

August 10, 2010

Richard Meserve, Co-Chairman
Phil Sharp, Co-Chairman
Transportation and Storage Subcommittee of the
Blue Ribbon Commission on America's Nuclear Future
1800 K Street, NW, Suite 1014
Washington, DC 20006

RE: Public Meeting at the Chewonki Foundation in Wiscasset, Maine

Dear Mr. Chairmen:

Please accept this correspondence on behalf of The New England Council (the Council), the oldest regional business organization in the country, before your Subcommittee at today's public meeting.

New England is home to three shutdown commercial reactors in Massachusetts, Maine, and Connecticut. Until the mid 1990's, these three sites provided New England residents with safe, reliable, and affordable power, but now are storing the spent material the federal government had agreed to take possession of by the end of the last decade. In the case of the New England plants, because they are now fully decommissioned, the costs being incurred are entirely related to the secure storage of the spent fuel.

The Commission established this Transportation and Storage subcommittee to address the question: "Should the United States change the way in which it is storing used nuclear fuel and high level waste while one or more final disposal locations are established?"

The Council does support the construction of some type of central interim storage facility for spent nuclear fuel, with priority given to the spent nuclear fuel collected and held at decommissioned reactor sites, and so long as title to the spent nuclear fuel passes to the federal government, while the final location for disposing such waste is developed. As you know, the Nuclear Regulatory Commission (NRC) has the authority to license these interim storage facilities under the Atomic Energy Act.¹ As such, "independent spent fuel storage installations" are usually licensed for on-site storage at reactor sites, but can also include central storage facilities.

Four years ago the NRC issued a license for a private central storage facility on February 21, 2006, on the reservation of the Skull Valley Band of the Goshute Indians in Utah that

¹ 42 U.S.C. s. 2011 et seq., 10 CFR Part 72.

was intended to receive waste from commercial reactor sites.² The 20-year license, renewable for an additional 20 years, allows up to 40,000 metric tons of spent fuel to be stored in 4,000 dry casks pending shipment by the Department of Energy to a permanent repository. However, the spent fuel would be returned to the utilities that own it if the Department of Energy could not dispose of it prior to the license expiring.³ While this decision has been challenged and the license has not yet issued, it raises important issues concerning ownership of, the continuing obligation for, and liabilities stemming from such spent nuclear fuel if a permanent repository or some other method of disposal is not in place at the expiration of an interim license.

It is for these and other reasons that the Council respectfully urges you to also consider the importance of the proposed Yucca Mountain site for the permanent storage of spent nuclear fuel. We believe that this deep geologic repository remains the only sensible location for the permanent disposal of such high-level radioactive waste.

The Department of Energy's (DOE's) Office of Civilian Radioactive Waste Management (OCRWM) is responsible for management and disposal of spent nuclear fuel and other highly radioactive waste from nuclear power plants and defense facilities. Under the Nuclear Waste Policy Act (NWPA, 42 U.S.C. 10101 et seq.), the only candidate site for permanent disposal of such waste is Yucca Mountain, Nevada.⁴

² Nuclear Regulatory Commission, *License for Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste SNM-2513*, February 21, 2006.

³ Private Fuel Storage, LLC, *Frequently Asked Questions: Financial Accountability*, <http://www.privatefuelstorage.com/faqs/faqs.html>.

⁴ Congress enacted the NWPA in 1982 for the purpose of establishing a "definite Federal policy" for the disposal of high-level radioactive waste and spent nuclear fuel. Congress found that "[f]ederal efforts during the past 30 years to devise a permanent solution to the problems of civilian radioactive waste disposal have not been adequate." Congress' solution was to establish, through the NWPA, "a schedule for the siting, construction, and operation of repositories that will provide a reasonable assurance" of safe disposal of these materials. To that end, the NWPA set out a detailed, specific procedure for site selection and review by the Secretary of Energy, the President, and the Congress, followed by submission of the Application for a construction permit, review, and final decision thereon by the NRC.

In 1987, Congress adopted an amendment to the NWPA that directed DOE to limit its site selection efforts to Yucca Mountain and to "provide for an orderly phase-out of site specific activities at all candidate sites other than the Yucca Mountain site." In February 2002, following a comprehensive site evaluation, the Secretary of Energy concluded that Yucca Mountain was "likely to meet applicable radiation protection standards" and recommended to the President that Yucca Mountain be developed as a nuclear waste repository. The President then recommended the Yucca Mountain site to Congress. As provided in the NWPA the state of Nevada filed a notice of disapproval, and Congress responded with a joint resolution in July 2002 approving the development of a repository at Yucca Mountain. The joint resolution was presented to the President and

The NWPA also authorized the DOE to enter into contracts with nuclear power providers that required the DOE to collect and dispose of spent nuclear fuel in exchange for payments by the providers into a statutorily established Nuclear Waste Fund (NWF), consisting of a tenth of a cent per kilowatt hour fee paid by their ratepayers who benefited from the electricity generated by nuclear power.⁵ Congress, through the NWPA, directed the federal disposal process to begin no later than January 31, 1998. The DOE failed to begin collecting and disposing of this spent nuclear fuel by the statutory deadline, forcing nuclear utilities to spend hundreds of millions of dollars on temporary storage for this spent nuclear fuel that the federal government was contractually obligated to remove.⁶

Not unexpectedly, seventy-one lawsuits have been filed by these nuclear power providers against the DOE since 1998, resulting in approximately \$1.2 billion in damages and settlements thus far.⁷ Estimates for the total potential liability incurred by the DOE as a result of the Yucca Mountain litigation range as high as \$50 billion.⁸ These monetary damages will continue to be assessed since there is little likelihood of constructing a facility able to store such radioactive waste in the United States within the foreseeable future.⁹

signed into law. (Pub. L. No. 107-200, 116 Stat. 735 (2002), codified at 42 U.S.C. s. 10135). See *Nuclear Energy Inst. v. Envtl. Prot. Agency*, 373 F.3d 1251, 1302 (D.C. Cir.2004) holding that “Congress has settled the matter” of Yucca Mountain’s approval for development because “Congress’s enactment of the Resolution . . . was a final legislative action once it was signed into law by the President.”

Accordingly, DOE filed an application for construction authorization with the Nuclear Regulatory Commission (NRC) for the proposed Yucca Mountain repository in June 2008.

⁵ As of July 1, 2009, fees paid into the NWF totaled \$16.3 billion. The NWF has also received \$12.8 billion in intergovernmental transfers. The Congressional Budget Office predicted the NWF’s balance at the end of FY2009 would be \$23.8 billion.

⁶ U.S. nuclear power plants spend hundreds of millions of dollars a year to store radioactive SNF at the bottom of 40-foot deep pools or in “dry casks” located outside of the facility. Steve Hargreaves, “Nuclear Waste: Coming to a Town Near You?”, CNNMoney.com, November 4, 2009.

⁷ Of the \$1.2 billion, the federal government has paid only \$565 million in settlements and damages. The remaining judgments are in the appeals process and are not yet final. Statement of Kim Cawley, Chief, Natural and Physical Resources Costs Estimates Unit, Congressional Budget Office before the House Committee on the Budget, July 16, 2009.

⁸ Marcia Coyle, *Nuclear Dispute Fallout*, The National Law Journal, September 14, 2009.

⁹ Statement of Kim Cawley, Chief, Natural and Physical Resources Costs Estimates Unit, Congressional Budget Office before the House Committee on the Budget, July 16, 2009, at 1 (“The Department of Energy has not yet disposed of any civilian nuclear waste and currently has no identifiable plan for handling that responsibility”).

The earliest projected date for transporting spent nuclear fuel and other highly radioactive waste to Yucca Mountain is 2020 - 22 years beyond the 1998 deadline established by the NWPA. Because nuclear power plants will continue to generate nuclear waste after a repository opens, DOE estimates that all waste could not be removed from existing reactors until about 2066 even under the current Yucca Mountain schedule. Moreover, not all the projected waste could be disposed of at Yucca Mountain unless NWPA's current limit on the repository's capacity is increased.¹⁰

After years of decreases in funding for the Yucca Mountain project, the Obama Administration has decided to "terminate the Yucca Mountain program while developing nuclear waste disposal alternatives," according to the DOE FY2010 budget justification. Alternatives to Yucca Mountain are to be evaluated by a panel of experts convened by the Administration. At the same time, according to the justification, the Nuclear Regulatory Commission (NRC) licensing process for the Yucca Mountain repository is to continue, "consistent with the provisions of the Nuclear Waste Policy Act."

The FY2010 OCRWM budget request sought only enough funding to continue the Yucca Mountain licensing process and to evaluate alternative policies, according to DOE. All work related solely to preparing for construction and operation of the Yucca Mountain repository is being halted, according to the DOE budget justification. The House and Senate agreed with the Administration's plans to provide funding solely for Yucca Mountain licensing activities and provided \$5,000,000 "to create a Blue Ribbon Commission to consider all alternatives for nuclear waste disposal."¹¹

Thus, The Blue Ribbon Commission on America's Nuclear Future (Blue Ribbon Commission) was established to review federal policy on spent nuclear fuel management and disposal and to make recommendations for a new plan to address these issues, i.e. examine alternatives to the Yucca Mountain project. The Commission is required, however, to consider deep geological disposal as an alternative, allowing it to consider the current Yucca Mountain project as well.¹²

¹⁰ U.S. Department of Energy, Office of Civilian Radioactive Waste Management, *Total System Life Cycle Cost Report*, DOE/RW-0591, Washington, DC, July 2008.

¹¹ P.L. 111-85 (2009).

¹² See Advisory Committee Charter at 3 (c). Also, The House passed appropriations bill specified that the review must include Yucca Mountain as one of the alternatives, despite the Administration's contention that the site should no longer be considered. According to the House Appropriations Committee report, "It might well be the case that an alternative to Yucca Mountain better meets the requirements of the future strategy, but the review does not have scientific integrity without considering Yucca Mountain."

The DOE believes that abandoning the Yucca Mountain project “will provide finality in ending the Yucca Mountain project for a permanent geologic repository and will enable the Blue Ribbon Commission, as established by the Department and funded by Congress, to focus on alternative methods of meeting the federal government’s obligation to take high-level waste and spent nuclear fuel.”¹³ The DOE has never questioned the technical, safety, and environmental merits of its 2008 application for construction authorization for the project that is pending before the NRC, but simply believes that the Yucca Mountain project is no longer a workable option and that alternatives will better serve the public interest. In other words, it appears that the project is being abandoned for political reasons.

But when Congress selected the Yucca Mountain site over Nevada’s objection in 2002, it reinforced the expectation in the 1982 Act that the project would be removed from the political process and that the NRC would complete an evaluation of the technical merits:

If this resolution is approved, a license application will be submitted by the Department of Energy for Yucca Mountain and over the next several years, the Nuclear Regulatory Commission will go through all of the scientific and environmental data and look at the design of the repository to make sure that it can meet environmental and safety standards. This will be done by scientists and technical experts.¹⁴

Nevertheless, the NWPA does not compel the NRC to grant a construction authorization for the repository at Yucca Mountain. It is possible that the application might not be granted, or the repository might not be constructed and become operational for any number of reasons. We recognize and respect the Administration’s decision to explore other long-term solutions.

Current law, though, provides no alternative repository site to Yucca Mountain, and it does not authorize the DOE to open temporary storage facilities without a permanent repository in operation.¹⁵ Without congressional action, then, the default alternative to the Yucca Mountain project would be indefinite onsite storage of spent nuclear fuel at reactor sites and other nuclear facilities. A decision to abandon the Yucca Mountain project leaves the United States without the permanent disposal solution mandated by the NWPA, and consequently without a federally promised process and timetable for remov-

¹³ U.S. Department of Energy’s Motion to Withdraw its Application for Authorization to Construct a National High-Level Nuclear Waste Repository at Yucca Mountain (Mar. 3, 2010) at 3.

¹⁴ 148 CONG. REC. S6476 (2002) (statement of Sen. Levin).

¹⁵ 42 U.S.C. § 10172(a) (“The Secretary may not conduct site-specific activities with respect to a second repository unless Congress has specifically authorized and appropriated funds for such activities.”).

ing spent nuclear fuel from the onsite storage facilities maintained by nuclear power providers, at least until Congress legislates an alternative method of disposal. Although the NRC has determined that spent nuclear fuel can be stored safely at reactor sites for many decades, the licensing of new plants could be delayed by the lack of a definite disposal plan. No new commercial reactors have been ordered in the United States since the 1970s, but increasing fossil fuel costs, the possibility of controls on carbon emissions, and incentives provided by the Energy Policy Act of 2005 prompted electric utilities to apply for licenses for 26 reactors since September 2007, with several more expected through 2010.¹⁶

As previously discussed, the Commission could work to develop some type of alternative plan to remove the spent nuclear fuel, or at least the spent nuclear fuel stored at each decommissioned reactor site, to one interim consolidated storage facility. Congress, though, has considered legislation repeatedly since the mid-1990s to authorize a federal interim storage facility for nuclear waste but none has been enacted. The reprocessing or recycling of spent fuel is possible as well, but extremely expensive and raises concerns about the separation of plutonium that could be used in nuclear weapons. In any case, storage and reprocessing would still eventually require a permanent repository, whether on public or private land and a search for a new repository site would need to avoid the political obstacles that accompany such siting decisions. Put differently, if the Yucca Mountain project were abandoned, another repository site in the United States would still be required.

There is a broad scientific agreement in the necessity of providing for the long-term isolation of nuclear waste from the environment. Reprocessing and recycling of nuclear spent fuel can reduce the amount of radioactive waste requiring isolation but cannot entirely eliminate the need for such isolation. Alternatives to deep geologic storage have been studied, such as space and sub-seabed disposal, but none has ever been developed beyond the conceptual stage. After rejecting disposal options ranging from burying nuclear waste in polar ice caps to rocketing it to the sun, the scientific consensus has settled on deep geologic burial as the safest way to isolate spent nuclear fuel in perpetuity.¹⁷

The safety of the spent fuel during transportation has been raised by opponents as a reason to oppose a single, consolidated site such as Yucca Mountain. In response, the DOE has countered that “over the last 40 years, approximately 3,000 shipments of spent nuclear fuel have been transported safely over America’s highways, waterways, and railroads. During this time, an exemplary safety record has been established with no fatalities, injuries, or environmental damage caused by the radioactive nature of the cargo.”

For years The New England Council has been a strong supporter of the development of the Yucca Mountain nuclear waste repository. As you know well, the National Academy

¹⁶ Nuclear Regulatory Commission, “Combined License Applications for New Reactors.”

¹⁷ *Nuclear Energy Inst. v. Env'tl. Prot. Agency*, 373 F.3d 1251 (D.C. Cir.2004).

of Sciences has issued numerous studies on the scientific soundness of the facility, and it has been recognized on numerous occasions as the best way for the federal government to fulfill its obligations under the NWPA. Current law requires the Administration to implement the federal policy established for the disposal of high-level radioactive waste and spent nuclear fuel. The continued development of the Yucca Mountain project would obviously fulfill this goal, and provide many benefits, including; the safe and secure storage of our nation's spent nuclear fuel; a sense of fairness to electric ratepayers who bear the burden of the cost of the Nuclear Waste Fund; a clear signal to current and future generators of nuclear power that the government supports safe, reliable, carbon-free power generation; and as importantly, fulfills a commitment to producers of nuclear energy made by the federal government over 25 years ago.

Thank you for providing us with the opportunity to comment on this issue. If you have any questions, please do not hesitate to contact me.

Very truly yours,

David J. O'Donnell

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