

## Statement for the Record

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On behalf of the Nuclear Energy Institute  
to the  
Senate Energy and Natural Resources Committee

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Chairman Bingaman, Ranking Member Murkowski, members of the committee, thank you for the opportunity to speak today about the recently introduced Nuclear Waste Administration Act of 2012. We welcome the Senate's leadership in addressing the federal government's role in the safe and secure management and disposal of commercial used nuclear fuel through this legislation and this year's appropriations process. While the proposed legislation represents a positive start to overhauling the federal program, it does not provide the comprehensive changes that are needed.

Over the past 70 years, applications of nuclear fission – including research, medicine, naval propulsion and power production – have produced immeasurable benefits for our society. They have also resulted in a large and growing inventory of used nuclear fuel and high-level radioactive waste. The commercial nuclear industry and the federal government have demonstrated that they can safely and securely store used nuclear fuel and high-level radioactive material. About 68,000 metric tons of uranium (MTU) of commercial used fuel is safely managed at nuclear energy facilities, but storing the fuel on site was never meant to be a long-term solution. By now, the Department of Energy (DOE) already should have moved more than 25,000 MTU of reactor fuel from our sites and should be moving an additional 3,000 MTU per year.

Consumers of electricity generated at nuclear energy facilities have committed more than \$34 billion since 1982 to the Nuclear Waste Fund for the federal program that was supposed to have begun removing used fuel from commercial nuclear power plant sites 14 years ago. The Department of Energy continues to collect more than \$750 million per year from consumers, and the fund accrues almost \$1 billion in investment income on the remaining balance of over \$26 billion. The collection of Nuclear Waste Fund fees is ongoing, despite the fact that the Department of Energy, without any technical basis, terminated the Yucca Mountain repository project in 2010.

The industry and the DOE had been working for decades with considerable success on the development of a deep geologic repository in the United States for used nuclear fuel and high-level radioactive waste, until the program was terminated and the Office of Civilian Radioactive Waste Management (OCRWM) dissolved in 2010. These decisions were not supported by the industry and have resulted in court actions that would have otherwise been unnecessary. The industry continues to support the completion of the Yucca Mountain licensing process and as a result of the administration's actions, the industry has filed suit against DOE challenging the continued collection of the Nuclear Waste Fee in the absence of a federal program.

### **The Path to Success**

The Nation would be best served by adherence to the following principles that will ensure the establishment of a stable used nuclear fuel management policy and program:

- America must have a durable policy supported by a dedicated and sustainable infrastructure to manage used nuclear fuel responsibly.
- America must have a plan for the ultimate disposal of the byproducts from nuclear energy.
- An ideal technical solution is not required to begin implementation of a new policy direction. Evolutionary, and perhaps revolutionary, advances in technology improvements can be incorporated over time without deferring decisions until decades of research are completed.
- The successes and failures of the past must be understood to help guide future innovation, especially the need to build public trust in the systems and facilities ultimately developed.

Legislative action is needed to put such an enduring policy and program in place.

The Blue Ribbon Commission on America's Nuclear Future (BRC) was chartered by the Department of Energy in 2010 and was tasked with developing a path forward for the nation's used fuel and high-level radioactive waste management program. The Blue Ribbon Commission concluded that the United States needs a new, integrated strategy for managing the back end of the nuclear fuel cycle, including a new approach to siting nuclear waste storage and disposal facilities. The BRC outlined eight key recommendations, which are consistent with the aforementioned principles for a stable used fuel management policy and program, and have the potential to create a stable and enduring program that could be supported by all stakeholders:

- Access to the funds nuclear utility ratepayers are providing for the purpose of nuclear waste management.
- Prompt efforts to develop one or more consolidated storage facilities.
- A new organization dedicated solely to implementing the waste management program and empowered with the authority and resources to succeed.
- Prompt efforts to develop one or more geological disposal facilities.
- A new, consent-based approach to siting future nuclear waste management facilities.
- 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.
- Support for continued U.S. innovation in nuclear energy technology and for workforce development.
- Active U.S. leadership in international efforts to address safety, waste management, non-proliferation, and security concerns.

### **Growing Federal Liability**

Even before the Office of Civilian Radioactive Waste Management was closed, the urgency for DOE to fulfill its statutory and contractual responsibilities to manage used fuel and high-level radioactive waste was growing, as was the associated cost to the taxpayer. The DOE was required by statute and contract to begin moving used fuel from reactor sites in 1998. The BRC report describes how taxpayers, through payments from the taxpayer-funded Judgment Fund, are paying for court-awarded damages from DOE's partial breach of its contracts with electric companies. DOE estimates that the damage awards from the Judgment Fund will total \$20.8 billion dollars if the federal government begins accepting used fuel in 2020. This expense, for which the taxpayer receives no benefit, is in addition to monies paid by consumers of electricity produced from nuclear energy into the Nuclear Waste Fund. The BRC estimates that the damage awards associated with the DOE's breach may increase by as much as \$500 million for each year after 2020 that DOE does not begin to accept used fuel. It has become virtually impossible for the DOE to begin to meet its obligation to move used fuel before 2020, given the absence of any federal program.

The industry believes that a multi-pronged approach is necessary if the federal government's used fuel and high-level radioactive waste program is to be rebuilt and stakeholder confidence restored. This multi-pronged approach should include the following elements:

- Legislation instructing and funding DOE or the new management entity to establish one or more consolidated storage facilities for used nuclear fuel while simultaneously making substantial progress towards developing a repository for ultimate disposal
- The establishment of new organization dedicated solely to implementing the waste management program and empowered with the authority and resources to succeed
- Access to the funds that consumers have provided, and continue to provide, for the purpose of managing high-level radioactive material.

### **The Need for Consolidated Storage**

Consolidated storage, as recommended by the BRC, is the quickest route for the federal government to begin moving used fuel from nuclear energy facilities and to stem the increase in damage awards beyond the estimated \$20.8 billion through 2020. In addition to storing used nuclear fuel from commercial facilities, a consolidated storage facility could also store DOE and U.S. naval reactor fuel. This could provide a pathway for the federal government to meet its obligations to remove this material from the various states where it is stored.

Developing consolidated storage would be an appropriate use of resources and a prudent financial investment that would permit the federal government to begin meeting its obligations, limiting the damages paid by the taxpayers, and restoring faith in the federal program, paving the road for a repository to eventually be opened. By reducing liability, consolidated storage will free up resources and better enable the federal government to pursue and complete the ultimate goal of geologic disposal.

In addition to the industry and the BRC, the National Conference of State Legislatures, the governors of Maine, Maryland, Pennsylvania, and Vermont and many other organizations and political leaders have all publicly called for action to implement the BRC recommendations and, specifically, development of a consolidated storage facility.

### **A New Federal Used Fuel Management Corporation is Needed**

A key element to the long-term success of a federal program is establishing a new entity to assume program management responsibility from the DOE. Industry supports the concept of a federal corporation as outlined in the BRC final report. The operating characteristics of a new management entity must more closely resemble those of a corporation with a clear mission and obligations to its investors rather than a federal agency in order to succeed. Congress and the administration should retain an oversight authority, but this role should be structured to avoid creating an impediment to the efficient operation of a new management entity.

Similar to commercial companies, the chief executive officer of the new management entity should be selected and appointed by a board of directors. As the BRC recommends, the board should be appointed by the President with the advice and consent of the Senate for terms that would span at least two presidential administrations and the chairman of the board should be elected by its members. It is imperative that the CEO not be subjected to the political uncertainties associated with presidential appointments so that he or she can focus entirely on performing the task at hand with the requisite attention to nuclear safety and security that is expected from all employees of a nuclear industrial company. The instability that can be created as a result of the political appointment process is well-

illustrated by the now-defunct Office of Civilian Radioactive Waste Management (OCRWM). This office, whose director was appointed by the President and confirmed by the Senate, never realized stable long-term leadership because of the turnover of directors associated with changes at the White House. From 1983 to 2010, OCWRM had six appointed and confirmed directors and nine acting directors. The incumbent director was replaced with every new administration.

The Nuclear Waste Administration Act of 2012 would not sufficiently insulate the new Nuclear Waste Administration leadership from the political process since both the administrator and deputy administrator would be appointed by the President with the advice and consent of the Senate, as are the members of the proposed oversight committee. If implemented as proposed, both the Nuclear Waste Administration's senior management and the members of the oversight board would likely be replaced with every new administration, and the history of the federal government's failure to meet its statutory and contractual obligations would likely be repeated.

### **Direct Access to Sufficient Funding**

Enduring leadership is essential, but not sufficient in its own right to create a successful and sustainable program. As the Nuclear Waste Administration Act of 2012 recognizes and addresses, a new management entity must have direct access to and control over the funds necessary to implement the program. The industry and consumers have provided and continue to provide these funds. With a \$26 billion balance in the Nuclear Waste Fund, almost \$1 billion accruing in interest and approximately \$750 million in Nuclear Waste Fees being deposited annually, funding for the government's program should be secure and available to program managers. Unfortunately, this has not been the case. The congressional budgeting and appropriations processes have resulted in appropriations to OCRWM being considered in the context of the overall DOE and federal government budget and not simply in the context of the available funds in the Nuclear Waste Fund. The BRC report, which discusses the Nuclear Waste Fund in great detail, states that "a program that was intended to be fully self-financing now has to compete for limited discretionary funding in the annual appropriations process, while the contractual user fees intended to prevent this from happening are treated just like tax revenues and used to reduce the apparent deficit on the mandatory side of the federal budget (which deals with expenditures and receipts that are not subject to annual appropriations)." Recognizing that these funds were collected with the indisputable intention of supporting clear statutory and contractual obligations, there is not a rational basis for considering their use discretionary.

To avoid perpetuating the current funding limitations, a new management entity must be given unrestricted access to the Nuclear Waste Fees and the Nuclear Waste Fund with Congressional oversight of the efficient use of these funds continuing. This will enable it to appropriately manage and fund the development of storage and disposal facilities consistent with standard industry practices for other large-scale nuclear safety related projects. The current legislation achieves this goal for the Nuclear Waste Fee payments. However, it could be enhanced with respect to access to the Nuclear Waste Fund.

### **Geologic Disposal is Critical**

The Nuclear Waste Administration Act of 2012 goes a long way towards achieving the multi-pronged approach outlined above. Ideally the elements of that approach (new management entity, surety of funding, consolidated storage while vigorously pursuing disposal) would be implemented simultaneously to create a solid foundation for a sustainable used nuclear fuel management program.

The eventual completion of the Yucca Mountain repository (an endeavor that will cost more than \$13 billion, according to a 2007 DOE report) or the siting and construction of a new repository will most likely take more than two decades depending on Congressional funding. By 2040, the damages paid by

the taxpayer could be as much as \$30 billion. A consolidated storage facility could be built at a fraction of the cost of a repository. The Electric Power Research Institute (EPRI) estimates a 40,000 MTU storage facility could be built for approximately \$500 million and industry estimates that such a facility could be opened by 2020 if work begins in 2013. If instructed by Congress to pursue consolidated storage, DOE or a new management entity could use this facility to meet DOE's statutory and contractual obligations by removing used fuel from commercial nuclear power sites, taking title to the used fuel, and shipping it to the storage facility where it would be stored until a final disposal or alternate disposition pathway is available.

We should not lose sight of the fact that consolidated storage is not a complete answer. A geologic repository will be required and should be pursued simultaneously with the development of a consolidated storage facility. Attachment 1 provides a comparison of hypothetical timelines for the development of a consolidated storage facility and the Yucca Mountain project assuming that both programs are underway in 2013. As the attachment illustrates, the completion date for Yucca Mountain would be highly dependent on the rate at which funds are expended. Despite the fact that the Nuclear Waste Fund has more than sufficient funding to complete the Yucca Mountain project, it is highly unlikely that the program could efficiently deploy the funding necessary (approaching \$2 billion annually) to complete licensing and construction in the near term.

### **Priority to Shutdown Sites**

Once a consolidated storage facility has been authorized, the industry and the federal management entity should collaborate to ensure that transportation issues, including efficient ordering of used fuel acceptance from commercial sites, are appropriately addressed. Prior to removing used fuel from operating plant sites, the industry agrees that priority should be given to the shutdown commercial sites that no longer have an operating reactor. This approach, supported by the BRC and the Nuclear Waste Administration Act of 2012, has numerous advantages. It would permit the 10 shutdown sites, which in many cases have only used fuel storage remaining at the site, to be fully decommissioned and the land to be used for more beneficial purposes. In addition, the taxpayer, through the taxpayer-funded Judgment Fund, would no longer be liable for the continued cost of storing used fuel at these shutdown sites at a cost of approximately \$8 million per year per site.

### **Consent-Based Facility Siting**

Strength of leadership and financial resources alone will not guarantee success in siting new facilities. As the BRC recommends and the Nuclear Waste Administration Act of 2012 implements, a consent-based siting process is essential to developing enduring local and state support for new facilities. Since the release of the BRC report, the consent-based siting recommendation has received significant support as well as questions about how it would be implemented.

A consent-based siting process should not be prescriptively defined, but permitted to develop organically among the interested parties. Regardless of the specific process for developing consent, success will be measured by an agreement among the interested parties that is legally enforceable. During the process, the parties involved must negotiate in good faith and be open to creative solutions to address issues that arise, including oversight, incentives and compensation. The management entity and the federal government should not attempt to predetermine the "burden" that a community or state should accept or impose restrictions on the development of a consolidated storage facility that are linked to milestones related to a disposal program. To do so would be contrary to the nature of a consent-based process. Congress and the new management entity or DOE must be willing to let communities and states reach their own conclusions about whether or not it is a burden to host a new facility and to let them identify the framework and restrictions under which they wish to operate. There are communities that would see

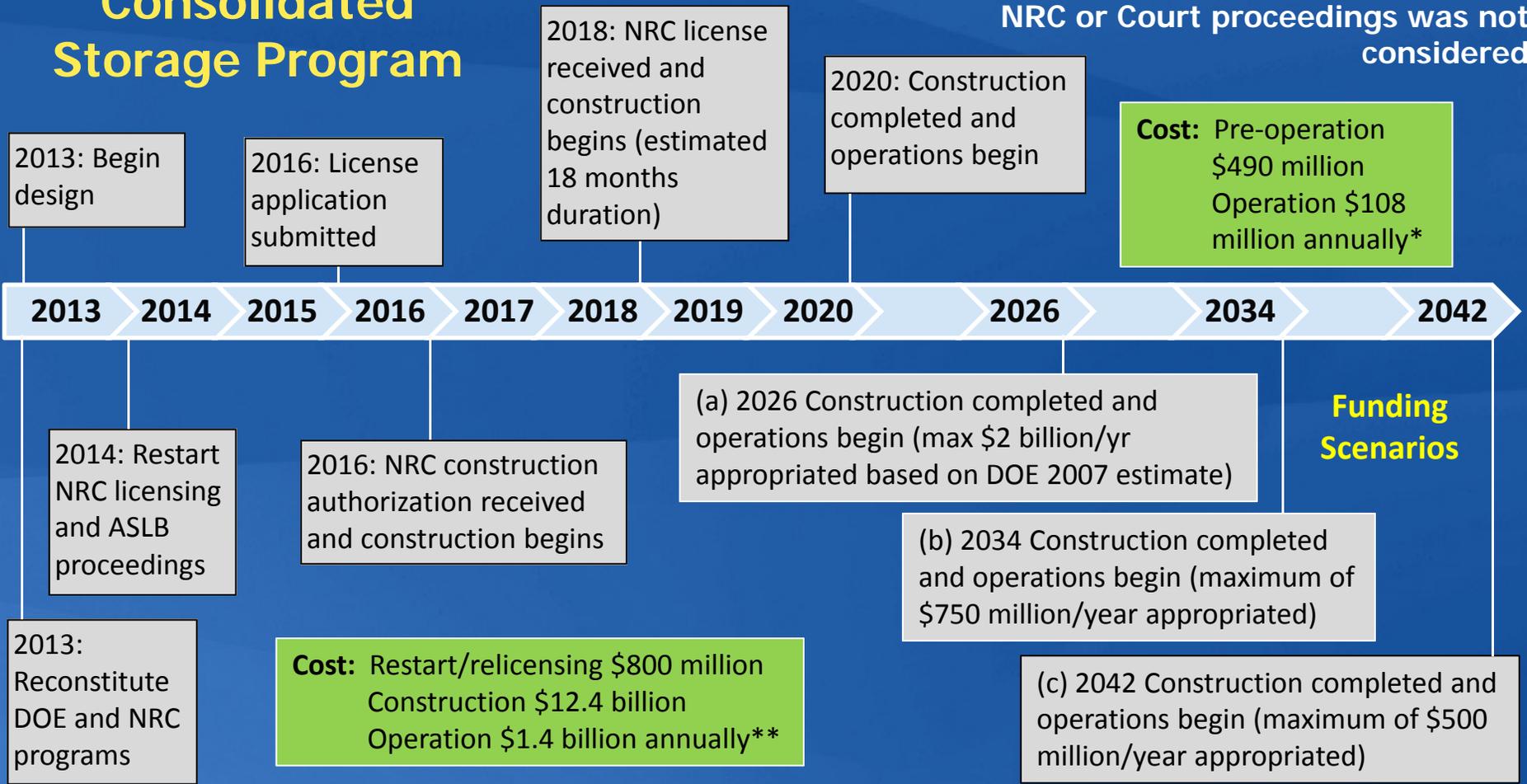
hosting such facilities as a benefit. The siting and operation of the Waste Isolation Pilot Plant in New Mexico is proof that such a process can be successful.

### **Closing**

The Nuclear Waste Administration Act of 2012 is a significant step forward and, with the enhancements as discussed, it could create a sustainable program that would garner wide stakeholder support. The most important point, however, is that immediate action is necessary to establish a sustainable program and reduce the liabilities for the taxpayer as quickly as possible. Congress must act. Energy companies, their local communities and states, and American taxpayers deserve to have confidence in a federal program that will meet its statutory and contractual obligations to safely and securely accept, transport, store, and ultimately dispose of used nuclear fuel and high-level radioactive waste.

# Consolidated Storage Program

The potential for delays due to additional NRC or Court proceedings was not considered



# Yucca Mountain Project

Damage awards from taxpayer-funded Judgment Fund (billions)



\* Based on EPRI report 1018722 "Cost Estimate for an Away-From-Reactor Generic Interim Storage Facility (GSIF) for Spent Nuclear Fuel."

\*\*Restart cost based on industry judgment. Construction and operation estimates based on DOE/RW-0591 "Analysis of the Total System Life Cycle Cost of the Civilian Radioactive Waste Management Program, Fiscal Year 2007" (July 2008) and actual appropriations for 2007 through 2009.