

Testimony by Thomas Isaacs
Former Lead Advisor to the Blue Ribbon Commission on America's Nuclear Future
to the Subcommittee on Environment, Harley Rouda Chairman
Committee on Oversight and Reform
U.S. House of Representatives
June 7, 2019

Thank you for the opportunity to testify at this hearing regarding the future of nuclear waste management. The interim storage, transportation, and ultimate disposal of spent nuclear fuel and high-level radioactive waste remain important challenges, and indeed obligations, for our nation, and I am pleased that you and other members of Congress are focusing on this issue. The comments that follow are mine alone.

I have participated in U.S. and international waste management activities for over 30 years. As a member of the U.S. Department of Energy I led the siting activities that compared candidate sites for the first nuclear waste repository. In November and December of 1987 I was seconded by the Administration to work with the Senate Energy and Natural Resources Committee and its chair Senator Bennett Johnston in late December of that year to amend the Nuclear Waste Policy Act (NWPA) of 1983. I was in the room the evening that the lead Senators and Congressmen caucused to try to reach an acceptable compromise on a program that was at a standstill due to competing visions of the proper path forward. Strong differences remained, but it was also clear that the elected leaders in the room wanted to find an amendment to the NWPA that they could all support. The result was the Nuclear Waste Policy Amendment Act (NWPAA) in 1987 that identified Yucca Mountain as the only candidate for the first geologic repository and added a number of other key features that allowed a compromise to be reached and the program to move forward. Not all members got what they wanted, but they all reached an understanding that adequately satisfied them.

Years later, in 2010, the Obama Administration halted the extensive yet controversial work on Yucca Mountain calling the program "unworkable". The Secretary of Energy was directed to establish a Blue Ribbon Commission (BRC) to propose a new path forward. I was privileged to be the lead advisor to the BRC. The BRC was co-chaired by General Brent Scowcroft (ret.), a Republican and National Security Advisor to two U.S. Presidents and Congressman Lee Hamilton, a Democrat and 17-term member of the U.S. House of Representatives and Vice-Chair of the 9/11 Commission. After two years of work by the 16 distinguished Commissioners on the BRC, they produced a report titled, "The Blue Ribbon Commission

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Report on America's Nuclear Future." The report put forward eight fundamental recommendations. I will not describe all of them as the report is available on-line, but four stand out. The first recommendation was that the program should move forward with consent based siting - that is new facilities dedicated to the storage and disposal of spent nuclear fuel and other high-level radioactive wastes should be sited in locations where there was adequate consent by those who would be affected. The second important recommendation was that the program be moved from the Department of Energy and established as a stand alone organization focused solely on this challenge. This was not so much a criticism of the DOE as a recognition that to establish the requisite program stability, trust, and confidence required a dedicated program over decades and a degree of buffering from short term political considerations. Third and fourth recommendations called for "prompt" actions dedicated to siting and building both interim storage and final disposal facilities for spent nuclear fuel respectively.

In 2018 I accepted the role as Chairman of an Experts Team created as a result of a Settlement Agreement between plaintiffs and Southern California Edison (SCE). We advise SCE on the exploration of options to get the spent fuel remaining at the shutdown San Onofre site moved off the site, to a new interim storage facility somewhere in the Southwest U.S. or directly to a repository, whether it be Yucca Mountain or another location.

I strongly believe that the nation owes all of us a pragmatic and timely solution to nuclear waste management. There are a number of compelling reasons that spent nuclear fuel should be removed from the reactor sites everywhere, but particularly where the reactors have been shut down. These arguments include economics, national security, and environmental considerations and the BRC Report describes them in detail. While I believe spent fuel is safely stored for the time being, the potential hazard remains for millenia and requires a permanent solution. Disposal in a deep, stable underground repository is the preferred solution for every country that is addressing this issue and this has been the case for decades. There is an international consensus and confidence that such repositories can be identified, sited, characterized to assure long term safety, licensed, constructed, operated, and then closed, permanently isolating the wastes from the accessible environment. The U.S. Government is

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liable for the delays which are costing taxpayers billions of dollars and the liabilities continue to grow. Shutdown sites should have their spent fuel removed to allow for full decommissioning of the sites and their return to productive use. The central reason I believe the waste must be removed is simple - it's the right thing to do. When communities, regions and states accepted the siting of nuclear power plants in their vicinity it was with the explicit understanding that the spent fuel would eventually be removed. They did not sign up to be the hosts of these waste facilities located on the surface forever. The country owes it to them and to the broader U.S. citizenry to provide a permanent solution in our time frame for wastes this generation and the previous generation produced in providing us with massive amounts of carbon-free electricity. We should not leave a legacy to our children and children's children to clean up after us because we did not have the political will to meet our responsibilities.

At present a standoff continues with regard to the proper future path for nuclear waste disposal. It has been this way for years, much to the detriment of all parties. Three decades have passed since the NWPA of 1987, and we remain at a standstill due to what are largely the same issues. On the one hand, many argue that Congress legitimately chose Yucca Mountain in Nevada as the sole candidate site for the first repository, invested many billions of dollars investigating the site, found it was suitable, and filed a License Application to the Nuclear Regulatory Commission. The highest ranked, most promising site at the time it was selected, they further argue that this program was later stopped for what they saw as a crass political expedient. The state of Nevada's elected representatives and others have argued all along that the selection process was politically driven and unfair.

Others support the recommendations of the BRC that argued for a new siting process to search for a site which is supported by those who will be most affected, whether it be Yucca Mountain or elsewhere. Those opposed to this recommendation believe we are squandering the billions already invested and have little confidence that such an approach will yield a suitable new candidate site. Many also believe we have come to learn that the Yucca Mountain site was not as promising as once believed and that is unsuitable as a repository site and should not be licensed.

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There also remain competing visions regarding the establishment of an interim storage site or sites, either by the DOE or the private sector, to begin the process of removing the spent fuel from reactor sites, particularly shut down sites, and to show that the nation is serious about solving this issue. Some believe we should focus solely on a repository program, while others argue the need for interim storage given the long and highly uncertain time until a repository becomes available. Competing bills continue to be tabled but so far progress in reestablishing a consensus and a way forward is lacking.

Why has a solution to this obvious need remained unsuccessful for literally decades? And what are we to do about it?

The first problem is the view that there is little or no crisis here and since any solution is politically charged the easiest path at any point in time is to do nothing. As I already mentioned I find this not only flawed but unacceptable. We owe it to ourselves, future generations, and the rest of the world who look to us for leadership to solve this highly solvable issue. Second we need to understand and respect that there are differing views by responsible people who truly do want to solve this issue and work toward a successful and pragmatic answer. We are unlikely to get there as long as this is viewed as a win/lose situation, something that seems all too prevalent these days. I saw in action in the cold dark December days in 1987 Senators and Congressmen, Republicans and Democrats, Easterners and Westerners who disagreed vehemently but found a way forward. We need to do it again. Third we need to establish a national waste program that has the requisite talent, stability, flexibility, and access to the required funding to do the job and work every day to earn the trust and confidence of the affected parties. The program will span generations and we must provide a solution that gives the responsible implementing organization a chance to succeed. The best opportunity to achieve this in my view rests with the establishment of a separate, dedicated organization. This need to earn public, institutional, and political trust and confidence is at the heart of why we are having limited success. This lack of trust has allowed communications of the inherent risks of nuclear waste management to be sensationalized, too often playing to emotions and not based on science, detracting from the important decision making required. And fourth we need

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a vibrant program to demonstrate our commitment to success and remove a significant barrier to nuclear power remaining a major option for carbon-free electricity going forward. And finally, we need to reassert our international leadership and lead by example, to assure that safety, nuclear security, nonproliferation, and counter-terrorism remain effective across the globe.

Other countries like Finland, Sweden, France, and Canada have national programs, supportive communities, and are making substantial progress. We can learn much from their successes. Here in the U.S. we have had a successful repository operating for over a decade disposing of defense transuranic waste. The Waste Isolation Pilot Program (WIPP) continues to operate with the robust support of the host community of Carlsbad, New Mexico and state agreement.

Let me conclude by quoting from the Blue Ribbon Commission Report. "The problem of nuclear waste may be unique in the sense that there is wide agreement about the outlines of the solution. Simply put, we know what we have to do, we know we have to do it, and we even know how to do it. Experience in the United States and abroad has shown that suitable sites for deep geologic repositories for nuclear waste can be identified and developed. The knowledge and experience we need are in hand and the necessary funds have been and are being collected. Rather the core difficulty remains what it has always been: finding a way to site these inherently controversial facilities and to conduct the waste management program in a manner that allows all stakeholders, but most especially host states, tribes and communities, to conclude that their interests have been adequately protected and their well-being enhanced - not merely sacrificed or overridden by the interests of the country as a whole."

An informed and empowered public, a national waste program dedicated to excellence and engagement, and a Congress and Administration that sees the solution as a fundamental responsibility are among the key next steps for our shared success.