Testimony on behalf of the

Nuclear Waste Strategy Coalition (NWSC)

by

Katrina McMurrian, NWSC Executive Director

before the

United States Senate Committee on Environment & Public Works

Hearing on

Hearing to Examine Updating America's Nuclear Waste Management Policy

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NWSC
Nuclear Waste Strategy Coalition

http://www.theNWSC.org

Summary of **Testimony** by **Katrina McMurrian**, **NWSC Executive Director**

- The mission of the Nuclear Waste Strategy Coalition (NWSC) is focused on:
    - **Holding the federal government accountable** for longstanding statutory and contractual obligations to execute a national integrated nuclear waste disposal program that includes the removal, transportation, storage, and essential **permanent geologic disposal of *all* spent nuclear fuel (SNF) and reactor-related wastes** now stranded at numerous operating and shutdown commercial reactor sites in communities across the U.S.;
    - **Protecting electric utility customers**, including those who have received nothing in return for the fees they paid into the federal Nuclear Waste Fund (NWF) *and* those who could be subject to reinstated fees without adequate action to establish a functioning federal repository; and
    - **Securing the necessary leadership and funding** for a successful multi-generational program.
- **Prolonged federal inaction has resulted in a *de facto* national nuclear waste policy of indefinitely stranding SNF** at sites in 35 states, with negative impacts on host communities to those sites, electric utility customers in 42 states who have paid for a disposal program to no avail, and all U.S. taxpayers.
- As Congress considers next steps on SNF policy, the NWSC **calls for action to:**
    - **Reestablish a national integrated nuclear waste disposal program;**
    - **Form a new, independent waste management organization to properly lead the program** (with an immediate interim action by DOE to reestablish an internal, dedicated office); and
    - **Provide sustainable access to the NWF to properly fund the program** (with an interim step of appropriate funding of DOE program priorities via annual appropriations).
- While reprocessing/recycling may reduce waste volume, a geologic repository remains necessary for effective nuclear waste management and facilitates new nuclear endeavors. In addition, questions remain about whether there are cost-effective pathways for reprocessing/recycling.
- We are encouraged about the six states that have signed Memoranda of Understanding with DOE regarding the Nuclear Lifecycle Innovation Campuses that reportedly address waste disposal.
- The NWSC stands ready to collaborate with Congress, the Administration, states, tribes, communities, and all other stakeholders interested in durable, effective solutions for SNF management and disposal.

Testimony by **Katrina McMurrian**, **NWSC Executive Director**

Chairman Capito, Ranking Member Whitehouse, and Members of the Senate Environment and Public Works Committee, thank you for the opportunity to testify on behalf of the Nuclear Waste Strategy Coalition (NWSC or Coalition) at this important *Hearing to Examine Updating America's Nuclear Waste Management Policy*. My name is Katrina McMurrian, and I serve as the NWSC Executive Director.

The NWSC is an ad hoc organization representing the collective interests of member state utility regulators, consumer advocates, attorneys general, and other state officials; Tribal and local government officials; electric utilities with operating and/or shutdown nuclear reactors; and other experts on nuclear waste policy matters. It was formed in 1993 out of frustration with the federal government's lack of progress toward the removal of spent nuclear fuel (SNF)[1] from commercial reactor sites across the U.S. and today remains a member-led, bipartisan, geographically diverse, and purpose-driven organization.

NWSC's mission is focused on the following three areas:

- **Holding the federal government accountable for** the U.S. Department of Energy's (DOE) longstanding statutory and contractual obligations to execute a national integrated nuclear waste disposal program that includes the removal, transportation, storage, and essential **permanent geologic disposal of *all* spent nuclear fuel and reactor-related wastes** now stranded at numerous operating and shutdown commercial reactor sites in communities across the U.S.;
- **Protecting electric utility customers**, including those who have received nothing in return for the fees they paid into the federal Nuclear Waste Fund (NWF) between its inception and the 2014 court-ordered fee suspension *and* those who could be subject to reinstated fees without adequate action to establish a functioning federal repository; and
- **Securing the necessary leadership and funding** for a successful multi-generational disposal program by:

[1] The NWSC uses the terms "spent nuclear fuel" and "used nuclear fuel" interchangeably. While the former was traditionally used in nuclear regulations, "used nuclear fuel" has increasingly become preferred terminology in the nuclear and nuclear waste sectors.

- Reestablishing an internal office in DOE solely responsible for managing the back end of the fuel cycle (as an interim step) and forming a new, independent, single-purpose organization to manage the back end over the long term; and
- Reforming the federal budgetary treatment of the NWF to provide sustainable annual access to the NWF balance and accumulating interest for the intended purpose (waste disposal), with appropriations in the interim for such DOE actions necessary to support a viable waste disposal program.

More than four decades after enactment of the Nuclear Waste Policy Act of 1982 (NWPA), more than 25 years after DOE was required to begin accepting commercial SNF, and more than three decades after the NWSC's formation, the federal government still has not implemented the integrated nuclear waste disposal program envisioned by Congress and funded by electric utility customers. However, we are optimistic that Congress and DOE are presently engaging on these issues and presenting opportunities for meaningful action. Specifically, the NWSC is encouraged about this Committee's interest *and* about the six states that have signed Memoranda of Understanding (MOUs) with DOE regarding the Nuclear Lifecycle Innovation Campuses (NLICs or Campuses) that reportedly address waste disposal in some manner. The potential for additional permanent geologic disposal options through development of sustainable partnerships between the federal government and host states and communities is monumental, and we look forward to supporting state and community plans that facilitate NWSC mission and goals.

Call to Action

The NWSC acknowledges that, by all credible accounts, SNF is safely stored at nuclear plant sites in the U.S. today. However, indefinite on-site storage was never intended to be the end goal of national policy. Congress enacted a disposal program. DOE signed contracts promising disposal services. Electric utility customers paid fees into the NWF for removal, transportation, storage (i.e., monitored retrievable storage or consolidated interim storage), and disposal for commercial SNF and other reactor-related wastes. Because these materials remain stranded at both operating and shutdown reactor sites throughout the country at a tremendous and avoidable cost, we renew our Call to Action[2] herein.

[2] Please refer to the attached NWSC Call to Action for associated facts and statistics with respect to negative impacts resulting from the federal government's *de facto* national policy of inaction.

The consequences of prolonged federal inaction are significant. Host communities continue to bear responsibilities they expected to be temporary. Shutdown reactor sites remain responsible for storing fuel long after electricity generation has ceased. Electric utility customers have paid billions of dollars for federal disposal services that never materialized. Finally, U.S. taxpayers—who already paid billions of dollars via the federal Judgment Fund for damages payments to electric utilities for the federal government's "partial breach" of contract—continue to absorb costs of approximately $2 million per day.

Thus, as Congress considers next steps on SNF policy, the NWSC **calls for action to:**

- **Reestablish a national integrated nuclear waste disposal program that includes the removal, transportation, storage, and <u>essential permanent geologic disposal</u> of SNF and other reactor-related wastes;**
- **Form a new, independent waste management organization to properly lead the program** (with an immediate interim action by the Department of Energy (DOE) to reestablish an internal, dedicated office); and
- **Provide sustainable access to the Nuclear Waste Fund (NWF) to properly fund the program** (with an interim step of appropriate funding of DOE program priorities via annual appropriations).

The following sections expand upon these three key points.

<u>Reestablishment of a National Integrated Nuclear Waste Disposal Program</u>

The NWSC calls for the reestablishment of a national integrated nuclear waste disposal program that includes the removal, transportation, storage, and permanent geologic disposal of SNF and other reactor-related wastes. These are essential, interconnected components of a single federal responsibility, and no single element can succeed in isolation. SNF removal and transportation require destinations prepared to accept waste, whether on an interim or permanent basis. Permanent disposal plans have seemingly proven to be a prerequisite for proposed storage facilities, and transportation is also necessary. Disposal requires extensive infrastructure related to both transportation and some form of interim storage.

Congress and DOE should consider the following about the key components of an integrated waste disposal program (removal, transportation, storage, and disposal)—and about the potential role for reprocessing/recycling—to develop a coherent and successful national strategy:

Removal & Transportation of SNF & Other Reactor-Related Wastes

Almost 28 years beyond the date that DOE was to begin accepting waste, the NWSC reminds the federal government of its longstanding obligation to remove and take title to SNF and other reactor-related wastes from reactor sites. We acknowledge that recent actions—the President's May 2025 Executive Order on *Reinvigorating the Nuclear Industrial Base,*[3] bipartisan Congressional legislation and funding, and the NLIC initiative for which DOE is prioritizing waste disposal—have created momentum that hopefully leads to more timely removal of SNF from both operating and shutdown plant sites across the U.S. To best prepare for removal, DOE needs sufficient and sustained funding to assemble a team with the requisite expertise. When DOE is ready to begin SNF acceptance, the NWSC recommends that DOE use the authority provided by the Standard Contract[4] to prioritize SNF from shutdown sites with no operating reactors.

Transportation is another integral component of a successful integrated waste disposal program that accompanies the removal component. To facilitate transportation readiness, the NWSC supports the following DOE actions, which require continued support and funding by Congress:

- Continuation and expansion of DOE's constructive transportation work, including the assessment of infrastructure needs at shutdown sites; the high burnup spent fuel research cask project; and the testing, certification, and procurement of railcars, licensed transportation containers, and components;
- Increased financial and technical assistance to tribal, state, and local governments for transportation-related emergency preparedness training and activities;
- Continued collaboration and stakeholder engagement by DOE on transportation matters with tribal, state, and local governments; and

[3] Executive Order 14302, *Reinvigorating the Nuclear Industrial Base* (May 23, 2025), https://www.whitehouse.gov/presidential-actions/2025/05/reinvigorating-the-nuclear-industrial-base/.
[4] 10 C.F.R. § 961.11, Art. VI.B.2(a), *Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste,* 48 Fed. Reg. 16,599 (April 18, 1983).

- Coordination by DOE's Offices of Nuclear Energy and Environmental Management with the Navy, the Nuclear Regulatory Commission (NRC), and the Environmental Protection Agency (EPA) to ensure that disposal plans and applicable regulations and standards address *all* waste forms that require disposal.

Storage of SNF & Other Reactor-Related Wastes

Particularly for communities hosting shutdown sites, consolidated storage offers potential benefits as part of an integrated waste disposal program, such as:

- Demonstration of progress in SNF management by beginning to fulfill the federal government's obligation to remove SNF from nuclear power reactor sites;
- Reduction of federal government liabilities to utilities for extended SNF storage;
- Elimination of SNF at shutdown sites, allowing complete decommissioning & land reuse;
- Development and exercise of the national SNF transportation infrastructure;
- Preclusion or minimization of the need to begin or expand SNF storage at reactor sites; and
- Provision of a buffer and staging area for other facilities, such as a geologic repository.

While beneficial, storage is not a substitute for necessary permanent disposal. Multiple private efforts to advance storage without a meaningful, concomitant federal effort on a repository have proven ineffective. Thus, storage should support an integrated waste disposal program as a valuable component, rather than as a replacement destination with an "interim" label.

Permanent Geologic Disposal

Permanent disposal in a deep geologic repository, which is recommended by international experts, was established as the national solution for SNF and other reactor-related wastes under the NWPA. Despite challenges to proposed repository sites or suggestions that storage facilities or reprocessing/recycling technologies serve as viable substitutes, permanent geologic disposal is an essential component of an integrated nuclear waste disposal program. Without it, progress on other

components is inhibited. Permanent geologic disposal is foundational to effective federal nuclear waste policy approaches.

The NWSC has long supported the national nuclear waste management program established by the NWPA in 1982 and amended in 1987 to designate the nation's first repository, but that federal program was terminated in 2010 by executive branch action following extensive opposition by the State of Nevada and its Congressional leaders. This resulted in a *de facto* policy of stranding SNF at sites in 35 states indefinitely. We remain supportive of NWPA provisions pertaining to the first and second repositories but recognize ongoing political challenges with the first. Thus, DOE should immediately advance a second repository in accordance with existing law and in coordination with its voluntary NLIC process for which six states have recently signed MOUs. That presents an opportunity for near-term progress on a repository with a willing state host (a key missing element in the past) and without violating Congressional intent for the first repository.

Given the importance of a repository for a successful waste disposal program and historical challenges in getting nuclear-related sites across the finish line, the NWSC supports increasing the range of potential pathways and locations for siting deep geologic disposal. Such flexibility should increase the likelihood that technically sound and publicly acceptable solutions can emerge, providing the best opportunity for accomplishing the NWSC's important mission. Accordingly, the NWSC commends DOE and the Administration for pursuing engagement with interested states through the NLIC initiative and generally supports such mechanisms for willing states—along with Tribal nations and local communities—to explore participation in future waste management solutions.

Another federal action that would support an integrated permanent disposal program is the development of *generic* repository standards, and it should be initiated immediately. The process is in existing law and calls for coordinated effort by the EPA and the NRC to develop the necessary standards, which need to be updated. Updated generic standards would create greater regulatory certainty, facilitate future siting efforts, improve transparency for states, tribes, communities, regulators, and policymakers; and hopefully bolster public confidence. In 2023, an American Nuclear

Society (ANS) Special Committee proposed peer-reviewed generic repository standards to facilitate the necessary next steps by the EPA and NRC.[5]

Finally, while new nuclear investment is not part of the NWSC mission, it is worth noting that a geologic repository also facilitates such nuclear endeavors to include advanced reactors and reprocessing/recycling. An integrated waste disposal program that includes a repository is the best answer to persistent "what about the waste" questions and aligns with enduring scientific guidance.

Potential for Reprocessing/Recycling

In recent years, reprocessing and/or recycling of SNF have re-emerged as part of the national dialogue about the nuclear fuel cycle and nuclear waste management. Both executive and legislative branches in Washington, D.C. and many state capitals appear interested in reprocessing/recycling to support innovation, grow the nuclear sector, and reduce waste volumes. We understand that many of the NLIC applications and the recently signed MOUs reflect a similar interest.

Especially given these developments, the NWSC recognizes that a national integrated nuclear waste disposal program may include a role for reprocessing/recycling in the future and notes:

- Reprocessing/recycling of SNF may reduce the volume of waste but will not eliminate *all* waste or the associated need for one or more permanent geologic repositories.
- Not all SNF and high-level radioactive waste are suitable candidates for reprocessing/recycling.
- Existing SNF inventories are substantial. Transportation requirements, infrastructure limitations, and economics suggest that significant quantities of material are likely to remain outside any future recycling system.
- Reprocessing/recycling create additional waste streams that may not have an established disposal path.
- France has an established commercial SNF recycling program, and it has not eliminated the need for permanent disposal. France is developing the Cigéo deep

[5] American Nuclear Society (ANS) Special Committee on Generic Standards for Disposal of High-Level Radioactive Waste: *Recommendations on Postclosure Aspects of Generic Standards for the Permanent Disposal of Spent Nuclear Fuel and High-Level and Transuranic Radioactive Wastes in the United States*, August 2023, https://www.ans.org/file/12339/ANS+Disposal+Standards+Report+final+booklet-online.pdf.

geologic repository for vitrified high-level waste and other long-lived radioactive wastes, including wastes resulting from reprocessing.[6] Additionally, other countries that are working on reprocessing/recycling are also working on repositories.

- Questions remain about whether there are pathways for reprocessing/recycling—at least with respect to SNF from the current generation of nuclear reactors—to prove more cost-effective than direct disposal in a geologic repository.

Recycling and disposal are complementary, not competing, strategies. If recycling succeeds, a repository remains necessary. If it only partially succeeds, a repository remains necessary. If it never materializes, a repository remains necessary. Thus, Congress should ensure that repository development advances in parallel with any effort to evaluate, or to proceed with, reprocessing/recycling options.

To facilitate a comprehensive strategy that connects the core functions (removal, transportation, storage, and disposal), Congress should require DOE to develop and publish an Integrated Nuclear Waste Disposal Program Plan. The plan should clearly identify short-term and long-term milestones, actions that can be undertaken under existing authority, actions requiring Congressional authorization, expected funding needs, and a roadmap for the timely removal of all commercial SNF and reactor-related wastes from all operating and shutdown reactor sites.

Governance: Independent Waste Management Organization & Separate DOE Office

The NWSC urges the immediate reestablishment of a dedicated DOE office reporting directly to the Secretary of Energy and responsible exclusively for the management and disposal of SNF and other reactor-related wastes. Such an office would provide accountability, continuity, and a clear organizational focal point for states, tribes, communities, utilities, and other stakeholders. This would be the first critical step to facilitate the orderly transition of responsibilities outside the agency.

[6] Andra: *Cigéo Update: An Overview of France's Deep Geological Repository*, February 2026, https://international.andra.fr/cigeo-update-overview-frances-deep-geological-repository; and IAEA Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management: *National Report of France for the 8th Review Meeting*, August 2024, https://www.iaea.org/sites/default/files/2025-08/france-national-report-8rm-english.pdf.

Over the longer term, the NWSC supports creation of a new independent, single-purpose waste management organization, as recommended by the Blue Ribbon Commission on America's Nuclear Future.[7] A multi-generational mission requires a multi-generational institution with governance structures designed for long-term continuity. Based on lessons learned from repeated program disruptions, changing priorities, and organizational changes, we urge consideration of the government-owned corporation model[8] or models that offer greater independence[9] instead of government agencies with politically appointed leadership and oversight boards that lack the long-term continuity across administrations that is needed to make progress.

Funding: Sustainable NWF Access, Appropriations, and No Need for Fee Restart

The NWSC calls upon Congress to reform the federal budgetary treatment of the NWF such that sustainable annual access is provided to the funds—initially to the annual interest—to support the development and management of a multi-generational, national integrated nuclear waste disposal program. Congress can and should access the $51 billion NWF balance for a waste disposal program in the same manner it has navigated around budgetary complexities to access similar trust funds (e.g., Land and Water Conservation Fund, Harbor Maintenance Trust Fund) in the past. Additionally, Congress should ensure the NWF balance and rapidly accumulating interest are used as intended to provide for disposal of all the nation's nuclear waste. Simply, NWF resources must remain dedicated to activities directly related to fulfillment of federal obligations concerning SNF, other reactor-related wastes, and other high-level radioactive waste.

Appropriations

We also note that Congress has appropriated relatively small amounts from the NWF in the past several years. With a willingness to support meaningful progress and a DOE Integrated Nuclear Waste Disposal Program Plan in hand (as recommended herein), Congress should be able to access larger NWF amounts to fund necessary multi-generational disposal program expenses over the program's decades-long duration. We are ready to work with the Committee and Congressional appropriators on such an effort.

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[7] Blue Ribbon Commission on America's Nuclear Future. *Report to the Secretary of Energy*. Washington, DC: U.S. Department of Energy, January 2012, https://www.energy.gov/ne/downloads/blue-ribbon-commission-americas-nuclear-future-report-secretary-energy.

[8] *U.S. Nuclear Fuel Management Corporation Establishment Act of 2010*, S. 3322/ H.R. 5979, 111th Cong. (2010), https://www.congress.gov/111/bills/s3322/BILLS-111s3322is.pdf.

[9] Barrett, Lake, et al. *The Path Forward for Nuclear Waste in the U.S.: A Bipartisan Solution to the Nuclear Waste Problem,* January 2026, https://sppga.ubc.ca/wp-content/uploads/sites/5/2026/01/Path-Forward.2026.pdf.

No Need for Fee Restart

The NWSC opposes any proposals to restart collection of NWF fees at this time. Existing balances in the NWF and accumulating interest provide substantial resources. Absent federal performance and demonstration of the need for additional fees, no new nuclear waste fee collection is necessary.

Specifically, the following two steps must precede any consideration of renewed fees:

- Meaningful federal government performance to begin meeting its statutory and contractual obligations; *and*
- Production of a valid Total System Life Cycle Cost (TSLCC) estimate for DOE's integrated nuclear waste disposal program.

Finally, while other parts of the nuclear fuel cycle are important, the NWSC strongly recommends that electric utility customers not be considered as a source of funding to support any program elements that are not directly linked to achieving an integrated nuclear waste disposal program. The central challenge facing policymakers is not collection of additional money; instead, it is creating reliable access to resources already collected from electric utility customers for the purpose of implementing a disposal program.

Conclusion

More than 40 years after the NWPA's passage *and* more than 30 years after NWSC's formation, the basic facts remain unchanged. The waste is safely but indefinitely stored, and it should be removed per statutory and contractual obligations in return for electric utility customer payments. Although a portion of the fees were spent on the waste disposal program, no permanent repository exists, nor is one under development. Therefore, NWSC respectfully requests Congress and the Administration work together to establish the leadership, funding, and disposal pathways necessary to fulfill the federal government's obligations. While changes in law may ultimately be necessary, Congress can and should make sure that DOE receives sustained funding to support a meaningful integrated waste disposal program to support both existing and new nuclear.

The NWSC thanks the Committee for this opportunity and stands ready to collaborate with Congress, the Administration, states, tribes, communities, and all other stakeholders interested in durable and effective solutions for the management and ultimate disposal of the nation's SNF.

NWSC Nuclear Waste Strategy Coalition

CALL TO ACTION

As Congress considers next steps on spent nuclear fuel (SNF)[i] policy, the Nuclear Waste Strategy Coalition (NWSC) calls for action to:

- **Reestablish a national integrated nuclear waste disposal program that includes the removal, transportation, storage, and essential permanent geologic disposal of SNF and other reactor-related wastes;**
- **Form a new, independent waste management organization to properly lead the program** (with an immediate interim action by the Department of Energy (DOE) to reestablish an internal, dedicated office); and
- **Provide sustainable access to the Nuclear Waste Fund (NWF) to properly fund the program** (with an interim step of appropriate funding of DOE program priorities via annual appropriations); and

While reprocessing/recycling may reduce waste volume, a repository remains necessary for effective nuclear waste management and facilitates new nuclear endeavors.

The Action

Congress must reestablish a national integrated nuclear waste management program by forming a new, single-purpose waste management organization independent of DOE and *simultaneously* reforming the NWF's federal budgetary treatment to provide sustainable annual access to the $51 billion balance and accumulating interest for program implementation.[ii] *No new nuclear waste fee collection is necessary at this time.*

Federal action—by Congress and DOE—is needed now to avoid permanently stranding this material in host states and communities; to address the negative economic impacts to states, communities, and taxpayers; and to enable the federal government to meet its statutory and contractual obligations to electric utility customers in accordance with the Nuclear Waste Policy Act of 1982. Further delay is unacceptable.

The Facts

- The national nuclear waste management program established in 1982 was terminated more than a decade ago by executive action, resulting in a *de facto* policy of stranding SNF at sites in 35 states indefinitely.
- Subsequently, Congress has failed to provide meaningful direction or funding[iii] for *that* program or any national integrated nuclear waste management program for the removal, transportation, storage, and permanent disposal of SNF, other reactor-related wastes, and high-level radioactive waste (HLW).
- Since 1983, approximately $61 billion has been credited to the federal NWF (including nearly $22 billion collected from electric utility customers and more than $37 billion in interest that continues to accumulate at a rate of approximately $1.9 billion a year). The approximate $51 billion balance sits stranded in U.S. Treasury Securities and unappropriated for its intended purpose.[iv]
- Even with reprocessing/recycling, permanent disposal is still necessary for existing and future SNF, other reactor-related wastes, and HLW.[v] Reprocessing and recycling will not eliminate all nuclear waste.

The Impacts

These facts have resulted in a ***de facto* national policy of inaction that negatively impacts the following:**

- **Communities** in **35 states**[vi] are hosting—indefinitely and without consent—more than 90,000 metric tons[vii] of commercial SNF, primarily at operating and decommissioned reactor sites, impeding potential economic development and other property reuse at shutdown sites.
- **U.S. Taxpayers** in **all 50 states** have paid more than $12.2 billion due to utility lawsuits against DOE for damages for partial breach of contract and are expected to pay an additional $38.6-44.3 billion in the future.[viii] (This taxpayer liability is growing by approximately $2 million per day, money that could be used for other purposes.)
- **Electric Utility Customers** in **42 states** paid billions of dollars into the federal NWF that is not being used for its intended purpose to support a national integrated nuclear waste management program including a federal repository.

[i] The NWSC uses the terms "spent nuclear fuel" and "used nuclear fuel" interchangeably. While the former was traditionally used in nuclear regulations, "used nuclear fuel" has increasingly become preferred terminology in the nuclear and nuclear waste sectors.

[ii] Multiple Congressional bills have proposed governance and funding reforms, notably including the *United States Nuclear Fuel Management Corporation Establishment Act of 2010*, S.3322 (May 2010) and H.R.5979 (July 2010), 111th Congress (https://www.congress.gov/111/bills/s3322/BILLS-111s3322is.pdf). Also, *The Path Forward for Nuclear Waste in the U.S.: A Bipartisan Solution to the Nuclear Waste Problem*, by Lake Barrett et al. in January 2026, proposed a governance model with greater independence from government.

[iii] With passage of the *Consolidated Appropriations Act for Fiscal Year 2021* (https://www.govinfo.gov/content/pkg/BILLS-116hr133enr/pdf/BILLS-116hr133enr.pdf), the 116th Congress appropriated $27.5 million to the U.S. Department of Energy (DOE) for "expenses necessary for nuclear waste disposal activities to carry out the purposes of the Nuclear Waste Policy Act of 1982, Public Law 97–425, as amended, including interim storage activities," in addition to continued funding for other relevant DOE programs (Integrated Waste Management Systems and Used Nuclear Fuel Disposition R&D). Similar appropriations have been made in the years following; however, the funding is not sufficient to reestablish a meaningful integrated nuclear waste management program.

[iv] U.S. Department of Energy: *Nuclear Waste Fund (NWF) Annual Financial Report Summary: FY2025 and Cumulative* (https://www.energy.gov/media/354057).

[v] France has an established commercial SNF recycling program, and it has *not* eliminated the need for permanent disposal. France is developing the Cigéo deep geologic repository for vitrified high-level waste and other long-lived radioactive wastes, including wastes resulting from reprocessing. See Andra: *Cigéo Update: An Overview of France's Deep Geological Repository*, February 2026 (https://international.andra.fr/cigeo-update-overview-frances-deep-geological-repository) and IAEA Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management: *National Report of France for the 8th Review Meeting*, August 2024 (https://www.iaea.org/sites/default/files/2025-08/france-national-report-8rm-english.pdf).

[vi] U.S. Nuclear Regulatory Commission Map: *Licensed and Operating Independent Spent Fuel Storage Installations by State*, January 2025 (https://www.nrc.gov/images/reading-rm/doc-collections/maps/isfsi-facility-types.png). While the legend references 37 states with at least one ISFSI, the Private Fuel Storage facility in Utah and the Holtec Hi-Store facility in New Mexico were both licensed only and never built or operated to store SNF. Thus, we reference the 35 states that currently store SNF (or fuel debris).

[vii] U.S Department of Energy Office of Nuclear Energy: *5 Fast Facts about Spent Nuclear Fuel,* October 3, 2022 (https://www.energy.gov/ne/articles/5-fast-facts-about-spent-nuclear-fuel).

[viii] U.S. Department of Energy Office of Inspector General Audit Report: *Department of Energy Nuclear Waste Fund's Fiscal Year 2025 Financial Statement Audit*, November 2025 (https://www.energy.gov/sites/default/files/2025-11/DOE-OIG-26-02.pdf).