

**Statement of Peter Lyons**  
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**Before the**  
**Committee on Science, Space, and Technology**  
**U.S. House of Representatives**

**Assessing America's Nuclear Future-**  
**A review of the Blue Ribbon Commission's Report to the Secretary of Energy**  
**February 8, 2012**

Chairman Hall, Ranking Member Johnson, and Members of the Committee, thank you for the opportunity to appear before you today to discuss the Blue Ribbon Commission's (BRC) Report to the Secretary of Energy. The Commissioners worked collaboratively and constructively – through a public, open and transparent process – on recommendations to support a new strategy for the back end of the nuclear fuel cycle. The Administration commends the Commission for its work over the past two years. The Commission's report will inform the Administration's work with Congress to define a responsible and achievable path forward to manage our nation's used nuclear fuel and nuclear waste.

As the President emphasized in his State of the Union Address, "this country needs an all-out, all-of-the-above strategy that develops every available source of American energy." Nuclear energy currently supplies over 70 percent of our nation's carbon-free electricity and will continue to play an integral role in our nation's energy mix. Late last year, the Westinghouse AP1000 reactor received design certification from the Nuclear Regulatory Commission (NRC). The first Combined Construction and Operating License applications are currently under review by the NRC. When the first application is approved, it will be the first license for new domestic reactor construction in over three decades, creating thousands of new nuclear energy jobs. With the support of Congress, the Department has also taken the first step to accelerate the commercialization of Small Modular Reactors (SMRs), which, if domestically manufactured, may improve our competitive edge. On January 20<sup>th</sup>, the Office of Nuclear Energy released a draft Funding Opportunity Announcement, soliciting input from industry to establish cost-shared agreements for first-of-a-kind engineering to support design certification and licensing of SMRs.

The United States must develop a sustainable fuel cycle and used fuel management strategy to ensure that nuclear power continues to be a safe, reliable resource for our nation's long-term energy supply and security. In this context, Secretary Chu has stated that the BRC's report "is a critical step toward finding a sustainable approach to disposing used nuclear fuel and nuclear waste." The Commission's report highlights our nation's own success story, the Waste Isolation Pilot Plant (WIPP) in New Mexico. The WIPP experience has shown that a consent-based approach and a superb safety record can lead to the successful development and operation of a

geologic repository for nuclear waste disposal that is fully supported by the local community. As part of the Administration's commitment to restarting the nuclear industry in America, we will work with Congress and stakeholders to pursue better, consent-based alternatives for the disposition of used nuclear materials and wastes.

As a beginning, the near-term direction advocated by the BRC aligns with the Office of Nuclear Energy's ongoing programming and planning. In 2010, the Office of Nuclear Energy established the Used Nuclear Fuel Disposition Program (UFD) to conduct scientific research and technology development to enable storage, transportation, and disposal of used nuclear fuel and all radioactive wastes generated by existing and future nuclear fuel cycles. I was very pleased that the BRC assessed the Used Fuel Disposition Campaign in their final report. The Commission recommended that the office continue R&D on transportation, storage, and disposal options for used nuclear fuel as well as support for "other non-site-specific activities" and that it coordinate with states and stakeholders on transportation planning.

### **FY 2012 Activities on Transportation**

In FY 2012, the UFD program will be revisiting the recommendations of the 2006 National Academy report on transportation of used fuel and high level radioactive waste and will prepare a report on an approach to address these recommendations, including re-engaging the regional transportation groups to understand stakeholder issues. Pursuant to section 180 (c) of the Nuclear Waste Policy Act, the program will finalize the policy and procedures for providing technical assistance and funds to States for training local and tribal public safety officials through whose jurisdictions the Department of Energy plans to transport used nuclear fuel or high-level waste.

### **FY 2012 Activities on Storage**

In FY 2012, the UFD program will begin laying the groundwork for evaluating consolidated storage. We will build upon previous DOE work and industry storage licensing efforts to initiate the evaluation of design concepts for consolidated storage and will develop communication packages for use in interactions with potential host communities, describing various attributes of consolidated storage. The program will also continue to conduct R&D to better understand potential degradation mechanisms involved in long-term dry cask storage. Through our Nuclear Energy University Program, we are enlisting the help of university communities to further our R&D on extended dry storage. The Department has awarded \$4.5 million for the Fuel Aging in Storage and Transportation (FAST) Integrated Research Project. The project is being led by Texas A&M University in collaboration with researchers at five other universities and two national laboratories.

## **FY 2012 Activities on Disposal**

In FY 2012, the UFD program will continue conducting R&D on generic geological media. The lessons learned in this country and internationally in evaluating the performance of repositories in various geologic environments are valuable; however, we need a more advanced understanding of various disposal concepts in various media. Through the UFD Campaign, the Department will initiate workshops to determine the best approaches for understanding the behavior of salt in response to heat producing radioactive waste; work with industry to initiate the development of an RD&D plan and roadmap for the borehole disposal concept; and expand work with our international partners on disposal in granite and clay.

The conference report accompanying the fiscal year 2012 appropriations bill directed DOE to develop a strategy for the management of spent nuclear fuel and other nuclear waste within six months of the publication of the Commission's final report. The efforts I have described are an important part of our ongoing work, and the Administration looks forward to evaluating the Commission's recommendations and proposing a broad strategy.

The Administration is committed to collaborating with Congress and stakeholders to find a safe and long-term solution to managing our nation's used nuclear fuel, and we commend the Commission on the important contribution it has made in achieving that goal.