

**U.S. House Committee on Energy and Commerce
Subcommittee on Energy, Climate, and Grid Security
“The Fiscal Year 2025 Nuclear Regulatory Commission Budget”
[July 23, 2024]**

1. Article from POWER Magazine entitled “Congress Wants to Solve Nuclear Waste. The Solutions Are Known.” May 23, 2024, submitted by Rep. Matsui.

Congress Wants to Solve Nuclear Waste. The Solutions Are Known.

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It's welcome that the U.S. House of Representatives in April revived policy discussions over nuclear waste. Our organizations support nuclear energy as a tool of economic opportunity and emissions reduction, and we believe that nuclear's sustainable expansion is necessary for global health and prosperity. Nuclear's role in deep decarbonization is clearer than ever, especially as the world begins to understand the scale of power demand growth powered by electrification and the use of artificial intelligence.

We don't want to see nuclear's potential to meet that demand stymied by inaction on one thorny question that continues to vex both industry and the government: "What about the waste?"

America's nuclear waste poses no pressing public safety threat. Our inventory of commercial spent fuel is stored safely at reactor sites and its volume is relatively small—equivalent to one Walmart Supercenter. An increasing portion of it is stored in dry casks, which the U.S. Nuclear Regulatory Commission (NRC) licenses for 100 years or more.

Ironically, because it's so safe, policymakers without constituents near nuclear waste rarely feel urgency to resolve this issue. We are well acquainted with the fits and starts of U.S. spent fuel policy, which is why we hope that this time around, Congress approaches the issue with a bipartisan spirit, an honest review of what's working, and a little humility.

Community Comes First

Durable spent fuel policy starts local. The geologic suitability of a nuclear waste storage facility or final repository means very little if the community, county, and

state aren't on board with hosting one. Nuclear experts have aligned on that fact for at least a decade.

The necessity of local support and local benefits is what Sweden, Finland, and (hopefully soon) Canada have recognized in constructing their own successful spent fuel disposal projects. Nuclear waste storage and disposal facilities carry significant economic development opportunities for the host community. In Finland and Sweden, interested communities were courted with local investments beyond the actual waste facility.

Our organizations are participating in the U.S. Department of Energy's (DOE's) program for consent-based siting of nuclear waste through a series of activities centered around community- and state-level decision-making. Congress has supported this international best practice for spent fuel siting since 2021, and DOE is faithfully executing the program: The DOE Office of Nuclear Energy's reorganization in April established the first-ever Office of Consent-Based Siting within its spent fuel office.

Through this program, communities around the country may soon have the opportunity to consider storing nuclear waste as a job-supporting economic initiative. For their participation, they might receive funding for other local infrastructure, or to conduct their own environmental suitability analyses. All of this activity will require annual funding or, better yet, the ability to tap some of the \$40 billion-plus in the federal Nuclear Waste Fund, earmarked for the disposal of commercially -generated spent fuel.

Somewhere in the U.S. is a community that will see past the common misperceptions about nuclear waste and recognize that storing some of the nation's spent fuel is ultimately a once-in-a-generation opportunity to reap billions of dollars in federal investments for their roads, schools, and other amenities.

Let's Look Beyond Yucca Mountain

Separate from dry cask storage facilities, the U.S. will eventually need a deep geologic repository to dispose of nuclear byproduct material for centuries. Forty years ago, the federal government designated the Yucca Mountain site in Nevada for this facility, but state and Tribal opposition have stopped progress. The most recent formal action on a Yucca Mountain repository was 14 years ago—when DOE terminated the program. One of us was in high school, and the other still had brown hair. Some in the nuclear community still harbor hope that someday Nevada

might change its mind, but we feel it is naive and increasingly counterproductive to keep putting all of our eggs in the Yucca basket.

There are actions we can take now. Congress should move to ensure that DOE has the resources it needs to begin a consent-based process to identify a second, different repository option. That is not a partisan opinion: A bipartisan group of experts told Congress as much last month. Wherever one stands on the viability of Yucca Mountain, looking for alternatives is prudent. The same statute that designates Yucca Mountain as the official repository site also requires DOE to search for a second one once the national inventory of commercial spent fuel exceeds 70,000 metric tons, and we are at 90,000 metric tons today.

Modernize the Standards

The U.S. could not site a spent fuel repository today under today's outdated regulations. The U.S. Environmental Protection Agency last refreshed its generic geologic repository standard more than 30 years ago, and it will need to start a new regulatory process to harmonize this standard with modern best practices of countries like Finland and Sweden that have successfully sited and built their own repositories.

This endeavor should start now, so that by the time America is ready to assess prospective deep geologic repository sites, the government has the underlying safety standards in place to characterize them. By starting and finishing this regulatory update, the government will be able to assess the physical suitability and safety of a repository site in communities interested in hosting one.

Reduce, Reuse, Recycle Nuclear Waste

Both parties tend to agree that recycling consumer products and refashioning them into usable goods is one of humanity's better ideas. The same may be true for spent nuclear fuel. A once-through fuel cycle — where uranium fuel pellets are only used in a reactor one time before storage and disposal — works well. But it is not the most sustainable approach. We would be in good company in fostering a domestic spent fuel recycling industry: France's majority government-owned company Orano recycles the country's used nuclear fuel, which in turn generates 10% of French nuclear energy. Recycling used fuel also provides valuable isotopes for medicine and other industries.

Congress can and should establish incentives for companies to improve the viability and economics of new spent fuel recycling methods. It can also continue to support federal research, such as at ARPA-E and DOE, that is supporting similar research and development. But the U.S. will always need a deep geologic repository, even if it one day begins recycling spent fuel at scale.

Communities deserve DOE to make good on its legal responsibility to move and store or dispose of the waste in one or more centralized locations. Policymakers are increasingly recognizing that in order to realize a strong domestic nuclear economy, the country will need to show real progress in moving, storing, disposing of, and perhaps recycling nuclear waste.

Viable, lasting outcomes for nuclear waste policy exist today. Perhaps the political winds are finally converging to achieve them.