca Mountain repository would not open at its plan projected start date of 2010. DOE's inaction prompted Maine Yankee to construct an Independent Spent Fuel Storage Installation (ISFSI) during decommissioning to store the 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 of at a low level radioactive waste facility. These are expected to be shipped along with the spent fuel to a deep geologic repository when one becomes available sometime in the future.

Although President Bush recommended to Congress and Congress approved the Yucca facility as the nation's federal repository for spent nuclear fuel in 2002, the DOE did not submit a license application until June of 2008, which was accepted for review by the NRC in September of 2008. Since then, the Obama Administration and Energy Secretary, Dr. Chu, had advocated for the termination of the Yucca Mountain site as it was no longer considered a viable option for disposing of the nation's high level waste and spent nuclear fuel. Energy Secretary Chu had assembled a Blue Ribbon Commission of experts to review alternative strategies for managing these waste forms. In the meantime the nation's spent fuel will remain at their present storage locations until a new management strategy is devised and implemented.

1.2 Law

With the spent fuel at Maine Yankee likely to be stored in Wiscasset for decades to come, in March of 2008, in the second regular session of the 123rd Legislature, the Legislature enacted and the Governor signed into law the establishment of the State Nuclear Safety Inspector Office within the Department of Health and Human Services to provide independent oversight of the Maine Yankee ISFSI. The law also mandated that an Oversight Group, comprised of various state agencies, Maine Yankee and an independent expert in radiological and nuclear engineering, meet on a quarterly basis to discuss the protection of public health and safety at the ISFSI site and be involved in national activities that would hasten the timely removal of the spent nuclear fuel from the site. The law went into effect June 29, 2008. After much discussion, the Oversight Group chose not to hire an independent expert since the Group collectively possessed the necessary expertise.

The following sections contain the State Nuclear Safety Inspector's activities for the 2013 calendar year under certain broad categories covering the ISFSI, environmental surveillance around the Maine Yankee site, remaining pieces of the State's decommissioning efforts, regional and national activities, and newsworthy items on the national repository situation.

2.0 State Nuclear Safety Inspector Activities

2.1 Independent Spent Fuel Storage Installation (ISFSI)

2.1.1 Annual Inspection

The NRC has recently adopted a biennial inspection frequency when it comes to stand alone ISFSI's. Since the Wiscasset facility was inspected in 2012, the next scheduled inspection will be in 2014.

2.1.2 Annual Drills and Exercises

On an annual basis Maine Yankee is required to perform an emergency plan drill, a radiological drill, a medical drill and a fire drill.

On May 22nd Maine Yankee held its annual fire and medical drill. The scenario involved a fire in the truck bay of the Security and Operations Building with a worker overcome by smoke inhalation. The Wiscasset and Westport Island Fire Departments responded along with the Wiscasset Ambulance and the Local Law Enforcement Agencies. Fire hoses were run and fire attack teams were deployed in full gear. It was noted that there was an improved communication between the fire and ambulance crews. The debrief after the drill between the participants and observers was very positive.

In preparation for its annual emergency exercise Maine Yankee conducted on October 1st its annual emergency plan training to state officials at the Maine Emergency Management Agency. The overview consisted of the site's status and spent fuel considerations, emergency classifications, activation of the Maine Yankee emergency response organization, functions performed at the ISFSI control center, and the offsite interface with appropriate local, state and federal organizations.

On October 23rd Maine Yankee held its annual emergency plan exercise with participation from local and state officials. The exercise involved a small single engine plane that crashed into the north berm of the ISFSI and scattered burning debris into the ISFSI causing some cask temperature sensors to read high. The scenario also included some visible chipping of a vertical concrete cask with rebar exposed and increased radiation levels. State Police and the Wiscasset

Police Department were called in and the National Guard was alerted. However, it was determined early on that this was an accident and not a terrorist attack as the pilot had issued a "Mayday" distress call just before the crash. The Wiscasset Ambulance was called in to extract the pilot.

2.1.3 Daily ISFSI Operations Pass-Ons

The on-shift Security Supervisor forwards the ISFSI Pass-On, essentially three times daily, to the State Inspector. The Pass-On provides an overview per shift of the ISFSI status, the cask monitoring status, procedures/surveillances/work in progress, equipment out of service, alarm issues, and team information. It is from these daily reports that the information is collected for condition reports, fire or security related impairments, security event logs and spurious alarms and discussed with the ISFSI Manager prior to its disclosure in the State Inspector's monthly reports to the Legislature.

2.1.4 Maine Yankee Reports to the Nuclear Regulatory Commission (NRC)

In January Maine Yankee submitted revisions 24 and 25 to its Defueled Safety Analysis Report. The changes were mostly editorial in nature. In Revision 24 the first change identified the references to the licensing basis and design specifications for the Greater Than Class C (GTCC) radioactive waste, including the reference to NRC's interim guidance on the storage of GTCC. Additional documents were incorporated by reference such as the cask vendor's Final Safety Analysis Report and the NRC's Amendment number 5 for the Certificate of Compliance for the cask system. In Revision 25 the population and population density numbers were updated based on the 2010 census for the town of Wiscasset and the surrounding communities of Edgecomb, Boothbay, Woolwich, and Westport Island. In addition, statements were added to the beginning of numerous sections that discussed historical information for such topics as local population, land use, meteorology, coastal fog, temperature, precipitation, natural events like tornadoes and hurricanes, surface and groundwater hydrology, oceanographic features, and geology.

In March Maine Yankee submitted its funding status report for managing the used nuclear fuel and greater than class C waste at the site. The report noted that \$73.5 million had been accumulated in the Nuclear Decommissioning Trust Fund as of December 31, 2012 to cover the cost of managing the spent fuel and projected a cost estimate of \$86.7 million to manage the stored fuel through 2023. Maine Yankee reported that they were planning on submitting a revised cost estimate at the end of 2013 to the Federal Energy Regulatory Commission on extending the duration of their spent fuel storage as proposed by the Department of Energy's strategy document to manage the nation's used nuclear stockpile. Maine Yankee noted that it had the ability to cover its projected costs through its owners, through proceeds received for successful damage claims against the Energy Department for its failure to take possession of its spent nuclear fuel, and its investment return on its Decommissioning Trust Fund.

Also in March Maine Yankee submitted its Decommissioning Funding Assurance Report. Maine Yankee explained in the report on how it has segregated its ISFSI decommissioning funds from its ISFSI management costs in a separate account, entitled "ISFSI Radiological Decom". Maine Yankee estimated that \$22.1 million in 2012 dollars would be required to decommission the facility and that it had a balance of \$22.3 million at the end of 2012 in the Nuclear Decommission Trust for the ISFSI radiological decommissioning. All of this was based on an assumed annual escalation rate of 2.5% and after-tax earnings rate on decommission trust funds of 5.5%.

In April Maine Yankee submitted two annual reports. By design there were no gaseous or liquid releases from the ISFSI. Therefore, there was no radioactivity to report in its Annual Effluent

Release Report. In addition, there were no solid waste shipments from the ISFSI site to describe in the Effluent Release Report. The second document, the Annual Radiological Environmental Operating Report, explains the environmental monitoring program. Since there were no effluent releases from the casks, Maine Yankee was only required to monitor the direct radiation exposure from the facility, which it does with passive devices, called thermoluminescent dosimeters (TLDs)¹. There are nine TLD stations situated within a 288 meter (about 945 feet) ring from the center of the ISFSI and one control station at the Wiscasset Fire Station. All nine stations were comparable to or slightly higher than the control station. However, there was one station that was noticeably higher than the other eight ISFSI stations. This location has been consistently high since March of 2005. Due to its distance from the bermed area of the ISFSI, the higher values are assumed to be due to its line of sight and proximity to the ISFSI. Maine Yankee calculated an annual dose of 1.65 mrem² to the worm diggers from the storing of the casks at the Wiscasset facility.

Also in April Maine Yankee submitted its annual individual monitoring report. The report contained the individual dose of each person monitored at the facility for 2012 with the dose broken down by skin, lens of the eye, organ (if appropriate), extremities, and whole body as well as the total dose for the body and organ (if appropriate).

In May Maine Yankee electronically submitted its annual Individual Monitoring Report that describes the occupational radiation exposure record of each individual monitored at the used fuel storage facility in Wiscasset.

In September Maine Yankee submitted its annual Special Nuclear Material (SNM) Report. The report represents the material accountability for fissionable material, such as Uranium-235 and Plutonium-239 on U.S. Government owned or non-U.S. owned nuclear fuel between beginning and ending inventories, radioactive decay differences, if any, and receipts of or removals of SNM. The report also includes source material such as natural Uranium and Thorium.

In December Maine Yankee submitted revision 2 of its Post-Shutdown Decommissioning Activities Report. The report was updated to indicate that Maine Yankee's decommissioning was completed, except for 12 acres remaining that included the ISFSI and a small parcel of land adjacent to the ISFSI. Besides editorial and administrative changes the revision also removed the list of specific low-level waste sites as their future availability was questionable since the decommissioning of the ISFSI could be two decades or more away and highly dependent upon the federal government's removal of the spent nuclear fuel and reactor internals from the site. Moreover, the revision also included Maine Yankee's new cost estimates of \$26.8 million in 2013 dollars for decommissioning the ISFSI in 2033. The revision further concluded that the environmental impacts from the ISFSI decommissioning would be minimal and were bounded by previous assessments.

¹ Thermoluminescent Dosimeters (TLD) are very small plastic-like phosphors or crystals that are placed in a small plastic cage and mounted on trees, telephone poles, 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 that 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.

² A mrem is a conventional unit of dose that describes how much radiation energy was absorbed by a person's body with modifiers applied for the different types of particles or rays.

2.1.5 Security Plan

In May the NRC sent a letter to Maine Yankee granting an amendment to their license changing the title of their Physical Security Plan in their current license to the "Maine Yankee Independent Spent Fuel Storage Installation Physical Security Plan". The original license condition contained three separate documents that encompassed not only physical security but also Maine Yankee's Contingency Plan and the Guard Training and Qualification Plan. All three plans were consolidated into one plan covering all three aspects. Maine Yankee notified the NRC of the revised title change in August. Since the information was security-related no information was available for public disclosure.

2.1.6 Interface with Other State Agencies

As part of the legislation's mandate, on a quarterly basis, the State Inspector and the Manager of the Radiation Control Program, met with State Police, the Public Advocate, the Department of Environmental Protection (DEP) and Maine Yankee to discuss oversight activities at the ISFSI. The quarterly meeting dates were January 29th, April 9th, July 12th and October 8th. At the meetings Maine Yankee provided a status of their activities followed by the State Inspector's update of his past, current and planned near term activities. Discussions also centered on the Group's annual and financial reports to the Legislature, national and congressional efforts on spent fuel waste management, especially centralized interim storage at some away facility outside of New England as opposed to on-site storage, the Federal Energy Regulatory Commission rate case settlement cases pending before the federal Appeals Court, and environmental surveillance at the facility. Other topics included the State Police's tactical equipment status to replace some of its outdated ordnance, Maine Yankee's construction of a maintenance building on-site, neutron measurements at the site, the expiration of flying restrictions over the Maine Yankee site, the 15 year plan to distribute the \$81.7 million from the U.S. Treasury to the ratepayers, the installation of a new vehicle barrier system at the ISFSI, the commencement of Maine Yankee's chemical sampling for DEP's Resource Conservation and Recovery Act mandates, Maine Yankee's efforts to upgrade its security capabilities over the next couple of years, and the status of its litigation in the federal courts.

2.1.7 ISFSI Topics

2.1.7.1 ISFSI Status

The status of the ISFSI was normal for the whole year.

2.1.7.2 Security Related Events/Impairments

Although there were no spurious alarms due to environmental conditions, there were six security related impairments. The first occurred in January and involved the improper labeling of a security cabinet, which was corrected immediately upon discovery. The second involved various alarms being out of service due to a computer hardware issue. Additional measures were instituted until the component was replaced. The third included an internet connection failure due to an off-site system outage. Compensatory measures were put into place until the service provider repaired the system three days later. The last three occurred in November with the first involving the loss of internet connection due to an offsite system outage. Compensatory measures were put into place until the service provider repaired the system within one hour. The second was a similar internet connection issue that was restored three days later. Compensatory measures were instituted in the interim. The third was due to the fire impairment associated with

the improperly closing door. Compensatory measures were put into place until the door closer was replaced.

There were 70 security events logged (SEL) which was much lower than the previous two years' 145 and 142. Of the 70 events logged 56 were related to transient environmental conditions. Of the 14 remaining, one was due to a fire door not latching properly, another had to do with the improper labeling of a security cabinet, one was for a missing key card, another was for not initiating a security event report in a timely manner, one was for the loss of the phone system, one was for the installation of the vehicle barrier system, another was for a short term communication loss with the remote alarm monitoring facility, one was for a computer hardware issue, three were security sensitive and therefore not available for public disclosure. However, they were cleared within one day. The final two were related to the loss of an internet connection and a door closer problem.

2013 witnessed a reversal of the dramatic increase from the previous year on the number of instances that prompted follow-up action with the Local Law Enforcement Agency (LLEA). There were three instances in 2013 as compared to 15 in 2012, six in 2011 versus 15 in 2010 and only two in 2009. The three suspicious instances of vehicles and/or persons occurred in January and February. On the first instance the security staff observed a car at the former East Access Road entrance. The local law enforcement agencies were notified, but by the time they arrived the vehicle had left. Since the individual did not enter Maine Yankee's property, the NRC's Operations Center was not notified. The second was due to an airplane flying over the ISFSI storage facility. It was later discovered through an article written in the Portland Press Herald that a news reporter and a photographer were covering the press release issued by the three Yankee companies on receiving federal monies because of the U.S. Government's default on their spent fuel shipping contracts with the nuclear utilities. Finally, Maine Yankee received a suspicious phone call that it immediately notified the NRC's Operations Center.

2.1.7.3 Fire Related Events/Impairments

There were ten fire-related impairments reported in 2013 as compared to six in 2012 and eleven in 2011. The first occurred in January and involved a fire door not latching reliably when it closed. The latch was lubricated and tested satisfactorily. The second was in April and involved the increased fire loading from paper removed from 18 filing cabinets. The paper was shredded on-site by a contractor. The third was in July and was due to the fire loading in the truck bay from the build-up of paper awaiting the shredding truck.

The next three impairments were in September. The first was due to various alarms being out of service due to a computer hardware issue. Compensatory measures were instituted and the computer component was replaced. The remaining two impairments occurred during a planned maintenance to upgrade an electrical transformer inside the Security and Operations Building. The first resulted in a fire suppression system for the document vault being taken out of service. The second involved a Fire Detection Panel taken out of service. Both were restored later that same day.

The seventh occurred in October and was due to an electrical fault in the fire suppression panel in the document room. The system was immediately taken out of service and compensatory measures initiated. Further troubleshooting revealed a panel transformer problem requiring a complete replacement of the panel. A panel was ordered.

The next two impairments occurred in November. The first was associated with the document control room fire suppression panel. A repair was attempted and it failed again the next day. Compensatory measures were put in place immediately. The entire panel was replaced in December. The second impairment was related to a fire door that was not closing properly. Compensatory measures were instituted immediately and the door closer was replaced three days later.

The final impairment was in December and it was associated with a planned removal of a records storage vault. The paper documents were removed from the storage vault and temporarily stored in the building's truck bay. Periodic fire rounds were instituted until the papers were removed.

2.1.7.4 Condition Reports

There were 163 condition reports written in 2013 as compared to 184 in 2012 and 80 in 2011. A condition report (CR) is 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. The majority of the CR's are administrative in nature. Examples of some CR's written ranged from a missing review signature on a surveillance form to computer server problems to mislabeling of a document cabinet to tracking recommendations from a self-assessment to finding a fluorescent light bulb found broken to using an incorrect revision of a procedure to an insect sting to a worker to an expired employee badge to a small anti-freeze spill onto the pavement to a sink hole to a worm digger on Maine Yankee property to a desk log form not printing out properly. A complete list of CR's can be found in Appendix A. It should be noted that in May of 2012 Maine Yankee consolidated several programs into the Condition Report System as an all-purpose tracking and documentation system. This explains the sudden increase in CR's and the prevalence of multiple CR's for an issue.

2.1.7.5 Other ISFSI Related Activities

In January Maine Yankee submitted a license amendment request to the NRC. The proposed request was an administrative change only as it renamed the plans which contained safeguards information protected under NRC'S regulations to the "Maine Yankee Independent Spent Fuel Storage Installation Physical Security Plan". Since this was only a title change, which already incorporated the current Physical Security, Guard Training and Qualification, and Safeguards Contingency Plans, there were no impacts or reduction in previous commitments. The State had no comments on the proposed change as there were no significant increases in the probability or consequences of an accident already evaluated, did not create the possibility of a new or different kind of accident from any previously evaluated, and did not involve a significant reduction in a margin of safety.

Also in January a 2.4 magnitude earthquake occurred about 3 miles southeast of Boothbay Harbor. The earthquake was heard and felt at the Maine Yankee storage facility. The staff at the facility performed two site inspections. The first was a visual inspection which did not reveal any damage to the casks. The second involved taking measurements between the casks and none of the casks had moved.

In February Maine Yankee informed the NRC in a biennial update that there were no changes made to its License Termination Plan over the last two calendar years and the changes it made to its ISFSI Emergency Plan. The changes included the definition of the extent of the Owner Controlled Area around the ISFSI, the types of available commercial telephone systems such as land, cell and satellite, and an administrative change on room terminology.

Also in February Maine Yankee submitted an annual status on Foreign Ownership, Control, or Influence. The annual notification is part of an NRC requirement. Maine Yankee outlined the mergers and foreign interests that have taken place since NRC's letter dated March of 2012, namely the merger between Northeast Utilities and NSTAR, the merger of Central Vermont Public Service Corporation and Gaz Metro from Canada, and the merger between Central Vermont Public Service Corporation and Green Mountain Power from Vermont, both of which are wholly-owned subsidiaries of Gaz Metro.

In March the NRC forwarded a letter to Maine Yankee indicating the applicability of the NRC's revised emergency preparedness regulations as they pertain to stand alone ISFSI's or plants in decommissioning status. The new Emergency Plan Rule went into effect in December of 2011 and imposed certain additional requirements on Part 50 licensees. Maine Yankee licensed its storage facility under the General Provisions of Part 72 that utilized its specific Part 50 license. NRC alerted Maine Yankee "to evaluate the applicability of the current emergency preparedness requirements to its specific facility and either make appropriate changes" to comply with or apply for an exemption from certain emergency requirements. Maine Yankee initiated an exemption request in June of 2012 from specific emergency plan requirements and was awaiting NRC's decision on its request.

In April Maine Yankee forwarded their annual letter to the Maine Department of Environmental Protection (DEP) as per their Environmental Covenant with DEP. Maine Yankee notified DEP that it had invoked its Soil Management Plan once in the previous year to support Central Maine Power's expansion of the 345,000 volt switch yard. The soil work was conducted as part of CMP's Grid Reliability Improvement Program on Maine Yankee's property. As part of the excavation process samples were taken and analyzed. No chemical contamination was found in the excavated soils.

Also in April Maine Yankee notified the NRC of changes to its Board membership with the resignation of one member and a replacement appointed from Northeast Utilities. In addition, the Site Vice President also certified his responsibilities to protect classified information and special nuclear material from access to foreign owners and their representatives.

In May the NRC granted an exemption requested by Maine Yankee to specific requirements of the NRC's revised Emergency Planning Regulations. The NRC exempted Maine Yankee from 26 specific provisions of its revised 2011 Emergency Planning Final Rule. The 2011 rule was based on an operating nuclear power plant and not a stand-alone ISFSI. The NRC noted that Maine Yankee's "compliance with the Emergency Plan requirements in effect before the effective date of the Emergency Plan Final Rule demonstrated reasonable assurance of adequate protection of the public's health and safety." Consequently, the NRC staff concluded that Maine Yankee's Emergency Plan provided "an adequate basis for an acceptable state of emergency

preparedness,” and that their Plan along with arrangements with offsite response agencies provided “reasonable assurance that adequate protective measures could and would be taken in the event of a radiological emergency” at the site.

Also in May the NRC sent a letter to Maine Yankee granting an amendment to their license changing the title of their Physical Security Plan in their current license to the “Maine Yankee Independent Spent Fuel Storage Installation Physical Security Plan”. The original license condition contained three separate documents that encompassed not only physical security but also Maine Yankee’s Contingency Plan and the Guard Training and Qualification Plan. All three plans were consolidated into one plan covering all three features.

In July the NRC issued Maine Yankee its exemption request from foreign ownership, control, or domination. Maine Yankee is partially indirectly owned by foreign corporations amounting to 74% of Maine Yankee. The foreign ownership breakdown is 38% from Spain, 24% from the United Kingdom, and 12% from Canada. In reviewing the request the NRC came to the conclusion that the spent fuel storage facility in Wiscasset was not a production or utilization facility as defined under the Atomic Energy Act of 1954 as amended. Consequently, ISFSI’s such as Maine Yankee can be exempted since they do not fall under the exclusive prohibition of the Atomic Energy Act and are not capable of producing or using special nuclear material such as plutonium, uranium-233, and either enriched uranium-233 or uranium-235. Since the restrictions apply only to financial ownership and do not involve technical or operational requirements, the NRC concluded the exemption would pose no risk to the public’s health or safety.

In August the NRC issued a letter to Maine Yankee revising an earlier response to a Maine Yankee exemption request that was granted on specific requirements of NRC’s revised 2011 Emergency Planning Final Rule, which was based on an operating nuclear power plant and not a stand-alone ISFSI. The NRC had initially concluded that Maine Yankee’s “compliance with the Emergency Plan requirements in effect before the effective date of the Emergency Plan Final Rule provided an adequate basis for an acceptable state of emergency preparedness” and that Maine Yankee’s Emergency Plan in combination with arrangements made with offsite response agencies provided “reasonable assurance that adequate protective measures could and would be taken in the event of a radiological emergency” at the site. This reissuance is for administrative purposes only in order to capture the publication of the environment assessment with no significant impact in the Federal Register.

Also in August Maine Yankee submitted a request to the NRC to rescind their June 2012 Confirmatory Order requiring Maine Yankee to undertake negation actions regarding foreign ownership, control, or domination (FOCD). Since the NRC had exempted Maine Yankee of the FOCD requirements in July of 2013, Maine Yankee reasoned that the Confirmatory Order no longer had a regulatory, safety, or security basis. In addition, Maine Yankee will maintain its negation plan that it implemented in December 2011 to address and preclude any FOCD issues.

In October the NRC forwarded a letter to Maine Yankee notifying them that the recent merger of Maine Public Service and Bangor Hydro Electric Company did not constitute a direct or indirect license transfer of Maine Yankee’s federal license. Maine Public Service and Bangor Hydro combined own 12% of Maine Yankee.

2.2 Environmental

2.2.1 Radiological Environmental Monitoring Program (REMP) Description and Historical Perspective

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.

In late December 2009, after 39 years, the State ceased its air sampling station at the Maine Yankee site. In reviewing the historical air data 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 at the old Bailey Farm House. Although the air sampling station at Maine Yankee was discontinued, the State still maintained an active air sampling station on the roof of the Health and Environmental Testing Laboratory that acted as a control for comparative purposes during Maine Yankee's operating and decommissioning years. The State's air sampler at HETL is also available for radioactive fallout situations from national or global events. That proved to be instrumental in the quantifying of the impact from the Fukushima reactor accidents in March and April of 2011.

In June of 2010 the State performed another review of its Radiological Environmental Monitoring Program at the Maine Yankee site. The review determined that the quarterly surveillance sampling of freshwater at Ward's Brook in Wiscasset, and the seawater and seaweed at the Ferry Landing on Westport Island would be discontinued permanently after 40 years. Both sampling stations were originally set up to monitor gaseous and liquid releases from the Maine Yankee nuclear power plant. Since the ISFSI does not release gaseous or liquid radioactivity and adequate time had elapsed since the power plant was decommissioned in 2005 for statistical comparisons, there was no further technical justification for the continued sampling of the media at these stations.

Besides the media sampling, over the years the State has maintained a robust TLD program to measure the radiation environment. The TLDs were initially placed within a 10 to 20 mile radius of the plant to measure the background radiation levels. Later, when the plant was operating, the initial results would be used as a baseline to compare with the TLD values during the plant's operating years. Over time the number of TLDs more than doubled to over 90 TLDs to address public concerns over the clam flats in Bailey Cove after the steam generator sleeving outage in 1995-1996 and later, the construction of the ISFSI.

Although most of the REMP changes took place in prior years, in 2010 the State also implemented further reductions in the TLDs not only in the vicinity of the former nuclear power plant, but also in Bailey Cove. Of the nine remaining TLDs beyond the site's boundary six were permanently discontinued after the second quarter's field replacement. The remaining three TLDs consisted of three controls, (one locally at the Edgcomb Fire Station, one near the site at the Ferry Landing on Westport Island, and one further away on the roof of the State's Health and Environmental Testing Laboratory). At the time this left 27 TLDs for the ISFSI and Bailey Cove. However, in late December of 2010 a final assessment was performed to consolidate the number of TLDs monitoring the ambient radiation levels near the ISFSI. Eight of the fourteen TLDs locations from Bailey Cove were removed from the monitoring program. Of the

remaining six Bailey Cove TLDs, four were reassigned as ISFSI TLDs to ensure coverage for the sixteen points of the compass. The four new stations were identified as N, O, P, and Q. The last two Bailey Cove stations were co-located with the State's solar powered environmental radiation monitors on the Maine Yankee site. The TLD changes went into effect in the first quarter field replacement in January 2011.

2.2.2 Thermoluminescent Dosimeters (TLDs)

As outlined in the historical context and as part of its independent oversight, the State has a TLD program to measure the quarterly ambient radiation levels over the years at Maine Yankee, both in the proximity of the ISFSI and at various locations within a five mile radius. At the beginning of the year the State's TLD program was focused on two areas - the ISFSI and its controls. The exceptions are the two co-located TLDs with the solar powered units. A future assessment on maintaining the solar powered units will be performed.

2.2.2.1 ISFSI TLDs

In October of 2000, in preparation for the spent nuclear fuel to be moved from the fuel pool and stored in concrete casks at the ISFSI, the State Inspector, as part of his independent oversight, established 13 TLD locations to monitor the local radiation levels from the ISFSI. Since the spent fuel was projected to be moved in the fall of 2001, it was necessary to perform monthly TLD field replacements as opposed to quarterly in order to gather enough field data to establish a pre-operational baseline. The monthly regimen was converted to a quarterly frequency in the fall of 2004 after all of the spent nuclear fuel was transferred from the pool to the ISFSI in February of 2004.

Initially, some of the state TLD locations were co-located with some of Maine Yankee's TLDs for future comparative purposes. However, Maine Yankee reconfigured its TLD locations in 2008 and only 2 remain co-located. To acquire statistical weighting for each location two TLDs were placed at each location. Each TLD has three plastic-like phosphors that capture the radiation.

As noted in the historical perspective earlier, the current seventeen locations are identified by the letters A through Q in Figure 1, (courtesy of Maine Yankee), on page 12 with Table 1 on page 13 listing the State's ISFSI results for the year. The average represents the mean of the six element phosphors and the range depicts the low and high values for the six crystals.

The ISFSI TLDs continued to demonstrate three separate groupings when it came to dose: elevated, slightly elevated and normal. Except for the first and fourth quarters, Stations G and K continued to be high due to their proximity to the ISFSI. However, Station F was in the elevated group in the first and fourth quarters. Station F is located north of the ISFSI's bermed area adjacent to the old East Access Road. In addition, stations L and Q also ended in the elevated grouping for the fourth quarter. However, as will be explained later, these may have been artificially inflated.

The results in Table 1 also clearly demonstrate the slightly elevated grouping of such Stations as E, F, and L showing signs of influence from the ISFSI as seen in Figure 1 by their short distances from the ISFSI. In addition, the data continues to validate the seasonal variation. Generally, during the fall and winter months the values normally decrease when the ground is frozen and covered with snow as it impedes the out gassing of the Radon gas from the soils. The deeper the snow cover is the more pronounced the decrease in the natural radiation levels.

Figure 1

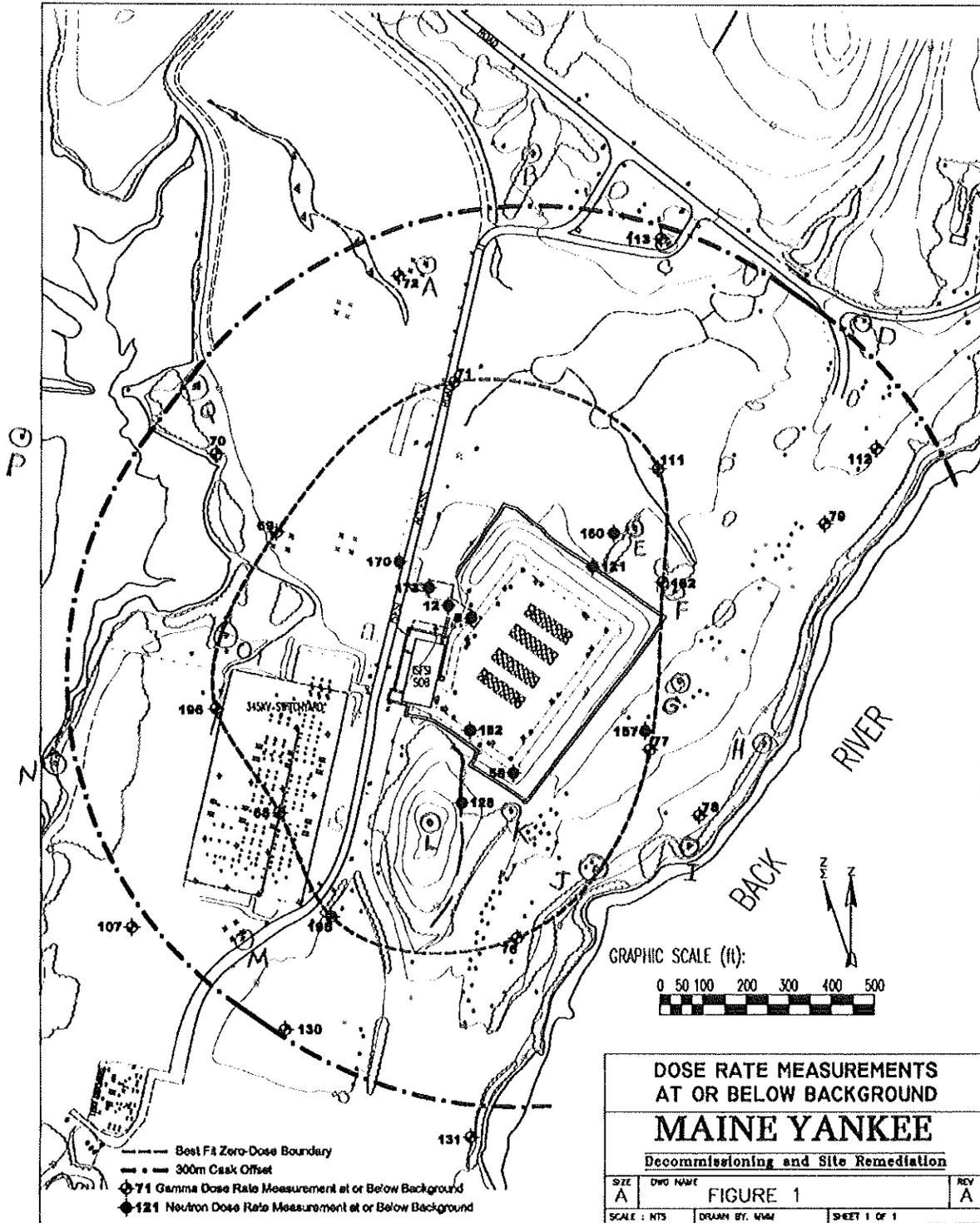


Table 1 – ISFSI TLD Results

TLD Stations	Quarterly Exposure Period					4 th Quarter (Adjusted for Controls)
	1 st Quarter (Winter)	2 nd Quarter (Spring)	3 rd Quarter (Summer)	4 th Quarter (Fall)	4 th Quarter (Adjusted for Controls)	
	Average (Range) (mrem)*	Average (Range) (mrem)	Average (Range) (mrem)	Average (Range) (mrem)	Average (Range) (mrem)	(mrem)
A	20.0 (19-21)	21.7 (20-24)	23.3 (22-24)	27.7 (26-29)	22.1	
B	19.0 (18-20)	20.2 (20-21)	22.7 (21-24)	25.5 (25-27)	19.9	
C	19.7 (19-21)	19.3 (19-20)	22.5 (21-23)	26.5 (25-28)	20.9	
D	20.3 (19-21)	21.2 (20-22)	22.8 (21-24)	27.3 (26-28)	21.7	
E	20.8 (20-22)	22.0 (21-23)	24.8 (24-26)	28.5 (27-32)***	22.9	
F	23.0 (20-22)	23.8 (23-24)	26.7 (25-29)	31.2 (31-32)	25.6	
G	23.3 (22-24)	26.2 (25-27)	28.0 (27-29)	32.0 (31-33)	26.4	
H	19.0 (18-20)	20.8 (20-22)	21.2 (20-22)	25.5 (25-26)	19.9	
I	19.8 (19-22)	19.5 (19-21)	22.3 (21-24)	26.0 (25-27)	20.4	
J	20.2 (19-21)	23.2 (21-25)	25.0 (24-26)	26.7 (27-30)	21.1	
K	24.0 (23-25)	26.4 (25-28)**	27.2 (26-28)	31.5 (30-33)	25.9	
L	22.0 (21-23)	23.0 (21-24)	26.0 (25-27)	30.0 (29-32)	24.4	
M	20.3 (19-22)	20.5 (19-21)	23.7 (22-25)	28.7 (27-30)	23.1	
N	19.0 (18-20)	19.7 (19-21)	21.2 (20-22)	25.5 (25-26)	19.9	
O	20.5 (19-22)	21.8 (21-22)	24.7 (24-25)	28.2 (28-29)	22.6	
P	18.7 (17-20)	19.5 (19-20)	21.7 (21-22)	26.7 (26-27)	21.1	
Q	20.7 (19-23)	23.0 (22-24)	25.3 (25-26)	30.2 (28-32)	24.6	

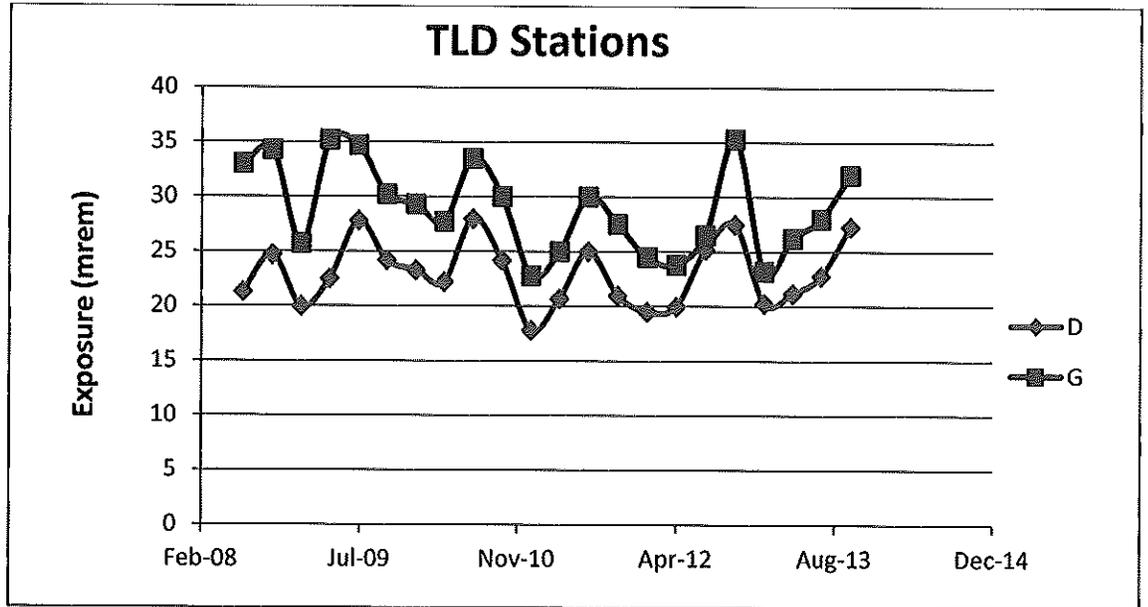
* Mrem is a conventional unit of dose that describes how much radiation energy was absorbed by a person's body with modifiers applied for the different types of particles or rays.

** One element read high (39) and was rejected by the Dosimetry Laboratory as an outlier. The State concurred after it had independently verified that it was an outlier.

*** One element read high (32) and was rejected by the Dosimetry Laboratory but the State accepted the result as valid after it performed its own analysis.

For the second consecutive year the fourth quarter results were higher. They should have been lower than the third quarter results due to frozen ground conditions and snow cover in December. Except for station B, all the TLD results were higher, including the controls. There was no apparent explanation for the higher values. The impact is clearly discernible in Figure 2 on the next page where the last data point on each of the graphs clearly rises to levels comparable to previous highs. Consequently, the fourth quarter results were adjusted to better reflect what the TLDs should have read. The transit controls for the first three quarters were averaged (6.3) and that average was subtracted from the fourth quarter's average transit values (11.9). The difference was 5.6 mrem between the normal backgrounds and the elevated results for the fourth quarter. When the difference was applied to the fourth quarter data, the revised results exemplified the expected seasonal variations with the fourth quarter values coming in lower than the third quarter's numbers.

Figure 2



It should also be mentioned that the values listed in Table 1 are the total readings from the vendor. The vendor nor the State employ any corrections for exposures to the TLDs shipped from California to here and their return shipment, or storage at the State offices prior to their use in the field. Since the values over inflate the true ISFSI dose, the State embarked on a three year program to better quantify the transit and storage exposures that are not part of the true field exposure and correspondingly the ISFSI's impact. The three years are necessary to gather enough quarterly data to develop the statistical power for the correction factors. Once these variables are quantified, then the State will employ the correction factors to its results.

The preliminary findings to date indicate that the 10 day transit exposures may range from 5 to 7 mrem, which is significant when compared to the total values reported in the TLD Tables. Except for the fourth quarter's skewed results, the transit or shipping exposures alone represent upwards of 20 to 40% of the dose reported. However, the fourth quarter's transit exposures were unduly high, averaging 11.9 mrem.

Table 2 below illustrates the transit control results for the past two years.

Year	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
2012	7.1	5.7	6.4	14.5
2013	8.5	4.8	5.5	11.9

Since starting on this program, the fourth quarter results were at least twice the average of the three previous quarters. There is an obvious affect occurring in the last quarter. When queried, the TLD vendor was unable to explain the sudden increases. They reviewed the individual data and examined the crystals and could not find a reason for the

additional exposure. Possible explanations contemplated included a longer transit time or storage in an area with a higher than average radiation background. The tracking will continue to see if the trend persists.

2.2.2.2 Bailey Cove TLDs

The Bailey Cove surveillance is a remnant of the operating days when the public had raised questions over the radiation levels in the Cove and its impact on clam and worm diggers from the extended shutdown due to the steam generator sleeving project in 1995. The number of TLD locations was reduced in January of 2008 from the initial 40 that covered both sides of Bailey Cove down to 14 and eventually down to 2 at the beginning of 2011. The TLD results for Bailey Cove for 2011 are illustrated in Table 3.

Table 3 – Bailey Cove TLD Results

TLD Stations	Quarterly Exposure Period					4 th Quarter (Expected) (mrem)
	1 st Quarter (Winter) Average (Range) (mrem)	2 nd Quarter (Spring) Average (Range) (mrem)	3 rd Quarter (Summer) Average (Range) (mrem)	4 th Quarter (Fall) Average (Range) (mrem)	4 th Quarter (Expected) (mrem)	
1	17.7 (16-19)	19.3 (18-20)	21.8 (21-23)	21.5 (20-23)	15.9	
2	19.3 (18-20)	20.7 (20-22)	22.0 (21-23)	21.7 (21-22)	16.1	

As with the ISFSI the Bailey Cove TLDs experienced the same seasonal fluctuations due to Radon excursions associated with weather conditions and seasonal effects such as frozen ground and snow cover. The Bailey Cove values are fairly comparable to the ISFSI results for the normal group. The fourth quarter results also demonstrated the unexpected increase and those were adjusted as in Table 1 for the higher transit controls. The background values remain typical for the coast of Maine, which can range from 13 to 25 mrem, with the lower values indicative of their proximity to the water's edge. This effect is very evident at high tide with the water acting as a shield covering the natural radioactivity from the rocks and mud flats that are under water.

2.2.2.3 Field Control TLDs

As mentioned in section 2.2.2 there are three field controls that the State utilizes for comparative purposes. All three are located off-site and beyond Maine Yankee's Controlled Area of about 290 meters (approximately 950 feet). The closest is Station 110, Ferry Landing on Westport Island, which is about 3 quarters of a mile from the ISFSI. The second control, Station 143, is located at the Edgecomb Fire Station, about three and a half miles away. The last control, Station 160, is the traditional one located on the roof of the State's Health and Environmental Testing Laboratory, more than 21 miles away.

As with the ISFSI and Bailey Cove TLDs the field controls experienced the same seasonal fluctuations due to Radon excursions associated with weather conditions and seasonal effects such as frozen ground and snow cover.

The field controls were also affected by the higher than expected fourth quarter exposure values as depicted in Table 4. When adjusted, the results were comparable to those of Bailey Cove and those within the normal range at the ISFSI.

Table 4 – Field Control TLD Results

TLD Stations	Quarterly Exposure Period				
	1 st Quarter (Winter) Average (Range) (mrem)	2 nd Quarter (Spring) Average (Range) (mrem)	3 rd Quarter (Summer) Average (Range) (mrem)	4 th Quarter (Fall) Average (Range) (mrem)	4 th Quarter (Expected) (mrem)
110	20.3 (19-21)	20.8 (19-21)	23.7 (23-24)	25.2 (22-29)	19.6
143	20.7 (19-22)	22.0 (21-23)	25.2 (24-27)	23.7 (23-25)	18.1
160	18.7 (17-19)	18.8 (18-20)	21.7 (20-22)	20.8 (20-22)	15.2

2.2.3 REMP Air Filter Results

2.2.3.1 State's Health and Environmental Testing Laboratory Roof Sampler

Table 5 below shows the quarterly air sampling results for the year. The State's Health and Environmental Testing Laboratory analyzed the samples and employed various analytical methods to measure specific radioactive elements. All the positive results reported highlight naturally occurring background levels and ranges in units of femto-curies per cubic meter³.

Beryllium-7 (Be-7)⁴ is a naturally occurring "cosmogenic" radioactive element, which means it is continuously being produced by cosmic-ray interactions in the upper atmosphere. Be-7 is produced from the high-energy cosmic rays bombarding the oxygen, carbon and nitrogen molecules in the atmosphere.

Table 5 – HETL Air Filter Results*

Positive Results	Quarterly Sampling Period			
	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Gross Beta ⁵ (range)	(19.2 – 50.2)	(13.1 – 34.1)	(21.3 – 47.8)	(20.1 – 46.0)
Quarterly Composite (Be-7)	84.6	109	95.4	59.0

* Controls located on the roof of the State's Health & Environmental Testing Laboratory

³ fCi/m³ is an acronym for a femto-curie per cubic meter. It describes a concentration of how much radioactivity is present in a particular volume of air, such as a cubic meter. A "femto" is a scientific prefix that is equivalent to one quadrillionth (1/1,000,000,000,000,000).

⁴ Radioactive elements are usually represented by their chemical names and corresponding mass numbers, which represent the number of protons and neutrons in the nuclei of atoms.

2.3 Maine Yankee Decommissioning

2.3.1 Background

Maine Yankee's decommissioning was completed in the fall of 2005. At that time the State Inspector also commenced his final walk down survey of the site with a special emphasis on the transportation routes exiting the plant site, such as both half-mile east and west access routes and the two thirds of a mile of the railroad track. In addition, nine specific areas, including the dirt road, were also examined as part of the final site walk down survey. With the discovery of three localized, elevated contaminated areas on the road, further work was performed to bound the contamination. No new contamination was found and the State closed the issue in October of 2008. 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 did 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 was roughly a 600 foot section of the East Access Road adjacent to the ISFSI bermed area. A final survey of the road was taken in May of 2011. With the closure of the East Access Road survey the State had officially ceased all its decommissioning survey activities pertaining to the Maine Yankee nuclear power plant site.

2.3.2 Confirmatory Report

There were extensive delays due to on-going commitments and emerging issues that prevented the initial drafting of the Confirmatory Summary Report of the State's four year effort to verify the residual radioactivity levels remaining after the decommissioning of Maine Yankee. As part of his on-going commitments, the State Inspector also conducts mammography inspections on about half the mammography facilities in Maine. This was necessary to minimize the workload on the State's X-Ray Inspector whose responsibility included oversight of 1193 facilities with nearly 3400 X-Ray units at hospital facilities, dental establishments, veterinarians, and industrial applications. All this resulted in the report being postponed and essentially drove its writing to an 'as time permits basis'. However, in mid-October of 2010 a concerted effort was made to draft a preliminary report. By early March of 2011 a preliminary draft was submitted and has been under management review. In the fall of 2012 preparations were made to secure a number of consultants for a review of the final draft of the Report. In the spring of 2013 six consultants were contracted to review a draft of the Report. They included the State's decommissioning consultant, a retired Radioactive Materials Inspector from the State who participated in the State's decommissioning efforts, two contracted technical specialists that the State had hired during the decommissioning, and two college professors who were members of the Governor's decommissioning Technical Advisory Panel. By November all of the comments were discussed with the consultants. The consultants did recommend some significant enhancements to the Report which could prolong the Report's issuance. Barring any emerging or major issues the final Report should be available by early 2015.

2.4 Other Noteworthy Activities

2.4.1 Reports to the Legislature

2.4.1.1 Monthly

As mandated by legislation passed in the spring of 2008, the State Inspector is required to submit monthly reports to the Legislature on his oversight activities of Maine Yankee's Independent Spent Fuel storage Installation (ISFSI) located in Wiscasset. Since the law went into effect on June 29, 2008, the State Inspector has been providing monthly reports to a distribution that includes the President of the Senate, the Speaker of the House, the

NRC at their headquarters in Rockville, Maryland and NRC's Region I in King of Prussia, Pennsylvania, Maine Yankee, the Governor's Office, the Department of Health and Human Services, the Department of Environmental Protection, the Public Advocate and the State Police's Special Services Unit. The topics covered in the monthly reports are highlighted in sections 2.1.7, 2.2, 2.3, and 2.5 of this report.

Some changes were made to the monthly reports and how they were distributed in 2012. To minimize the size of the reports along with their attachments, the State published the reports in electronic format that also included internet hyperlinks for each of the attachments. This provided flexibility for reviewers and greatly reduced the volume of paper used for distributing the reports. Hard copies of the reports are maintained at the Commissioner's Office and the State Inspector's Office.

2.4.1.2 Annual

Under 22 MRSA §668, as enacted under Public Law, Chapter 539 the State Inspector prepares an annual accounting report of all the funds received into and all disbursements out of the Interim Spent Fuel Storage Facility Oversight Fund. The report is due the first Monday of February. In addition, the State Inspector must annually report his activities to the Department of Health and Human Services Manager of the Radiation Control Program for inclusion in the Manager's Annual Report of Oversight Activities and Funding to the Legislature. In addition to the above annual reports the Inspector also prepares an annual report by July first of every year to the Legislature of his oversight activities. This 2013 report fulfills that obligation.

2.4.2 Northeast High-Level Radioactive Waste Transportation Task Force (NEHLRWTF)

As the State's representative the State Inspector has participated in periodic conference calls on the status of Yucca Mountain and transportation issues that could impact Maine.

In May 2012 the Northeast High-Level Radioactive Waste Transportation Task Force was notified by the Department of Energy that it had received a four year, \$900,000 grant to work on the NWPA's transportation provisions and related areas of the Blue Ribbon Commission's (BRC) Report. The Energy Department grant was in response to one of the BRC's recommendations to resume funding for state and regional groups to continue their transportation and infrastructure assessment efforts. Those efforts were abruptly terminated when the Administration ceased its funding for the Yucca Mountain repository in Nevada.

In mid-May the DOE held its fourth annual National Transportation Stakeholders Forum in Buffalo, New York. The State Inspector attended the DOE Forum, which highlighted the Administration's strategy to manage and dispose of used nuclear fuel, an update of the Canadian spent fuel shipments, the Waste Isolation Pilot Plant transuranic (elements heavier than uranium) shipment, the redevelopment of the national transportation plan, rail transportation issues such as infrastructure, equipment and inspections protocols, and preliminary route selections for stranded fuel shipments from decommissioned reactor sites to a pilot interim storage site. NRC officials also spoke on their waste confidence rulemaking and generic environmental impact statement, interim and long term storage, and disposal issues. In addition, the Forum allowed for the four regional state transportation groups to meet and discuss their respective regional issues. The State Inspector provided a report to the Northeast High-Level Radioactive Waste Transportation Task Force on Maine's activities and his participation in a national working group that will propose to the DOE the states' recommendations on future funding allocations for spent nuclear fuel shipments within their borders.

The Task Force is an affiliate of the Eastern Regional Conference of the Council of State Governments. The purpose of the Task Force is to not only develop the safest and most efficient transportation route to ship spent nuclear fuel from the Northeast, but also to provide the States with direct involvement in formulating and establishing national policy in the design of a national transportation system and development of any proposed geologic repository or consolidated interim storage facility. The Northeast Task Force is comprised of representatives from the six New England states, New York, Pennsylvania, New Jersey, and Delaware.

2.4.3 Yankee Federal Energy Regulatory Commission (FERC) Rate Case Settlement

The State participated in the quarterly conference call briefings relevant to Yankee Rowe, Connecticut Yankee and Maine Yankee. The briefings provide updates to both state and private officials affected by the FERC settlements over the DOE's breach of contract to take possession of the spent fuel at Maine Yankee as mandated by the Nuclear Waste Policy Act of 1982, as amended. In September 2006 Maine Yankee won a \$75.8 million judgment for monetary damages in its lawsuit with the DOE in the U.S. Court of Federal Claims.

The ruling was appealed by the Justice Department and in August 2008 the U.S. Court of Appeals for the Federal Circuit upheld the Court of Federal Claims ruling that the three parties were due damages and remanded the case back to the Court of Federal Claims for a reassessment of the compensation package based upon a court approved fuel pick up rate. The recent ruling raised the damages initially awarded to Maine Yankee by \$5.9 million to about \$81.7 million for the period January 31, 1998 through 2002. As expected the Department of Justice (DOJ) appealed the ruling. In September 2010 the U.S. Court of Federal Claims again awarded Maine Yankee \$81.7 million, Connecticut Yankee \$39.7 million and Yankee Rowe \$21.2 million. The DOJ again appealed the remanded decision and employed further delaying tactics by filing more extensions. However, the Court heard the final oral arguments in November of 2011. In May the Federal Court of Appeals upheld the Court of Federal Claims' earlier ruling awarding Maine Yankee the \$81.7 million. In addition, the Appeals Court raised Yankee Rowe's damages by \$17 million to \$38 million overall. The Justice Department had until midnight December 4th petition the U.S. Supreme Court to reconsider the U. S. Court of Appeals unanimous decision. The federal government chose not to file the petition with the Supreme Court which made the Appeals Court decision final and non-appealable. Maine Yankee was awarded \$81,690,866 with Connecticut Yankee receiving \$39,667,243 and Yankee Rowe \$38,268,655. In February, after 14 years of litigation, the U.S. Treasury transferred into the three Yankee companies' trust funds the \$159.7 million that was awarded by the U.S. Court of Appeals. In May each of the three Yankee Companies filed their plans on how the damage awards would be distributed. All three Public Utilities Commissions in Connecticut, Maine, and Massachusetts supported the Yankees filings before the Federal Energy Regulatory Commission. Maine Yankee's filing indicated that the monies would be returned over a 15 year period that would be commensurate with the amount of time it would have taken the DOE to remove all of the spent fuel from the site had a repository been available. .

In December 2007 the three Yankee companies filed a second round of damage claims that were specific to each company. The three Yankee's second round lawsuits for spent fuel management costs amounted to \$247 million in additional damages incurred through 2008 with Connecticut Yankee requesting \$135.3 million, Yankee Atomic \$76.6 million, and Maine Yankee \$35 million. These Phase II litigation damages represent damages that Connecticut Yankee and Yankee Atomic incurred from January 2002 through December 2008, whereas Maine Yankee's damages were incurred from January 2003 through December 2008. The Court of Federal Claims heard oral arguments in October of 2011. The Judge's decision was finally rendered in November of 2013 and awarded \$235 million with \$126.3 million to Connecticut Yankee, \$73.3

million to Yankee Atomic, and \$35.7 million to Maine Yankee. Since an earlier Federal Appeals Court ruled that damage awards can only cover costs that have been incurred, consequently, the three companies will continue litigating the federal government every several years for costs assumed by their ratepayers until the used nuclear fuel is finally removed from their respective sites.

In August of this year the three Yankee companies filed a third round of damage claims that were specific to each company covering the period from 2009 to 2012. The Court of Federal Claims set an October deadline for filing extensions. Due to the government shutdown and subsequent furloughs the Department of Justice was not able to respond until November and requested a stay responding to the lawsuit filings. The three Yankees were hopeful that the lawsuits would go to discovery soon and to trial in 2014, assuming that there were no government delays.

Besides the lawsuits, updates are also provided of other organizational activities, both on the regional and national levels, on spent fuel issues, whether they be the Yucca Mountain repository or focusing attention on local or centralized storage, extended storage, legislation or appropriations, or efforts to implement the BRC's recommendations. These organizations include the Administration, the Energy Department, the Blue Ribbon Commission on America's Nuclear Future, the NRC, Congress, the National Conference of State Legislatures, the Nuclear Waste Strategy Coalition, the Decommissioning Plant Coalition, the National Association of Regulatory Utility Commissioners (NARUC), the Council of State Governments, the New England Governor's Conference, the New England Council, the Coalition of Northeastern Governors, and the New England Conference of Public Utility Commissioners.

2.4.4 Nuclear Waste Strategy Coalition (NWSC)

The State is a member of the NWSC and participated in bi-weekly status briefings of the NWSC. The briefings provided updates on such national activities as congressional efforts related to the geologic repository at Yucca Mountain in Nevada, including such federal agencies as the Department of Energy and the Nuclear Regulatory Commission, litigations pending in the U.S. Court of Appeals, and the Administration's strategy for the management of the back end of the nuclear fuel cycle.

The NWSC 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 some 125 commercial, defense, research, and decommissioned sites in 39 states.

Section 2.5 Some Newsworthy Items

On June 3, 2008, as mandated by the federal Nuclear Waste Policy Act, as amended, the Department of Energy (DOE) submitted its license application for the construction of a high-level waste repository at Yucca Mountain in Nevada. On September 8, 2008, the Nuclear Regulatory Commission (NRC) accepted DOE's license application for technical review.

Later President Obama made good on his promise to Nevada to discontinue disposal activities at Yucca Mountain. Subsequently, in March 2010, without any technical or safety merits, the DOE submitted a

motion to the Nuclear Regulatory Commission's Atomic Safety and Licensing Board to withdraw its license application to construct a geological repository at Yucca Mountain to dispose of the nation's spent nuclear fuel and high level waste. The NRC Chairman at the time directed the NRC staff to terminate all activities associated with the Yucca Mountain license proceedings. This generated controversy and activity on multiple fronts with 2010 witnessing nearly a fourfold increase in activity over previous years. From 2011 to 2013, the activity levels did not abate. It became apparent that the Courts would have to weigh in and decide on the merits of lawsuits brought against the federal government.

The following provides a timeline of the major highlights that transpired in 2013 that produced an overabundance of activity on several fronts, especially with the Appeal Court's rulings that precipitated a flurry of more filings and actions.

- On January 2nd the Attorney Generals of Vermont and New York submitted to the NRC their combined comments on the NRC's Waste Confidence scoping considerations of environmental impacts of the temporary storage of spent nuclear fuel after cessation of reactor operation. Besides the Attorney Generals, several other organizations also commented on the Waste Confidence scoping and generic environmental impact statement. They included Nevada's Eureka County, Xcel Energy, Prairie Island Indian Community, Duke Energy, City of Red Wing Minnesota, the Western Interstate Energy Board's High Level Radioactive Waste Committee, the Union of Concern Scientists (UCS), the NWSC, the Natural Resources Defense Council, the Nuclear Energy Institute (NEI), the Sustainable Fuel Cycle Task Force, and 172 environmental organizations.
- On January 4th the State of Nevada as an intervenor filed with the D.C. Circuit of Appeals its contention that the Court should not order the Nuclear Regulatory Commission to resume its licensing hearings on Yucca Mountain.
- On January 11th DOE released its report on how it would implement the Administration's Blue Ribbon Commission's recommendations to manage the nation's used nuclear fuel and high-level waste stockpiles.
- On January 18th DOE published its Nuclear Waste Fund fee adequacy assessment as mandated by the U.S. Court of Appeals for the District of Columbia Circuit.
- On January 31st NARUC filed a motion with the U.S. Court of Appeals for the District of Columbia Circuit to reopen their lawsuit over the Department of Energy's collection of a nuclear fee amounting to more than \$750 million a year from nuclear utility customers for a waste program that no longer exists and to order the DOE to suspend the fee collection.
- On February 27th the U.S. Court of Appeals reviewed NARUC's motion to reopen the Nuclear Waste Fund fee assessment performed by the DOE and ordered the Court's own motion be recalled, ordered the motion to reopen be granted, and established a relatively expedited briefing schedule commencing in March and concluding in July on the reopened case between NARUC and the DOE.
- On March 4th President Obama nominated Dr. Ernest Moniz to replace Dr. Chu as the head of the DOE.
- On March 5th the NWSC issued a statement calling on congressional offices to restructure the nation's spent nuclear fuel management program.
- On March 21st President Obama nominated NRC Chairman, Dr. Allison Macfarlane to a new five year term.
- On March 28th The Heritage Foundation published an issue brief on their five criteria to promote lasting reform on nuclear waste management in response to proposed legislation that maintained the status quo.

- On April 2nd the U.S. Court of Appeals for the Federal Circuit affirmed the Court of Federal Claims' decision to strike down the federal government's unavoidable delays defense argument in Entergy's breach of contract cases against the U.S. government.
- On April 5th the NRC filed with the U.S. Court of Appeals from the District of Columbia Circuit their third status report informing the Court that it had \$11.1 million in unobligated and \$2.5 million in obligated carryover funds from the Nuclear Waste Fund.
- On April 5th the petitioners (the states of South Carolina and Washington, Aiken County, South Carolina, the Tri-City Business Leaders near Hanford, Washington, the NARUCs, and Nye County, Nevada) filed with the U.S. Court of Appeals for the D.C. Circuit its fourth supplemental status report stating that the NRC has \$13.6 million and the DOE \$17 million in carryover funds appropriated from the NWPA for its licensing proceedings on the Yucca Mountain Project.
- On April 23rd the U.S. Court of Federal Claims awarded \$47.8 million to Entergy Corporation for DOE's failure to remove the spent nuclear fuel at the Arkansas Nuclear One Power Station.
- On April 25th the Chairman of the House Committee on Energy and Commerce and the Chairman of the House Subcommittee on Environment and the Economy sent a letter to the Comptroller General of the General Accountability Office (GAO) requesting their evaluation of their estimated timeframes for opening two interim storage sites and a permanent repository as compared to the DOE's January 18th strategy document presuming much shorter timeframes.
- On April 25th the United States Senate published a press release indicating that four senators had issued a discussion draft of comprehensive nuclear waste management legislation for disposing of the nation's high-level nuclear waste.
- On May 3rd the Florida Public Service Commission and the Florida Office of Public Counsel filed a friends of the court brief and an addendum with the U.S. Court of Appeals for the D.C. Circuit in support of NARUC's, NEI's and sixteen nuclear power utilities' lawsuit against the Secretary of Energy's Nuclear Waste Fund fee adequacy determination by highlighting the Funds \$28 billion dollar surplus with no federal repository program for the disposal of used nuclear fuel.
- On May 9th NEI testified before the House's Appropriations Subcommittee on Energy and Water Development advocating funding to complete the licensing of the proposed Yucca Mountain repository, establishing a new organization solely dedicated to the management of the back end of the nuclear fuel cycle, creating one or more consolidated storage facilities including a repository, and ensuring access to the annual collections and balance in the Nuclear Waste Fund.
- On May 23rd the Sustainable Fuel Cycle Task Force sent a letter to DOE urging Energy Secretary Moniz to implement a consensus siting process for the development of a consolidated interim storage facility and a geologic repository.
- On May 24th the Attorney General and President of the Senate for the State of Massachusetts, NEI, NWSC, the Decommissioning Plant Coalition (DPC), the National Council of State Legislatures, the U.S. Nuclear Infrastructure Council, the Energy Communities Alliance, and NARUC forwarded letters to the four Senators who co-sponsored the proposed legislation, Nuclear Waste Administration Act of 2013. Each organization had their individual positions both supporting and opposing certain facets of the proposed legislation.
- On May 24th the petitioners filed a motion with the U.S. Court of Appeals for the District of Columbia Circuit to lift the Court's August 3, 2012 abeyance order and proceed to judgment on the Yucca Mountain license application by issuing a writ of mandamus compelling the Nuclear Regulatory Commission to restart the Yucca Mountain license proceedings.
- On June 7th the U.S. Nuclear Waste Technical Review Board (NWTRB) sent a letter to the Senate's Committee on Energy and Natural Resources providing comments on some shortcomings and improvements to the Committee's discussion draft nuclear waste legislation. According to international experience the most surprising comment was the support for a

prescriptive consent-based process, which is contrary to what United States host communities have advocated.

- On June 12th DOJ and DOE filed their initial brief to the U.S. Court of Appeals for the D.C. Circuit as respondents to the National Association of Regulatory Utility Commissioners and the Nuclear Energy Institute petition requesting the Court to declare the Energy Secretary's 2013 nuclear waste fee assessment as invalid. The DOJ and DOE maintained that the fee assessment was adequate, met the intent of the Nuclear Waste Policy Act of 1982, addressed the Court's concerns identified in the previous fee determination, and rejected the petitioners' claims that the fee should be suspended until such time a national waste management plan is adopted.
- On June 15th DOE's Office of Nuclear Energy issued a report, entitled "A Project Concept for Nuclear Fuels Storage and Transportation". The report provided guidance for defining systems, equipment, and facilities necessary to implement DOE's strategy for the management and disposition of used nuclear fuel and high-level radioactive waste. The report included key milestones and requirements for a pilot interim storage facility, a larger interim storage facility, and the transportation system and equipment needed to move used nuclear fuel from current storage locations to interim storage and then to a permanent geologic repository.
- On June 19th Nye County, Nevada issued a news release reaffirming its commitment to accept the DOE's high-level radioactive waste as long as it can be done safely.
- On June 26th the House Appropriations Committee passed their Energy and Water Development Bill by a vote of 28-21. The bill provided \$25 million for the NRC to continue its deliberations on the Yucca Mountain license application.
- On June 27th four senators introduced bipartisan legislation to safeguard and permanently dispose of used nuclear fuel and high-level waste. The bill, entitled the "Nuclear Waste Administration Act of 2013", was based in part on recommendations from the President's Blue Ribbon Commission for America's Nuclear Future and proposed a new agency to administer the nation's nuclear waste program and a consent-based process to find sites for temporary and permanent storage.
- On June 27th the Senate Appropriations Committee approved their version of their Energy and Water Development Bill by a vote of 24-6. The Senate bill had a limited provision that provided the Secretary of Energy with the authority to introduce a pilot program for a consolidated storage facility for used nuclear fuel, but did not include any language on the Yucca Mountain Project.
- On July 5th Nevada's Representative Titus introduced three amendments to the House's Appropriations Bill to negate provisions in the Bill that would have allotted funds to support the geological repository program at Yucca Mountain in Nevada, to help affected local governments, and to support the Yucca Mountain licensing proceedings.
- On July 9th Nevada's Representative Heck introduced an amendment to the House's Appropriations Bill that would redirect the \$25 million appropriation to continue the NRC's licensing proceedings on Yucca Mountain to the High Energy Physics Program at the DOE's Office of Science to develop accelerator technology that would reduce the toxicity of the used nuclear fuel by transforming the long lived radioactive elements into shorter ones.
- On July 10th the Plymouth Zoning Board rejected an appeal by opponents to stop the construction of a dry cask storage facility on the property of the Pilgrim Nuclear Power Plant in Massachusetts.
- On July 30th the U.S. Senate Committee on Energy and Natural Resources held a hearing to move forward a bill, Nuclear Waste Administration Act of 2013, that would permanently secure the disposal of the nation's nuclear waste backlogged at operating and shutdown reactor sites by implementing some key recommendations from the President's Blue Ribbon Commission such as a new agency, a consent-based process for siting nuclear waste storage and disposal facilities, and a new working capital fund for the proposed waste facilities.

- On July 30th the U.S. NWTRB forwarded a letter on researching and developing deep borehole disposal of used nuclear fuel to the DOE's Assistant Secretary by recommending the sequencing from bench scale testing to in place tests in the proposed environment to a full scale pilot test, to collaborating with Switzerland and Sweden to better characterize the host rock at great depths, and to assess the repackaging of used nuclear fuel into smaller packages and the facilities that would be required to support such an undertaking.
- On August 13th the U.S. Court of Appeals for the District of Columbia issued an Order directing the NRC to resume its review of a construction license application for a repository at Yucca Mountain in Nevada.
- On August 13th the Director of Nuclear Energy Programs for the Energy Communities Alliance (ECA) presented at the National Conference of State Legislators Legislative Summit a perspective on the role of local governments and the future of nuclear waste management and disposal that included such positive efforts as a consent-based siting process, public comments considered in the Senate's proposed draft nuclear waste legislation, the Administration's strategy, federal, state and local governments viewed as equal partners, and affected communities decide on what terms they will host a nuclear facility.
- On August 14th the NRC held a public teleconference to state that the Commission had unanimously approved the proposed Waste Confidence rule and draft Generic Environmental Impact Statement (GEIS) for publication and public comment.
- On August 23rd Nye County, Nevada filed a motion with the NRC requesting that the NRC immediately lift the suspension of the Yucca Mountain licensing proceedings, revise and reinstitute the discovery schedule suspended by the NRC, and issue an Atomic Safety and Licensing Board order directing the immediate release of the NRC Safety Evaluation Reports (SERs). In addition, Nye County also filed a separate motion with the Commission for recusal of NRC Chairman, Allison MacFarlane, from the resumption of the licensing proceedings on Yucca Mountain. Nye County questioned the Chairman's impartiality based on her publications and previous statements on the inappropriateness of the Yucca Mountain site as a location for a nuclear repository and her critical position of the DOE's modeling and factual support of the Yucca Mountain license application.
- On August 27th the New England Council's Committee on Energy and Environment provided an overview on the U.S. Court of Appeals for the D.C. Circuit's Order mandating the NRC to resume the Yucca Mountain licensing proceeding while also providing some insight on the two constitutional principles, (lack of funds and a claim of unconstitutionality), that give the Executive authority, in certain circumstances, to decline to follow a statutory mandate and went on to illustrate how neither of the two applied in this situation.
- On August 27th the Mississippi Energy Institute, a not-for-profit group, formally urged the state's senate to consider establishing a dedicated management center to provide interim storage for used nuclear fuel with a future possibility of recycling and even disposal in Mississippi's salt domes.
- On August 30th the NRC issued an Order seeking input from participants in the adjudicatory proceeding on the resumption of the Yucca Mountain licensing review and how the NRC should continue with the licensing process to ensure the most efficient use of its remaining \$11 million.
- On September 4th Holtec International announced that their HI-STAR 180 transport cask withstood the impact of a missile travelling at 600 miles per hour with no breach of the cask containment boundary. The test simulated the impact of an aircraft crashing on a storage cask and was carried out as part of Switzerland's nuclear regulatory certification process.
- On September 5th the NRC issued a news release on its schedule for twelve nationwide meetings on its proposed waste confidence rule and environmental impact study. The proposed rule was developed in response to the Court of Appeals 2012 ruling that struck down the NRC's updated 2010 environmental regulation on the availability of a repository beyond a reactor's licensed life.

- On September 9th the NRC Chairman denied Nye County, Nevada's motion for the NRC Chair to recuse herself of any Yucca Mountain proceedings based on her previous public statements opposing the Yucca Mountain Project.
- On September 26th the State of Nevada filed a petition for rehearing en banc (before all the judges on the Appeals Court) with the Court of Appeals on their August 13th ruling that the NRC's suspension of the Yucca Mountain licensing proceeding violated the Nuclear Waste Policy Act and ordered the NRC to restart the licensing process.
- On September 27th the U.S. Court of Appeals for the District of Columbia Circuit issued an Order compelling the NRC to submit a combined response to Nye County's petition for expedited review and emergency motion for preliminary injunction.
- On September 30th the NRC filed with the U.S. Court of Appeals for the D.C. Circuit its motion for an extension of time to respond to the writ of mandamus and emergency motion for preliminary injunction filed by Nye County, Nevada.
- On September 30th the U.S. Court of Appeals for the D.C. Circuit issued an Order mandating that the petitioners (Aiken County, South Carolina, the states of Washington and South Carolina, the business leaders from the Tri-City area near Hanford, Washington, Nye County, Nevada, and the National Association of Regulatory Utility Commissioners) respond to the State of Nevada's petition for rehearing en banc on the Court's August 13th Order to compel the NRC to restart the Yucca Mountain licensing process.
- In the September-October issue of Radwaste Solutions the article entitled, "A Regional Approach to HLW (High-Level Waste), Spent Fuel, and TRU (Transuranic) Waste Disposal in New Mexico" listed six physical and geologic characteristics that would make disposal in salt deposits very attractive.
- On October 2nd the U.S. Court of Appeals for the D.C. Circuit issued an Order granting the NRC's motion for an extension of time to respond to the petitioners' motion for preliminary injunctive relief from the NRC Chair refusing to recuse herself from the Yucca Mountain licensing process.
- On October 9th the NRC Chair sent a letter to Senator Carper on how the Commission amended certain provisions of the regulations governing ISFSI's that resulted in a new, more efficient and accelerated licensing process for dry cask storage certificates of compliance by enhancing internal coordination, more frequent communications with licensees, improved tracking mechanisms and technical reviews.
- On October 9th the NRC filed with the U.S. Court of Appeals for the D.C. Circuit its opposition to the petitioners' filing for a writ of mandamus and an emergency motion for preliminary injunction relief over the NRC Chairman's decision not to recuse herself from the Yucca Mountain license proceeding. The NRC maintained that the petitioners had not complied with the Federal Rules of Appellate Procedure for seeking injunctive relief, have not demonstrated that the Chairman has pre-judged the Yucca Mountain license application, failed to prove that equitable relief was necessary, and their claim was not ripe since the Chairman had not issued any final order that affected the petitioners.
- On October 15th the petitioners filed their response with the U.S. Court of Appeals for the D.C. Circuit on the State of Nevada's petition for rehearing en banc (before all the judges on the Appeals Court). The petitioners countered that the Court's ruling did take into consideration equitable factors that were consistent with previous Court precedent and Nevada failed to present a question of exceptional importance for the court to grant a rehearing.
- On October 24th six Senators from the states of Alabama, Arkansas, Idaho, Louisiana, Mississippi, and Wyoming forwarded a letter to NRC Chairman Macfarlane urging the Chairman to promptly comply with the Court's August 13th Order to resume the Yucca Mountain licensing process and to complete the Safety Evaluation Reports on the proposed repository.

- On October 28th the D.C. Circuit Court of Appeals issued an Order denying the rehearing en banc (before the full Court) requested by the State of Nevada on the Court's August ruling for restarting the Yucca Mountain licensing proceeding. Since the Supreme Court rarely grants a writ of certiorari, Nevada's Chief Deputy Attorney General stated she would not appeal the Court's denial to the Supreme Court.
- On November 13th the Prairie Island Indian Community issued a statement expressing their concerns that a dry cask storage facility located 600 yards from tribal homes on the Prairie Island twin reactor site could remain stranded indefinitely and requested that the federal government honor its promise to transfer the waste out of the community.
- On November 14th the U.S. Court of Federal Claims issued its ruling on the Maine Yankee, Connecticut Yankee and Yankee Atomic (in Massachusetts) companies' second lawsuit against the federal government on their partial breach of the standard contract to take and dispose of the spent nuclear fuel stranded at their respective sites. The Court awarded Maine Yankee nearly \$35.87 million for the period from January 2003 through December 2008. Connecticut Yankee and Yankee Atomic received \$126.3 million and \$73.3 million, respectively, from January 2002 through December 2008.
- On November 18th the NRC issued a Memorandum and Order directing its staff to complete and issue the SERs associated with the Yucca Mountain construction authorization application, to load documents in the Licensing Support Network (LSN) into the NRC's non-public ADAMS online database while declining to reconstitute the LSN, continued to hold in abeyance the legal proceedings over the construction application, and requested the DOE to prepare the supplemental environmental impact statement for the NRC to complete its review of the Yucca Mountain application under the National Environmental Policy Act.
- On November 19th the U.S. Court of Appeals for the D.C. Circuit ordered the Secretary of Energy to submit to Congress a proposal to reduce the fee that nuclear utilities pay for a nuclear waste disposal program under the NWPA "to zero until such time as either the Secretary chooses to comply with the Act as it is currently written, or until Congress enacts an alternative waste management plan." The Court decided the range presented was so large "as to be absolutely useless as an analytical technique" and remarked that "the Secretary may not comply with his statutory obligation by concluding that a conclusion is impossible".
- On November 27th the State of Nevada petitioned the NRC for clarification of its November 18th restart order on the resumption of the Yucca Mountain licensing proceeding in order to safeguard the rights of the parties in the licensing process. Nevada maintained that the NRC Order did not allow for discovery to occur concurrently with the SERs and further contended that, if discovery should ever resume, it would be impossible to receive depositions from nearly one hundred expert witnesses in less than sixty days.
- On December 3rd the DOE filed a motion with the U.S. Court of Appeals for the District of Columbia Circuit to increase the time allowed by 31 days for the DOE to request a rehearing en banc (before the full Court) on the Court's November 19th Order to suspend its nuclear collection fee.
- On December 4th NARUC filed a motion with the D.C. Circuit Court of Appeals to expedite the issuance of the Court's November 19th mandate to suspend the nuclear fee based on DOE's historical tendency to delay, the approximate \$3 billion paid by ratepayers since 2009 when petitioners' first requested the Secretary of Energy to suspend the fee when DOE terminated the nuclear waste program, and the lawfully imposed delay of three months before the suspension takes effect.
- On December 5th Nye County, Nevada, the states of South Carolina and Washington, and Aiken County, South Carolina filed a motion with the D.C. Court of Appeals for a summary reversal of NRC Chairman Macfarlane's decision not to recuse herself in the Court ordered resumption of

the Yucca Mountain licensing proceeding by citing her public and published testimonies criticizing the Yucca Mountain project in 2006, 2009, and 2010.

- On December 11th the DOE's Office of Inspector General issued an audit report on DOE's management of the Nuclear Waste Fund (NWF) for Fiscal Year 2013, which concluded that there were no deficiencies or instances of noncompliance warranting a disclosure and that the financial statements presented fairly the financial positions of the Fund for the years ending on September 30th of 2012 and 2013. According to the report the NWF has a balance of \$34.1 billion as of the end of September 2013 with interest on the account accruing at over \$1.3 billion per year.
- On December 13th DOE filed with the D.C. Court of Appeals their opposition to the petitioners' motion for expedited issuance of the Court's mandate to suspend the Nuclear Waste Fund fee collection.
- On December 20th the U.S. Court of Appeals for the D.C. Circuit issued an Order denying the DOE's petition for a 31 day extension to allow DOE time to request a rehearing of the Court's November 19th Order to forward to Congress a reduction in the NWF fee to zero. In addition, the Court further ordered the petitioners' motion for expedited issuance be granted and directed the Clerk of the Court to do so immediately.
- On December 20th the Decommissioning Plant Coalition sent a letter to the NRC on their Waste Confidence Ruling and GEIS that expressed concern that the NRC may unintentionally endorse indefinite on-site storage of spent nuclear fuel as public policy by relying on extended on-site storage as a means of achieving waste confidence.
- In December the DOE's Office of Used Nuclear Fuel Disposition issued a report, entitled "Preliminary Report on Dual-Purpose Canister Disposal Alternatives (FY13)". The 190 page report documented the first phase of a multi-year effort to recognize the technical feasibility and logistics for the direct disposal of dual-purpose canisters and other types of storage canisters in salt formations, crystalline (hard) rock and sedimentary media such as clay or shale.

To provide a more comprehensive and complete depiction on all the unfolding events on this controversial subject, Appendix B provides a chronological listing of all the unfolding activities, whether they be from the independent agencies of DOE and the NRC to congressional activities to the Administration's posture to stakeholder responses and actions to federal court filings and rulings to international highlights.

Besides the items mentioned above, there were five notable events that occurred during the year. Appendix C contains the Administration's response to their 2012 BRC recommendations. The Administration's strategy endorsed a nuclear waste management system that contained a pilot interim storage facility, a full scale storage facility, and the construction of a geologic repository. The strategy ratified most of the BRC's recommendations, but some did not, such as the BRC's federal corporation recommendation and the use of fees and Fund balance to construct a repository. The document intensified the nuclear waste debate.

In Appendix D is the long awaited federal Appeals Court ruling on the Yucca Mountain project. The Court's ruling overturned the Administration's and the NRC's efforts to terminate the Yucca Mountain project and directed the NRC to resume the Yucca Mountain licensing proceedings. The Court maintained that the NRC cannot disobey a law enacted by Congress.

Appendix E documents the U.S. Federal Court of Claims collectively granting the three Yankee companies (Maine Yankee, Connecticut Yankee, and Yankee Rowe) \$254 million in damages for the federal government's breach of their contract to remove the used nuclear fuel from their respective sites.

The Court awarded Maine Yankee \$35.7 million with Connecticut Yankee receiving \$126.3 million and Yankee Rowe \$73.3 million. This was the second round of lawsuits won by the three Yankees. Future lawsuits are anticipated with more Court awards expected until the federal government fulfills its obligations and takes the used nuclear fuel. The press release summarized the Court's 38 page ruling on how the damages were assessed.

Appendix F contains the NRC's response to the Court's Resumption Order. The NRC directed its staff to complete the five volume set of the Safety Evaluation Report on Yucca Mountain and requested that the DOE prepare the supplemental environmental impact statement. Although the NRC further directed its staff to load the original LSN document collection into their online database system, the Commission did not direct the Staff to reconstitute the LSN. Finally, due to the limited funds available, the NRC continued to hold in abeyance the Atomic Safety and Licensing Board's 299 legally admitted contentions.

Appendix G contains the U.S. Court of Appeals for the D.C. Circuit ruling that the DOE submit to Congress a proposal to eliminate the fee to nuclear utility generators until such time the Department complies with the NWPA and reopens Yucca Mountain or until Congress enacts an alternative waste plan. The Court stated that the range of repository costs were so large as to render the fee assessment useless and further stated that the "Secretary may not comply with his statutory obligation by concluding that a conclusion is impossible".

Appendix A
Condition Reports

Date	CR #.	Description
1/2/13	13-01	Failure of one camera
1/3/13	13-02	Potential trespass incident
1/9/13	13-03	Phone test being routed to a new support site
1/10/13	13-04	Observations from a quality assurance surveillance
1/14/13	13-05	Vehicle blocking a fire hydrant
1/14/13	13-06	Documented the earthquake that was heard and felt on-site
1/22/13	13-07	Potential to perform evaluations not in the best order
1/22/13	13-08	Trend analysis for the 2012 condition reports
1/23/13	13-09	Second instance of a phone test being routed to the new support site
1/24/13	13-10	Responsible person change that was not reflected in a procedure attachment
1/25/13	13-11	Fire door not dependably latching
1/28/13	13-12	Inappropriate storage of optical disks in the horizontal position
1/28/13	13-13	Procedure deficiency that could potentially allow access prior to receiving access authorization
1/28/13	13-14	Intermittent detector problem
1/30/13	13-15	Mislabeling of a document cabinet
1/30/13	13-16	Potential missing page from a security document
2/4/13	13-17	Door not fully latching when the heating fan was on
2/4/13	13-18	Failure of an uninterruptible power supply
2/4/13	13-19	Phone circuit not working
2/4/13	13-20	Termination of an old procedure before all of its contents were transferred to other active procedures
2/5/13	13-21	Damage of a pad ground wire clamp during snow removal
2/5/13	13-22	Disconnection of power cables to the Central Maine Power contractor trailers without first instituting electrical safety measures to lock and tag out before opening the feeder breaker
2/5/13	13-23	Finding an old thermoluminescent dosimeter (TLD) canister frozen into the snow
2/6/13	13-24	Flying over of a plane that was later found to be of a news reporter and photographer covering the three Yankee companies' press release over the Department of Energy's payment of damages for not taking the spent fuel
2/8/13	13-25	Computer server problems and the planned, upcoming server outage
2/12/13	13-26	Deficiencies identified from the latest quality assurance audit
2/19/13	13-27	Radiation sign found on the ground that had been attached to the ISFSI fence
2/19/13	13-28	Missing review signature on a surveillance form
2/19/13	13-29	Received a suspicious phone call
2/20/13	13-30	Water leaking into the diesel generator room during heavy rains
2/25/13	13-31	Track open items on the movement of security files
2/26/13	13-32	Procedure issued with two pages showing the previous revision number
2/27/13	13-33	Track open items from a training self-assessment
3/4/13	13-34	Header of a recently issued procedure containing the previous revision number
3/11/13	13-35	Loose ground wire on one of the vertical concrete cask pads
3/16/13	13-36	Another example of a recently issued procedure with the previous revision number on one of the attachments
3/21/13	13-37	One piece of incoming correspondence being scanned to records prior to removing personally identifying information

3/22/13	13-38	Ice damage to a door awning
3/25/13	13-39	Track training recommendations from a self-assessment
3/26/13	13-40	Missing page form from a routine physical
3/26/13	13-41	Central Maine Power contractor accepting a package delivery without notifying security first
3/27/13	13-42	Track recommendations from a self-assessment
3/27/13	13-43	Ice damage to HVAC duct work on the backside of the Security and Operations Building
3/30/13	13-44	An in use log that was not current with a recently issued procedure
4/1/13	13-45	An inventory being performed just before the procedure controlling the inventory was issued
4/1/13	13-46	Found some missing amendments to a Department of Environmental Protection Site License
4/7/13	13-47	Failure to log a custody record
4/8/13	13-48	Discovery of a leak in the sewer line
4/10/13	13-49	Found a radiation device unplugged that had to be plugged in to keep batteries charged
4/10/13	13-50	Label on a radiation device not containing all the necessary information
4/13/13	13-51	Radioactive source not being signed out in accordance with procedure
4/16/13	13-52	Site access badges expiring prior to their intended date due to a data entry error
4/17/13	13-53	Found some procedure deficiencies
4/17/13	13-54	Out-of-spec log reading not being flagged and investigated
4/22/13	13-55	One certification missing from the company's Negation Action Plan
4/23/13	13-56	Camera problem
4/23/13	13-57	Log reading outside the allowable limits
4/23/13	13-58	Found an unlocked door that is normally locked
4/24/13	13-59	Small hydraulic oil leak from a contractor's truck
4/30/13	13-60	Small gas spill by a Central Maine Power truck
5/1/13	13-61	Loss of signal from one fence line monitor
5/3/13	13-62	An alarm not clearing
5/6/13	13-63	Uneven motion on the man-lift turntable
5/9/13	13-64	Security-related and therefore not available for public disclosure
5/13/13	13-65	Battery pack on an emergency exit light failing its surveillance testing
5/13/13	13-66	Sink hole that appeared in an area that was recently paved
5/13/13	13-67	Damage to a gate stop
5/13/13	13-68	Logging error associated with the emergency exit light battery failing its surveillance
5/13/13	13-69	Found a discrepancy in the electronic backup of files
5/13/13	13-70	Electrical breaker problem with the man-lift
5/13/13	13-71	Another man-lift issue
5/13/13	13-72	Documented several man-lift issues
5/14/13	13-73	Expired employee badge
5/14/13	13-74	Labeling discrepancy on a security storage cabinet
5/20/13	13-75	Found a fluorescent light bulb broken
5/22/13	13-76	Small anti-freeze spill to pavement
5/23/13	13-77	Track improvement items from the fire and medical drill
5/30/13	13-78	Security officer reporting for duty without his key card
5/31/13	13-79	Gate support was struck by man-lift
6/1/13	13-80	Telephone inoperable
5/30/13	13-81	Lost keycard not logged within required timeframe
6/3/13	13-82	Found an abandoned cable during the excavation for a new vehicle barrier gate
6/5/13	13-83	Found a cracked thermometer during cleanup efforts

6/6/13	13-84	Performed a regulatory screen on a form that did not contain a procedure revision number on the form
6/6/13	13-85	Contact between the building crane and a man-lift during the gate cable installation
6/6/13	13-86	Found an abandoned cable and piping during the trenching for the water building to the old staff building and annex
6/7/13	13-87	Found a raw water line during the excavation for the water line to the new maintenance building
6/8/13	13-88	Excessive rain eroding the new gate excavation
6/9/13	13-89	Computer fan noise
6/9/13	13-90	Additional erosion from excessive rain in the same location as before
6/9/13	13-91	Failure to filter water pumped from the gate excavation
6/12/13	13-92	One fire damper failing its surveillance
6/17/13	13-93	Log was filled out using an old revision number
6/18/13	13-94	Small hydraulic spill of about two tablespoons onto the pavement from a contractor's excavator
6/18/13	13-95	Some minor damage to a heat shield on a temperature monitor from contact with the excavator
6/19/13	13-96	Discovered an unsealed cable penetration
6/20/13	13-97	Tractor mower hitting a rock
6/25/13	13-98	Track training observations from a self-assessment
6/25/13	13-99	Tripping of the man-lift's electrical breaker
6/25/13	13-100	Emergency exit light bulb out
7/1/13	13-101	Problem with the site's gate
7/2/13	13-102	Rifle sling becoming disengaged from the rifle
7/3/13	13-103	Problem with the man-lift drive system
7/4/13	13-104	Insect bite to a worker
7/5/13	13-105	Automatic start of the diesel generator without the loss of power
7/9/13	13-106	Low voltage on the incoming power line
7/11/13	13-107	Loss of the signal alert on the diesel auto transfer switch
7/18/13	13-108	Loss of communication with the gate house during a lightning storm
7/24/13	13-109	Procedure not being updated to reflect a change in the regulation
7/31/13	13-110	Uneven wear on the John Deere tires
7/31/13	13-111	Failure of one of the building exhaust fans
8/1/13	13-112	Need to update the safety program document to remain consistent with OSHA
8/3/13	13-113	Equipment failure in the atmospheric monitor
8/8/13	13-114	Key inventory was not updated to reflect a recent key addition
8/13/13	13-115	Worm digger on Maine Yankee property
8/15/13	13-116	Initiated a tracking CR as a follow-up to items from an internal self-assessment
8/19/13	13-117	Repeated stalling of the man-lift
8/20/13	13-118	Initiated a tracking CR as a follow-up to items from a Radiation Protection Program assessment
8/21/13	13-119	Small hydraulic leak on the man-lift
8/22/13	13-120	Man-lift stalling in the roadway while moving it to the repair location
8/22/13	13-121	Battery surveillance not meeting the acceptance criteria
8/24/13	13-122	Documented a call from the Nuclear Regulatory Commission which was intended only for operating plants
8/29/13	13-123	Some ceiling panels' support frames not installed per code
9/2/13	13-124	Water intrusion into the Security and Operations Building following a heavy rain storm
9/5/13	13-125	Used an incorrect revision of a procedure

9/9/13	13-126	Failure of an emergency exit light battery pack during testing
9/10/13	13-127	Found a wounded Canadian Goose on the property
9/12/13	13-128	Computer hardware issue
9/16/13	13-129	Fire panel trouble alarm after the electrical transformer replacement
9/19/13	13-130	Documented that the License Termination Plan requires periodic revisions and submittals
9/23/13	13-131	Vendor was identified as not maintaining or training to the current revision of the procedure set
9/25/13	13-132	Documented that no requirement existed within the commitment tracking database for annual requalification training
9/27/13	13-133	Problems with the man-lift failing to rotate
9/30/13	13-134	Failure of recording equipment during a planned maintenance
10/11/13	13-135	Radiation monitor losing contact multiple times
10/11/13	13-136	Attachment point on a weapon sling came apart
10/15/13	13-137	Wording in a security procedure was unclear and inconsistent with other documents
10/21/13	13-138	Electrical fault in the fire suppression panel in the document room
10/28/13	13-139	Backup radio found without power
10/28/13	13-140	Static discharge was experienced between the Security and operations Building and a man-lift during a gutter inspection
10/29/13	13-141	Internet connection failure due to an off-site system outage
11/3/13	13-142	Oil leak from a utility vehicle onto the pavement
11/5/13	13-143	Individual stopped on Old Ferry Road and exited the vehicle with a hunting rifle
11/6/13	13-144	Routine surveillances of the new vehicle barrier system were not being implemented according to procedure
11/6/13	13-145	New vehicle barrier system operating slowly during cold weather due to viscosity issues
11/7/13	13-146	Tracking CR to cover various quality assurance surveillance activities related to correspondence processing
11/7/13	13-147	Tracking CR to cover various quality assurance surveillance activities, some of which were associated with the vehicle barrier system
11/7/13	13-148	Need a formalized and detailed ISFSI Manager transition plan based on the pending retirement of the current ISFSI Manager
11/8/13	13-149	Fire door was not tripping closed when tested
11/9/13	13-150	Desk log form was not printing out properly
11/13/13	13-151	Vehicle barrier gate was not left in the proper position and the pin installed incorrectly
11/18/13	13-152	Radiation technician signed in on the wrong radiation work permit
11/21/13	13-153	Vendor not calling in after a system related issue had cleared
11/22/13	13-154	Utility vehicle found with low coolant and oil that was milky
11/25/13	13-155	Non-security alarm zone failed
11/29/13	13-156	Fire door that was not closing properly
12/5/13	13-157	Ice building up in the Storage Building from leaking water
12/9/13	13-158	Exterior, non-security door not operating properly
12/9/13	13-159	Vehicle gate switch not operating correctly
12/12/13	13-160	Buried service vault collecting water
12/14/13	13-161	Small fuel leak on a man-lift while parked in the Storage Building
12/17/13	13-162	Individual lost their key card
12/24/13	13-163	Alarm system was not properly tested after a brief interruption of internet service due to offsite system problems
12/27/13	13-164	Inventory log sheet was missing for one day during records processing
12/31/13	13-165	Some electronic forms' templates in the forms folder contained duplicates and various revisions

Appendix B – Newsworthy Items

- On January 2nd the Attorney Generals of Vermont and New York submitted to the Nuclear Regulatory Commission their combined comments on the NRC's Waste Confidence scoping considerations of environmental impacts of the temporary storage of spent nuclear fuel after cessation of reactor operation. The Attorney Generals contended that the Nuclear Regulatory Commission has improperly limited the proposed scope of the Environmental Impact Statement (EIS). They suggested what the scope of the EIS should be, proposed procedures for the EIS process, summoned the NRC's Atomic Safety and Licensing Board while disclosing all documents used by the NRC staff for rulemaking with a meaningful response by NRC to scoping comments.
- On January 2nd the Eureka County Nuclear Waste Program from Nevada submitted their scoping comments on the Nuclear Regulatory Commission's proposed draft EIS on Waste Confidence. According to them the NRC's EIS notice of intent was not clearly defined, and therefore, made it difficult to comment on. In addition, the no repository scenario would require the NRC to assess the risk of long term storage, which the NRC is only beginning to scratch the surface on what research would be necessary to make those risk assessments. The letter also raised the specter of public skepticism should the EIS be of questionable integrity.
- On January 2nd Xcel Energy and the Prairie Island Indian Community provided joint comments to the NRC's notice of intent to prepare an EIS in regards to their Waste Confidence Decision and Rule. Xcel Energy noted that the Prairie Island Nuclear Generating Plant and its ISFSI are located on the ancestral lands of the Indian Community and that both Xcel Energy and the Prairie Island Indian Community have worked cooperatively to promote and enforce the federal government's obligation to remove the waste. They remarked that the failure of the federal government to meet its responsibilities created the need for the NRC to implement a Waste Confidence Decision and Rule. On the proposed scenario for a repository being available by mid-century, they commented that this proposal would allow 37 years to elapse before a repository became available compared to the 15 years allowed by the Nuclear Waste Policy Act, when it was enacted in 1982. They objected to the second scenario taking 87 years for a repository to be available and requested that it not be part of the analysis. They expressed concern that such a scenario could encourage the view that it would be acceptable to wait this long for a repository to be constructed and the scenario would be bounded by the no repository situation.
- On January 2nd Duke Energy submitted its comments on the scope of the EIS supporting rulemaking to update the NRC's Waste Confidence Decision. The company proposed that the NRC adhere to their two year schedule to update the Waste Confidence Decision. They also recommended that the NRC focus only on the deficiencies identified by the Appeals Court and limit its evaluation of scenarios to two, storage until the end of the century and indefinite storage.
- On January 2nd a lawyer firm representing the City of Red Wing, Minnesota, the host community for the Prairie Island Nuclear Generating Plant, provided their comments on the NRC's environmental impacts of temporary storage of spent fuel after cessation of reactor operations. They expressed concern over the current 29 dry casks being stored on-site with an anticipated total of 99 casks by the end of the power plants licenses in 2034. They noted that the NRC's focus on time after cessation of operations was inappropriate, but should be focused on when the storage starts and facility's ability to perform its intended safety functions. Moreover, they contended that the scoping should not be limited to those identified by the D.C. Circuit and should include all factors associated with the storage of spent nuclear fuel. They also suggested other areas of concern that should be embodied in the EIS, such as local factors, ability to rely on other environmental assessments, structural integrity of the casks over time, institutional controls

for extended storage times, incorporating lessons learned from Fukushima, impact of environmental and socioeconomic factors, and the location of NRC sponsored public meetings.

- On January 2nd the Western Interstate Energy Board's High-Level Radioactive Waste Committee, which is comprised of nuclear waste transportation experts from eleven western state governments, submitted their comments on the NRC's notice of intent to prepare a draft EIS. In clarifying the EIS's purpose, the Committee wondered whether the technical bases for the waste confidence would address monitoring of the spent fuel, cladding degradation in canisters, hardened canisters for extended storage and transport, the risks of spent fuel pool leaks and fires, repackaging and pool storage capacity. Additional issues were raised on the application of waste confidence to licensing decisions such as extending the license term of a reactor or a storage facility. Finally, the Committee was concerned on how the EIS would inform the findings of NRC's revised Waste Confidence Decision in such areas as the technical feasibility of a geologic repository, the availability of at least one repository within a certain time period, the safe management over extended periods, the safety of on-site or off-site storage, and the availability of storage capacity.
- On January 2nd the Union of Concern Scientists (UCS) presented their comments to the NRC on the environmental impacts of temporary storage of spent fuel. The UCS expressed concerns over the NRC's programmatic failings over fulfilling its National Environmental Policy Act obligations, claiming that history would suggest a fundamental flaw and the NRC should conduct a formal lessons learned evaluation. The UCS raised three concerns over NRC's blind spots. The first involved NRC's premise of when, and not if, repositories are available. The UCS recommended that the NRC evaluate within its EIS the effects of a repository not being available. The second was on the relative risk of wet pool versus dry storage of spent fuel. The UCS claimed that the NRC's failed to recognize that risk of storage in wet pools was more hazardous than in dry storage and gave examples from industry to support their claims. The UCS recommended that the generic EIS consider scenarios that would be applicable to both wet and dry storage, including their related regulations or lack thereof. Lastly, the UCS pointed out that the NRC's proposed evaluation timeline would delay the analysis on the environmental effects of indefinite storage until 2050, which would not resolve the Court's primary deficiency. They recommended that the NRC include a formal evaluation of the no repository scenario in its EIS.
- On January 2nd the NWSC sent a letter to the NRC detailing their comments on the scope of the EIS supporting the rulemaking to update the Waste Confidence Decision. The Coalition expressed their plea for the federal government to fulfill its obligations by removing and disposing of spent nuclear fuel and high-level waste from commercial reactor sites. They further stated that Yucca Mountain should remain an option for a repository unless ruled out by scientific review, Congress or the courts. They offered four comments. The first urged the NRC to maintain its two year schedule to finalize its environmental assessment. The second agreed that the scope of the EIS be limited to the three specific deficiencies identified by the Court. The third lauded NRC's outreach efforts for public and stakeholder participation. Lastly, the Coalition stated unequivocally that indefinite storage was unacceptable and that the federal government had a legal and moral obligation to ensure the availability of a geologic repository program. The Coalition outlined four steps the NRC could undertake to restore trust in the federal government.
- On January 2nd the Natural Resources Defense Council (NRDC) submitted their comments on the proposed NRC's Waste Confidence scoping notice. The NRDC asserted that the scoping notice did not comply with the National Environmental Policy Act (NEPA), since it did not formulate the major federal action triggering the need for an EIS and failed to provide "possible alternatives to the extent possible". The NRDC presented an extensive historical perspective from the inception of the 1977 actions that precipitated the Waste Confidence Determination,

how it evolved and was revised over the years since then, including the five findings that the NRC used to exhort its Waste Confidence Decision, up to the legal challenge, the Court's vacating of the Commission's orders and remanding the matter back to the NRC, and subsequent attempts by NRDC and others to rectify the NRC's failure to follow NEPA requirements. Since the D.C. Court rejected the NRC's claim that the Waste Confidence Determination was not a licensing action, the NRC cannot reclaim that it is in its notice of intent. By reclaiming that it is in the notice, the NRC improperly shortened the required environmental review and analysis of the alternatives. The NRDC strongly took exception and maintained that the NRC's contention that their rules allowed latitude to ignore NEPA lacked merit. In addition, the NRDC further commented that the NRC's 24 month schedule randomly shortened the necessary EIS. Consequently, the NRDC went on to illustrate the issues that the scoping notice should have covered, such as defining the major federal action as the production of spent nuclear fuel from the licensing of nuclear power plants, the storage configuration of spent nuclear fuel so that the public has a clear sense of the environmental and safety impacts, clearly defining the relationship of the EIS to repositories, addressing terrorism and sabotage, and, finally, clearly stating the no action alternative of producing no more spent nuclear fuel.

- On January 2nd NEI provided their comments to the NRC's scope of the EIS supporting the rulemaking to update the Waste Confidence Decision and Rule. The cover letter summarized their twelve pages of remarks along with an additional five pages to correct inaccuracies in statements provided by other commenters. NEI supported the schedule the NRC developed for a generic EIS and the use of existing documents to support the necessary environmental analyses. The twelve pages of comments went into detail on the starting point of the EIS, the limited scope of the EIS, the consequences of the temporary storage based on the scenarios suggested by the NRC, the inclusion of reasonable foreseeable spent fuel storage alternatives, addressing the three deficiencies identified by the Court such as the failure to establish a permanent repository, the risks of future spent fuel pool leaks, and the outcomes of spent fuel pool fires. NEI encouraged the NRC to not venture beyond the scope of the generic EIS into such areas as the impacts of the entire nuclear fuel cycle, alternatives to licensing nuclear power plants, factoring in site specifics, and the environmental impacts of transporting used nuclear fuel from the on-site storage facility to a permanent repository.
- On January 2nd 172 organizations signed a principles document for the safeguarding of nuclear waste at reactors. The document advocated six major themes.
 - Requiring a low-density, open frame layout for fuel pools,
 - Establishing hardened on-site storage (HOSS),
 - Protecting fuel pools,
 - Requiring periodic reviews of HOSS facilities and fuel pools,
 - Dedicating funding to local and state governments to independently monitor the sites, and
 - Prohibiting reprocessing.
- On January 2nd the Sustainable Fuel Cycle Task Force submitted their comments for the NRC's staffs' scoping process for an Environmental Impact Statement to support the Commission's Waste Confidence Decision. The Task Force strongly recommended that the EIS process deal with the significant technical and institutional uncertainties and consequences for the indefinite deferment of a geologic repository. The Task Force identified four comments that the EIS process should encompass. The first is a realistic consideration of the receipt, handling, and potential repackaging of loaded fuel canisters in their current configuration at future repositories not designed to accommodate the large containers. Additional concerns involve the degradation of the fuel cladding and the potential environmental impacts from repackaging failed fuel as well as the potential for releasing radioactive elements into the repository setting from the loss of the cladding barrier. The Task Force also contended that the EIS completely consider the technical and safety issues of long term dry storage, such as cladding deterioration, containment seal and

boundary integrity, concrete deterioration, and compliance with transportation safety requirements after extended periods of on-site storage. Finally, there are the societal uncertainties associated with a dependence upon future generations taking corrective actions or continued maintenance to diminish possible undesirable environmental consequences.

- On January 4th the NRC filed with the U.S. Court of Appeals for the District of Columbia Circuit their initial status report in response to the Court's Order of August 3, 2012 regarding their temporary delay on whether the Yucca Mountain licensing application proceedings should be resumed.
- On January 4th the State of Nevada as an intervenor filed with the D.C. Circuit of Appeals its contention that the Court should not order the Nuclear Regulatory Commission to resume its licensing hearings on Yucca Mountain.
- On January 4th the petitioners (Aiken County, South Carolina, the three Tri-City business leaders from nearby Hanford, Washington, the states of South Carolina and Washington, the National Association of Regulatory Utility Commissioners, and Nye County, Nevada) filed with the U.S. Court of Appeals for the District of Columbia Circuit their second supplemental status report contending that there was no prohibition for the NRC to utilizing the previous unexpended appropriate funds to continue the review of the Yucca Mountain license application.
- On January 11th the Department of Energy released its long awaited report on how it would implement the Administration's BRC's recommendations to manage the nation's used nuclear fuel and high-level waste stockpile.
- On January 11th the RAND Corporation released its report, entitled "Choosing a New Organization for Management and Disposition of Commercial and Defense High-Level Radioactive Materials". The report was commissioned by the Department of Energy (DOE) to address the Blue Ribbon Commission's recommendation for a congressionally chartered federal corporation to manage and dispose of civilian and defense-related used nuclear fuel.
- On January 11th the DPC, a consortium of decommissioned reactor sites, issued a press release praising the Administration for developing a plan that would remove spent nuclear fuel and Greater Than Class C waste from the shutdown reactor sites.
- On January 11th Senator Murkowski from Alaska commented that the Department of Energy's strategy report for managing the nation's nuclear stockpile was an important and constructive step in resolving the federal government's outstanding liability issue with dry cask storage facilities at nuclear generating facilities across the country.
- On January 17th NRC published in the Federal Register its request for comments for potential rulemaking on retrievability, cladding integrity, and safe handling of spent fuel at an ISFSI and during transportation.
- On January 18th DOE published its Nuclear Waste Fund fee adequacy assessment as mandated by the U.S. Court of Appeals for the District of Columbia Circuit.
- On January 31st NARUC filed a motion with the U.S. Court of Appeals for the District of Columbia Circuit to reopen their lawsuit over the DOE's collection of a nuclear fee amounting to more than \$750 million a year from nuclear utility customers for a waste program that no longer exists and to order the DOE to suspend the fee collection.
- On January 31st the House Energy and Commerce Committee issued a press release marking the fifteenth anniversary of when the DOE was expected to begin receiving nuclear waste at Yucca Mountain.
- On February 6th NARUC adopted a resolution regarding five guiding principles for management and disposal of high-level nuclear waste.
- On February 12th the National Transportation Stakeholders Forum (NTSF) held a webinar to a national ad hoc working group, which Maine is a member, that is working with DOE to resurrect recommendations from a 2005 working group on a national funding plan to train state and local

public officials in emergency response training to a used nuclear fuel shipment originating or traversing their borders.

- On February 20th the NRC held a teleconference call to update interested parties and stakeholders on the status of its Waste Confidence Generic EIS and Rulemaking.
- On February 27th the U.S. Court of Appeals reviewed NARUC's motion to reopen the Nuclear Waste Fund fee assessment performed by the DOE and ordered the Court's own motion be recalled, ordered the motion to reopen be granted, and established a relatively expedited briefing schedule commencing in March and concluding in July on the reopened case between NARUC and the DOE.
- On March 1st NRC published a summary of its public teleconference on February 20th with 99 participants representing various factions.
- On March 4th President Obama nominated Dr. Ernest Monitz to replace Dr. Chu as the head of DOE.
- On March 5th the NWSC issued a statement calling on congressional offices to restructure the nation's spent nuclear fuel management program.
- On March 12th the NTSF held a webinar to a national ad hoc working group that is working with the Department of Energy to resurrect recommendations from a 2005 working group on a national funding plan to train state and local public officials in emergency response training to a used nuclear fuel shipment originating or traversing their borders.
- On March 12th the National Conference of State Legislatures (NCSL) issued a letter to the Chairs and Ranking Members of the Senate Energy and Natural Resources and Energy and Water Development Appropriations Committees praising their bipartisan effort to develop a national policy to manage the used nuclear fuel and high-level radioactive waste.
- On March 21st President Obama nominated NRC Chairman, Dr. Allison Macfarlane to a new five year term.
- On March 27th NRC filed its second status report with the U.S. Court of Appeals for the District of Columbia Circuit on the petition to force the NRC to reopen its licensing proceedings on the Yucca Mountain Project by claiming that the \$10 million of carryover funds would be inadequate to complete the licensing proceedings.
- On March 27th the petitioners filed their third supplemental status report with the D.C. Circuit Court of Appeals on their mandamus filing by maintaining that the NRC had no legal basis to unilaterally stop the licensing proceedings and that the \$10 million plus leftover could be applied to resuming licensing activities.
- On March 28th the State of Nevada filed with the Court of Appeals for the D.C. Circuit its second status report as an intervenor in the mandamus case by affirming that Congress continued not to appropriate any additional funds to the NRC or DOE to resume the Yucca Mountain licensing proceedings.
- On March 28th The Heritage Foundation published an issue brief on their five criteria to promote lasting reform on nuclear waste management in response to proposed legislation that maintains the status quo through redefinition.
- On April 2nd the U.S. Court of Appeals for the Federal Circuit affirmed the Court of Federal Claims' decision to strike down the federal government's unavoidable delays defense argument in Entergy's breach of contract cases against the U.S. government.
- On April 5th Esmeralda County in Nevada provided their comments on the December 2012 Nevada Commission on Nuclear Project's Report to their local Senator and Assemblyman expressing their concerns that the report was biased and that it relied too heavily on one consultant's opinions of the technical adequacy of the Yucca Mountain site.
- On April 5th the NRC filed with the U.S. Court of Appeals from the District of Columbia Circuit their third status report informing the Court that it had \$11.1 million in unobligated and \$2.5 million in obligated carryover funds from the Nuclear Waste Fund.

- On April 5th the petitioners filed with the U.S. Court of Appeals for the D.C. Circuit its fourth supplemental status report stating that the NRC has \$13.6 million and the DOE \$17 million in carryover funds appropriated from the Nuclear Waste Policy Act for its licensing proceedings on the Yucca Mountain Project.
- On April 9th the national Section 180(c) Working Group for the DOE, which the State is a member, held a webinar on providing recommendations to the DOE on a national funding plan to train state and local public officials in emergency response training to a used nuclear fuel shipment originating or traversing their borders.
- On April 10th Germany announced that a new site selection process for a repository was agreed upon under a compromise between federal and state governments and opposition parties, terminating the site suitability investigation at the Gorleben salt dome that started in 1977.
- On April 11th the Government Accountability Office (GAO) published “Commercial Spent Nuclear Fuel – Observations on the Key Attributes and Challenges of Storage and Disposal” on a Yucca Mountain repository, centralized interim storage, and a permanent repository other than Yucca Mountain and presented it as testimony before the House’s Committee on Appropriations’ Subcommittee on Energy and Water Development.
- On April 11th the Chairman of the U.S. NWTRB also provided testimony before the House’s Subcommittee on Energy and Water Development hearing on Nuclear Programs and Strategies.
- On April 16th the NWTRB held a meeting in Richland, Washington on the status of the vitrification (process of solidifying waste into a glass form) of high-level radioactive waste.
- On April 16th the DOE announced a new investment in nuclear fuel storage research on high burn-up spent nuclear fuel with industry footing 20% of the cost and the federal government chipping in \$15.8 million.
- On April 23rd the U.S. Court of Federal Claims awarded \$47.8 million to Entergy Corporation for DOE’s failure to remove the spent nuclear fuel at the Arkansas Nuclear One Power Station.
- On April 23rd the national Section 180(c) Working Group for the DOE held another webinar on the distribution of funds to states through direct grants from DOE, their Council of State Governments’ Regional Boards, or cooperative agreements with the DOE.
- On April 25th the Chairman of the House Committee on Energy and Commerce and the Chairman of the House Subcommittee on Environment and the Economy sent a letter to the Comptroller General of the GAO requesting their evaluation of their estimated timeframes for opening two interim storage sites and a permanent repository as compared to the DOE’s recently released strategy document presuming much shorter timeframes.
- On April 25th the United States Senate published a press release indicating that four senators had issued a discussion draft of comprehensive nuclear waste management legislation for disposing of the nation’s high-level nuclear waste.
- In May NEI’s Board of Directors issued a position statement outlining six elements of their integrated used nuclear fuel management strategy
- On May 3rd the Florida Public Service Commission and the Florida Office of Public Counsel filed a friends of the court brief and an addendum with the U.S. Court of Appeals for the D.C. Circuit in support of the NARUC’s, NEI’s and sixteen nuclear power utilities’ lawsuit against the Secretary of Energy’s Nuclear Waste Fund fee adequacy determination by highlighting the Funds \$28 billion dollar surplus with no federal repository program for the disposal of used nuclear fuel.
- On May 9th NEI testified before the House’s Appropriations Subcommittee on Energy and Water Development advocating funding to complete the licensing of the proposed Yucca Mountain repository besides establishing a new organization solely dedicated to the management of the back end of the nuclear fuel cycle, creating one or more consolidated storage facilities including a repository, and ensuring access to the annual collections and balance in the Nuclear Waste Fund.

- On May 9th New Mexico's Representative Pearce unveiled House legislation that would allow the Waste Isolation Pilot Plant in Carlsbad to accept wastes with similar characteristics as the waste it currently handles from all federal agencies instead of just the DOE.
- On May 20th Senator Murphy from Connecticut sent a letter applauding the four Senate co-sponsors that drafted bipartisan legislation, Nuclear Waste Administration Act of 2013, to address the nation's nuclear waste program.
- On May 20th NRC issued a press release on their final rule amending the security requirements for protecting spent nuclear fuel shipments in transit from theft, diversion, or radiological sabotage.
- On May 22nd the Michigan State Senate issued a resolution, SR 58, memorializing the U.S. Congress to fully address the State's concerns on water quality over the proposed, radioactive waste underground limestone repository in Ontario, Canada.
- On May 23rd the Sustainable Fuel Cycle Task Force sent a letter to DOE urging Energy Secretary Moniz to implement a consensus siting process for the development of a consolidated interim storage facility and a geologic repository.
- On May 23rd Lake Barrett sent a letter to the Senate Committee on Energy and Natural Resources raising six points, some supportive, some opposed to the proposed Draft Nuclear Waste Administration Act of 2013 at the bequest of the four co-sponsors of the draft legislation to address the nation's nuclear waste management program.
- On May 24th the Attorney General and President of the Senate for the State of Massachusetts, NEI, the NWSC, the DPC, the National Council of State Legislatures (NCSL), the U.S. Nuclear Infrastructure Council, the Energy Communities Alliance (ECA), and NARUC forwarded letters to the four Senators who co-sponsored the proposed legislation, Nuclear Waste Administration Act of 2013. Each organization had their individual positions for supporting or opposing certain facets of the proposed legislation.
- On May 24th the petitioners filed a motion with the U.S. Court of Appeals for the District of Columbia Circuit to lift the Court's August 3, 2012 abeyance order and proceed to judgment on the Yucca Mountain license application by issuing a writ of mandamus compelling the NRC to restart the Yucca Mountain license proceedings.
- On May 28th the NWTRB sent a letter to DOE's Senior Advisor for Environmental Management raising issues with the high-level waste forms at the Hanford site in Washington.
- On May 29th NRC filed its response with the D.C. Court of Appeals by taking no position with the petitioners' motion to lift the Court's abeyance order on the resumption of the Yucca Mountain licensing proceedings.
- On May 30th the ECA sent a letter to Energy Secretary Moniz offering him seven recommendations that would ensure the Department of Energy's success with local communities.
- On June 7th the NWTRB sent a letter to the Senate's Committee on Energy and Natural Resources providing comments on some shortcomings and improvements to the Committee's discussion draft nuclear waste legislation. According to international experience the most surprising comment was the support for a prescriptive consent-based process, which is contrary to what United States host communities have advocated.
- On June 12th DOJ and DOE filed their initial brief to the U.S. Court of Appeals for the D.C. Circuit as respondents to NARUC's and NEI's petition requesting the Court to declare the Energy Secretary's 2013 nuclear waste fee assessment as invalid. The DOJ and DOE maintained that the fee assessment was adequate, met the intent of the Nuclear Waste Policy Act of 1982, addressed the Court's concerns identified in the previous fee determination, and reject the petitioners' claims that the fee should be suspended until such time a national waste management plan is adopted.
- On June 15th DOE's Office of Nuclear Energy issued a report, entitled "A Project Concept for Nuclear Fuels Storage and Transportation". The report provided guidance for defining systems,

equipment, and facilities necessary to implement DOE's strategy for the management and disposition of used nuclear fuel and high-level radioactive waste. The report included key milestones and requirements for a pilot interim storage facility, a larger interim storage facility, and the transportation system and equipment needed to move used nuclear fuel from current storage locations to interim storage and then to a permanent geologic repository.

- On June 18th the House's Subcommittee on Energy and Water Development and Related Agencies held a hearing for the Fiscal Year 2014 Appropriations Bill. The Bill also proposed \$25 million to sustain the Yucca Mountain Project by supporting NRC to finish its licensing proceedings.
- On June 19th NRC held a public teleconference to discuss the status of the Waste Confidence Generic Environmental Impact Statement (GEIS) and proposed rulemaking. The NRC staff identified the ten chapters and eight appendices of the draft GEIS
- On June 19th Nye County, Nevada issued a news release reaffirming its commitment to accept the Department of Energy's high-level radioactive waste as long as it can be done safely.
- On June 24th the Waste Confidence Directorate of the NRC informed stakeholders that it had drafted three documents for the Commission's review relative to the Waste Confidence environmental review and rulemaking.
- On June 26th NARUC and NEI filed a reply brief with the U.S. Court of Appeals for the D.C. Circuit that continued to challenge DOE's Nuclear Waste Fund fee assessment that maintained it had the right to continue collecting \$750 million a year even "to fund a nonexistent nuclear waste program".
- On June 26th the House Appropriations Committee passed their Energy and Water Development Bill by a vote of 28-21. The bill provided \$25 million for the Nuclear Regulatory Commission to continue its deliberations on the Yucca Mountain license application.
- On June 26th-27th the U.S. Nuclear Infrastructure Council in conjunction with the Institute of Nuclear Materials Management held a technical workshop on the Department of Energy's (DOE) 2021 proposed pilot interim storage project.
- On June 27th four senators introduced bipartisan legislation to safeguard and permanently dispose of used nuclear fuel and high-level waste. The bill, entitled the "Nuclear Waste Administration Act of 2013, was based in part on recommendations from the President's Blue Ribbon Commission for America's Nuclear Future and proposed a new agency to administer the nation's nuclear waste program and a consent-based process to find sites for temporary and permanent storage.
- On June 27th the Senate Appropriations Committee approved their version of their Energy and Water Development Bill by a vote of 24-6. The Senate bill had a limited provision that provided the Secretary of Energy with the authority to introduce a pilot program for a consolidated storage facility for used nuclear fuel, but did not include any language on the Yucca Mountain Project.
- On June 28th the Chair of the House's Subcommittee on the Environment and Economy forwarded a letter to Energy Secretary Moniz requesting any information on activities the DOE's Office of Nuclear Energy has initiated in response to the Administration's strategy document for the management and disposal of nuclear waste.
- On July 5th Nevada's Representative Titus introduced three amendments to the House's Appropriations Bill. Three amendments were introduced to negate the provisions in the Appropriations Bill that would have allotted funds to support the geological repository program at Yucca Mountain in Nevada, to help affected local governments, and to support the Yucca Mountain licensing proceedings.
- On July 9th NEI sent a letter to the Chair and Ranking Member of the House's Subcommittee on Energy and Water Development in support of the House's Appropriations Bill that would provide \$25 million to continue the review of the Yucca Mountain license application.

- On July 9th Nevada's Representative Heck introduced an amendment to the House's Appropriations Bill that would redirect the \$25 million appropriation to continue NRC's licensing proceedings on Yucca Mountain to the High Energy Physics Program at the DOE's Office of Science to develop accelerator technology that would reduce the toxicity of the used nuclear fuel by transforming the long lived radioactive elements into shorter ones.
- On July 10th Germany passed a new law on repository selection for the disposal of used nuclear fuel by restarting from scratch, after the Gorleben site, which had been explored for over three decades, was politically contested. However, the site would remain as an option. The 33 member commission was tasked with recommending changes to their Site Selection Act, especially those involving the process, public participation, site selection and exclusion criteria.
- On July 10th the Plymouth Zoning Board rejected an appeal by opponents to stop the construction of a dry cask storage facility on the property of the Pilgrim Nuclear Power Plant in Massachusetts.
- On July 22nd DOE's Assistant Secretary for Nuclear Energy responded to the Chair of the House's Environment and the Economy Subcommittee June 28th letter by summarizing the major activities commencing with the closure of the Yucca Mountain Project in 2010 through the Administration's 2013 issuance of its strategy document to manage the nation's nuclear waste.
- On July 30th the U.S. Senate Committee on Energy and Natural Resources held a hearing to move forward a bill, Nuclear Waste Administration Act of 2013, that would permanently secure the disposal of the nation's nuclear waste backlogged at operating and shutdown reactor sites by implementing some of the key recommendations from the President's BRC such as a new agency, a consent-based process for siting nuclear waste storage and disposal facilities, and a new working capital fund for the proposed waste facilities.
- On July 30th the NWTRB forwarded a letter on researching and developing deep borehole disposal of used nuclear fuel to the DOE's Assistant Secretary by recommending the sequencing from bench scale testing to in place tests in the proposed environment to a full scale pilot test, to collaborating with Switzerland and Sweden to better characterize the host rock at great depths, and to assess the repackaging of used nuclear fuel into smaller packages and the facilities that would be required to support such an undertaking.
- On July 31st the House Subcommittee on Environment and the Economy held a hearing to examine the statutory and feasibility of the technical and economic support for DOE's strategy on managing the nation's used nuclear fuel, and the status of the current activities implementing this strategy. Energy Secretary Moniz testified that science may demonstrate that Yucca Mountain may be acceptable, but the public's trust was shattered when Yucca Mountain was singled out to be the only repository and thereby fostering opposition to this day.
- In July the American Nuclear Society's Radwaste Solutions journal published an article, entitled, "Consent-Based Siting: What Have We Learned?" provided a historical perspective on consent based siting along with consent approaches from eight foreign countries besides the U.S. experience with the Waste Isolation Pilot Plant in New Mexico.
- On August 2nd the Center for Strategic and International Studies issued a commentary on "Finding a Solution to America's Nuclear Waste Problem" illustrated how our energy, environment and national security policies were at stake and being undermined by our inability to resolve this issue. The commentary also noted that Finland has a repository that will begin operation in 2020, with France having a site that is expected to open in 2025 and Sweden has a site that is undergoing their license review process.
- In August the NWTRB submitted to Congress and the Secretary of Energy a 92 page report entitled, "Review of U.S. Department of Energy Activities to Preserve Records Created by the Yucca Mountain Repository Project". The Board identified some RECORDS shortcomings such as e-mail correspondence supporting Yucca Mountain requiring extra time and effort, public

access being only available through a Freedom of Information Act request, and the current system unable to load and execute most analytical software.

- On August 13th the U.S. Court of Appeals for the District of Columbia issued an Order directing the NRC to resume its review of a construction license application for a repository at Yucca Mountain in Nevada. The Order was a result of a writ of mandamus filed by petitioners from the states of South Carolina and Washington, Aiken County South Carolina, three business leaders from the Tri-City area near Hanford, Washington, the National Association of Regulatory Utility Commissioners, and Nye County, Nevada.
- On August 13th the Director of Nuclear Energy Programs for ECA presented at the National Conference of State Legislators Legislative Summit a perspective on the role of local governments and the future of nuclear waste management and disposal that included positive efforts such as a consent-based siting process, public comments considered in the Senate's proposed draft nuclear waste legislation, the Administration's strategy, federal, state and local governments viewed as equal partners, and affected communities decide on what terms they will host a nuclear facility.
- On August 14th the NRC held a public teleconference to discuss the status of their Waste Confidence GEIS and rulemaking and noted that the Commission had unanimously approved the proposed Waste Confidence rule and draft GEIS for publication and public comment.
- On August 14th the law firm, Van Ness Feldman, provided a commentary on the recent U.S. D.C. Court of Appeals ruling that the NRC was "simply flouting the law" by terminating the licensing application review of the Yucca Mountain Project. Although the Court's decision was a strong warning to federal agencies, they concluded that the Court's decision would not resolve the ongoing saga of the Yucca Mountain Project.
- On August 20th the NWTRB issued a summary report, entitled "Deep Borehole Disposal of Spent Nuclear Fuel and High-Level Waste" that provided a conceptual model of the disposal technique.
- On August 23rd the Chair of the House's Committee on Energy and Commerce and the Chair of the Subcommittee on Environment and the Economy sent a letter to the NRC Chairman requesting her presence at a Subcommittee hearing to provide an update on the Commission's actions to implement the Court's Order along with a schedule for releasing the five Safety Evaluation Reports on Yucca Mountain.
- On August 23rd Nye County, Nevada filed a motion with the Commission for recusal of NRC Chairman, Allison MacFarlane, from the resumption of the licensing proceedings on Yucca Mountain. Nye County questioned the impartiality of the Chairman based on her publications and previous statements on the inappropriateness of the Yucca Mountain site as a location for a nuclear repository and her critical position of DOE's modeling and factual support of the Yucca Mountain license application.
- On August 23rd the State of Nevada filed a motion with the NRC on how the Commission should act relative to a possible restart of the Yucca Mountain licensing proceeding.
- On August 23rd Nye County, Nevada filed a motion with the NRC requesting that the NRC immediately lift the suspension of the Yucca Mountain licensing proceedings, revise and reinstitute the discovery schedule suspended by the NRC, and issue an Atomic Safety and Licensing Board order directing the immediate release of the NRC's Safety Evaluation Reports (SER).
- On August 26th the Chair of the House's Committee on Energy and Commerce and the Chair of the Subcommittee on Environment and the Economy sent a letter to Energy Secretary Moniz expressing their sentiment that DOE fully support the recent D.C. Circuit Court of Appeals' decision for the NRC to resume the Yucca Mountain licensing proceeding.
- On August 27th the New England Council's Committee on Energy and Environment provided an overview on the U.S. Court of Appeals for the D.C. Circuit's Order mandating the NRC to

resume the Yucca Mountain licensing proceeding while also providing some insight on the “two constitutional principles that give the Executive authority, in certain circumstances, to decline to follow a statutory mandate” and went on to illustrate how neither of the two applied in this situation.

- On August 27th the Mississippi Energy Institute, a not-for-profit group, “formally urged the state’s senate to consider establishing a dedicated management center to provide interim storage for used nuclear fuel” with a future possibility of recycling and even disposal in Mississippi’s salt domes.
- On August 30th the NRC issued an Order seeking input from participants in the adjudicatory proceeding on the resumption of the Yucca Mountain licensing review and how the NRC should continue with the licensing process to ensure the most efficient use of its remaining \$11 million.
- On August 30th NEI filed a response with the NRC to Nevada’s and Nye County, Nevada’s motions for the restart of the Yucca Mountain licensing activities. NEI maintained that the remaining funds should be directed at completing the NRC’s SERs.
- On August 30th the State of Nevada filed a response with the NRC on Nye County’s motion for the recusal of the NRC Chair, Allison Macfarlane. Nevada contended that the Nye County motion relied on the use of an improper recusal/disqualification standard and none of the Chairman’s statements cited by Nye County warranted disqualification.
- On September 3rd the NWSC submitted a letter to the Commission its August 30th Order emphasizing the timely completion of the NRC staff’s SER, the reimbursement of Nuclear Waste Fund monies appropriated by Congress for the licensing review but were used instead to shut down the project without congressional authorization, and the pursuit of funding to complete the Yucca Mountain licensing review.
- On September 4th the Nevada Governor’s Agency for Nuclear Projects presented to the Las Vegas City Council the safety and business cases against Yucca Mountain. The safety case was predicated on four attributes that spent nuclear fuel is dangerous, the site is unsuitable, the repository design is flawed, and the transportation impacts are unacceptable while the business case was based on the development of another site costing \$13 to \$28 billion less than the Yucca Mountain Project.
- On September 4th Holtec International announced that their HI-STAR 180 transport cask withstood the impact of a missile travelling at 600 miles per hour with no breach of the cask containment boundary. The test simulated the impact of an aircraft crashing on a storage cask and was carried out as part of Switzerland’s nuclear regulatory certification process.
- On September 5th the NRC issued a news release on its schedule for twelve nationwide meetings on its proposed waste confidence rule and environmental impact study. The proposed rule was developed in response to the Court of Appeals 2012 ruling that struck down the NRC’s updated 2010 environmental regulation on the availability of a repository beyond a reactor’s licensed life.
- On September 5th Nye County, Nevada filed a request with the NRC for a leave to reply to the State of Nevada’s opposition to its motion for recusal/disqualification of the NRC Chairman Macfarlane. Nye County contended that State of Nevada’s response to their recusal motion was replete with errors and created a new recusal standard.
- On September 6th NRC Chairman Macfarlane responded to the Chair of the House’s Energy and Commerce Committee August 23rd letter in preparation for the upcoming House Subcommittee hearing on the NRC’s actions to implement the U.S. Court of Appeals decision for the NRC to resume the Yucca Mountain licensing proceeding.
- On September 6th the House Committee on Energy and Commerce issued a memorandum in preparation for an upcoming Subcommittee hearing on the next steps to implementing the NWPA, which included what actions DOE and NRC have taken to comply with the recent court ruling mandating the restart of the Yucca Mountain licensing proceeding, what was NRC’s

schedule for completing the SER, and will DOE and NRC request the necessary funding to comply with the Court's decision.

- On September 9th the NRC Chairman denied Nye County, Nevada's motion for the NRC Chair to recuse herself of any Yucca Mountain proceedings based on previous public statements opposing the Yucca Mountain Project.
- On September 10th the German technical support group, GRS, announced that it will conduct a three year research and development project on the migration of radioactive elements in a salt repository. The research will validate and refine the U.S. computer code, TOUGH2 (Transport of Unsaturated Groundwater and Heat), which was used for modeling the transport of radioactive elements in solutions and gases in rock.
- On September 10th the NRC Chair and DOE's Assistant Secretary for Nuclear Energy testified before the House Subcommittee on Environment and the Economy on their respective agency positions relative to the recent Court of Appeals ruling that the NRC resume the Yucca Mountain licensing process.
- On September 12th the UK government launched a public consultation on how to organize a process that would lead to the selection of a site for a geologic repository for high-level radioactive waste. The Consultation was initiated after a failed attempt with two communities that initially had expressed interest in hosting a repository.
- On September 12th the NRC issued a news release requesting comments on its published draft report of its Waste Confidence GEIS which indicated that the environmental impacts for indefinite storage would be small.
- On September 16th the Chair of the NWTRB forwarded a letter to the Chair of the House Subcommittee on Energy and Water Development detailing five observations from other foreign waste management programs, especially those of Sweden and France. The letter also highlighted and expanded on three other attributes: "how an organization functions is more important than its structure", "organizational culture drives organizational behavior", and "how an organization addresses technical issues is important for repository development".
- On September 25th White Pine County, Nevada weighed in on NRC's Order to continue the Yucca Mountain licensing process. The County advocated for funding for all parties to effectively participate in the process, for the issuance of the NRC's Safety Evaluation Report on the Yucca Mountain Project, to schedule a case management conference for the purpose of restarting the licensing process, for the NRC to employ existing document archival systems instead of reconstituting the costly and awkward Licensing Support Network, and that the restarted proceedings be held in Las Vegas, Nevada.
- On September 26th the State of Nevada filed a petition for rehearing en banc (before all the judges on the Appeals Court) with the Court of Appeals on their August 13th ruling that the NRC's suspension of the Yucca Mountain licensing proceeding violated the Nuclear Waste Policy Act and ordered the NRC to restart the licensing process. Nevada contended that the Court's initial ruling commanded a useless thing and, therefore, the rehearing should be granted and the initial mandamus overturned.
- On September 26th Lincoln County, Nevada responded to the Commission's August Order by suggesting that the NRC lift all suspensions of the licensing proceeding, issue the final un-redacted version of the staff's Safety Evaluation Reports, and schedule a conference in Las Vegas to restart the licensing process.
- On September 27th the U.S. Court of Appeals for the District of Columbia Circuit issued an Order compelling the NRC to submit a combined response to Nye County's petition for expedited review and emergency motion for preliminary injunction.
- On September 27th 81 members of the House of Representatives (50 republicans and 31 democrats) sent a letter to the NRC Chairman requesting that the Chair follow through on her

commitment to make a final determination on Yucca Mountain, if ordered to do so by the courts, and to focus its resources on completing the Safety Evaluation Report.

- On September 30th DOE responded to the NRC's August 30th Order inviting participants in the Yucca Mountain licensing proceedings to weigh in on how the Commission should continue with the licensing process in light of the Appeals Court Order to resume the licensing process. The DOE stated it would comply with the law and estimated that it had \$15.4 million in unobligated funds to support the NRC licensing process. DOE also estimated that it had \$11.4 million in obligated funds that would have to be de-obligated to support the licensing activities.
- On September 30th the State of Nevada filed its response to the NRC's August 30th Order on how it should proceed with the Yucca Mountain license proceeding. Since Nevada filed with the Court of Appeals for rehearing before the entire Court, Nevada suggested that the Commission postpone the restart of the licensing proceeding until such time as the Court denies the rehearing or renders a decision on the rehearing. Nevada acknowledged, if the licensing process must move forward, then they recommended that the Licensing Support Network be reconstituted, the Safety Evaluation Report be completed, rule on any motion before the Commission relevant to the licensing proceeding prior to its suspension, appoint the same panel of judges initially on the Board, and any proceedings before the Board should be held in Las Vegas.
- On September 30th the Timbisha Shoshone Tribe's responded to the NRC's invitation on the restart of the Yucca Mountain proceedings. The Tribe concurred with the State of Nevada's filing with the Commission and resubmitted its motion that the Commission officially recognize the Tribal Council as the legal representative of the Timbisha Shoshone Tribe.
- On September 30th Churchill County, Esmeralda County, Landauer County, and Mineral County (the Four Nevada Counties) accepted the NRC's invitation to comment on the restart of the Yucca Mountain licensing proceeding. They recommended that the NRC immediately lift the suspension on the Yucca Mountain licensing proceeding, assign the previous three judge panel to the proceeding, issue an order for the immediate release of the NRC staff's Safety Evaluation Report as the first priority for the expenditure of funds, the LSN not be reinstated, add all documents to the NRC's ADAMS online archival system, and for the NRC to request sufficient funds from Congress to complete the licensing process.
- On September 30th NEI filed their response to the NRC's invitation to comment on how they should restart the Yucca Mountain licensing process. NEI recommended the NRC complete and publicize the staff's Safety Evaluation Report, generate a detailed list and timeline of all the remaining activities to complete the licensing process, estimate the necessary resources to complete the listed activities, and seek funding from Congress to complete the licensing process.
- On September 30th the Prairie Island Indian Community responded to the NRC's August 30th Order with eight suggestions such as lifting the suspension on the Yucca Mountain licensing proceeding, reconvening the three judge panel, ordering the NRC staff to release and publicize the SER, scheduling a case management conference, delaying the reinstatement of the LSN, making all documents available on the NRC's ADAMS online system, and submitting a budget request to Congress to complete the licensing proceeding.
- On September 30th Eureka County, Nevada submitted its response to the NRC's Order. The County advocated in order of their priority for holding a conference in Las Vegas, ensuring the conference was webcast with viewers participating remotely, restoring the Licensing Support Network, and completing the SER if funds remained. Eureka County also supported the State of Nevada's contention that the licensing process should be postponed until the D.C. Circuit rules on the State's motion for re-hearing before the entire Appeals Court Bench.
- On September 30th the NRC staff also responded to the Commission's August 30th Order. The Staff noted that the Commission could not reach a decision until the completion of staff's safety and environmental reviews, formal discovery, litigation on admitted and any new contentions, and the Commission's review of contested and uncontested issues. The staff recommended

completing the SER, the EIS Supplement and suspending the legal hearings until the SER and Supplemental EIS (SEIS) were completed and reviewed by the staff. Their concerns were that the SER and SEIS were discreet activities that could be completed in a timely fashion with the available funds remaining while averting additional loss of key personnel.

- On September 30th Nye County, Nevada, the states of South Carolina and Washington, Aiken County, South Carolina and NARUC filed their consolidated response to the NRC's August 30th Order and other parties submittals. The participants requested that the NRC immediately issue the SER, authorize the Atomic Safety and Licensing Board to proceed with the license review, preserve scarce funds by not imposing costly procedural and administrative burdens, such as reinstating the LSN, and restore funds expended that were improperly spent on terminating the Yucca Mountain proceeding.
- On September 30th the American Nuclear Society (ANS) responded to the Commission's appeal for comments on the resumption of the Yucca Mountain licensing proceeding by recommending the completion of Volume 3 of the NRC staff's Safety Evaluation Report and suggesting the establishment of a budget to complete the licensing project that would be included in the White House's Fiscal Year 2015 budget.
- On September 30th the NRC filed with the U.S. Court of Appeals for the D.C. Circuit its motion for an extension of time to respond to the writ of mandamus and emergency motion for preliminary injunction filed by Nye County, Nevada.
- On September 30th the U.S. Court of Appeals for the D.C. Circuit issued an Order mandating that the petitioners respond to the State of Nevada's petition for rehearing en banc on the Court's August 13th Order to compel the NRC to restart the Yucca Mountain licensing process.
- In the September-October issue of Radwaste Solutions the article entitled, 'A Regional Approach to HLW (High-Level Waste), Spent Fuel, and TRU (Transuranic) Waste Disposal in New Mexico' listed six physical and geologic characteristics that would make disposal in salt deposits very attractive.
- On October 1st Aiken County, South Carolina, Nye County, Nevada, and the state of South Carolina filed a response with the U.S. Court of Appeals for the District of Columbia Circuit to the NRC's motion for an extension of time to respond to the petitioners' initial filing for expedited review and preliminary injunction on the NRC Chairman's decision to not recuse herself from the resumption of the Yucca Mountain license proceeding. The petitioners provided their basis for maintaining that the NRC Chair should recuse herself and stated that the Court should act on their petition to ensure their right to an impartial adjudicator and the public's right to an impartial panel on the Yucca Mountain licensing process.
- On October 1st the Spanish Government Agency, ENRESA, awarded Westinghouse Electric Company the main engineering services for a centralized high-level waste and spent fuel interim storage facility that will be located in central Spain.
- On October 2nd the U.S. Court of Appeals for the D.C. Circuit issued an Order granting the NRC's motion for an extension of time to respond to the petitioners' motion for preliminary injunctive relief from the NRC Chair refusing to recuse herself from the Yucca Mountain licensing process.
- On October 9th the NRC Chair sent a letter to Senator Carper on how the Commission amended certain provisions of the regulations governing ISFSI to make the dry cask storage licensing process more efficient by enhancing internal coordination, more frequent communications with licensees, improved tracking mechanisms and technical reviews that resulted in a new, more accelerated process for dry cask storage certificates of compliance.
- On October 9th the NRC filed with the U.S. Court of Appeals for the D.C. Circuit its opposition to the petitioners' filing for a writ of mandamus and an emergency motion for preliminary injunction relief over the NRC Chairman's decision not to recuse herself from the Yucca Mountain license proceeding. The NRC maintained that the petitioners had not complied with

the Federal Rules of Appellate Procedure for seeking injunctive relief, have not demonstrated that the Chairman has pre-judged the Yucca Mountain license application, failed to prove that equitable relief was necessary, and their claim was not ripe since the Chairman had not issued any final order that affected the petitioners.

- On October 15th the petitioners filed a response with the U.S. Court of Appeals for the D.C. Circuit on the State of Nevada's petition for rehearing en banc (before all the judges on the Appeals Court). The petitioners countered that the Court's ruling did take into consideration equitable factors that were consistent with previous Court precedent and Nevada failed to present a question of exceptional importance for the court to grant a rehearing.
- On October 16th Nye County, Nevada, the state of South Carolina, and Aiken County, South Carolina filed their reply with the D.C. Circuit Court of Appeals to the NRC's opposition to their writ of mandamus and emergency motion for preliminary injunction. The petitioners argued that the Chairman lacked impartiality based on her prior rejection of the federal government's modeling of the Yucca Mountain repository, the NRC failed to apply the recusal standards, the Chair's recusal decision made this ripe for adjudication, and the writ should be issued as the petitioners would suffer irreparable harm if the NRC Chairman participated in the Yucca Mountain licensing process.
- On October 23rd the NRC Chair sent letters to the Senate's Subcommittee Chair on Clean Air and Nuclear Safety and the House's Committee on Energy and Commerce transmitting the first monthly status report on the NRC's activities and expenditures from the Court's August 13th Order through the end of September. The status report indicated the following activities would be considered:
 - Completion of the SER on the Yucca Mountain license application,
 - Completion of the DOE's supplement to their Yucca Mountain EIS,
 - Resolving contentions through adjudication,
 - Reconstituting the LSN, and
 - Restart of external litigation against the NRC.

The NRC indicated they had expended \$51,507 from mid-August through the end of September, which left \$11,004,517 in unobligated funds for the resumption of the Yucca Mountain licensing proceeding.

- On October 24th six Senators from the states of Alabama, Arkansas, Idaho, Louisiana, Mississippi, and Wyoming forwarded a letter to NRC Chairman Macfarlane urging the Chairman to promptly comply with the Court's August 13th Order to resume the Yucca Mountain licensing process and to complete the Safety Evaluation Report on the proposed repository.
- On October 28th the NRC issued a news release extending the public comment period until December 20th over its proposed waste confidence rule and generic environmental study on extended storage of spent nuclear fuel. The extension was necessary to accommodate five public meetings that were cancelled due to the government shutdown.
- On October 28th two Representatives introduced legislation (H.R.3354) in the House's Committee on Energy and Commerce that specified timelines when spent fuel in pools would be required to be placed in dry casks and stored in hardened onsite storage facilities after conducting a cost benefit analysis. The bill also mandated annual reports from each facility on the amount of stored spent nuclear fuel, on how much of the fuel is stored by what method, and how much of the fuel has moved from one storage method or location to another.
- On October 28th the D.C. Circuit Court of Appeals issued an Order denying the rehearing en banc (before the full Court) requested by the State of Nevada on the Court's August ruling for restarting the Yucca Mountain licensing proceeding. Since the Supreme Court rarely grants a writ of certiorari, Nevada's Chief Deputy Attorney General stated she would not appeal the Court's denial to the Supreme Court.

- On October 28th the NRC held a public meeting of its draft waste confidence generic environmental impact statement in Chelmsford, Massachusetts. The purpose of the meeting was for the NRC staff to “provide an overview of the Waste Confidence draft generic environmental impact statement and proposed rule.” There were 79 attendees, which included members of the public, representatives from State and local governments from Massachusetts, Maine, New Hampshire, and New York, besides members from industry and public advocacy groups. 37 individuals commented. Some advocated for the safe storage of spent nuclear fuel and a permanent geologic repository while others supported the current rulemaking process. Most opposed nuclear power. Some proposed phasing out nuclear power and replacing it with renewable energy. Some advocated for the expedited transfer of spent fuel from pools to dry concrete casks in hardened onsite storage facilities. Others were concerned with impacts from climate change to earthquakes and tsunamis impacting coastal facilities, such as the Fukushima reactors in Japan. Some expressed opposition to the transportation of spent nuclear fuel while others expressed concern over the health effects of radiation. There was vocal opposition to local plants, especially Vermont Yankee, Pilgrim, and Seabrook.
- On November 4th the NRC held a public meeting in Charlotte, North Carolina to receive public comments on their Waste Confidence Proposed Rule and draft GEIS supporting the Proposed Rule. 204 people attended the meeting that included members of the public, industry, public advocacy groups, and representatives from the Environmental Protection Agency’s Region IV. 70 provided comments.
- On November 13th the Prairie Island Indian Community issued a statement expressing their concerns that a dry cask storage facility located 600 yards from tribal homes on the Prairie Island twin reactor site could remain stranded indefinitely and requested that the federal government honor its promise to transfer the waste out of the community.
- On November 13th researchers from England’s University of Sheffield announced that they had developed a method to significantly reduce the volume of plutonium contaminated wastes by 85 to 95% by mixing the waste with blast furnace slag (a by-product of steel production) and heating them to form a corrosion resistant material – glass, which would reduce the cost of interim storage and geologic disposal.
- On November 14th the U.S. Court of Federal Claims issued its ruling on the Maine Yankee, Connecticut Yankee and Yankee Atomic (in Massachusetts) companies’ lawsuit against the federal government on their partial breach of the standard contract to take and dispose of the spent nuclear fuel stranded at their respective sites. The Court awarded Maine Yankee nearly \$35.87 million for the period from January 2003 through December 2008. Connecticut Yankee and Yankee Atomic received \$126.3 million and \$73.3 million, respectively, from January 2002 through December 2008.
- On November 18th the NRC issued a Memorandum and Order directing its staff to complete and issue the SER associated with the Yucca Mountain construction authorization application, to load documents in the LSN into the NRC’s non-public ADAMS online database while declining to reconstitute the LSN, continued to hold in abeyance the legal proceedings over the construction application, and requested the DOE to prepare the supplemental environmental impact statement for the NRC to complete its review of the Yucca Mountain application under NEPA.
- On November 18th-19th the NWTRB held a technical workshop on the impacts of dry storage canister designs on future handling, storage, transportation and geologic disposal of spent nuclear fuel.
- On November 19th the U.S. Court of Appeals for the D.C. Circuit ordered the Secretary of Energy to submit to Congress a proposal to reduce the fee that nuclear utilities pay for a nuclear waste disposal program under the NWPA “to zero until such time as either the Secretary chooses to comply with the Act as it is currently written, or until Congress enacts an alternative waste

management plan.” The Court decided the range presented was so large “as to be absolutely useless as an analytical technique” and remarked that “the Secretary may not comply with his statutory obligation by concluding that a conclusion is impossible”.

- On November 19th the NRC Chairman transmitted the October monthly status report on the Commission’s activities and expenditures related to the resumption of the Yucca Mountain licensing process.
- On November 20th the NWTRB held its Board meeting to review DOE’s research and development (R&D) programs on spent fuel storage, transportation, material recovery, and waste form, to discuss ductile to brittle transition temperatures for high-burnup cladding alloys from pressurized water reactors, and to present a test plan to investigate the performance of fuel cladding and storage container systems during extended storage of high-burnup fuel.
- On November 21st the law firm of Van Ness Feldman, which served as an outside counsel to the President’s BRC, provided an assessment of the D.C. Circuit’s recent decision to indefinitely suspend the nuclear waste fee. The evaluation provided a background on the issue, discussed the November 19th Court decision, described related congressional and recent NRC actions, and explained the implications of the decision.
- On November 25th the Nuclear Waste Management Organization of Canada announced that, of the 21 communities expressing an interest in hosting a geologic repository for used nuclear fuel, four were not selected for more detailed study, four others were ruled as having a strong potential to meet site selection criteria, and the remaining thirteen communities would be assessed in 2014. In the second phase that could last up to four years the communities will be involved in preliminary safety assessments, geoscientific and environmental investigations along with more detailed social, economic and cultural studies. Canada’s nuclear waste program is a nine step process that would culminate in the construction and operation of a repository, currently projected to open in 2035.
- On November 27th the State of Nevada petitioned the NRC for clarification of its November 18th restart order on the resumption of the Yucca Mountain licensing proceeding in order to safeguard the rights of the parties in the licensing process. Nevada maintained that the NRC Order did not allow for discovery to occur concurrently with the SER. Nevada further contended that if discovery should ever resume, it would be impossible to receive depositions from nearly one hundred expert witnesses in less than sixty days.
- On November 27th the five parties (Nye County, Nevada, the states of South Carolina and Washington, Aiken County, South Carolina, and the National Association of Regulatory Utility Commissioners) requested a leave to file a motion listing four critical issues for the NRC to reconsider its November 18th Memorandum and Order. The five parties asserted the NRC’s Order does not fully comply with the Court of Appeals’ mandamus order for the resumption of the Yucca Mountain licensing process.
- On December 2nd DOE sent a letter to the Chair of the House’s Subcommittee on Environment and the Economy providing a monthly update of DOE’s activities and expenditures on the Yucca Mountain licensing process. The letter listed four activities DOE performed during September and noted that these efforts amounted to \$593,000 in expenditures.
- On December 2nd the NRC held a public meeting in Perrysburg, Ohio to receive public comments on their Waste Confidence Proposed Rule and draft GEIS supporting the Proposed Rule. 128 people attended the meeting that included members of the public, industry, public advocacy groups, representatives from the Michigan Department of Environmental Quality, the Ohio Department of Health, and the Ottawa County Commissioners. 45 provided comments.
- On December 3rd the DOE filed a motion with the U.S. Court of Appeals for the District of Columbia Circuit to increase the time allowed by 31 days for the DOE to request a rehearing en banc (before the full Court) on the Court’s November 19th Order to suspend the its nuclear collection fee.

- On December 4th NARUC filed a motion with the Court of Appeals for the D.C. Circuit to expedite the issuance of the Court's November 19th mandate to suspend the nuclear fee based on DOE's historical tendency to delay, the approximate \$3 billion paid by ratepayers since 2009 when petitioners' first requested the Secretary of Energy to suspend the fee when DOE terminated the nuclear waste program, and the lawfully imposed delay of three months before the suspension takes effect.
- On December 5th Nye County, Nevada, the states of South Carolina and Washington, and Aiken County, South Carolina filed a motion with the D.C. Court of Appeals for a summary reversal of NRC Chairman Macfarlane's decision not to recuse herself in the Court ordered resumption of the Yucca Mountain licensing proceeding by citing her public and published testimonies criticizing the Yucca Mountain project in 2006, 2009, and 2010.
- On December 9th the NRC staff filed with the Commission a response to Nevada's petition for clarification and the Five Parties' (Nye County, Nevada, the states of South Carolina and Washington, Aiken County, South Carolina, and NARUC) motion for reconsideration of the Commission's November 18th Order for the resumption of the Yucca Mountain Licensing proceeding. The staff concluded that Nevada's request for clarification from the Staff Requirements Memorandum (SRM) was misplaced since the SRM is a tool for the Commission to provide direction to its staff outside the Commission's ruling. On the Five Parties motion the staff determined that there was no compelling reason to grant reconsideration since there was no indication of any errors that would invalidate the Commission's Order.
- On December 9th Nevada filed with the NRC its response to the Five Parties' request for leave to file a motion for reconsideration and their motion for reconsideration of the Commission's Yucca Mountain resumption Order was not warranted under NRC's regulations since the Five Parties can move for reconsideration without receiving prior permission to do so and the motion for reconsideration should be denied since the motion was asking the Commission to grant certain relief that the Court denied.
- December 9th the NRC Chair forwarded a letter to the Chair of the House Subcommittee on Energy and Power listing responses to thirteen questions posed by the House Subcommittee Chair in his November letter to the NRC on various agency activities and expenditures. Three of the thirteen were related to Yucca Mountain and focused on the anticipated release dates for the Yucca Mountain SER, the resources necessary to issue a final decision on the Yucca Mountain repository, and whether the Commission will request additional funds to complete the licensing process.
- On December 9th the Five Parties' filed with the NRC its response to Nevada's petition clarification of the restart Order and SRM. The Five Parties concluded that there was nothing in the SRM that would circumvent NRC rules while finalizing the SER. Nevada maintained that work was not considered complete unless it had received staff management and Office of General Counsel review. The Five Parties viewed this assertion as restricting the staff to adopting only previous technical work that had received such a review.
- On December 11th the NRC Chair sent identical letters to the House of Representatives and the Senate referencing the Commission Order for all parties to comment in the Yucca Mountain licensing proceeding, the staffs' updated cost estimates for the licensing process, the subsequent Commission Order directing the staff to resume the licensing proceeding, and requested the DOE to complete their supplemental environmental impact statement.
- On December 11th the DOE's Office of Inspector General issued an audit report on DOE's management of the NWF for Fiscal Year 2013, which concluded that there were no deficiencies or instances of noncompliance warranting a disclosure and that the financial statements presented fairly the financial positions of the Fund for the years ending on September 30th of 2012 and 2013. According to the report the NWF has a balance of \$34.1 billion as of the end of September 2013 with interest on the account accruing at over \$1.3 billion per year.

- On December 11th the Chair of the House Committee on Energy and Commerce and the Chair of the Subcommittee on Environment and the Economy forwarded a letter to Energy Secretary Moniz requesting that he respond to several questions and requests for information governing the DOE's actions since the D.C. Circuit's rulings to mandate the resumption of the Yucca Mountain Licensing process and the Nuclear Waste Fund fee suspension, and the NRC's Order for the DOE to complete its supplemental EIS on groundwater impacts.
- On December 13th DOE filed with the D.C. Court of Appeals their opposition to the Five Parties' motion for expedited issuance of the Court's mandate to suspend the Nuclear Waste Fund fee collection.
- On December 13th the DOE filed with the D.C. Court of Appeals its reply to their initial motion for a 31 day extension to request the full Court's rehearing on their Order for DOE to propose to Congress to lower the Nuclear Waste Fund (NWF) fee to zero. DOE objected to the petitioners' characterization of their request as a tactic to delay compliance with the Court's Order and provided reasons for good cause for the Court to grant the extension.
- On December 17th Five Parties filed with the D.C. Circuit their reply in support of their motion for expedited issuance of the mandate for DOE to lower the NWF fee to zero.
- On December 18th NRC Chair Macfarlane forwarded NRC's monthly status report to the Chair of the House Committee on Energy and Commerce on their activities and expenditures that impacted the Nuclear Waste Fund.
- On December 20th the NWSC submitted a letter to the NRC praising the Waste Confidence Directorate's public outreach efforts on their successful nationwide meetings and stakeholder involvement, and expressed concern that the NRC's inordinate use of extended storage scenarios for bounding the impacts in the draft generic environmental impact statement may become policy.
- On December 20th the U.S. Court of Appeals for the D.C. Circuit issued an Order denying the DOE's petition for a 31 day extension to allow DOE time to request a rehearing of the Court's November 19th Order to forward to Congress a reduction in the NWF fee to zero. In addition, the Court further ordered the petitioners' motion for expedited issuance be granted and directed the Clerk of the Court to do so immediately.
- On December 20th the DPC sent a letter to the NRC commenting on their Waste Confidence Ruling and GEIS. The DPC expressed concern that the NRC may unintentionally endorse indefinite on-site storage of spent nuclear fuel as public policy by relying on extended on-site storage as a means of achieving waste confidence.
- In December the DOE's Office of Used Nuclear Fuel Disposition issued a report, entitled "Preliminary Report on Dual-Purpose Canister Disposal Alternatives (FY13)". The 190 page report documented the first phase of a multi-year effort to recognize the technical feasibility and logistics for the direct disposal of dual-purpose canisters and other types of storage canisters in salt formations, crystalline (hard) rock and sedimentary media such as clay or shale.

STRATEGY
FOR THE MANAGEMENT
AND DISPOSAL
OF USED NUCLEAR FUEL AND
HIGH-LEVEL RADIOACTIVE WASTE



JANUARY 2013



In 2010, I chartered the *Blue Ribbon Commission on America's Nuclear Future* ("BRC" or "Commission") to conduct a comprehensive review and recommend a plan of action for the management and disposal of the nation's used nuclear fuel and high-level radioactive waste, also referred to as the back-end of the nuclear fuel cycle. Representative Lee Hamilton and General Brent Scowcroft, two distinguished individuals with decades of public service and governing experience, co-chaired the Commission and led a panel of leading scientists, nuclear energy experts, industry leaders, and former elected officials.

Nuclear power is an integral part of our "all-of-the-above" energy strategy. It provides twenty percent of our nation's electricity supply, and the Administration is promoting the safe use of nuclear power through support for new nuclear power plants incorporating state-of-the-art passive safety features as well as a cost-shared program providing technical support for licensing new small reactor designs. Nuclear energy is an important contributor to our nation's energy security, and promotes clean-energy jobs. Nuclear energy production also provides important environmental benefits by producing little carbon dioxide or conventional air pollutant emissions.

An unflinching commitment to protect public health and safety, security, and the environment is essential to ensuring that nuclear power remains part of our diversified clean-energy portfolio. As part of that commitment, safe, long-term management and disposal of used nuclear fuel and high-level radioactive waste must remain a national priority.

Beyond sustaining an important domestic energy source, progress on a disposal solution can also support the clean-up of those sites that hosted production of defense nuclear materials during the Cold War, and help advance key national-security and non-proliferation objectives. More than 40 percent of the Navy's surface and submarine combatant fleet, for example, is now nuclear-powered. The used nuclear fuel it generates likewise requires a permanent disposal solution.

Since the end of the Cold War, significant quantities of weapons-capable plutonium and highly enriched uranium have become surplus to our national security needs. Some of these nuclear materials will be modified so they can be used in reactors as fuel, but then will be destined for a repository.

Finally, global demand for nuclear energy continues to grow, with commensurate risks in terms of safety, weapons proliferation, and terrorism if this growth occurs outside a vigorous safety and security framework. America's ability to influence the mitigation of these risks is strengthened when we demonstrate the commitment and ability to perform here at home.

For nearly two years, the Commission conducted a comprehensive review and ultimately made recommendations for addressing one of our nation's most intractable challenges. Its work provides a strong foundation for development of a new strategy to manage used nuclear fuel and high-level radioactive waste. We will work with Congress to build a new national program based on this foundation.

Strom Thurmond

INTRODUCTION AND SUMMARY

The *Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste* is a framework for moving toward a sustainable program to deploy an integrated system capable of transporting, storing, and disposing of used nuclear fuel¹ and high-level radioactive waste from civilian nuclear power generation, defense, national security and other activities.

The Strategy addresses several important needs. First, it serves as a statement of Administration policy regarding the importance of addressing the disposition of used nuclear fuel and high-level radioactive waste; it lays out the overall design of a system to address that issue; and it outlines the reforms needed to implement such a system. Second, it presents the Administration's response to the final report and recommendations made by the *Blue Ribbon Commission on America's Nuclear Future* ("BRC"). It also responds to direction in the Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2012, to develop a strategy for the management of used nuclear fuel and nuclear waste in response to the BRC's recommendations. Third, this strategy represents an initial basis for discussions among the Administration, Congress and other stakeholders on a sustainable path forward for disposal of nuclear waste.

The Administration endorses the key principles that underpin the BRC's recommendations. The BRC's report and recommendations provide a starting point for this Strategy, which translates many of the BRC's principles into an actionable framework within which the Administration and Congress can build a national program for the management and disposal of the nation's used nuclear fuel and high-level radioactive waste.² The BRC report and the Strategy build on the body of physical and social science work completed during the prior decades and benefit from the lessons learned not only from our nation's experiences, but also from those of other countries.

This Strategy includes a phased, adaptive, and consent-based approach to siting and implementing a comprehensive management and disposal system. At its core, this Strategy endorses a waste management system containing a pilot interim storage facility; a larger, full-scale interim storage facility; and a geologic repository in a timeframe that demonstrates the federal commitment to addressing the

¹ The term "used nuclear fuel" as used in the BRC charter and in this document is intended to be synonymous with the term "spent nuclear fuel" as used in the Nuclear Waste Policy Act and the Standard Contracts.

² The BRC recommendations are available [here](#) and are summarized as follows:

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 used 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.

nuclear waste issue, builds capability to implement a program to meet that commitment, and prioritizes the acceptance of fuel from shut-down reactors. A consent-based siting process could result in more than one storage facility and/or repository, depending on the outcome of discussions with host communities; the Nuclear Waste Policy Act of 1982 (NWPA) envisaged the need for multiple repositories as a matter of equity between regions of the country. As a starting place, this Strategy is focused on just one of each facility.

With the appropriate authorizations from Congress, the Administration currently plans to implement a program over the next 10 years that:

- Sites, designs and licenses, constructs and begins operations of a pilot interim storage facility by 2021 with an initial focus on accepting used nuclear fuel from shut-down reactor sites;
- Advances toward the siting and licensing of a larger interim storage facility to be available by 2025 that will have sufficient capacity to provide flexibility in the waste management system and allows for acceptance of enough used nuclear fuel to reduce expected government liabilities; and
- Makes demonstrable progress on the siting and characterization of repository sites to facilitate the availability of a geologic repository by 2048.

Full implementation of this program will require legislation to enable the timely deployment of the system elements noted above. Legislation should also include the requirements for consent-based siting; a reformed funding approach that provides sufficient and timely resources; and the establishment of a new organization to implement the program, the structure of which should balance greater autonomy with the need for continued Executive and Legislative branch oversight. The Administration looks forward to engaging Congress on comprehensive legislation to move forward on this important national responsibility.

In the meantime, the Administration, through the Department of Energy (DOE), is undertaking activities within existing Congressional authorization to plan for the eventual transportation, storage, and disposal of used nuclear fuel. Activities range from examining waste management system design concepts, to developing plans for consent-based siting processes, to conducting research and development on the suitability of various geologies for a repository. These activities are designed to not limit the options of either the Administration or Congress and could be transferred to the new waste management and disposal organization when it is established.

BACKGROUND

The NWPA established a broad policy framework for the permanent disposal of used nuclear fuel and high-level radioactive waste derived from nuclear power generation. The NWPA authorized the government to enter into contracts with reactor operators – the generators and current owners of used nuclear fuel – providing that, in exchange for the payment of fees, the government would assume responsibility for permanent disposal. The fees were to ensure that the reactor owners and power

generators pay the full cost of the disposal of their used nuclear fuel and high-level radioactive waste.

The federal government did not meet its contractual obligation to begin accepting used nuclear fuel by 1998. As a result of litigation by contract holders, the government was found in partial breach of contract, and is now liable for damages to some utilities to cover the costs of on-site, at-reactor storage.

Currently more than 68,000 metric tons heavy metal (MTHM) of used nuclear fuel are stored at 72 commercial power plants around the country with approximately 2,000 MTHM added to that amount every year. The sooner that legislation enables progress on implementing this Strategy, the lower the ultimate cost will be to the taxpayers. This document outlines a strategy that is intended to limit, and then end, liability costs by making it possible for the government to begin performing on its contractual obligations.

The NWPA specified a process for evaluating sites for a repository. The Administration concurs with the conclusion of the BRC that a fundamental flaw of the 1987 amendments to the NWPA was the imposition of a site for characterization, rather than directing a siting process that is, as the BRC recommends, "explicitly adaptive, staged, and consent-based..." In practical terms, this means encouraging communities to volunteer to be considered to host a nuclear waste management facility while also allowing for the waste management organization to approach communities that it believes can meet the siting requirements. Under such an arrangement, communities could volunteer to provide a consolidated interim storage facility and/or a repository in expectation of the economic activity that would result from the siting, construction, and operation of such a facility in their communities.

In addition to commercial used nuclear fuel, high-level radioactive wastes that are the by-products of the production of the nation's nuclear weapons and used fuel from the Navy's nuclear powered combat vessels also require a defined disposal path. These wastes are currently stored at sites in Idaho, South Carolina, and Washington. Also, significant quantities of weapons-capable plutonium and highly enriched uranium have become surplus to our national security needs, and in some form will be destined for disposal in a repository.

STRATEGY ELEMENTS

This Strategy provides a basis for the Administration to work with Congress to design and implement a program to meet the government's obligation to take title to and permanently dispose of used nuclear fuel and high-level radioactive waste. It also provides near-term steps to be implemented by DOE pending enactment of new legislation. The key elements of this Strategy are captured in Figure 1.

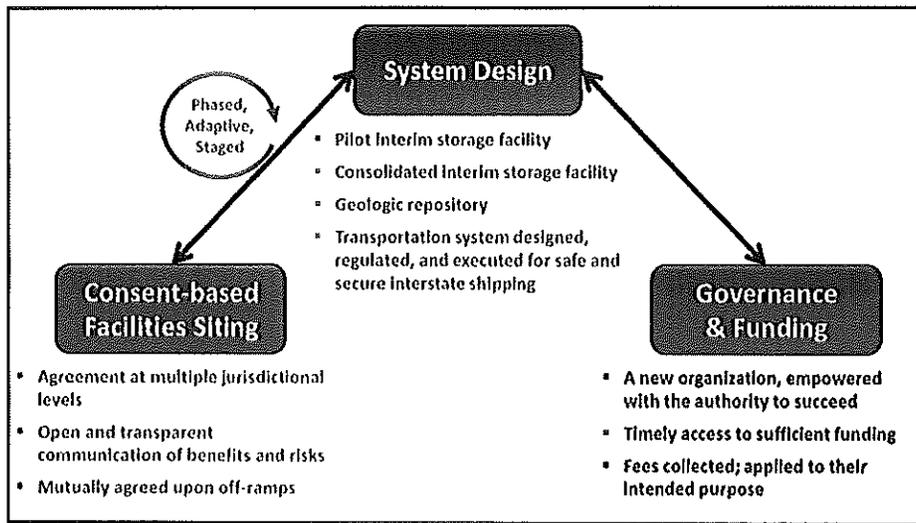


Figure 1. Key Strategy Elements

System Design

The Administration supports an approach to system design that integrates consent-based siting principles and makes progress in demonstrating the federal commitment to addressing used nuclear fuel and high-level radioactive waste disposal, including building the capability to begin executing that commitment within the next 10 years. The Administration supports a nuclear waste management system with the following elements:

- A pilot interim storage facility with limited capacity capable of accepting used nuclear fuel and high-level radioactive waste and initially focused on serving shut-down reactor sites;
- A larger, consolidated interim storage facility, potentially co-located with the pilot facility and/or with a geologic repository, that provides the needed flexibility in the waste management system and allows for important near-term progress in implementing the federal commitment; and
- A permanent geologic repository for the disposal of used nuclear fuel and high-level radioactive waste.

The objective is to implement a flexible waste management system incrementally in order to ensure safe and secure operations, gain trust among stakeholders, and adapt operations based on lessons learned. As will be addressed in the following section on implementation, the Administration agrees with the Blue Ribbon Commission that a consent-based siting process offers the promise of sustainable decisions for both storage and disposal facilities. Figure 2 below portrays a set of possible pathways to developing system facilities and capabilities.

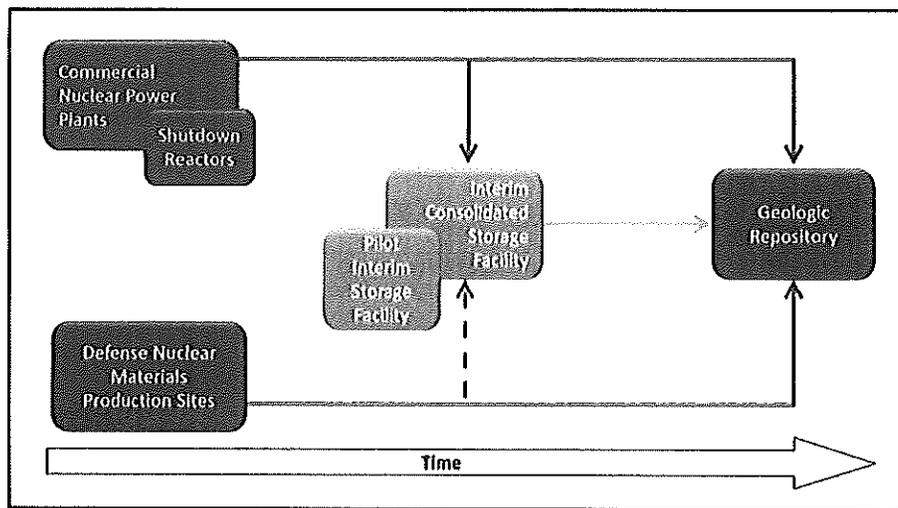


Figure 2. Possible system pathways

This system would initially be focused on acceptance of used nuclear fuel from shut-down reactors; such fuel provides an opportunity to build waste handling capability as well as to relieve surrounding communities and utility contract holders of the burdens associated with long-term storage of used nuclear fuel at a shut-down reactor. Following these initial efforts, capacity will be developed to enable the acceptance and transportation of used nuclear fuel at rates greater than that at which utilities are currently discharging it in order to gradually work off the current inventory. The Administration remains committed to addressing the Cold War legacy; and, in addition to ongoing efforts, will consider transportation and interim storage of government-owned used nuclear fuel and high-level radioactive waste at interim storage facilities.

Interim Storage

The BRC recommended that “one or more consolidated (interim) storage facilities be developed to start the orderly transfer of used nuclear fuel from reactor sites to safe and secure centralized facilities independent of the schedule for operating a permanent repository.” The Administration agrees that interim storage should be included as a critical element in the waste management system and has several benefits, including flexibility in system planning and execution and the opportunity to move expeditiously to fulfill government contractual responsibilities.

The Administration also agrees with the BRC that a linkage between opening an interim storage facility and progress toward a repository is important so that states and communities that consent to hosting a consolidated interim storage facility do not face the prospect of a *de facto* permanent facility without consent. However, this linkage should not be such that it overly restricts forward movement on a pilot or larger storage facility that could make progress against the waste management mission. The NWP currently constrains the development of a storage facility by limiting the start of construction of such a facility until after the Nuclear Regulatory Commission (NRC) has issued a license for construction of a

repository. This restriction has effectively eliminated the possibility of having an interim storage facility as an integral component of a waste management system.

Consistent with legislation recently under consideration in Congress, the Administration supports the development of a pilot interim storage facility with an initial focus on accepting used nuclear fuel from shut-down reactor sites. Acceptance of used nuclear fuel from shut-down reactors provides a unique opportunity to build and demonstrate the capability to safely transport and store used nuclear fuel, and therefore to make progress on demonstrating the federal commitment to addressing the used nuclear fuel issue. A pilot would also build trust among stakeholders with regard to the consent-based siting process and commitments made with a host community for the facility itself, with jurisdictions along transportation routes, and with communities currently hosting at-reactor storage facilities if enabled by appropriate legislation. The Administration would plan to undertake activities necessary to enable the commencement of operations at this facility in 2021, including conducting a consent-based siting process with interested parties, undertaking the requisite analyses associated with siting such a facility, and initiating engineering and design activities as warranted. Full execution of this plan depends on enactment of revised legislative authority.

Beyond a pilot-scale facility, the Administration supports the development of a larger consolidated interim storage facility with greater capacity and capabilities that will provide flexibility in operation of the transportation system and disposal facilities. In addition, a larger-scale facility could take possession of sufficient quantities of used nuclear fuel to make progress on the reduction of long-term financial liabilities. Depending on the outcome of a consent-based process, this facility could have a capacity of 20,000 MTHM or greater, and could be co-located with the pilot facility or the eventual geologic repository. In the context of the overall waste management system, the Administration supports the goal of siting, designing, licensing, constructing and commencing operations at a consolidated interim storage facility by 2025.

In addition to commercial used nuclear fuel, pilot-scale and larger interim storage facilities could provide similar benefits for government-owned and managed used nuclear fuel and high-level radioactive waste, such as demonstration of capability and flexibility in system operations. Therefore, the feasibility of accepting these wastes at interim storage facilities will be considered.

Transportation

The BRC found that existing standards and regulations for the transportation of used nuclear fuel and high-level radioactive waste administered by DOE, NRC, the U.S. Department of Transportation, and state, local, and tribal governments are proven and functioning well. Consistent with the recommendations of the BRC on this issue, the Administration is moving ahead with initial planning for engagement and technical assistance for transportation operations for state and local governments.

As described in the Ongoing Activities section of this document, the Department is proceeding with planning activities for the development of transportation capabilities and storage facilities to facilitate the acceptance of used nuclear fuel at a pilot interim storage facility within the next 10 years and later

at a larger consolidated interim storage facility. The Administration will undertake the transportation planning and acquisition activities necessary to initiate this process with the intent to transfer them to a separate organizational entity if and when it is authorized by Congress and in operation. Outreach and communication, route analysis, and emergency response planning activities consistent with existing NWPA requirements would be conducted during this time. The Administration agrees with the BRC that the relationships and processes built with other federal agencies, state agencies, and local governments to support logistics of shipments to the Waste Isolation Pilot Plant (WIPP) have been successful and the infrastructure and lessons learned from this experience will be utilized moving forward.

Geologic Disposal

There is international consensus that geologic repositories represent the best known method for permanently disposing of used nuclear fuel and high-level radioactive waste, without putting a burden of continued care on future generations. The BRC recommended that the U.S. undertake "an integrated nuclear waste management program that leads to the timely development of one or more permanent deep geologic facilities for the safe disposal of used fuel and high-level nuclear waste." The Administration agrees that the development of geologic disposal capacity is currently the most cost-effective way of permanently disposing of used nuclear fuel and high-level radioactive waste while minimizing the burden on future generations. As noted by the BRC, the linkage between storage and disposal is critical to maintaining confidence in the overall system. Therefore, efforts on implementing storage capabilities within the next 10 years will be accompanied by actions to engage in a consent-based siting process and begin to conduct preliminary site investigations for a geologic repository. The Administration's goal is to have a repository sited by 2026; the site characterized, and the repository designed and licensed by 2042; and the repository constructed and its operations started by 2048. Consistent with this effort, the Administration understands the need for the Environmental Protection Agency to develop a set of generic, non-site-specific, repository safety standards to gain public confidence that any future repository will protect public health and the environment. This will be an important early step in any repository siting effort.

The ability to retrieve used nuclear fuel and high-level radioactive waste from a geologic repository for safety purposes or future reuse has been a subject of repository design debate for many years. A recently completed technical review by Oak Ridge National Laboratory found that approximately 98 percent of the total current inventory of commercial used nuclear fuel by mass can proceed to permanent disposal without the need to ensure post-closure recovery for reuse based on consideration of the viability of economic recovery of nuclear materials, research and development (R&D) needs, time frames in which recycling might be deployed, the wide diversity of types of used nuclear fuel from past operations, and possible uses to support national security interests.³ This assessment does not preclude any decision about future fuel cycle options, but does indicate that retrievability it is not necessary for purposes of future reuse.

³ J. C. WAGNER et al., *Categorization of Used Nuclear Fuel Inventory in Support of a Comprehensive National Nuclear Fuel Cycle Strategy*, ORNL/TM-2012/308 (FCRD-FCT-2012-00232), Oak Ridge National Laboratory, Oak Ridge, Tenn., December 2012.

Disposal of defense wastes alongside commercial wastes is the current policy in accordance with the 1985 decision to use a single repository for both commercial and defense wastes. The issue of "commingling" of wastes in a repository will be the subject of analysis moving forward.

Advanced Fuel Cycles

The BRC concluded that "it is premature at this point for the United States to commit irreversibly to any particular fuel cycle as a matter of government policy..." and pointed out that "it is... very likely that disposal will be needed to safely manage at least some portion of the existing commercial [used nuclear fuel] inventory." Even if a closed fuel cycle were to be adopted in the future, permanent geologic disposal will still be required for residual high-level radioactive waste. Cost, nonproliferation, national security, environmental concerns, and technology limitations are some of the concerns that would need to be addressed before any future decision to close the U.S. fuel cycle through the use of recycling would be made. These factors reinforce the likelihood that the once-through fuel cycle will continue at least for the next few decades. Nevertheless, consistent with past practice and the BRC's recommendations, DOE will continue to conduct research on advanced fuel cycles to inform decisions on new technologies that may contribute to meeting the nation's future energy demands while supporting non-proliferation and used nuclear fuel and high-level radioactive waste management objectives.

International Cooperation

International cooperation has been a cornerstone of both U.S. fuel cycle R&D efforts as well as actions to reduce the global proliferation of nuclear materials. Recently, several countries, led by the U.S. and others, have come together to establish frameworks within which multi-national fuel cycle facilities could enable wider access to the benefits of nuclear power while reducing proliferation risks. The BRC recommended that the U.S. develop the capability "to accept used fuel from foreign commercial reactors, in cases where the President would choose to authorize such imports for reasons of U.S. national security." The focus of the present Strategy is on a clear path for the safe and permanent disposal of U.S. used nuclear fuel and high-level radioactive waste; however, the Administration will continue to evaluate the BRC's recommendation and will discuss with Congress the pros and cons of including it in the new waste disposal program.

Implementation

Critical elements for successful implementation of this Strategy include the establishment of a consent-based siting process, a new organization to execute the waste management mission and implementation of a process for long-term, stable funding. The design of both the new organization and the funding source should strike an appropriate balance between independence of the new organization and the need for oversight by Congress and the Executive branch.

Consent-based Siting

The BRC recommends a siting process that is consent-based, transparent, phased, adaptive, standards- and science-based, and governed by legally-binding agreements between the federal government and host jurisdictions. Indeed, promising experiences in other countries indicate that a consent-based process, developed through engagement with states, tribes, local governments, key stakeholders, and the public, offers a greater probability of success than a top down approach to siting. One of the consequences of a consent-based siting process could be the need to have more than one storage facility and/or repository. Multiple communities with differing interests and strengths may propose options leading to system configurations that involve multiple facilities. However, this Strategy focuses on one pilot storage, consolidated interim storage, and repository.

The BRC offered the view that “a good gauge of consent would be the willingness of the host [jurisdictions] to enter into legally binding agreements...that can protect the interests of their citizens.” Defining consent, deciding how that consent is codified, and determining whether or how it is ratified by Congress are critical first steps toward siting the storage facilities and repository discussed above. As such, they are among the near-term activities to be undertaken by the Administration in consultation with Congress and others. Legislation recently under consideration by Congress includes requirements for consent at multiple levels, including Congressional ratification. The Department is currently gathering information from the siting of nuclear facilities in the U.S. and elsewhere in order to better understand critical success factors in these efforts and to facilitate the development of a future siting process for a repository and storage facilities.

This Strategy endorses the proposition that prospective host jurisdictions must be recognized as partners. Public trust and confidence is a prerequisite to the success of the overall effort, as is a program that remains stable over many decades; therefore, public perceptions must be addressed regarding the program’s ability to transport, store, and dispose of used nuclear fuel and high-level radioactive waste in a manner that is protective of the public’s health, safety, and security and protective of the environment.

Management and Disposal Organization

A new waste management and disposal organization (MDO) is needed to provide the stability, focus, and credibility to build public trust and confidence. Managing waste and used fuel is a governmental responsibility and there are multiple possible structures for this new organization. The MDO would be charged with the management and disposal of commercial used nuclear fuel and the associated interface with the utilities. The government will continue to manage its own high-level radioactive waste and used nuclear fuel until it is transferred to an MDO for storage and/or disposal. The BRC recommended the establishment of new, single-purpose organization “to provide the stability, focus, and credibility that are essential to get the waste program back on track.” The BRC recommended a specific model in a congressionally-chartered federal corporation. The Administration agrees that a new organizational entity is needed and believes that there are several viable organizational models that can

possess the critical attributes described below.

As part of the development of this Strategy, the Department of Energy commissioned work by the RAND Corporation to examine organizational alternatives for addressing used nuclear fuel and high-level radioactive wastes.⁴ RAND assessed lessons learned from the history of the previous DOE organization and analyzed alternative organizational models currently in use both in and out of government. The study's authors concluded that a federal government corporation and an independent government agency are two promising models for a new organization to manage and dispose of used nuclear fuel and high-level radioactive waste, as both models can achieve the critical attributes of accountability, transparent decision-making, autonomy, a public interest mission, and organizational stability. The study also examined the attributes of federally-chartered private corporations and determined that this model is not a good option because obligations to stockholders and the profit motive could result in weakened public accountability and poor political credibility. The RAND study noted that "The success of any future MDO will be driven by many factors and unforeseen circumstances. The organizational form is only one of these factors and perhaps not even the most important one." Rather, of key importance is the flexibility the U.S. government has in crafting a new organization and the specific characteristics with which that organization is endowed.

Whatever form the new organization takes, organizational stability, leadership continuity, oversight and accountability, and public credibility are critical attributes for future success. The Administration will work with Congress to ensure that the MDO authorization provides adequate authority and leadership to execute its mission, with appropriate oversight and controls. Pending enactment of new legislation to establish the MDO, DOE's existing offices retain responsibility to maintain progress in implementing this Strategy. Once the MDO is established, the Administration will carefully evaluate the appropriate activities to be transferred. DOE will take necessary steps to advance the program while taking every precaution to avoid compromising the later ability of the newly established MDO to succeed.

In addition, the mission of the MDO will need to be carefully defined. For example, funding made available to the MDO should be used only for the management and disposal of radioactive waste. While this could include the management and disposal of waste resulting from the processing of defense materials, the MDO itself should not be authorized to perform research on, fund or conduct activities to reprocess or recycle used nuclear fuel. These limitations on the MDO mission are consistent with the recommendations of the BRC.

Funding

With regard to funding, the BRC noted that "...the success of a revitalized nuclear waste management program will depend on making the revenues generated by the nuclear waste fee and the balance in the

⁴ *Choosing a New Organization for Management and Disposition of Commercial and Defense High-Level Radioactive Materials*, RAND Corporation, Washington, DC, MG-1230-DOE, 2012. The report is available free for downloading at www.rand.org/pubs/monographs/MG1230.html.

NWF available when needed and in the amounts needed to implement the program.” The Administration agrees that providing adequate and timely funding is critical to the success of the nuclear waste mission.

The NWPA established a self-financing mechanism for the nation’s commercial nuclear material management system. Congress intended at the time to ensure a stable, ongoing source of funding for the program and also one that would not burden taxpayers. Under the NWPA, the government currently assesses utilities a fee equal to one mill (\$0.001) for each kilowatt-hour of electricity sold from nuclear power plants in exchange for agreeing to accept and permanently dispose of utilities’ used nuclear fuel. Fees collected total approximately \$750 million per year. This fee income is credited to the Nuclear Waste Fund (NWF, or the “Fund”), a fund held in the U.S. Treasury in which monies in excess of appropriations are invested in non-marketable Treasury securities, and the interest earnings are credited to the Fund. The current balance of the Fund is estimated at \$28 billion.

Subsequent to passage of the NWPA, a series of broader budgeting acts passed by Congress have had the effect of disconnecting the revenues from the expenditures necessary for a waste disposal solution. All NWF spending is subject to annual appropriations and is required to compete with other priorities within budget caps imposed on all government discretionary spending, while continued collection of the full amount of fees is credited on the mandatory side of the budget as offsetting receipts. As a result, even though the intent of the NWPA was to make the balances of the NWF available when needed to cover the government’s cost to dispose of the used nuclear fuel, there is a disconnect that makes access to funding difficult.

Moving forward, the key challenge is to ensure that past and future fee receipts and accrued interest are made available to meet mission requirements in a timely and dependable manner. To achieve this goal, reform of the current funding arrangement is necessary and should consist of the following elements: ongoing discretionary appropriations, access to annual fee collections provided in legislation either through their reclassification from mandatory to discretionary or as a direct mandatory appropriation of the fees, and eventual access to the balance or “corpus” of the NWF.

First, future funding arrangements should include a role for the Appropriations Committees of Congress through ongoing discretionary appropriations, funded within the discretionary spending limits. Ongoing engagement with the Appropriations committees ensures annual oversight and increases the likelihood of a sustained Congressional commitment to the nuclear waste mission. Annual appropriations could be used to fund expenses that are regular and recurring, such as program management costs, including administrative expenses, salaries and benefits, and studies.

Second, access to annual fee collections could support activities such as the development of interim storage facilities, establishment of the transportation system, siting and characterization of a geologic repository, and execution of regulatory development and oversight. This access could be accomplished either through legislative reclassification of fee collections from mandatory to discretionary, or as a direct mandatory appropriation of the fees, or some combination thereof. Legislative reclassification of fee collections from mandatory to discretionary would allow the fees to offset NWF discretionary

appropriations, so that appropriation of the fees no longer would have to compete with other discretionary priorities. Instead, fees would be provided in amounts needed only above the annual appropriations described above and would also be limited by the amount of fee income, as envisioned by the NWPA. This approach could be preferable if additional Appropriator involvement was desired or deemed necessary and regular annual appropriations of that magnitude could be identified.

Alternatively, a direct mandatory appropriation of the annual fees could be coupled with direct access to the corpus of the NWF, as further discussed below. Under this arrangement, spending could be controlled through annual mandatory spending caps set by Congress or by tying funding levels to specific system development milestones in legislation. With continued oversight by the Appropriations Committees, these mandatory spending caps could be adjusted, as deemed necessary and appropriate. Implementation of either or a combination of both of these approaches will require substantial consultation with Authorizing, Budget, and Appropriations Committees of Congress; the Administration is committed to working with Congress to find a mutually agreeable solution to this issue.

Third, regardless of how access to the annual fees is provided, the substantial corpus of the NWF will be needed at an appropriate time in the future, particularly to support the development of a geologic repository. The cost of constructing repository facilities could outstrip the annual fee collections and other discretionary appropriations discussed above. Direct access to the corpus of the NWF through mandatory appropriations could be carefully managed by limiting its use to specific capital expenditures, tied to performance triggers, such as meeting licensing actions and major construction milestones, or subject to hard spending caps.

The cost of the government's growing liability for partial breach of contracts with nuclear utilities is paid from the Judgment Fund of the U.S. Government. While payments are extensively reviewed by DOE, and must be authorized by the Attorney General prior to disbursement by the Department of the Treasury, as mandatory spending they are not subject to Office of Management and Budget or Congressional approval. Past payments are included in full in the budget, but the budget does not reflect full estimates of the future cost of these liabilities and does not fully reflect the potential future cost of continued insufficient action. Future budget projections would be improved by including the full cost of estimated liability payments in the baselines constructed by both CBO and OMB. If the full cost of the estimated liability payments is accurately reflected in the baseline program costs over the life of the project would eventually be offset by reductions in liabilities as the government begins to pick up sufficient waste from commercial sites. As a result, the projected long-term cost of insufficient action surpasses the cost of implementing the program in the short run.

Any new funding structure for this program will need to balance increased funding flexibility and rigorous spending oversight to help assure that the program is implemented in the most cost-effective manner possible, while still holding the MDO accountable to the President and Congress. Further, crafting the MDO funding structure will require a creative and nuanced approach to providing needed funds with involvement by the Administration and all of the appropriate committees of Congress, working together to achieve a viable solution within the current federal budget rules and procedures.

The President's fiscal year 2014 budget will include additional details regarding funding for the program of work described in this Strategy document.

ONGOING ACTIVITIES

Within DOE, the Office of Nuclear Energy's Office of Fuel Cycle Technology has initiated a planning project with the objective of pursuing activities that can be conducted within the constraints of the NWPA and will facilitate the development of an interim storage facility, of a geologic repository, and of the supporting transportation infrastructure. The activities being conducted can be transferred to a new MDO when established and will not constrain its options. This includes initiating planning for a large-scale transportation program; evaluating operational options for consolidated storage and furthering the design of a generic consolidated storage facility. The Department is also developing plans for initiating a consent-based siting process. The Department will continue with these activities and those listed below, within existing Congressional authorization, while the Administration and Congress work together on potential changes to the nuclear waste management program.

The BRC also urged the Department to evaluate options for transportation of used nuclear fuel from shut down reactors. In 2013, DOE is evaluating the inventory, transportation interface, and shipping status of used nuclear fuel at shut-down reactor sites. The Department has established cooperative agreements with state and regional groups and engaged tribal representatives to begin discussions on transportation planning and emergency response training consistent with NWPA Section 180(c). Further, the Department is considering how best to leverage the work of state and regional groups currently engaged in transportation planning and oversight of radioactive waste shipments to WIPP in New Mexico.

In FY 2013, the Department is undertaking disposal-related research and development work in the following areas: an evaluation of whether direct disposal of existing storage containers used at utility sites can be accomplished in various geologic media; an evaluation of various types and design features of back-filled engineered barriers systems and materials; evaluating geologic media for their impacts on waste isolation; evaluating thermal management options for various geologic media; establishing cooperative agreements with International programs; and developing a research and development plan for deep borehole disposal, consistent with BRC recommendations.

CONCLUSION

In this Strategy, the Administration has highlighted agreement with many of the principles of the BRC recommendations and has outlined actions that, with legislative authorization by Congress, can lead to a safe and responsible solution to managing the nation's nuclear waste. Indeed, action by Congress in the form of new authorizing legislation and appropriations is necessary for success of the waste management mission. Specifically, legislation is needed in the near term to permit or address the following activities over the next 10 years:

- Active engagement in a broad, national, consent-based process to site pilot and full-scale interim storage facilities, and site and characterize a geologic repository;
- Siting, design, licensing, and commencement of operations at a pilot-scale storage facility with an initial focus on accepting used nuclear fuel from shut-down reactor sites.;
- Significant progress on siting and licensing of a larger consolidated interim storage facility capable of providing system flexibility and an opportunity for more substantial progress in reducing government liabilities;
- Development of transportation capabilities (personnel, processes, equipment) to begin movement of fuel from shut-down reactors;
- Reformation of the funding approach in ways that preserve the necessary role for ongoing discretionary appropriations and also provide additional funds as necessary, whether from reclassified fees or from mandatory appropriation from the NWF or both; and
- Establishment of a new organization to run the program, the structure and positioning of which balance greater autonomy with the need for continued Executive and Legislative branch oversight.

This Strategy translates the BRC's report and recommendations into a set of broad steps that will ultimately benefit the entire nation. The Administration will work closely with Congress to develop a path forward that maximizes the likelihood of success. When executed, the new program will provide near-term and long-term solutions for managing the back-end of the nuclear fuel cycle, thereby resolving a longtime source of conflict in nuclear policy by providing safe, secure, and permanent disposal. Until the necessary new legislation has been enacted, the Administration will pursue components of the Strategy as described above pursuant to current law and in close coordination with Congress. Finally, in executing the program the federal government must work closely with potential host states, tribes, and communities whose engagement will be essential for successfully operating a comprehensive used nuclear fuel and high-level radioactive waste storage, transportation, and disposal system.

Appendix D – Appeals Court Ruling: Resume Yucca Mountain Licensing

USCA Case #11-1271

Document #1451347

Filed: 08/13/2013

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United States Court of Appeals FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued May 2, 2012 Decided August 13, 2013
Ordered Held in Abeyance August 3, 2012

No. 11-1271

IN RE: AIKEN COUNTY, ET AL.,
PETITIONERS

STATE OF NEVADA,
INTERVENOR

On Petition for Writ of Mandamus

Andrew A. Fitz, Senior Counsel, Office of the Attorney General for the State of Washington, argued the cause for petitioners. With him on the briefs were *Robert M. McKenna*, Attorney General, *Todd R. Bowers*, Senior Counsel, *Thomas R. Gottshall*, *S. Ross Shealy*, *Alan Wilson*, Attorney General, Office of the Attorney General for the State of South Carolina, *William Henry Davidson II*, *Kenneth Paul Woodington*, *James Bradford Ramsay*, *Robin J. Lunt*, *Barry M. Hartman*, *Christopher R. Nestor*, and *Robert M. Andersen*.

Jerry Stouck and *Anne W. Cottingham* were on the brief for *amicus curiae* Nuclear Energy Institute, Inc. in support of petitioners.

Charles E. Mullins, Senior Attorney, U.S. Nuclear Regulatory Commission, argued the cause for respondent.

With him on the brief were *Stephen G. Burns*, General Counsel, *John F. Cordes Jr.*, Solicitor, and *Jeremy M. Suttenger*, Attorney.

Martin G. Malsch argued the cause for intervenor State of Nevada. With him on the briefs were *Charles J. Fitzpatrick* and *John W. Lawrence*.

Before: GARLAND, *Chief Judge*, KAVANAUGH, *Circuit Judge*, and RANDOLPH, *Senior Circuit Judge*.

Opinion for the Court filed by *Circuit Judge* KAVANAUGH, with whom *Senior Circuit Judge* RANDOLPH joins except as to Part III.

Concurring opinion filed by *Senior Circuit Judge* RANDOLPH.

Dissenting opinion filed by *Chief Judge* GARLAND.

KAVANAUGH, *Circuit Judge*: This case raises significant questions about the scope of the Executive's authority to disregard federal statutes. The case arises out of a longstanding dispute about nuclear waste storage at Yucca Mountain in Nevada. The underlying policy debate is not our concern. The policy is for Congress and the President to establish as they see fit in enacting statutes, and for the President and subordinate executive agencies (as well as relevant independent agencies such as the Nuclear Regulatory Commission) to implement within statutory boundaries. Our more modest task is to ensure, in justiciable cases, that agencies comply with the law as it has been set by Congress. Here, the Nuclear Regulatory Commission has continued to violate the law governing the Yucca Mountain licensing

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process. We therefore grant the petition for a writ of mandamus.

I

This case involves the Nuclear Waste Policy Act, which was passed by Congress and then signed by President Reagan in 1983. That law provides that the Nuclear Regulatory Commission “shall consider” the Department of Energy’s license application to store nuclear waste at Yucca Mountain and “shall issue a final decision approving or disapproving” the application within three years of its submission. 42 U.S.C. § 10134(d). The statute allows the Commission to extend the deadline by an additional year if it issues a written report explaining the reason for the delay and providing the estimated time for completion. *Id.* § 10134(d), (e)(2).

In June 2008, the Department of Energy submitted its license application to the Nuclear Regulatory Commission. As recently as Fiscal Year 2011, Congress appropriated funds to the Commission so that the Commission could conduct the statutorily mandated licensing process. Importantly, the Commission has at least \$11.1 million in appropriated funds to continue consideration of the license application.

But the statutory deadline for the Commission to complete the licensing process and approve or disapprove the Department of Energy’s application has long since passed. Yet the Commission still has not issued the decision required by statute. Indeed, by its own admission, the Commission has no current intention of complying with the law. Rather, the Commission has simply shut down its review and consideration of the Department of Energy’s license application.

Petitioners include the States of South Carolina and Washington, as well as entities and individuals in those States. Nuclear waste is currently stored in those States in the absence of a long-term storage site such as Yucca Mountain.

Since 2010, petitioners have sought a writ of mandamus requiring the Commission to comply with the law and to resume processing the Department of Energy's pending license application for Yucca Mountain. Mandamus is an extraordinary remedy that takes account of equitable considerations. The writ may be granted "to correct transparent violations of a clear duty to act." *In re American Rivers and Idaho Rivers United*, 372 F.3d 413, 418 (D.C. Cir. 2004) (internal quotation marks omitted); *see also Arizona v. Inter Tribal Council of Arizona, Inc.*, No. 12-71, slip. op. at 17 n.10 (U.S. 2013) (noting that if the federal Election Assistance Commission did not act on a state's statutorily permitted request, "Arizona would be free to seek a writ of mandamus to 'compel agency action unlawfully withheld or unreasonably delayed'") (quoting 5 U.S.C. § 706(1)).

In 2011, a prior panel of this Court indicated that, if the Commission failed to act on the Department of Energy's license application within the deadlines specified by the Nuclear Waste Policy Act, mandamus likely would be appropriate. *See In re Aiken County*, 645 F.3d 428, 436 (D.C. Cir. 2011). In 2012, after a new mandamus petition had been filed, this panel issued an order holding the case in abeyance and directing that the parties file status updates regarding Fiscal Year 2013 appropriations. At that time, we did not issue the writ of mandamus. Instead, in light of the Commission's strenuous claims that Congress did not want the licensing process to continue and the equitable considerations appropriately taken into account in mandamus

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cases, we allowed time for Congress to clarify this issue if it wished to do so. But a majority of the Court also made clear that, given the current statutory language and the funds available to the Commission, the Commission was violating federal law by declining to further process the license application. And the Court's majority further indicated that the mandamus petition eventually would have to be granted if the Commission did not act or Congress did not enact new legislation either terminating the Commission's licensing process or otherwise making clear that the Commission may not expend funds on the licensing process. *See Order, In re Aiken County*, No. 11-1271 (D.C. Cir. Aug. 3, 2012).

Since we issued that order more than a year ago on August 3, 2012, the Commission has not acted, and Congress has not altered the legal landscape. As things stand, therefore, the Commission is simply flouting the law. In light of the constitutional respect owed to Congress, and having fully exhausted the alternatives available to us, we now grant the petition for writ of mandamus against the Nuclear Regulatory Commission.

II

Our analysis begins with settled, bedrock principles of constitutional law. Under Article II of the Constitution and relevant Supreme Court precedents, the President must follow statutory *mandates* so long as there is appropriated money available and the President has no constitutional objection to the statute. So, too, the President must abide by statutory *prohibitions* unless the President has a constitutional objection to the prohibition. If the President has a constitutional objection to a statutory mandate or prohibition, the President may decline to follow the law unless and until a

final Court order dictates otherwise. But the President may not decline to follow a statutory mandate or prohibition simply because of policy objections. Of course, if Congress appropriates no money for a statutorily mandated program, the Executive obviously cannot move forward. But absent a lack of funds or a claim of unconstitutionality that has not been rejected by final Court order, the Executive must abide by statutory mandates and prohibitions.

Those basic constitutional principles apply to the President and subordinate executive agencies. And they apply at least as much to independent agencies such as the Nuclear Regulatory Commission. *Cf. FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 525-26 (2009) (opinion of Scalia, J., for four Justices) (independent agency should be subject to same scrutiny as executive agencies); *id.* at 547 (opinion of Breyer, J., for four Justices) (independent agency's "comparative freedom from ballot-box control makes it all the more important that courts review its decisionmaking to assure compliance with applicable provisions of the law").

In this case, however, the Nuclear Regulatory Commission has declined to continue the statutorily mandated Yucca Mountain licensing process. Several justifications have been suggested in support of the Commission's actions in this case. None is persuasive.

First, the Commission claims that Congress has not yet appropriated the *full* amount of funding necessary for the Commission to *complete* the licensing proceeding. But Congress often appropriates money on a step-by-step basis, especially for long-term projects. Federal agencies may not ignore statutory mandates simply because Congress has not yet appropriated all of the money necessary to complete a

project. *See City of Los Angeles v. Adams*, 556 F.2d 40, 50 (D.C. Cir. 1977) (when statutory mandate is not fully funded, “the agency administering the statute is required to effectuate the original statutory scheme as much as possible, within the limits of the added constraint”). For present purposes, the key point is this: The Commission is under a legal obligation to continue the licensing process, and it has at least \$11.1 million in appropriated funds – a significant amount of money – to do so. *See Commission Third Status Report*, at 2 (Apr. 5, 2013).

Second, and relatedly, the Commission speculates that Congress, in the future, will not appropriate the additional funds necessary for the Commission to complete the licensing process. So it would be a waste, the Commission theorizes, to continue to conduct the process now. The Commission’s political prognostication may or may not ultimately prove to be correct. Regardless, an agency may not rely on political guesswork about future congressional appropriations as a basis for violating existing legal mandates. A judicial green light for such a step – allowing agencies to ignore statutory mandates and prohibitions based on agency speculation about future congressional action – would gravely upset the balance of powers between the Branches and represent a major and unwarranted expansion of the Executive’s power at the expense of Congress.

Third, the Commission points to Congress’s recent appropriations to the Commission and to the Department of Energy for the Yucca Mountain project. In the last three years, those appropriations have been relatively low or zero. The Commission argues that those appropriations levels demonstrate a congressional desire for the Commission to shut down the licensing process.

But Congress speaks through the laws it enacts. No law states that the Commission should decline to spend previously appropriated funds on the licensing process. No law states that the Commission should shut down the licensing process. And the fact that Congress hasn't yet made additional appropriations over the existing \$11.1 million available to the Commission to continue the licensing process tells us nothing definitive about what a future Congress may do. As the Supreme Court has explained, courts generally should not infer that Congress has implicitly repealed or suspended statutory mandates based simply on the amount of money Congress has appropriated. *See TVA v. Hill*, 437 U.S. 153, 190 (1978) (doctrine that repeals by implication are disfavored "applies with even *greater* force when the claimed repeal rests solely on an Appropriations Act"); *United States v. Langston*, 118 U.S. 389, 394 (1886) ("a statute fixing the annual salary of a public officer at a named sum . . . should not be deemed abrogated or suspended by subsequent enactments which merely appropriated a less amount for the services of that officer for particular fiscal years"); *cf.* 1 GAO, PRINCIPLES OF FEDERAL APPROPRIATIONS LAW at 2-49 (3d ed. 2004) ("a mere failure to appropriate sufficient funds will not be construed as amending or repealing prior authorizing legislation").

In these circumstances, where previously appropriated money is available for an agency to perform a statutorily mandated activity, we see no basis for a court to excuse the agency from that statutory mandate.

Fourth, the record suggests that the Commission, as a policy matter, simply may not want to pursue Yucca Mountain as a possible site for storage of nuclear waste. But Congress sets the policy, not the Commission. And policy

disagreement with Congress's decision about nuclear waste storage is not a lawful ground for the Commission to decline to continue the congressionally mandated licensing process. To reiterate, the President and federal agencies may not ignore statutory mandates or prohibitions merely because of policy disagreement with Congress. See *Lincoln v. Vigil*, 508 U.S. 182, 193 (1993) ("Of course, an agency is not free simply to disregard statutory responsibilities: Congress may always circumscribe agency discretion to allocate resources by putting restrictions in the operative statutes . . ."); 18 Comp. Gen. 285, 292 (1938) ("the question with the accounting officers is not the apparent general merit of a proposed expenditure, but whether the Congress, controlling the purse, has by law authorized the expenditure").¹

¹ Like the Commission here, a President sometimes has policy reasons (as distinct from constitutional reasons, *cf. infra* note 3) for wanting to spend less than the full amount appropriated by Congress for a particular project or program. But in those circumstances, even the President does not have unilateral authority to refuse to spend the funds. Instead, the President must propose the rescission of funds, and Congress then may decide whether to approve a rescission bill. See 2 U.S.C. § 683; see also *Train v. City of New York*, 420 U.S. 35 (1975); Memorandum from William H. Rehnquist, Assistant Attorney General, Office of Legal Counsel, to Edward L. Morgan, Deputy Counsel to the President (Dec. 1, 1969), reprinted in *Executive Impoundment of Appropriated Funds: Hearings Before the Subcomm. on Separation of Powers of the S. Comm. on the Judiciary*, 92d Cong. 279, 282 (1971) ("With respect to the suggestion that the President has a constitutional power to decline to spend appropriated funds, we must conclude that existence of such a broad power is supported by neither reason nor precedent.").

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III²

We thus far have concluded that the Commission's inaction violates the Nuclear Waste Policy Act. To be sure, there are also two principles rooted in Article II of the Constitution that give the Executive authority, in certain circumstances, to decline to act in the face of a clear statute. But neither of those principles applies here.

First, the President possesses significant independent authority to assess the constitutionality of a statute. *See* U.S. CONST. art. II, § 1, cl. 1 (Executive Power Clause); U.S. CONST. art. II, § 1, cl. 8 (Oath of Office Clause); U.S. CONST. art. II, § 3 (Take Care Clause). But that principle does not help the Commission.

To explain: The President is of course not bound by Congress's assessment of the constitutionality of a statute. The Take Care Clause of Article II refers to "Laws," and those Laws include the Constitution, which is superior to statutes. *See* U.S. CONST. art. VI (Constitution is "supreme Law of the Land"). So, too, Congress is not bound by the President's assessment of the constitutionality of a statute. Rather, in a justiciable case, the Supreme Court has the final word on whether a statutory mandate or prohibition on the Executive is constitutional. *See Nixon v. Administrator of General Services*, 433 U.S. 425 (1977) (Presidential Recordings and Materials Preservation Act is constitutional); *see also Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 639 (1952) (Jackson, J., concurring) (congressional statutes that together preclude President from seizing steel mills are constitutional); *see generally Marbury v. Madison*, 5 U.S. 137 (1803).

² Judge Kavanaugh alone joins Part III of the opinion.

So unless and until a final Court decision in a justiciable case says that a statutory mandate or prohibition on the Executive Branch is constitutional, the President (and subordinate executive agencies supervised and directed by the President) may decline to follow that statutory mandate or prohibition if the President concludes that it is unconstitutional. Presidents routinely exercise this power through Presidential directives, executive orders, signing statements, and other forms of Presidential decisions. *See, e.g., Zivotofsky v. Clinton*, 132 S. Ct. 1421 (2012) (based on Article II, Presidents Bush and Obama refused to comply with statute regulating passports of individuals born in Jerusalem); *Myers v. United States*, 272 U.S. 52 (1926) (based on Article II, President Wilson refused to comply with statutory limit on the President's removal power); *see also Freytag v. Commissioner of Internal Revenue*, 501 U.S. 868, 906 (1991) (Scalia, J., concurring) (President has "the power to veto encroaching laws or even to disregard them when they are unconstitutional") (citation omitted); *Presidential Authority to Decline to Execute Unconstitutional Statutes*, 18 Op. Off. Legal Counsel 199, 199-200 (1994) (Walter Dellinger) (describing as "uncontroversial" and "unassailable" the proposition that a President may decline to execute an unconstitutional statute in some circumstances); 2 THE DEBATES IN THE SEVERAL STATE CONVENTIONS ON THE ADOPTION OF THE FEDERAL CONSTITUTION 446 (Jonathan Elliot ed., 2d ed. 1836) ("the President of the United States could shield himself, and refuse to carry into effect an act that violates the Constitution") (statement of James Wilson).³

³ In declining to follow a statutory *mandate* that the President independently concludes is unconstitutional, the President generally may decline to expend funds on that unconstitutional program, at least unless and until a final Court order rules otherwise. But in

But even assuming arguendo that an independent agency such as the Nuclear Regulatory Commission possesses Article II authority to assess the constitutionality of a statute and thus may decline to follow the statute until a final Court order says otherwise,⁴ the Commission has not asserted that the relevant statutes in this case are unconstitutional. So that Article II principle is of no help to the Commission here.

declining to follow a statutory *prohibition* that the President independently concludes is unconstitutional (and not just unwise policy, *cf. supra* note 1), the Appropriations Clause acts as a separate limit on the President's power. It is thus doubtful that the President may permissibly expend more funds than Congress has appropriated for the program in question. *See* U.S. CONST. art. I, § 9, cl. 7 (Appropriations Clause); *see also OPM v. Richmond*, 496 U.S. 414, 425 (1990) ("Any exercise of a power granted by the Constitution to one of the other branches of Government is limited by a valid reservation of congressional control over funds in the Treasury."). It is sometimes suggested, however, that the President may elect not to follow a statutory prohibition on how *otherwise available appropriated funds* are spent if the President concludes that the prohibition is unconstitutional, at least unless and until a final Court order rules otherwise. *See* David J. Barron & Martin S. Lederman, *The Commander in Chief at the Lowest Ebb – Framing the Problem, Doctrine, and Original Understanding*, 121 HARV. L. REV. 689, 740 (2008). This case does not require analysis of those difficult questions.

⁴ It is doubtful that an independent agency may disregard a statute on constitutional grounds unless the President has concluded that the relevant statute is unconstitutional. But we need not delve further into that question here. *Compare Humphrey's Executor v. United States*, 295 U.S. 602 (1935), with *Myers*, 272 U.S. 52, and *Free Enterprise Fund v. Public Company Accounting Oversight Board*, 130 S. Ct. 3138 (2010).

Second, it is also true that, under Article II, the President possesses a significant degree of prosecutorial discretion not to take enforcement actions against violators of a federal law. But that principle does not support the Commission's inaction here. To demonstrate why, the contours of the Executive's prosecutorial discretion must be explained.

The Presidential power of prosecutorial discretion is rooted in Article II, including the Executive Power Clause, the Take Care Clause, the Oath of Office Clause, and the Pardon Clause. *See* U.S. CONST. art. II, § 1, cl. 1 (Executive Power Clause); U.S. CONST. art. II, § 1, cl. 8 (Oath of Office Clause); U.S. CONST. art. II, § 2, cl. 1 (Pardon Clause); U.S. CONST. art. II, § 3 (Take Care Clause); *see also* U.S. CONST. art. I, § 9, cl. 3 (Bill of Attainder Clause). The President may decline to prosecute certain violators of federal law just as the President may pardon certain violators of federal law.⁵ The President may decline to prosecute or may pardon because of the President's own constitutional concerns about a law *or* because of policy objections to the law, among other reasons.⁶ *See, e.g., United States v. Nixon*, 418 U.S. 683, 693 (1974) ("the Executive Branch has exclusive authority and absolute discretion to decide whether to prosecute a case"); *Community for Creative Non-Violence v. Pierce*, 786 F.2d 1199, 1201 (D.C. Cir. 1986) ("The power to decide when to investigate,

⁵ The power to pardon encompasses the power to commute sentences. *See Schick v. Reed*, 419 U.S. 256, 264 (1974).

⁶ One important difference between a decision not to prosecute and a pardon is that a pardon prevents a future President from prosecuting the offender for that offense. Prosecutorial discretion, meanwhile, might be exercised differently by a future President – subject to statute of limitations issues or any due process limits that might apply when an offender has reasonably relied on a prior Presidential promise not to prosecute particular conduct.

and when to prosecute, lies at the core of the Executive's duty to see to the faithful execution of the laws"); *United States v. Cox*, 342 F.2d 167, 171 (5th Cir. 1965) ("The discretionary power of the attorney for the United States in determining whether a prosecution shall be commenced or maintained may well depend upon matters of policy wholly apart from any question of probable cause."); *Prosecution for Contempt of Congress of an Executive Branch Official Who Has Asserted a Claim of Executive Privilege*, 8 Op. Off. Legal Counsel 101, 125 (1984) (Theodore B. Olson) ("the constitutionally prescribed separation of powers requires that the Executive retain discretion with respect to whom it will prosecute for violations of the law"); *id.* at 115 ("The Executive's exclusive authority to prosecute violations of the law gives rise to the corollary that neither the Judicial nor Legislative Branches may directly interfere with the prosecutorial discretion of the Executive by directing the Executive Branch to prosecute particular individuals."); Congressman John Marshall, Speech to the House of Representatives (1800), *reprinted in* 18 U.S. app. at 29 (1820) (The President may "direct that the criminal be prosecuted no further. This is . . . the exercise of an indubitable and a constitutional power."); *see also United States v. Klein*, 80 U.S. 128, 147 (1871) ("To the executive alone is intrusted the power of pardon; and it is granted without limit.").

In light of the President's Article II prosecutorial discretion, Congress may not *mandate* that the President prosecute a certain kind of offense or offender. The logic behind the pardon power further supports that conclusion. As has been settled since the Founding, the President has absolute authority to issue a pardon at any time after an unlawful act has occurred, even *before* a charge or trial. *See Ex parte Grossman*, 267 U.S. 87, 120 (1925) ("The Executive

can relieve or pardon all offenses after their commission, either before trial, during trial or after trial, by individuals, or by classes . . .”). So it would make little sense to think that Congress constitutionally could compel the President to prosecute certain offenses or offenders, given that the President has undisputed authority to pardon all such offenders at any time after commission of the offense. *See* AKHIL REED AMAR, *AMERICA’S CONSTITUTION: A BIOGRAPHY* 179 (2005) (“greater power to pardon subsumed the lesser power to simply decline prosecution”).⁷

The Executive’s broad prosecutorial discretion and pardon powers illustrate a key point of the Constitution’s separation of powers. One of the greatest *unilateral* powers a President possesses under the Constitution, at least in the domestic sphere, is the power to protect individual liberty by essentially under-enforcing federal statutes regulating private behavior – more precisely, the power either not to seek charges against violators of a federal law or to pardon violators of a federal law.⁸ The Framers saw the separation of the power to prosecute from the power to legislate as essential

⁷ If the Executive selectively prosecutes someone based on impermissible considerations, the equal protection remedy is to dismiss the prosecution, not to compel the Executive to bring another prosecution. *See United States v. Armstrong*, 517 U.S. 456, 459, 463 (1996); *Yick Wo v. Hopkins*, 118 U.S. 356, 373-74 (1886); *cf. Linda R.S. v. Richard D.*, 410 U.S. 614, 618-19 (1973).

⁸ Congress obviously has tools to deter the Executive from exercising authority in this way – for example by using the appropriations power or the advice and consent power to thwart other aspects of the Executive’s agenda (and ultimately, of course, Congress has the impeachment power). But Congress may not overturn a pardon or direct that the Executive prosecute a particular individual or class of individuals.

to preserving individual liberty. See THE FEDERALIST NO. 47, at 269 (James Madison) (Clinton Rossiter ed., rev. ed. 1999) (“The accumulation of all powers, legislative, executive, and judiciary, in the same hands . . . may justly be pronounced the very definition of tyranny.”); 1 MONTESQUIEU, THE SPIRIT OF LAWS bk. 11, ch. 6, at 163 (Thomas Nugent trans., 1914) (“When the legislative and executive powers are united in the same person, or in the same body of magistrates, there can be no liberty; because apprehensions may arise, lest the same monarch or senate should enact tyrannical laws, to execute them in a tyrannical manner.”). After enacting a statute, Congress may not mandate the prosecution of violators of that statute. Instead, the President’s prosecutorial discretion and pardon powers operate as an independent protection for individual citizens against the enforcement of oppressive laws that Congress may have passed (and still further protection comes from later review by an independent jury and Judiciary in those prosecutions brought by the Executive).⁹

⁹ It is likely that the Executive may decline to seek *civil* penalties or sanctions (including penalties or sanctions in administrative proceedings) on behalf of the Federal Government in the same way. Because they are to some extent analogous to criminal prosecution decisions and stem from similar Article II roots, such civil enforcement decisions brought by the Federal Government are presumptively an exclusive Executive power. See *Buckley v. Valeo*, 424 U.S. 1, 138 (1976) (“The Commission’s enforcement power, exemplified by its discretionary power to seek judicial relief, is authority that cannot possibly be regarded as merely in aid of the legislative function of Congress. A lawsuit is the ultimate remedy for a breach of the law, and it is to the President, and not to the Congress, that the Constitution entrusts the responsibility to ‘take Care that the Laws be faithfully executed.’”) (quoting U.S. CONST. art. II, § 3); *Heckler v. Chaney*, 470 U.S. 821, 831-33 (1985); *Confiscation Cases*, 74 U.S. 454, 457 (1868); see

To be sure, a President's decision to exercise prosecutorial discretion and to decline to seek charges against violators (or to pardon violators) of certain laws can be very controversial. For example, if a President disagreed on constitutional or policy grounds with certain federal marijuana or gun possession laws and said that the Executive Branch would not initiate criminal charges against violators of those laws, controversy might well ensue, including public criticism that the President was "ignoring" or "failing to enforce" the law (and if a court had previously upheld the law in question as constitutional, additional claims that the President was also "ignoring" the courts). But the President has clear constitutional authority to exercise prosecutorial discretion to decline to prosecute violators of such laws, just as the President indisputably has clear constitutional authority to pardon violators of such laws. *See, e.g.*, 1963 Attorney Gen. Ann. Rep. 62, 62-63 (1963) (President Kennedy commuted the sentences of many drug offenders sentenced to mandatory minimums); Letter from Thomas Jefferson to Abigail Adams (July 22, 1804), *in* 11 THE WRITINGS OF THOMAS JEFFERSON 42, 43-44 (Andrew A. Lipscomb & Albert Ellery Bergh eds., 1904) (President Jefferson both pardoned those convicted under the Sedition Act and refused to prosecute violators of the Act); President George

also Butz v. Economou, 438 U.S. 478, 515 (1978); *Seven-Sky v. Holder*, 661 F.3d 1, 50 & n.43 (D.C. Cir. 2011) (Kavanaugh, J., dissenting) (referring to possibility that a President might exercise prosecutorial discretion not to seek civil penalties against violators of a statute). That said, it has occasionally been posited that the President's power not to initiate a civil enforcement action may not be entirely absolute (unlike with respect to criminal prosecution) and thus might yield if Congress expressly mandates civil enforcement actions in certain circumstances. *Cf. Heckler*, 470 U.S. at 832-33.

Washington, Proclamation (July 10, 1795), in 1 A COMPILATION OF THE MESSAGES AND PAPERS OF THE PRESIDENTS 1789-1897, at 181 (James D. Richardson ed., 1896) (President Washington pardoned participants in the Pennsylvania Whiskey Rebellion).¹⁰ The remedy for

¹⁰ As a general matter, there is widespread confusion about the differences between (i) the President's authority to disregard statutory mandates or prohibitions on the Executive, based on the President's constitutional objections, and (ii) the President's prosecutorial discretion not to initiate charges against (or to pardon) violators of a federal law. There are two key practical differences. *First*, the President may disregard a statutory mandate or prohibition on the Executive only on constitutional grounds, not on policy grounds. By contrast, the President may exercise the prosecutorial discretion and pardon powers on any ground – whether based on the Constitution, policy, or other considerations. *Second*, our constitutional structure and tradition establish that a President is bound to comply with a final Court decision holding that a statutory mandate or prohibition on the Executive is constitutional. But in the prosecutorial discretion and pardon context, when a Court upholds a statute that regulates private parties as consistent with the Constitution, that ruling simply *authorizes* prosecution of violators of that law. Such a Court ruling does not *require* the President either to prosecute violators of that law or to refrain from pardoning violators of that law. So the President may decline to prosecute or may pardon violators of a law that the Court has upheld as constitutional. To take one example, a President plainly could choose not to seek (or could commute) federal death sentences because of the President's own objections to the death penalty, even though the Supreme Court has upheld the death penalty as constitutional. See Daniel J. Meltzer, *Executive Defense of Congressional Acts*, 61 DUKE L.J. 1183, 1189-90 (2012) (“President Jefferson ended pending prosecutions under the Sedition Act and pardoned individuals previously convicted under that Act, even though the courts had upheld the Act’s constitutionality. . . . [I]t can hardly be said that his pardons

Presidential abuses of the power to pardon or to decline to prosecute comes in the form of public disapproval, congressional “retaliation” on other matters, or ultimately impeachment in cases of extreme abuse.

So having said all of that, why doesn’t the principle of prosecutorial discretion justify the Nuclear Regulatory Commission’s inaction in this case? The answer is straightforward. Prosecutorial discretion encompasses the Executive’s power to decide whether to initiate charges for legal wrongdoing and to seek punishment, penalties, or sanctions against individuals or entities who violate federal law. Prosecutorial discretion does not include the power to disregard other statutory obligations that apply to the Executive Branch, such as statutory requirements to issue rules, *see Massachusetts v. EPA*, 549 U.S. 497, 527-28 (2007) (explaining the difference), or to pay benefits, or to implement or administer statutory projects or programs. Put another way, prosecutorial discretion encompasses the discretion not to *enforce* a law against private parties; it does not encompass the discretion not to *follow* a law imposing a mandate or prohibition on the Executive Branch.¹¹

disregarded a duty to enforce or defend a congressional statute, given that the pardon power, by its nature, involves undoing the prior enforcement, via conviction, of a statute. And although the abatement of pending prosecutions failed in one sense to enforce the Sedition Act, given the breadth of prosecutorial discretion – whether rooted in the Constitution, in the presumed intention of Congress, or in some combination of the two – it is hard to view Jefferson as having disregarded a congressional mandate.”) (footnotes omitted).

¹¹ Of course, for reasons already discussed, the President may decline to follow a law that purports to *require* the Executive

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This case does not involve a Commission decision not to prosecute violations of federal law. Rather, this case involves a Commission decision not to follow a law mandating that the Commission take certain non-prosecutorial action. So the Executive's power of prosecutorial discretion provides no support for the Commission's inaction and disregard of federal law here.

IV

At the behest of the Commission, we have repeatedly gone out of our way over the last several years to defer a mandamus order against the Commission and thereby give Congress time to pass new legislation that would clarify this matter if it so wished. In our decision in August 2012, the Court's majority made clear, however, that mandamus likely would have to be granted at some point if Congress took no further action. *See Order, In re Aiken County*, No. 11-1271 (D.C. Cir. Aug. 3, 2012). Since then, Congress has taken no further action on this matter. At this point, the Commission is simply defying a law enacted by Congress, and the Commission is doing so without any legal basis.

We therefore have no good choice but to grant the petition for a writ of mandamus against the Commission.¹²

Branch to prosecute certain offenses or offenders. Such a law would interfere with the President's Article II prosecutorial discretion.

¹² In his dissent, Chief Judge Garland cites several cases to explain his vote against granting mandamus in this case. Of the eight cases he cites, however, five did not involve a statutory mandate with a defined deadline, as we have here. In the other three cases, the Court made clear that either the agency had to act or the Court would grant mandamus in the future. *See In re United*

This case has serious implications for our constitutional structure. It is no overstatement to say that our constitutional system of separation of powers would be significantly altered if we were to allow executive and independent agencies to disregard federal law in the manner asserted in this case by

Mine Workers of America International Union, 190 F.3d 545, 554 (D.C. Cir. 1999) (“however modest [an agency’s] personnel and budgetary resources may be, there is a limit to how long it may use these justifications to excuse inaction”); *Grand Canyon Air Tour Coalition v. FAA*, 154 F.3d 455, 477 (D.C. Cir. 1998) (denying mandamus partly because “this is not a case where an agency has been contumacious in ignoring court directions to expedite decision-making”); *In re Barr Laboratories, Inc.*, 930 F.2d 72, 76 (D.C. Cir. 1991) (mandamus inappropriate where it would interfere with agency priorities set by applying agency expertise but noting that “[w]here the agency has manifested bad faith, as by . . . asserting utter indifference to a congressional deadline, the agency will have a hard time claiming legitimacy for its priorities”). Consistent with those precedents, we followed a cautious approach in our decision more than a year ago when we declined to issue mandamus against the Commission at that time. But the Court’s majority clearly warned that mandamus would eventually have to be granted if the Commission did not act or if Congress did not change the law. Since then, despite the clear warning, the Commission has still not complied with the statutory mandate. On the contrary, the Commission has reaffirmed that it has no plans to comply with the statutory mandate. In the face of such deliberate and continued agency disregard of a statutory mandate, our precedents strongly support a writ of mandamus. Our respectful factbound difference with Chief Judge Garland, then, is simply that we believe – especially given the Court’s cautious and incremental approach in prior iterations of this litigation, the significant amount of money available for the Commission to continue the licensing process, and the Commission’s continued disregard of the law – that the case has by now proceeded to the point where mandamus appropriately must be granted.

the Nuclear Regulatory Commission. Our decision today rests on the constitutional authority of Congress, and the respect that the Executive and the Judiciary properly owe to Congress in the circumstances here. To be sure, if Congress determines in the wake of our decision that it will never fund the Commission's licensing process to completion, we would certainly hope that Congress would step in before the current \$11.1 million is expended, so as to avoid wasting that taxpayer money. And Congress, of course, is under no obligation to appropriate additional money for the Yucca Mountain project. Moreover, our decision here does not pre-judge the merits of the Commission's consideration or decision on the Department of Energy's license application, or the Commission's consideration or decision on any Department of Energy attempt to withdraw the license application. But unless and until Congress authoritatively says otherwise or there are no appropriated funds remaining, the Nuclear Regulatory Commission must promptly continue with the legally mandated licensing process. The petition for a writ of mandamus is granted.

So ordered.

RANDOLPH, *Senior Circuit Judge*, concurring: I join all of the majority opinion except part III, which I believe is unnecessary to decide the case.

I also believe some background information is needed to understand what has occurred here. The Nuclear Waste Policy Act states that the Commission “shall consider” the Yucca Mountain license application and “shall issue a final decision approving or disapproving” the application “not later than” three years after its submission. 42 U.S.C. § 10134(d). The Department of Energy filed the Yucca Mountain application in June 2008, *see* Yucca Mountain; Notice of Receipt and Availability of Application, 73 Fed. Reg. 34,348 (June 17, 2008), and Congress later provided substantial appropriations for the licensing process, *see* U.S. NUCLEAR REGULATORY COMMISSION, NUREG-1100, VOL. 26, CONGRESSIONAL BUDGET JUSTIFICATION FOR FY 2011 94–95 (2010). Although the Commission had a duty to act on the application and the means to fulfill that duty, former Chairman Gregory Jaczko orchestrated a systematic campaign of noncompliance. Jaczko unilaterally ordered Commission staff to terminate the review process in October 2010; instructed staff to remove key findings from reports evaluating the Yucca Mountain site; and ignored the will of his fellow Commissioners. *See* U.S. NUCLEAR REGULATORY COMMISSION, OFFICE OF THE INSPECTOR GENERAL, OIG CASE NO. 11-05, NRC CHAIRMAN’S UNILATERAL DECISION TO TERMINATE NRC’S REVIEW OF DOE YUCCA MOUNTAIN REPOSITORY LICENSE APPLICATION 7–10, 17, 44–46 (2011). These transgressions prompted an investigation by the Commission’s Inspector General, as well as a letter from all four of the Commission’s other members expressing “grave concerns” about Jaczko’s performance in office. *See* Matthew Daly, *Nuclear Agency’s Commissioners and Chief Trade War of Words*, WASH. POST, Dec. 10, 2011, at A18. After we heard oral argument in this case, Jaczko resigned.

2

Today's judgment should ensure that the Commission's next chapter begins with adherence to the law. In the Nuclear Waste Policy Act Congress required the Commission to rule on the Yucca Mountain application, and it appropriated funds for that purpose. The Commission's duty is to comply with the law and our duty is to make sure it does so. "Once Congress . . . has decided the order of priorities in a given area, it is for the Executive to administer the laws and for the courts to enforce them when enforcement is sought." *TVA v. Hill*, 437 U.S. 153, 194 (1978).

GARLAND, *Chief Judge*, dissenting: Mandamus is a “drastic and extraordinary remedy reserved for really extraordinary causes.” *Cheney v. U.S. Dist. Court for the Dist. of Columbia*, 542 U.S. 367, 380 (2004) (internal quotation marks omitted). Even if a petitioner can show that it has a “clear and indisputable” right to the writ, issuing the writ remains “a matter vested in the discretion of the court.” *Id.* at 381, 391. Likewise, “mandamus[] does not necessarily follow a finding of a [statutory] violation.” *In re United Mine Workers of Am. Int’l Union*, 190 F.3d 545, 551 (D.C. Cir. 1999) (second alteration in original) (quoting *In re Barr Labs., Inc.*, 930 F.2d 72, 74 (D.C. Cir. 1991)). To the contrary, this court has not hesitated to deny the writ even when an agency has missed a statutory deadline by far more than the two years that have passed in this case. *See id.* at 546, 551 (declining to issue the writ, notwithstanding that the agency missed an “express” statutory deadline by 8 years in “clear violation” of the statute).¹ Finally, and most relevant

¹*See also, e.g., In re Core Commc’ns, Inc.*, 531 F.3d 849, 850 (D.C. Cir. 2008) (noting that the court had declined to issue the writ after the agency failed to respond to the court’s remand for 3 years, but issuing the writ when the delay reached 6 years); *Mashpee Wampanoag Tribal Council, Inc. v. Norton*, 336 F.3d 1094, 1100-01 (D.C. Cir. 2003) (vacating and remanding the district court’s determination that a 5-year delay was unreasonable, due to the district court’s failure to consider the agency’s resource constraints); *Grand Canyon Air Tour Coal. v. FAA*, 154 F.3d 455, 477-78 (D.C. Cir. 1998) (declining to order agency action notwithstanding a 10-year delay in issuing a rule and a 20-year delay in achieving the rule’s statutory objective); *In re Int’l Chem. Workers Union*, 958 F.2d 1144, 1146-47, 1150 (D.C. Cir. 1992) (noting that the court had declined to issue the writ after a 3-year delay, but issuing the writ when the delay reached 6 years); *In re Monroe Commc’ns Corp.*, 840 F.2d 942, 945-47 (D.C. Cir. 1988) (declining to issue the writ despite the agency’s 3-year delay since the ALJ’s initial decision, and 5-year delay since the start of agency proceedings); *Oil, Chem. & Atomic Workers Int’l Union v. Zegeer*, 768 F.2d 1480, 1487-88 (D.C. Cir. 1985) (declining to issue the writ after a 5-year delay).

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here, “[c]ourts will not issue the writ to do a useless thing, even though technically to uphold a legal right.” *United States ex rel. Sierra Land & Water Co. v. Ickes*, 84 F.2d 228, 232 (D.C. Cir. 1936).²

Unfortunately, granting the writ in this case will indeed direct the Nuclear Regulatory Commission to do “a useless thing.” The NRC has not refused to proceed with the Yucca Mountain application. Rather, by unanimous votes of both the Commission and its Atomic Safety and Licensing Board, it has suspended the application proceeding until there are sufficient funds to make meaningful progress. *See* Mem. and Order at 1-2 (N.R.C. Sept. 9, 2011); Mem. and Order (Suspending Adjudicatory Proceeding) at 3 (A.S.L.B. Sept. 30, 2011); NRC Br. 53; NRC Resp. Br. 5; Oral Arg. Tr. 36. Five months prior to that suspension, Congress had given the Commission only the minimal amount it requested to “support work related to the orderly closure of the agency’s Yucca Mountain licensing support activities.” NRC, CONG. BUDGET JUSTIFICATION FOR FY 2011, at 95 (2010); *see* Full-Year Continuing Appropriations Act, 2011, Pub. L. No. 112-10, § 1423, 125 Stat. 38, 126 (2011). The following year, Congress completely zeroed out the Commission’s funding for the project. And the year following that -- after we held this case in abeyance so that Congress could indicate whether it intended to fund the project going forward, *see* Order, *In re Aiken County*, No. 11-1271 (D.C. Cir. Aug. 3, 2012) -- Congress once again appropriated no money for Yucca Mountain activities.

²*See Weber v. United States*, 209 F.3d 756, 760 (D.C. Cir. 2000) (declaring that the writ “is not to be granted in order to command a gesture”); *Realty Income Trust v. Eckerd*, 564 F.2d 447, 458 (D.C. Cir. 1977) (holding that “equity should not require the doing of a ‘vain or useless thing’”).

3

As a consequence, the agency has only about \$11 million left in available funds. No one disputes that \$11 million is wholly insufficient to complete the processing of the application. By way of comparison, the Commission's budget request for the most recent year in which it still expected the Yucca Mountain proceeding to move forward was \$99.1 million. *See* Inspector Gen. Mem. at 8 (June 6, 2011) (describing NRC's FY 2010 performance budget request, which Congress did not grant).³ The only real question, then, is whether the

³To put the size of the application process in concrete terms, at the time the NRC suspended its licensing proceeding, 288 contentions -- claims that must be resolved before the application can be granted -- remained outstanding. *See* Mem. and Order (Suspending Adjudicatory Proceeding) at 3 (A.S.L.B. Sept. 30, 2011); *see also* Mem. and Order at 2 (N.R.C. June 30, 2009) (noting that the Yucca Mountain proceeding "is the most extensive . . . in the agency's history"). Over 100 expert witnesses had been identified for depositions, to address contentions on such diverse subjects as hydrology, geochemistry, climate change, corrosion, radiation, volcanism, and waste transport -- and those were just for the first phase of the proceeding. *See* Mem. and Order (Identifying Participants and Admitted Contentions), Attachment A at 1-10 (A.S.L.B. May 11, 2009); Dep't of Energy Mot. to Renew Temporary Suspension ("DOE Mot.") at 5 n.14 (A.S.L.B. Jan. 21, 2011).

Nor is funding for the NRC the only problem. The Department of Energy (DOE) is the license applicant and an indispensable party in the application process; it bears the burden of proof on each of the remaining 288 contentions. *See* 10 C.F.R. § 2.325. But Congress has zeroed out DOE's Yucca Mountain funding for three years running. It, too, has only a comparatively small amount of carryover funds available -- enough for less than two months' participation. *See* U.S. Amicus Br. 6; *see also infra* note 4.

Of course, processing the application is itself only the tip of the iceberg. Completing the project, including constructing the Yucca

Commission can make any meaningful progress with \$11 million.

The Commission has concluded that it cannot. *See* NRC Resp. Br. 5; U.S. Amicus Br. 9; *see also* NRC Br. 42. And we are not in a position -- nor do we have any basis -- to second-guess that conclusion. Two years ago, citing insufficient funds to proceed and the need to preserve the materials it had collected, the NRC shuttered the licensing program, dismantled the computer system upon which it depended, shipped the documents to storage, and reassigned the program's personnel to projects that did have congressional funding. *See* Mem. and Order at 1-2 (N.R.C. Sept. 9, 2011); NRC Br. 3; Pet'rs Br. 16; Oral Arg. Tr. 45. The Commission believes it will take a significant part of the \$11 million to get the process started again. *See* Oral Arg. Tr. 45-49; *see also* U.S. Amicus Br. 6.⁴ Nor would that leave the Commission with the remainder to spend on moving the application along, however slightly. In light of the NRC's previous three years of appropriations experience, the only responsible use for the remaining money would be to spend it on putting the materials back into storage -- in order to preserve them for the day (if it ever arrives) that Congress provides additional funds. *See* Oral Arg. Tr. 48-49.

Mountain facilities themselves, would require another \$50 billion, none of which has been appropriated. *See* Oral Arg. Tr. 63.

⁴The Department of Energy is in a position similar to that of the NRC. The DOE office with responsibility for the Yucca Mountain project ceased operations in September 2010. *See* DOE Mot. at 4-5. "An active licensing proceeding would thus require DOE to, among other things, re-hire employees, enter into new contracts for necessary services, and re-create capabilities . . ." *Id.* at 5; *see also supra* note 3.

In short, given the limited funds that remain available, issuing a writ of mandamus amounts to little more than ordering the Commission to spend part of those funds unpacking its boxes, and the remainder packing them up again. This exercise will do nothing to safeguard the separation of powers, which my colleagues see as imperiled by the NRC's conduct. *See* Court Op. at 7, 21-22. And because "[i]t is within our discretion not to order the doing of a useless act," *Sierra Land & Water*, 84 F.2d at 232, I respectfully dissent.⁵

⁵*Cf. In re Barr Labs.*, 930 F.2d at 76 ("Congress sought to get generic drugs into the hands of patients at reasonable prices -- fast. The record before us reflects a defeat of those hopes. There are probably remedies[, including] more resources. . . . [N]one is within our power, and a grant of [the] petition [for mandamus] is no remedy at all.").

Appendix E – Claims Court Ruling on Three Yankees’ Lawsuits



Maine Yankee Atomic Power Company, Connecticut Yankee Atomic Power Company, Yankee Atomic Electric Company

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

For Immediate Release: November 14, 2013
Contact: Bob Capstick, 617-699-4262, CYAPCO & YAEC
Eric Howes, 207-577-1089, MYAPCO

In Second Win for Ratepayers Federal Judge Awards Companies Approximately \$235.4 Million

On November 14, 2013 U.S. Court of Federal Claims Judge James F. Merow released his decision which awards Connecticut Yankee Atomic Power Company, Yankee Atomic Electric Company, and Maine Yankee Atomic Power Company approximately \$235.4 million in total damages for the costs related to the government's failure to honor its contract obligations to begin removing spent nuclear fuel and Greater than Class C waste from the three sites by January 1998. These Phase II litigation damages represent damages that CYAPCO and YAEC incurred from January 1, 2002 through December 31, 2008, and that MYAPCO incurred from January 1, 2003 through December 31, 2008. In these Phase II cases, Judge Merow awarded CYAPCO \$126.3 million, YAEC \$73.3 million, and MYAPCO \$35.7 million.

Wayne Norton, President of CYAPCO and YAEC and Chief Nuclear Office of MYAPCO, said, "We are very pleased to have been awarded an additional \$235.4 million in costs resulting from the Department of Energy's failure to honor its contractual obligations to begin removing spent nuclear fuel and Greater than Class C waste from our three sites beginning in 1998. We urge the federal government to fulfill its commitment to remove this material from our sites without further delay and to avoid filing a costly appeal that would only prolong the legal process and adversely affect ratepayers and taxpayers."

Earlier this year following 14 years of litigation, the federal government reimbursed the three companies nearly \$160 million in damages for costs incurred from 1998 through 2001 for CYAPCO and YAEC, and through 2002 for MYAPCO. The three companies recently filed a third round of damages claims in the U.S. Court of Federal Claims for the years 2009-2012.

The ongoing litigation between the three companies and the Department of Energy is being conducted in phases as an earlier U.S. Federal Appeals Court decision ruled that utility companies, such as the three companies, cannot receive damage awards for costs that have not yet been incurred. As a result, the three companies have, and expect to continue to litigate with the DOE every several years to request damages for costs incurred by their ratepayers.

-more-

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In Second Win for Ratepayers Federal Judge Awards Companies \$235.4 Million

“While recovering the Phase I monetary damages from the federal government and the decision in these Phase II cases is positive for the ratepayers, they do not result in spent nuclear fuel and Greater than Class C waste being removed from our sites. However, we are encouraged that the DOE’s nuclear waste management strategy report released earlier this year documents administration support for an integrated nuclear waste management system that includes a pilot interim storage facility with an initial focus on accepting spent nuclear fuel from shut-down reactor sites. The pilot program is also reflected in the comprehensive bi-partisan nuclear waste reform legislation (Senate Bill S.1240) introduced in the Senate this year. We are hopeful the administration and congress will move forward to implement that report recommendation and legislation. The three companies will continue to work closely with our stakeholders to hasten the day when the federal government fulfills its obligation to remove the spent nuclear fuel and Greater than Class C waste from our sites so that they can be reused for other purposes and the cost burden on ratepayers is lifted,” said Norton.

Appendix E – NRC Order Resuming Yucca Mountain Licensing

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Allison M. Macfarlane, Chairman
Kristine L. Svinicki
George Apostolakis
William D. Magwood, IV
William C. Ostendorff

In the Matter of)	
)	
U.S. DEPARTMENT OF ENERGY)	Docket No. 63-001
)	
(High-Level Waste Repository))	
)	

CLI-13-08

MEMORANDUM AND ORDER

On August 13, 2013, the U.S. Court of Appeals for the District of Columbia Circuit issued a decision granting a writ of mandamus, and directing the NRC to resume the licensing process for the Department of Energy's Yucca Mountain high-level radioactive waste repository construction authorization application.¹ We issued an order seeking comment from the participants in this adjudication as to how the agency should continue with the licensing process.² Today we detail the course of action we have selected.

As discussed below, we direct the NRC Staff to complete and issue the Safety Evaluation Report (SER) associated with the construction authorization application. The

¹ See generally *In re Aiken County*, 725 F.3d 255 (D.C. Cir. 2013), *reh'g en banc denied* (Oct. 28, 2013).

² Order (Soliciting Views from Participants) (Aug. 30, 2013) (unpublished) (August 30 Order).

Secretary of the Commission and other appropriate staff also should enter the Licensing Support Network (LSN) documents in the possession of the Secretary into the NRC's official recordkeeping system, the Agencywide Documents Access and Management System (ADAMS), to facilitate the Staff's work on the SER and to prepare for allowing public access to all documents. We further request that the U.S. Department of Energy (DOE) prepare the supplemental environmental impact statement (EIS) that the Staff has determined is needed for purposes of the review of this application under the National Environmental Policy Act (NEPA). Finally, we continue to hold this adjudication in abeyance and will defer decisions related to LSN reconstitution and case management pending completion of the tasks described above.

I. BACKGROUND

By letter dated June 8, 2008, DOE submitted an application seeking authorization to construct a geologic repository at Yucca Mountain in Nye County, Nevada.³ The Staff accepted the application for review⁴ and thereafter published a notice of hearing on the application, providing an opportunity to file intervention petitions with respect to the application.⁵ The notice of hearing included the Staff's determination to adopt, with further supplementation, DOE's 2002 final environmental impact statement (EIS) and 2008 Repository Supplemental EIS.⁶

³ Yucca Mountain; Notice of Receipt and Availability of Application, 73 Fed. Reg. 34,348 (June 17, 2008); Yucca Mountain; Notice of Receipt and Availability of Application; Correction, 73 Fed. Reg. 40,883 (July 16, 2008).

⁴ Department of Energy; Notice of Acceptance for Docketing of a License Application for Authority to Construct a Geologic Repository at a Geologic Repository Operations Area at Yucca Mountain, NV, 73 Fed. Reg. 53,284 (Sept. 15, 2008).

⁵ In the Matter of U.S. Department of Energy (High Level Waste Repository); Notice of Hearing and Opportunity To Petition for Leave To Intervene on an Application for Authority to Construct a Geologic Repository at a Geologic Repository Operations Area at Yucca Mountain, 73 Fed. Reg. 63,029 (Oct. 22, 2008); CLI-08-25, 68 NRC 497 (2008) (Notice of Hearing).

⁶ The Staff concluded that neither the 2002 EIS nor the 2008 EIS adequately addressed the environmental impacts on groundwater, or from surface discharges of groundwater, associated with the proposed action. Notice of Hearing, 73 Fed. Reg. at 63,029. See U.S. Nuclear

(continued . . .)

We received a number of intervention petitions, and litigation commenced pursuant to 10 C.F.R. Part 2, Subpart J, continuing through 2011.⁷ As relevant here, in March 2010, DOE filed a motion to withdraw its construction authorization application.⁸ The Board denied DOE's motion on June 29, 2010, and found that there was no provision in law allowing DOE to withdraw the application, once filed.⁹ During this time period, Congress reduced funding for the NRC's review of the application, with no funds appropriated for fiscal year 2012. In September 2011, we announced that we were "evenly divided on whether to take the affirmative action of overturning or upholding the Board's decision."¹⁰ We directed the Board, in recognition of budgetary limitations, to "complete all necessary and appropriate case management activities,

Regulatory Commission Staff's Adoption Determination Report for the U.S. Department of Energy's Environmental Impact Statements for the Proposed Geologic Repository at Yucca Mountain (Sept. 5, 2008) (ADAMS accession no. ML082420342) (EIS Adoption Determination Report). See generally 10 C.F.R. § 51.109(a)(1) (directing the staff's adoption determination to be included in the notice of hearing). The Staff also adopted DOE's 2008 Rail Alignment EIS and 2008 Rail Corridor Supplemental EIS, neither of which is at issue here.

⁷ A list of key documents detailing the history of the proceeding may be found in an appendix to the Board's decision suspending the proceeding, discussed *infra*. See LBP-11-24, 74 NRC 368, 371-79 (2011). See generally 10 C.F.R. pt. 2, subpt. J, "Procedures Applicable to Proceedings for the Issuance of Licenses for the Receipt of High-Level Radioactive Waste at a Geologic Repository."

⁸ *U.S. Department of Energy's Motion to Withdraw* (Mar. 3, 2010). Prior to filing its motion, DOE requested, and the Construction Authorization Board granted, an interim suspension of discovery and a stay of the adjudication pending resolution of its motion to withdraw. See Order (Granting Interim Suspension of Discovery) (Feb. 2, 2010) (unpublished); Order (Granting Stay of Proceeding) (Feb. 16, 2010) (unpublished).

⁹ LBP-10-11, 71 NRC 609 (2010). In that decision, the Board also granted the intervention petitions of the States of South Carolina and Washington; Aiken County, South Carolina; the Prairie Island Indian Community; and the National Association of Regulatory Utility Commissioners (NARUC). *Id.* at 649.

¹⁰ CLI-11-7, 74 NRC 212, 212 (2011).

including disposal of all matters currently pending before it.”¹¹ Accordingly, the Board suspended the proceeding.¹²

As noted above, earlier this year the D.C. Circuit granted a request for a writ of mandamus and ordered the NRC to “promptly continue with the legally mandated licensing process” for the Yucca Mountain application, “unless and until Congress authoritatively says otherwise or there are no appropriated funds remaining.”¹³ Shortly thereafter, we received requests for action from Nye County and the State of Nevada.¹⁴ In carrying out the court’s order, we sought the participants’ “views as to how the agency should continue with the licensing process.”¹⁵

¹¹ *Id.*

¹² See LBP-11-24, 74 NRC at 370.

¹³ *Aiken County*, 725 F.3d at 267. Nevada sought rehearing *en banc*, and requested that we “postpone any decision regarding how the licensing process should be resumed” until resolution of its petition for rehearing. *State of Nevada’s Comments in Response to the Secretary’s August 30, 2013 Order* (Sept. 30, 2013), at 1 (Nevada Views). Nevada’s petition was denied on October 28, 2013; its request is therefore now moot. See note 1, *supra*.

¹⁴ See *Nye County’s Motion for Lifting of Suspension of Yucca Mountain Licensing Proceeding, Scheduling of Immediate Case Management Conference, and Issuance of Related Administrative Orders* (Aug. 23, 2013) (Nye County Motion), and *Points and Authorities in Support of Motion* (Aug. 23, 2013) (identical motions filed before the Commission and the Atomic Safety and Licensing Board) (supported by the States of South Carolina and Washington, Aiken County, and NARUC) (Nye County Points and Authorities); *State of Nevada Motion for Commission Action Related to a Possible Restart of the Yucca Mountain Licensing Proceeding* (Aug. 23, 2013) (supported by Clark and Inyo Counties) (Nevada Motion). Nye County requests that we (1) re-start the licensing proceedings; (2) convene a case management conference to revise the schedule and re-institute discovery; and (3) direct the immediate release of the SER. Nye County Motion at 1. Nevada requests that: (1) the LSN be reconstituted; (2) any required hearings take place in the Las Vegas area; and (3) the restarted adjudication be conducted by Construction Authorization Board 04. Nevada Motion at 3. Each of these issues is addressed in the context of the participants’ views, *infra*. The motions are granted in part as discussed herein, and otherwise denied.

¹⁵ August 30 Order at 1. That Order provided for these views to be combined with any answers to the Nye County and Nevada motions. *Id.* In the meantime, the Nuclear Energy Institute filed an answer to the motions, also on August 30. See *Nuclear Energy Institute’s Answer to Motions Concerning Resumption of Yucca Mountain Licensing Activities* (Aug. 30, 2013) (NEI Answer).

We received views from DOE, the NRC Staff, Nevada (joined by Inyo and Clark Counties, the Timbisha Shoshone Tribe, and the Native Community Action Council), the Nuclear Energy Institute (NEI), Nye County (joined by South Carolina and Washington, Aiken County, and NARUC), the Four Nevada Counties, White Pine County, the Prairie Island Indian Community (PIIC), Lincoln County, and Eureka County.¹⁶ In addition to joining Nevada, the Timbisha Shoshone Tribe, through the Timbisha Shoshone Tribal Council, filed a motion seeking other relief.¹⁷

¹⁶ See *U.S. Department of Energy's Response to the Commission's August 30, 2013 Order* (Sept. 30, 2013) (DOE Views); *NRC Staff Response to August 30 Commission Order* (Sept. 30, 2013) (Staff Views); *Nevada Views*; *Nuclear Energy Institute's Response to Commission's Order Regarding Resumption of Yucca Mountain Licensing Activities* (Sept. 30, 2013) (NEI Views); *Nye County, Nevada, the States of South Carolina and Washington, Aiken County, South Carolina, and the National Association of Regulatory [Utility] Commissioners Consolidated Response to NRC Order of August 30, 2013 and to Other Parties' Submittals* (Sept. 30, 2013) (Nye County Views); *Churchill County, Esmeralda County, Lander County and Mineral County ("The Four Nevada Counties") Views as to How the NRC Should Continue the Yucca Mountain Licensing Process* (Sept. 30, 2013) (Four Counties Views); *White Pine County, Nevada Views Regarding How NRC Should Continue the Yucca Mountain Licensing Process* (Sept. 25, 2013) (White Pine County Views); *Prairie Island Indian Community's Response to the Commission's August 30, 2013 Order* (Sept. 30, 2013) (PIIC Views); *Lincoln County, Nevada Views Regarding How NRC Should Continue the Yucca Mountain Licensing Process* (Sept. 26, 2013) (Lincoln County Views); *Eureka County's Response to NRC Secretary's August 30, 2013 Order* (Sept. 30, 2013) (Eureka County Views).

In addition, we received several limited appearance statements. See Treichel, Judy, Nevada Nuclear Waste Task Force, letter to the Commissioners, "Yucca Mountain licensing database (Licensing Support Network)" (Sept. 6, 2013); Treichel, Judy, Nevada Nuclear Waste Task Force, e-mail to Mary Woollen, Office of the Chairman, "New US Nuclear Waste Technical Review Board Report" (Sept. 23, 2013); Hoffman, Donald R., American Nuclear Society, Letter to Chairman Macfarlane, (Sept. 30, 2013); Case, John B., JBCase and Associates, letter to Elliot Brenner, Office of Public Affairs, "Nuclear Regulatory Commission Seeks Input on Resumption of Yucca Licensing Review No. 13-070" (Sept. 19, 2013); Ewing, Early, e-mail to the Secretary of the Commission (Sept. 4, 2013). These statements will be included on the docket of this proceeding. See generally 10 C.F.R. § 2.315(a).

¹⁷ *Timbisha Shoshone Tribe's Response to NRC Secretary's August 30, 2013 Order and Renewed Motion for Recognition of the Timbisha Shoshone Tribal Council as the Legitimate Representative of the Timbisha Shoshone Tribe* (Sept. 30, 2013) (Tribe Views and Renewed Motion). The renewed motion states that the Timbisha Shoshone Tribal Council stands in the shoes of Joint Timbisha Shoshone Tribal Group, a single entity formed for the purposes of the Tribe's participation in the adjudication. *Id.* at 4. See generally Order (Accepting Joint

(continued . . .)

II. DISCUSSION

We undertake today's decision as an exercise of our inherent supervisory authority over agency proceedings, as we do when a matter is not strictly adjudicatory in nature or otherwise does not fit cleanly within the procedures described in our rules of practice.¹⁸

A. The Participants' Views

We have reviewed the participants' submissions as well as information regarding the projected costs of licensing activities. Common themes emerge from our review: all participants request that we direct the NRC Staff to complete the Safety Evaluation Report associated with the application, although the views as to the appropriate sequencing of SER completion in relation to other activities vary among the participants.¹⁹ The Staff also recommends that the agency complete the supplemental EIS.²⁰ Several participants seek reconstitution of the LSN;²¹ others disfavor LSN reconstitution, but request that the LSN document collection be made

Representation of Timbisha Shoshone Tribe) (Apr. 22, 2009) (unpublished). In today's decision, we refer to the movant as the "Tribal Council."

¹⁸ See, e.g., *Shieldalloy Metallurgical Corp.* (Decommissioning of the Newfield, New Jersey Site), CLI-13-6, 78 NRC __ (Aug. 5, 2013) (slip op.) (responding to judicial remand); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 476 (2008); *Pacific Gas & Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 237 (2002).

¹⁹ See, e.g., Staff Views at 7, 8-10; Nevada Views at 8 (complete SER in parallel with reconstitution of the LSN); Nye County Points and Authorities at 16-17, and Nye County Views at 1, 3-12 (requesting immediate issuance of the SER "with the Staff safety conclusions intact"); NEI Answer at 2, 4-5; NEI Views at 1-2; PIIC Views at 2 (listing completion and publication of the SER "as the first priority for the expenditure[] of funds"); Four Counties Views at 1-2; White Pine County Views at 3; Lincoln County Views at 3; Eureka County Views at 4-5 (advocating issuance of SER only if sufficient funds are available to conduct a hearing).

²⁰ Staff Views at 7, 10-11.

²¹ Nevada Motion at 3-8 ("Nevada's strong preference is that the LSN be reconstituted as it previously existed—a stand-alone internet page fully available for public access and search"); Nevada Views at 2, 5-8 (LSN reconstitution in conjunction with SER completion); Eureka County Views at 1, 4, 5 (restoration of the LSN following resumption of the adjudication).

available in some other format.²² A number of participants seek resumption of this adjudication and make related requests, including re-establishment of Construction Authorization Board 04, conduct of a conference in the Las Vegas area, resumption of Phase I discovery,²³ and other requests related to case management.²⁴ In contrast, other participants caution against resumption of the adjudication, expressing doubt as to whether available funds would be sufficient to make meaningful progress.²⁵ DOE recommends no particular course of action but represents that it is "committed to complying as expeditiously as possible with any NRC order, subject to the availability of funds."²⁶

²² NEI Answer at 6-7; Nye County Points and Authorities at 18; Nye County Views at 19-21; Four Counties Views at 2 (recommending, instead, that "all documents in the proceeding be added to the ADAMS archival system"); White Pine County Views at 3 (encouraging the NRC to "utilize existing document archival systems . . . in lieu of reconstituting the costly and cumbersome [LSN]"), 4; PIIC Views at 2 (seeking to delay reconstitution of the LSN until after a case management conference and completion of the SER, and recommending that the NRC "make all documents filed and archived in the proceeding available on the NRC's ADAMS archival system"); Lincoln County Views at 4 (unnumbered) (recommending placement of documents provided to the NRC "on the NRC's existing ADAMS document archival system").

²³ In view of the Staff's plan to issue the SER serially, the Board planned discovery to occur in phases. So-called "Phase I" discovery comprised (1) all safety and miscellaneous contentions concerning issues relating to either SER Volumes 1 or 3 (regarding general information and review of repository safety after permanent closure, respectively); (2) all NEPA contentions (other than those involving DOE's additional groundwater analysis) relating to SER Volumes 1 or 3; and (3) all "legal issue" contentions relating to SER Volumes 1 or 3. See CAB Case Management Order # 2 (Sept. 30, 2009) (unpublished), at 3-4 & app. (identifying specific contentions to be addressed in Phase I) (Case Management Order # 2); *NRC Staff Answer to the CAB's July 21, 2009 Order Concerning Serial Case Management* (July 28, 2009) (providing information on the subject matter of each of the five SER volumes) (Staff Answer Concerning Serial Case Management).

²⁴ Nevada Motion at 8-11; Nevada Views at 8-12, 13 (taking the position that discovery cannot be accomplished without reconstitution of the LSN and completion of the SER); Nye County Points and Authorities at 10, 14-15; Nye County Views at 2-3, 12-16, 21-22; Eureka County Views at 1, 3-4, 5; Four Counties Views at 1; White Pine County Views at 3, 4; PIIC Views at 1, 2; Lincoln County Views at 1-2.

²⁵ Staff Views at 11-17; NEI Answer at 6, 7. White Pine County seeks consideration of funding issues affecting it and, potentially, other participants. White Pine County Views at 2-3.

²⁶ DOE Views at 2 (unnumbered).

B. Course of Action for the Licensing Process in the Near Term

As an initial matter, we explain several principles that guide our approach, which we consider to be consistent with the court's direction in *Aiken County* and with our obligations under the Nuclear Waste Policy Act (NWPA). First, the court directed the agency to "promptly continue" the licensing process, but it did not prescribe any particular task or sequence of tasks. Second, the court recognized that the agency currently has limited funding to continue the licensing process.²⁷ The court's decision does not require (or permit) us to expend funds beyond the agency's existing Nuclear Waste Fund appropriation.²⁸ The court's order therefore afforded us broad discretion in choosing a pragmatic course of action to resume the licensing process.²⁹

Our decision today is not intended to permanently change the course of this licensing process. Consistent with our rules, before a final decision approving or disapproving a construction authorization application may be reached, not only must the Staff complete its safety and environmental reviews but a formal hearing must be conducted, and our own review

²⁷ See *Aiken County*, 725 F.3d at 269 ("No one disputes that \$11 million is wholly insufficient to complete the processing of the application.") (Garland, C.J., dissenting).

²⁸ Aiken County squarely presented this argument to the court, but the court did not rule on this basis. See Reply Brief of Petitioners at 21-27, *Aiken County*, 725 F.3d 255 (2013) (No. 11-1271); Final Brief for the Respondents at 43-48, *Aiken County*, 725 F.3d 255 (2013) (No. 11-1271).

²⁹ See *City of Los Angeles v. Adams*, 556 F.2d 40, 49-50 (D.C. Cir. 1977) ("If Congress does not appropriate enough money to meet the needs of a class of beneficiaries prescribed by Congress, and if Congress is silent on how to handle this predicament, the law sensibly allows the administering agency to establish reasonable priorities and classifications."). The court cited the *Adams* case in *Aiken County*, 725 F.3d at 259. The State of Nevada would have us re-institute all aspects of the licensing process. Nevada Views at 3-5 (asserting that the licensing process mandates both the licensing and adjudicatory tracks). Under *Adams*, we do not agree that such a course of action is required and, as we discuss in the text, we do not find such an approach to constitute a wise use of limited resources.

of both contested and uncontested issues must take place.³⁰ Today we plot a course that, in our view, will advance the licensing process in a manner that is constructive and consistent with the court's decision and the resources available. We take an incremental approach, since the agency cannot engage in all of the licensing activities that we would undertake if fully funded—for example, we cannot at this time complete a formal hearing requiring disposition of nearly 300 contentions. Therefore, we looked to the schedule set forth in 10 C.F.R. Part 2, Subpart J and Appendix D and identified activities that represent the next logical steps in the process. As discussed below, we expect that the NRC Staff and DOE can accomplish these tasks with the funds currently available for work associated with the Yucca Mountain repository application. Our decision to defer other activities—in particular, resumption of the adjudication and re-constitution of the LSN—is guided by the fact that the NRC will be unable, at this time, to make meaningful or substantial progress on these fronts. Further, to resume these activities jeopardizes our ability to complete the tasks that we direct today, given the limited funds available.

Importantly, our regulations provide that the next step in the licensing process is completion of the SER.³¹ After that, the next substantial task would be completion of discovery in the adjudication.³² But, discovery cannot be completed—nor can the evidentiary hearing be held—until the SER and all necessary environmental impact statements are completed.³³ We find, then, that logic and prudence dictate completion of these review documents as the next steps in the licensing process. Similarly, in view of funding limitations, we do not today direct re-

³⁰ See 10 C.F.R. §§ 2.101(e)(8), 2.104(a), 2.1023.

³¹ 10 C.F.R. pt. 2, app. D.

³² Appendix D contemplates the commencement of discovery on “Day 100,” continuing through “Day 608,” sixty days after completion of the SER.

³³ See generally 10 C.F.R. pt. 2, app. D; 10 C.F.R. § 2.1022.

constitution of the LSN, in either its original form, or in a modified form. We base this determination primarily on the fact that the adjudication will remain suspended. In the absence of adjudicatory activities (particularly discovery), we do not find—and the participants do not make the case—that LSN functionalities are needed now. To be sure, and as discussed further below, public availability of the LSN collection would be a central consideration in the event additional funding is provided and the adjudication goes forward.

While our decision is not intended to call into question the requirements in 10 C.F.R. Part 2, Subpart J, those rules were not developed with the current funding situation in mind. Congress has appropriated no new funds for our review since those appropriated for Fiscal Year 2011, leaving available to us only our remaining carryover funds from previous appropriations. These carryover funds represent only a fraction of the NRC's "normal" annual budget for the Yucca review (i.e., what the agency had been spending per year prior to closing out the proceedings in 2011). Under these circumstances, we consider the amount of funding available not as a means of determining *whether* to proceed on the license application (an inquiry that the mandamus order forecloses), but in determining *how* to proceed (an inquiry that the mandamus order does not address and that prudent fiscal management requires us to consider).³⁴

The agency has in hand approximately \$11 million in unobligated carryover funding appropriated from the Nuclear Waste Fund.³⁵ DOE represents that, as of August 30, 2013, it

³⁴ Apart from the question whether Congress will provide future appropriations in future budget years, the amount of funding available to an agency under current appropriations legitimately may influence the agency's plans and priorities for the current budget year.

³⁵ Dyer, J.E., Chief Financial Officer, NRC, letter to the Honorable Rodney Frelinghuysen, Chairman, Subcommittee on Energy and Water Development, Committee on Appropriations, U.S. House of Representatives (Sept. 13, 2013) (ML13252A237). As noted in that letter, the agency has commenced using these funds to further this licensing process. The agency also has \$2.5 million in obligated, unexpended funds that would become available if contract audit activities are completed and these funds are eligible for subsequent deobligation. *See id.*

"had approximately \$15.4 million in unobligated carryover funds that could be used to support participation in the licensing proceeding," as well as \$29.5 million in carryover funds currently obligated on existing contracts, of which \$18.1 "is obligated on contracts that are relevant and could be used" to support licensing proceedings, provided they are first de-obligated.³⁶ Bearing these amounts in mind, we direct the Staff to complete the Safety Evaluation Report associated with the construction authorization application. We also request that DOE complete the supplemental EIS needed to address the potential impacts of the construction authorization on groundwater and from surface discharges of groundwater.

1. The NRC Staff Should Complete the SER.

Regarding the SER, the Staff stated that, subject to certain assumptions, SER volumes 2 through 5³⁷ can be completed and issued concurrently in approximately twelve months after the Staff initiates work.³⁸ The Staff's estimate for completion of the SER is approximately \$8.3

³⁶ DOE Views at 2.

³⁷ SER Volume 1 was published in August 2010. Letter from Lenehan, Daniel W., Counsel for NRC Staff, to the Administrative Judges (Aug. 23, 2010) (attaching "Safety Evaluation Report Related to Disposal of High-Level Radioactive Wastes in a Geologic Repository at Yucca Mountain, Nevada," Vol. 1: General Information (Aug. 2010)). SER Volume 2 concerns the review of repository safety before permanent closure; Volume 3, as noted above, concerns post-closure safety; Volume 4 concerns the staff's review of administrative and programmatic requirements; and Volume 5 concerns license specifications and conditions. See Staff Answer Concerning Serial Case Management.

³⁸ *Affidavit of Josephine Piccone in Response to August 30 Commission Order* (Sept. 30, 2013), appended to Staff Views, ¶ 3 (Piccone Aff.). This estimate assumes: (1) no unforeseen "technical and process issues;" (2) the project "would be given a high priority so that appropriate technical staff and resources are available;" (3) no additional technical information will be required from DOE; (4) the twelve months includes time to replace and reassemble key technical reviewers, and for those reviewers to acquaint or re-acquaint themselves with relevant materials; and (5) the availability of the Center for Nuclear Waste Regulatory Analysis for contractor support. *Id.* The Staff also states that it will need access to DOE's Licensing Support Network collection, a matter we address *infra*. Staff Views at 17-18; Piccone Aff. ¶ 3.

million.³⁹ The next significant milestone in the Appendix D schedule is issuance of the SER;⁴⁰ to conform to our regulatory scheme to the extent practicable, it makes sense to proceed with the SER as the next step in this licensing process. In addition, completion of the SER volumes is a discrete task that may be completed with existing funds, not a long-term task that would likely require substantial “orderly closure” expenditures (to facilitate orderly resumption at some future date) if Congress does not appropriate new funds before current funds are exhausted. And as the Staff observes, completion of the SER will serve multiple purposes—the Staff’s regulatory conclusions will be preserved and made publicly available, and could facilitate future resolution of contested hearing issues, if additional appropriations are provided and this licensing matter continues.⁴¹ Further, as noted above, all participants support ultimate completion of the SER. For all of these reasons, we find completion of the remaining SER volumes to be the appropriate next step in the licensing process.⁴² The Staff should complete the SER using the approach that was underway when work on the SER was suspended—that is, the Staff should work on the completion of all remaining volumes concurrently but issue each SER volume upon completion. Moreover, the release of completed volumes serially will ensure transparency as to the Staff’s activities.

³⁹ The cost of completing and issuing the SER has in the past been estimated at approximately \$6.5 million. But this cost is affected by the length of time the licensing process was suspended. See Staff Views at 9 n.28 (citing Congressional hearing transcripts).

⁴⁰ 10 C.F.R. pt. 2, app. D (“Day 548”).

⁴¹ A complete SER also may serve to inform future repository reviews or otherwise support the national repository strategy, irrespective of whether Congress appropriates more funds for our Yucca Mountain review.

⁴² Consistent with its stated commitment to comply “as expeditiously as possible with any order,” we expect that DOE will provide, to the best of its ability, any information or support requested by the Staff to facilitate timely completion and issuance of the remaining SER volumes.

2. The LSN Collection Should Be Made Available in ADAMS.

While the Staff takes no position on how we should address the availability of the LSN, the Staff represents that completion of the SER will require access to "DOE's LSN collection and any new supplements filed prior to completion of its SER," both as a resource for the Staff's review and to ensure that references "in the SER are publicly available prior to publication."⁴³

The LSN was shut down in 2011.⁴⁴ DOE's LSN document collection (which comprises 98.8% of the LSN collection), together with the other participants' collections, has been transmitted to the Secretary of the Commission.⁴⁵ The Secretary has been storing these materials since that time. To facilitate the Staff's completion of the SER, and to ensure that the documents in the LSN collection currently in the Secretary's possession are treated in accordance with agency records requirements, we direct the Secretary, in conjunction with agency records management staff, to load these documents into non-public ADAMS promptly for use by the Staff in completing the SER.⁴⁶ This course of action not only facilitates the Staff's task, but also ensures appropriate stewardship of the collection. At this time, not all of these documents will be made publicly available because we are not certain that we will have the funds available to do so, although the Staff will make public any documents used as references in the SER, consistent with NUREG-0650, by the time the SER is issued.⁴⁷

⁴³ Staff Views at 17-18; Piccone Aff. ¶ 3 (citing "Preparing NUREG-Series Publications," NUREG-0650, Rev. 2 (Jan. 1999), § 4.2.4.1, at 21 ("Each reference listed in an NRC publication must be publicly available.") (ML041050294)).

⁴⁴ For a summary of the activities leading up to the LSN shutdown as well as the participants' document preservation efforts, *see generally* CLI-11-13, 74 NRC 635 (2011).

⁴⁵ *Id.* at 637-39. The Staff did not transmit its documents to the Secretary, as they already reside in ADAMS. *Id.* at 638.

⁴⁶ We understand the cost of this effort to be approximately \$700,000.

⁴⁷ We will continue to explore means to make the collection publicly available using the limited funds available to continue the licensing process.

Based upon the Staff's representation, we expect that, during the period in which the LSN collection is being placed in non-public ADAMS, there will be a period of some weeks when the Staff will need access to documents in DOE's LSN collection that may be unavailable.⁴⁸ During that time, we encourage the Staff to call upon DOE to provide those documents. We take DOE at its word that it will use its unobligated carryover funds to support the licensing process and will make its best efforts to assist the Staff in locating necessary documents from DOE's LSN collection.

3. DOE Is Requested to Complete the Supplemental EIS.

As discussed in the 2008 EIS Adoption Determination Report, the Staff concluded that the discussion of certain environmental impacts in the DOE EISs, particularly the potential impacts of the proposal on groundwater and from surface discharges of groundwater, was insufficient and that supplementation was required to ensure adequacy of the EISs.⁴⁹ The Report observed that either DOE or the NRC could develop the supplement.⁵⁰ Shortly thereafter, DOE committed to prepare the supplement and provided a timeline for doing so.⁵¹ In 2009, however, DOE informed the Staff that it would not prepare a supplement, but instead provided to the NRC an analysis of post-closure groundwater impacts, together with supporting documents, for the Staff's use in preparing the supplement.⁵²

⁴⁸ Documents in the collection maintained by the Secretary of the Commission cannot be readily searched or retrieved in their current form.

⁴⁹ See 2008 EIS Adoption Determination Report, § 3.2.1.4.2.

⁵⁰ *Id.*, § 3.2.1.4.2.3.

⁵¹ Boyle, William J., Office of Civilian Radioactive Waste Management, DOE, letter to NRC Document Control Desk, "Notification of Plan for Supplementing the Final Environmental Impact Statement (FEIS)" (Oct. 3, 2008) (ML082810087).

⁵² Boyle, William J., Office of Civilian Radioactive Waste Management, DOE, letter to NRC Document Control Desk, "Notification of Change of Commitment for Supplementing the Final Environmental Impact Statement" (July 30, 2009) (ML092150301) (2009 Boyle Letter).

The Staff estimates that the EIS supplement can be prepared and issued by the NRC staff approximately twelve months after the start of work on the supplement.⁵³ This twelve-month period includes time to create a review team, collect and address public comments, and issue a draft and final supplement.⁵⁴ The Staff represents that work on the SER and the EIS supplement could be performed concurrently.⁵⁵ Alternately, the supplement could be prepared and issued by DOE and adopted by the NRC (if sufficient).⁵⁶

Here again, we find that completion of the EIS supplement is a well-defined, discrete task that would advance the licensing process and that may be accomplished with available funds.⁵⁷ Before an evidentiary hearing in this proceeding could occur, the environmental review must be completed and completion of the EIS supplement is a key component of the environmental review.⁵⁸

We request that DOE complete the EIS supplement, for consideration and potential adoption by the NRC Staff.⁵⁹ The Nuclear Waste Policy Act, Section 114(f) directs the NRC to

⁵³ See Piccone Aff. ¶ 4.

⁵⁴ Staff Views at 10-11; Piccone Aff. ¶ 4.

⁵⁵ Staff Views at 11; Piccone Aff. ¶ 4.

⁵⁶ *Id.* The Staff provided no information as to a potential schedule for DOE to develop the supplement.

⁵⁷ As with the SER, we expect that preparing the supplemental EIS now, rather than pursuing longer-term and costlier Yucca-review tasks, will limit the risk of "orderly closure" expenses if current funds run out.

⁵⁸ A potential ancillary benefit of this approach, as noted by the Staff, is that completion of the EIS supplement would preserve that analysis for use in this or another repository proceeding. See Staff Views at 11.

⁵⁹ DOE has stated that it can complete the EIS supplement. See *Implementing the Nuclear Waste Policy Act—Next Steps: Hearing Before H. Energy and Comm. Subcomm. on Env't and Econ.*, 113th Cong. 76 (Sept. 10, 2013) (statement of Dr. Peter Lyons, Ass't Sec'y for Nuclear Energy) ("[W]e have provided the information to the NRC to do the supplement, but if they wish us to do it, we would use the information that we provided to them.") (unofficial transcript)

(continued . . .)

adopt the DOE EIS to "the extent practicable."⁶⁰ As described in the regulations applicable to these proceedings, DOE may be required to supplement its final EIS when there is new information "relevant to environmental concerns and bearing on the proposed action or its impacts."⁶¹ Our regulations also provide that the presiding officer in the adjudication will determine the extent to which adoption by the NRC of any EIS—that is, DOE's repository EIS and its supplements—is "practicable," which in turn will satisfy our NEPA obligations.⁶² These regulations recognized that in promulgating the NWPA, Congress intended that the primary responsibility for evaluating environmental impacts rest with DOE.⁶³ As noted above, DOE already has performed significant analyses in support of the EIS supplement.⁶⁴ We therefore look to DOE to take the laboring oar in completing the environmental review.⁶⁵

4. *This Adjudication Will Remain Suspended.*

As stated above, we decline to resume the contested adjudication at this time. The schedule for these proceedings contemplates that discovery will proceed in parallel with the

(September 10 House Subcommittee Hearing Transcript). We understand that the NRC could complete an adoption decision at an estimated cost of \$600,000.

⁶⁰ NWPA § 114(f)(4); 42 U.S.C. § 10134(f)(4).

⁶¹ 10 C.F.R. § 51.67.

⁶² 10 C.F.R. § 51.109(c).

⁶³ See Final Rule, NEPA Review Procedures for Geologic Repositories for High-Level Waste, 54 Fed. Reg. 27,864 (July 3, 1989). In commenting on the proposed rule, DOE acknowledged that it was likewise responsible to supplement its EIS to account for significant new information. *Id.* at 27,867.

⁶⁴ See 2009 Boyle Letter.

⁶⁵ Consistent with the Staff's previous practice, we expect the Staff to make public all references listed in the EIS supplement adopted by the NRC, as well as any additional references in the NRC's adoption report.

Staff's development of the SER, with issuance of the SER by "Day 548."⁶⁶ When the proceeding was suspended in 2011, Phase I discovery had begun, and participants were in the process of scheduling depositions.⁶⁷ Our 2011 direction that the proceeding be suspended effectively tolled the Appendix D schedule. Our decision today results in a further deviation from the Appendix D schedule, in that discovery will not occur in parallel with completion of the SER.⁶⁸ We observe that the deviation is a temporary modification to our procedural rules designed to maximize progress in the overall licensing process given current funding.⁶⁹

Resuming the adjudication now likely would result in re-suspension of the case in the near term without completion of meaningful—or substantial—adjudicatory activities.⁷⁰ For

⁶⁶ See 10 C.F.R. § 2.1026(a) (requiring that, subject to exceptions not relevant here, the Presiding Officer adhere to the schedule set forth in 10 C.F.R. Part 2, Appendix D); Notice of Hearing, 73 Fed. Reg. at 63,032; CLI-08-25, 68 NRC at 504-05 (modifying the Appendix D schedule for this proceeding to revise the milestones up to, and including, the First Prehearing Order).

⁶⁷ 10 C.F.R. §§ 2.1018(b)(1), (a)(2), 2.1019. *But see* Memorandum and Order (Granting Motion for Protective Order) (May 20, 2011) (unpublished) (quashing deposition notices served on DOE by Nevada in view of the "uncertain environment surrounding this proceeding").

⁶⁸ See *Am. Farm Lines v. Black Ball Freight Serv.*, 397 U.S. 532, 539 (1970) ("[E]xcept upon a showing of substantial prejudice to the complaining party," "[i]t is always within the discretion of a court or an administrative agency to relax or modify its procedural rules adopted for the orderly transaction of business before it when in a given case the ends of justice require it." (citation and internal quotation marks omitted; bracket in original)); *Nat'l Whistleblower Ctr. v. NRC*, 208 F.3d 256, 262 (D.C. Cir. 2002) ("[T]he NRC possesses the authority 'to change its procedures on a case-by-case basis . . .'" (citing *City of West Chicago v. NRC*, 701 F.2d 632, 647 (7th Cir. 1983)).

⁶⁹ A key consideration to note is that proceeding on all fronts simultaneously with only a fraction of our "normal" Yucca-review budget available presumably would result in current funds running out during the middle of the current fiscal year. If this were to occur, we likely would need to expend funds putting various unfinished tasks back into a suspended state to promote an orderly resumption if and when Congress appropriates additional funds. As explained previously, a *completed* SER and EIS supplement would require no associated closeout expenditures.

⁷⁰ See, e.g., Staff Views at 16 ("resuming the adjudicatory proceeding would likely result in suspension of the proceeding before all parties have had an opportunity to fully explore, support, and ultimately receive a decision in the issues they have raised").

example, nearly 300 contentions are subject to Phase I discovery. While several participants advocated resuming the adjudication with a case management conference, none argued that it would be practical to resume the costly process of taking depositions at this time.⁷¹ In view of funding constraints, discovery activities likely would draw to an abrupt halt before significant progress can be made.⁷² In addition, the record reflects that some of the less well-funded participants do not have the resources to participate fully in the adjudication at this time.⁷³

Because we have decided not to restart the adjudication, we decline to consider the participants' various adjudicatory requests today. Should we lift the suspension in the future, participants will have the opportunity to re-submit requests associated with the conduct of the proceeding at that time. Among the questions we leave for another day is whether to reconstitute the LSN, either as it was originally implemented or in a different incarnation. As discussed above, for purposes of completing the SER, we need not reconstitute the LSN. Questions relating to how the LSN might be configured in the future, the need for, and scope of, any potential revisions to the LSN regulations in Subpart J, and how those revisions might take place—whether by case-specific order or rulemaking—would be decided at that time. In the meantime, we observe that, although the immediate purpose of putting the LSN collection into

⁷¹ See, e.g., Nevada Views at 9 (acknowledging that “prior to completion of the SER, deposition discovery must remain largely or completely suspended.”) DOE has stated that it would need approximately \$14 million to support participation in the full licensing proceeding. Brief of the United States as *Amicus Curiae* at 6-7 & n.3, *In re Aiken County*, 725 F.3d 255 (2013) (No. 11-1271).

⁷² And, as the Staff points out, discovery may be of limited utility in any event; the Board earlier in the proceeding directed that no discovery against the Staff will proceed prior to issuance of relevant SER volumes. See Staff Views at 13 (citing Case Management Order # 2 at 7).

⁷³ See White Pine County Views at 2 (“Absent additional funding being provided through appropriations . . . or other sources to White Pine County, the County will run out of carryover Nuclear Waste Funding on or about October 15, 2013 and will be compelled to terminate its Yucca Mountain oversight initiatives, including participation in the related NRC licensing proceeding, at that time.”).

ADAMS is to assist the Staff in finalizing the SER, this effort also doubles as progress toward a system the NRC would have good reason to adopt down the road—appropriations permitting—to replace the previous LSN.

C. Other Matters

1. Renewed Motion for Recognition of the Timbisha Shoshone Tribal Council

In 2011, we denied the Timbisha Shoshone Tribal Council's petition for review of a Board decision declining the Tribal Council's request (among others) to be recognized as the sole authorized representative of the Timbisha Shoshone Tribe in this case.⁷⁴ Given that the adjudication had been suspended, we declined to consider the appeal but indicated that, should the proceeding be reactivated at a future time, the Tribal Council could move to reinstate its petition for review.⁷⁵

The Timbisha Shoshone Tribe's views included a renewed motion for recognition, requesting that we acknowledge the Tribal Council as the appropriate party for representation of the Tribe in this proceeding.⁷⁶ Given that the proceeding remains suspended at this time, we again decline to consider the Tribal Council's motion. As we observed in CLI-11-15, however, should this adjudicatory proceeding re-commence in the future, the Tribal Council may renew its request.⁷⁷

⁷⁴ CLI-11-15, 74 NRC 815 (2011). See Order (Dismissing Timbisha Shoshone Tribal Council's Motion) (Sept. 28, 2011) (unpublished).

⁷⁵ CLI-11-15, 74 NRC at 815.

⁷⁶ Tribe Views and Renewed Motion at 2-7.

⁷⁷ For the same reason, Nevada's suggestion that we entertain petitions for review of LBP-10-22 is denied at this time. See Nevada Views at 2, 9-10. Should the adjudication resume, we will consider appeals in due course, consistent with relevant Subpart J rules. See generally 10 C.F.R. § 2.1015.

2. Requests for Immediate Production of the Remaining SER Volumes

Nye County, in addition to recommending that we finalize expeditiously the remaining SER volumes, requests that we make an "immediate release of even the unredacted 'draft' pre-decisional [SER volumes]."⁷⁸ Nye County does not claim that draft SER documents are needed for a particular adjudicatory purpose but instead cites the potential benefits to the public at large.⁷⁹ Such a request is appropriately addressed through our Freedom of Information Act (FOIA) process; Nye County may file such a request at any time. Indeed, the NRC recently received a substantially similar request, and, as a separate matter, released redacted versions of SER Volumes 2 and 3 in 2011, also in response to a FOIA request.⁸⁰

3. Budget Issues

Nye County argues that, in light of the mandamus decision, "any restoration of facilities, offices, and equipment [involved in restarting the proceedings] should be accomplished using NRC's overall administrative budget and not the 11 million dollars available for the license adjudication."⁸¹ As the Staff correctly observes, however, the existence of a specific appropriation for Yucca Mountain-related licensing activities (i.e., appropriations from the Nuclear Waste Fund) prevents the NRC, under well-settled principles of appropriations law,

⁷⁸ Nye County Views at 8-9.

⁷⁹ *Id.* at 9-10.

⁸⁰ See McCarthy, Justin, Judicial Watch, letter to Deborah Dennis, NRC, "Freedom of Information Act Request" (Oct. 3, 2013) (requesting, among other things, "[a]ny and all records of the NRC's 2010 safety evaluation report [as] it relates to high level waste at Yucca Mountain") (pending). The NRC released redacted versions of SER Volumes 2 and 3 in response to a 2010 FOIA request for those documents. See Bluey, Robert B., The Heritage Foundation, e-mail to FOIA/PA Officer, NRC (Oct. 22, 2010) (ML102950378) (requesting SER Volumes 2 and 3); NRC Final Response to FOIA 2011-0015 (Feb. 14, 2011) (ML110480651) (package).

⁸¹ Nye County Points and Authorities at 14. Nye County reiterates this point in its views (at 18).

from using its general appropriations for Yucca-related activities.⁸² The actions associated with putting assets in place, such as facilities and offices, are for the specific purpose of the Yucca Mountain licensing proceeding. Therefore, the NRC may not lawfully spend general agency appropriations on these activities.

Finally, a number of participants request that we submit to Congress a budget request that would seek appropriations for the licensing process.⁸³ We will take those requests under advisement in the course of our agency's budget process.⁸⁴

* * * * *

Concurrent with our decision today, we also provide separate direction to the Staff regarding our overarching expectations for the efficient use of available funds, as well as direction for the preparation of plans and status reports.⁸⁵ As discussed above, completion of the SER (including necessary records management activities) and adoption of the EIS supplement likely would expend nearly all of the funds currently available to the NRC, leaving only a small cushion for additional expenses given that, once completed, none of the identified activities will require any expenditure of funds for "orderly closure." Based on current cost estimates, at least, we will likely be unable to make meaningful progress on steps other than those outlined in this decision unless and until Congress appropriates additional funds for the

⁸² See NRC Staff Views at 19 n.59 (citing GOV'T ACCOUNTABILITY OFF., PRINCIPLES OF FEDERAL APPROPRIATIONS LAW, Vol. I, 2-21, GAO-04-261SP (3d ed. 2004)).

⁸³ See Four Counties Views at 2, NEI Views at 3, PIIC Views at 2.

⁸⁴ See generally Office of Management and Budget Circular No. A-11, "Preparation, Submission, and Execution of the Budget" §§ 22, 110 (July 2013), available at http://www.whitehouse.gov/sites/default/files/omb/assets/a11_current_year/a11_2013.pdf (explaining government-wide laws and policies regarding budget-related communications with the public and submission of budget supplements and amendments).

⁸⁵ Staff Requirements—SECY-13-0113—Memorandum and Order Concerning Resumption of Yucca Mountain Licensing Process (Nov. 18, 2013) (ML13322A007).

agency's Yucca Mountain review process. Embarking upon additional activities, and in particular, resuming the adjudication (including Phase I discovery) would jeopardize our ability to complete the tasks that, as discussed herein, constitute the next logical steps in the licensing process. We seek to maintain an adequate margin to guard against this possibility. We will closely monitor the progress of these activities,⁸⁶ and we will re-evaluate this conclusion in the event that circumstances materially change.⁸⁷

⁸⁶ *See id.* In this vein, we are also providing to Congress reports on activities and expenditure of unobligated Nuclear Waste Fund monies. *See* September 10 House Subcommittee Hearing Transcript at 36 (statement of Dr. Allison Macfarlane, NRC Chairman) (stating that the NRC will provide monthly updates to the Committee on Nuclear Waste Fund activities and expenditures). These reports will be made available to the public on the NRC website. *See generally* <http://www.nrc.gov/reading-rm/doc-collections/congress-docs/correspondence/2013/> (last visited Nov. 1, 2013) (providing links to Commission correspondence with Congress, including the first status report, dated October 23, 2013).

⁸⁷ NEI requests that, following SER completion, we "identify [our] budget and prepare a prioritized plan for use of [any remaining] appropriated funds," including a timeline of all activities needed to complete the licensing process, and an estimate of resources necessary to complete those activities. NEI Views at 2. Should appropriated funds remain following completion of the activities directed in this decision, an estimate of further steps will prove necessary, and we will assess how best to use remaining funds at that time.

III. CONCLUSION

For the reasons set forth above, we *direct* the NRC Staff to complete and issue the Safety Evaluation Report associated with the construction authorization application and load the LSN document collection into ADAMS. We *request* DOE to prepare the supplemental environmental impact statement that the Staff has determined is needed to for purposes of the review of this application under NEPA. We *continue* to hold this adjudication in abeyance and *decline* to direct the Staff to reconstitute the Licensing Support Network. The Nye County and Nevada Motions are *granted in part* and *denied in part*, as discussed herein. Finally, we *decline* to decide the Tribal Council's renewed motion for recognition.

IT IS SO ORDERED.⁸⁸

For the Commission

NRC SEAL

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 18th day of November, 2013.

⁸⁸ Commissioner Apostolakis has recused himself from this adjudication and, therefore, did not participate in this matter. See Notice of Recusal (July 15, 2010).

Appendix G – Appeals Court Ruling on Nuclear Waste Fees

United States Court of Appeals FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued September 25, 2013 Decided November 19, 2013

No. 11-1066

NATIONAL ASSOCIATION OF REGULATORY UTILITY
COMMISSIONERS,
PETITIONER

v.

UNITED STATES DEPARTMENT OF ENERGY,
RESPONDENT

Consolidated with 11-1068

On Petitions for Review of Final Actions or
Failures to Act by the United States Department of Energy

Jay E. Silberg argued the cause for petitioner. With him on the briefs were *Timothy J.V. Walsh*, *James Bradford Ramsay*, *Holly Rachel Smith*, and *Anne W. Cottingham*.

Joseph A. McGlothlin, *Cynthia B. Miller*, and *Richard C. Bellak* were on the brief for amici curiae Florida Public Service Commission, et al., in support of petitioners.

Allison Kidd-Miller, Senior Trial Counsel, U.S. Department of Justice, argued the cause for respondent. With her on the brief

were *Stuart F. Delery*, Acting Assistant Attorney General, and *Jeanne E. Davidson*, Director.

Before: BROWN, *Circuit Judge*, and SILBERMAN and SENTELLE, *Senior Circuit Judges*.

Opinion for the Court filed by *Senior Circuit Judge* SILBERMAN.

SILBERMAN, *Senior Circuit Judge*: Petitioners, a group of nuclear power plant operators, appear again before us to claim, essentially, that so long as the government has no viable alternative to Yucca Mountain as a depository for nuclear waste they should not be charged an annual fee to cover the cost of that disposal. We agree.

I.

Last year we decided that the Secretary of Energy had not complied with his statutory obligation to determine annually the adequacy of the fee petitioners pay to the government. *Nat'l Ass'n of Regulatory Util. Comm'rs v. U.S. Dep't of Energy*, 680 F.3d 819 (D.C. Cir. 2012), *reh'g denied* (July 2, 2012). We rejected the government's argument that the Secretary was not obliged to determine the fee's adequacy unless someone (a "deus ex machina"?) brought to the Secretary evidence that the fee was excessive or inadequate. *Id.* at 824. We held that the Secretary had an affirmative obligation to examine the facts himself and come to a determination as to the adequacy of the fee.

We noted also that the Department of Energy's opinion had abandoned, without explanation, its previous policy of producing sophisticated analyses of potential costs. It had ignored the enormous amount of interest – \$1.3 billion –

accruing annually in the fund built up by previous assessments, and it had not excluded costs already paid and costs associated with the disposition of defense-related waste for which the generators are not responsible. And we thought that using Yucca Mountain's depository cost as a proxy was unreasonable because the government had abandoned that program. But the key defect in the government's position was its failure to make the statutorily required determination as to whether the fee was adequate. We remanded to the Secretary with instructions to conduct a new fee assessment within six months; the panel retained jurisdiction to expedite any further review.

II.

On remand the Department has again declined to reach the statutorily required determination. Instead, we are presented with an opinion of the Secretary that sets forth an enormous range of possible costs. According to the Secretary, the final balance of the fund to be used to pay the costs of disposal could be somewhere between a \$2 trillion deficit and a \$4.9 trillion surplus. This range is so large as to be absolutely useless as an analytical technique to be employed to determine – as the Secretary is obligated to do – the adequacy of the annual fees paid by petitioners, which would appear to be its purpose. (This presentation reminds us of the lawyer's song in the musical, "Chicago," – "Give them the old razzle dazzle.") Thus, the Secretary claims that the range is so great he cannot determine whether the fees are inadequate or excessive, which is essentially the same position we rejected only last year as in derogation of his responsibility under the statute. The Secretary may not comply with his statutory obligation by "concluding" that a conclusion is impossible. *See Pub. Citizen v. Fed. Motor Carrier Safety*, 374 F.3d 1209, 1221 (D.C. Cir. 2004) ("[R]egulation would be at an end if uncertainty alone were an excuse to ignore a congressional command to 'deal with' a

particular regulatory issue.”); *Consolidated Edison Co. of N.Y., v. U.S. Dep’t of Energy*, 870 F.2d 694, 698 (D.C. Cir. 1989).

The Secretary’s position – his “non determination” – is purportedly predicated on a Departmental report issued in 2011 termed a “Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste.” Even if that so-called strategy led to a statutorily required determination, it would still be problematic because, as petitioners point out, the strategy is based on assumptions directly contrary to law.

Most glaring is the conflict between the statutory requirement that sites other than Yucca Mountain cannot even be considered as an alternative to Yucca Mountain, 42 U.S.C. § 10172, and the “strategy’s” assumption that whatever site is chosen, it will *not* be Yucca Mountain. The other conflicts are related to this prime conflict. The “strategy” suggests that a temporary storage facility might be operational by 2025 and that the temporary facility could be constructed *without* NRC first issuing a license for the construction of a permanent facility. But the statute requires that precondition. The statute is obviously designed to prevent the Department from delaying the construction of Yucca Mountain as the permanent facility while using temporary facilities. 42 U.S.C. § 10168(d)(1). Finally – and this is quite revealing – the strategy assumes that the Department would be required to obtain the consent of the jurisdiction where the permanent depository is to be sited. That is, of course, reflective of the political considerations the Department faces but, unfortunately, it is directly contrary to the statute, which explicitly allows Congress to override a host state’s disapproval. 42 U.S.C. § 10135; *accord In re Aiken Cnty.*, 725 F.3d 255, 260 (D.C. Cir. 2013) (“[A]n agency may not rely on political guesswork about future congressional appropriations as a basis for violating existing legal mandates.”). Finally, the strategy projects completion of a permanent

depository (located somewhere) not until 2048, in contrast to the statute, which directed completion by 1998. 42 U.S.C. § 10222(a)(5)(B). That is truly “pie in the sky.”

In response to petitioners’ argument – that a position predicated on a policy that so palpably rejects current law cannot be in accordance with the Secretary’s obligation, even if it does lead to a specific determination – the government responds that some of the Secretary’s previous determinations had also assumed statutory changes. That is so, but even assuming those prior determinations were legal, it is one thing to anticipate minor statutory additions to fill gaps, and quite another to proceed on the premise of a wholesale reversal of a statutory scheme. The latter is flatly unreasonable.

The government claims it is put in a catch-22 position because our prior opinion said it was unreasonable for the Department to use Yucca Mountain as a proxy to estimate disposal costs, and petitioners now argue that the government cannot assume a hypothetical non-Yucca Mountain depository. But the government’s problem is of its own making. It certainly could have used Yucca Mountain’s costs if it were still pursuing that site, but it cannot have it both ways. It cannot renounce Yucca Mountain and then reasonably use its costs as a proxy. The government was hoist on its own petard. And it does not follow that the corollary to our previous opinion is that the government can now use non-Yucca Mountain assumptions that are contrary to the statutory scheme.

In our last opinion we noted accounting defects in the Secretary’s prior determination that have now been remedied. Specifically, the Department now takes into account the interest accruing on the enormous sums that have already been paid. The Department deducts costs already expended and excludes costs for disposal of defense-related waste for which petitioners are

not responsible. But these are truly peripheral issues; the key defect in the government's position is that the Secretary still declines to carry out his basic statutory obligation.

* * * *

The government asks us, if we conclude the Department's latest position is contrary to law, to, once again, remand rather than order the Secretary to suspend the fee. But the Secretary's position is so obviously disingenuous that we have no confidence that another remand would serve any purpose. As we noted, we are not unaware of the political dilemma in which the Department is placed. But until the Department comes to some conclusion as to how nuclear wastes are to be deposited permanently,¹ it seems quite unfair to force petitioners to pay fees for a hypothetical option, the costs of which might well – the government apparently has no idea – be already covered.

To be sure, as the government contends, if the present fee is suspended, that could mean that the costs of nuclear waste disposal would be transferred to future rate payers. But that possibility is inherent in the statutory scheme which obliges the Secretary to make the annual fee determination. "Intergenerational equity" is implicated any time the fee is adjusted.

Finally, the government argues that we should not order the fee set to zero because petitioners are already being compensated for the government's breach of its statutory and contractual duty to dispose of existing waste, through breach of contract suits in the Court of Federal Claims. The generators are

¹ It may be that the Secretary simply cannot imagine any permanent depository other than Yucca Mountain, but if that is true the implications are obvious.

currently storing their waste at the generation facilities, and the government is compensating them for the cost of this storage. But the government's failure to dispose of prior wastes on schedule is not the legal wrong that we are remedying, and we do not base our decision on principles of contract. The issue here, rather, is the government's failure to conduct an adequate present fee assessment, as required by the statute. Our ruling here does not provide petitioners with any form of compensation, nor does it relieve them of their obligation to *ultimately* pay for the cost of their waste disposal. When the Secretary is again able to conduct a sufficient assessment, either because the Yucca Mountain project is revived, or because Congress enacts an alternative plan, then payments will resume (assuming that some future determination concludes that further fees are necessary).

III.

Because the Secretary is apparently unable to conduct a legally adequate fee assessment, the Secretary is ordered to submit to Congress a proposal to change the fee to zero until such a time as either the Secretary chooses to comply with the Act as it is currently written, or until Congress enacts an alternative waste management plan.

So ordered.