Life after Yucca Mountain: The time has come to reset US nuclear waste policy

BY DAVID KLAUS AND ROD EWING, OPINION CONTRIBUTORS — 12/09/19 09:30 AM EST

THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HILL


After decades of inaction and stalemate, there are small but significant signs that the U.S. government may finally be ready to meet its legal commitment to manage and dispose of the more than 80,000 metric tons of used nuclear fuel at 74 operating and shut-down commercial nuclear reactors sites in 35 states across the country. The signs of progress include:

- Only a few weeks ago, the House Energy and Commerce Committee approved bipartisan legislation to authorize the storage of used fuel at an NRC-licensed interim storage facility and provide funding for the development of a long-term repository.

- Similar legislation has had hearings and is pending in the Senate, and less than a week after the House committee action Sen. John Barrasso (R-Wyo.) introduced a parallel bill to the House legislation and called on his colleagues for bipartisan support.

- A comparable bill passed the House in the previous Congress by a vote of 340-72.
• Congressional leadership on this issue includes Sens. Lamar Alexander (R-Tenn.) and Dianne Feinstein (D-Calif.) in the Senate, as well as highly motivated members in the House.

• The Trump administration’s last two budget proposals included funding for a spent fuel interim storage site, in addition to funding for Yucca Mountain.

• Two private entities have filed license applications with the Nuclear Regulatory Commission (NRC) to construct and operate consolidated interim storage facilities, and the NRC is moving forward to process these applications.

These actions reflect an increasing recognition that the management and disposal of used nuclear fuel is an issue that need to be addressed, particularly if nuclear power is going to have a role in the reduction of greenhouse gas emissions.

As background, the U.S. government was supposed to take ownership of the commercial used nuclear fuel in 1998. Yet Yucca Mountain in Nevada, which was designated as the site for a proposed repository in 1987, is not open despite the U.S. government having spent over $15 billion to develop and potentially license the site. The project has been at a standstill since 2010, when the Obama administration stopped the licensing process and established a Blue Ribbon Commission on America’s Nuclear Future. The Commission recommended that the licensing process for Yucca Mountain be halted and a new consent-based siting process started to identify a site that has the support of state and local officials. No such process is underway.
Complicating matters further, federal law prohibits the use of government funds for a consolidated interim storage site that could hold the used fuel until a permanent repository is operational - the law requires that the NRC grant a license for a permanent repository before an interim site can be used. Yet, restarting the licensing process for Yucca Mountain faces continued, and successful, opposition by the Nevada congressional delegation and others.

While the debate over the fate of Yucca Mountain is primarily responsible for the current standoff, pressure for action is increasing at the local level where closed plants and what to do with the spent fuel stored on site has become a particularly hot political issue. Seven U.S. reactors were permanently closed from 2013 through 2018 and an additional 13 are set to close by 2025. There are now 21 “stranded sites” scattered across the country - closed reactor sites with no ongoing reactor operations. Moreover, the number of plant closures is expected to increase as plants age and state regulators refuse to adopt rate structures that value the type of base load power provided by nuclear reactors.

There also is pressure for action at the national level. The failure of the U.S. government to take ownership of the spent fuel has cost the taxpayers $7.4 billion in damages paid to utilities for continued storage at their reactor sites -- and costs are projected to increase as more reactors close. With government payments to utilities already running some $600 million per year, the government estimates the total cost may ultimately be as high as $34 billion. Industry estimates are in the range of $50 billion.
Despite this increasing pressure for action, considerable obstacles still must be addressed in addition to resolving the fate of Yucca Mountain. With regard to funding, a key challenge arises because the $600 million in annual payments to utilities now comes from the Judgment Fund --which is not subject to budget caps and annual appropriations. Congressional appropriators are concerned that legislation authorizing the federal government to take possession of the spent fuel would require new appropriations that would compete with other important spending priorities.

Perhaps most significant obstacle is the dysfunction in our current political system. In normal times, political compromise to address the most significant current problem - the growing amounts of spent fuel at closed reactor sites around the country - should be in reach. It is time to reset U.S. policy and accept that the Yucca Mountain site is not going to be licensed and built. Legislators working in good faith should be able to resolve the funding issue, develop a fair, consent-based process for selecting a site for a long-term spent fuel repository and amend federal law to no longer hold the development of a consolidated interim storage facility hostage to that process.

David Klaus formerly served, among other positions, as Deputy Under Secretary at the U.S. Department of Energy and Counsel to the Energy and Commerce Committee of the U.S. House of Representatives. He is an Affiliate of the Center for International Security and Cooperation at Stanford University. Professor Rod Ewing is the co-director of the Center for International Security and Cooperation at Stanford University and led a recent initiative - Reset of America's Nuclear Waste Management Strategy and Policy.