

## **BACKGROUND INFORMATION FOR MARCH 6, 2023 FEDERAL NUCLEAR WASTE POLICY COMMITTEE**

### **VERMONT NUCLEAR DECOMMISSIONING CITIZENS ADVISORY PANEL (VT-NDCAP)**

US nuclear waste generation started in the 1940s following World War II weapons development and research on medical uses of radiation. Nuclear powered electrical generation began in the 1950s, and construction of nuclear reactors by private corporations increased significantly after the Atomic Energy Act of 1954 was passed, increasing Federal support for “the development and application of civilian uses of atomic energy.” At the time, and until around the mid-1970s, it was generally assumed that Spent Nuclear Fuel (SNF) would be reprocessed and re-used.

In 1977, the Carter Administration banned reprocessing of commercial spent nuclear fuel, mainly due to proliferation concerns.

In January 1983, the Nuclear Waste Policy Act of 1982 (NWPAA) was enacted by Congress tasking the US Government with designating sites for permanent nuclear waste storage within the next 15 years. The NWPAA established a fee of 1 mill (1/10 cent) per kilowatt-hour for nuclear generated electricity to be paid into a Nuclear Waste Fund (NWF) to ensure that the full costs of the Federal Government's disposal program will be fully recovered from the generators of such materials. It also directed the US Department of Energy (DOE) to enter contracts, (aka: “standard contracts”), with title holders of SNF and High Radioactive Level Waste (HLW). Nuclear Plant Operators were mandated to enter such contracts and pay fees into the NWF to obtain or renew their operating licenses. In return the DOE was to construct a permanent waste storage facility and begin accepting SNF / HLW by January 31, 1998.

In 1987 the NWPAA was amended designating Yucca Mountain as the selected single site for US civilian SNF & HLW.

By 1993 several state governments recognized and expressed concern over DOE's inability to meet the NWPAA obligations for accepting nuclear waste by the 1998 deadline. In 1995 the DOE attempted a legal interpretation of the NWPAA such that without a repository constructed, those obligations were not legally required to be met. Several state governments filed suit and in 1997 the DC Circuit Court of Appeals ruled against the DOE and reasserted the obligation to accept nuclear waste by the 1998 deadline.

Since 2000, lawsuits against the DOE for breach of the “standard contracts” (to begin accepting nuclear utilities' SNF / HLW by the January 1998 deadline) have been repeatedly filed, and the courts have ordered the Federal government to pay damages incurred after the 1998 deadline. These damages are paid from the general US Judgement Fund (not the NWF).

In 2002, Yucca Mountain was officially recommended by the Bush Administration for development of a nuclear waste repository. The State of Nevada vetoed the proposal, and that veto was overturned by the House and Senate, as allowed by the NWPAA. In 2010 the Yucca Mountain site was rejected by the Obama Administration and the project's federal funding was cut.

In 2010, the Blue Ribbon Commission (BRC) on America's Nuclear Future was initiated to evaluate alternative options for nuclear waste disposal. In 2012, the BRC issued a final report that included 7 recommendations for developing a comprehensive strategy to pursue an integrated nuclear waste management program, explore reprocessing of nuclear fuel, and the timely development, through a consent-based siting process, of one or more permanent deep geological facilities for the safe disposal of spent fuel and high-level nuclear waste.

In 2014, the courts ordered the DOE to stop collecting the fees (amounting to about \$750 million per year) from nuclear power generators that were intended to cover funding of a permanent repository, as it was concluded the DOE failed to provide a legal basis for their continued collection. (For reference, the 2021 balance of NWF was approximately \$44.3 Billion). Although SNF /HLW continues to be generated at nuclear reactors nationwide, for the past nine years no funds have been collected to pay for long-term storage. Additionally, NWPA's limitations on use of the Nuclear Waste Fund have been heavily contested.

In April 2016, Interim Storage Partners applied for a license for a CISF (Consolidated Interim Storage Facility) in Andrews, Texas. That license was approved by the NRC in Sept 2021. In March 2017, Holtec applied for a license for a CISF in Lea County, New Mexico. That license is still under NRC review. On January 26, 2023, the NRC announced that it would complete its technical review of Holtec's license application by the end of March. Both entities are currently engaged with legal challenges from various stakeholders. While initially supportive of both license applications, the States of Texas and New Mexico now oppose both proposed facilities.

In 2017 through 2020, the Trump Administration re-incorporated funding in support of Yucca Mountain, which was repeatedly blocked by Congress. In late 2020, the Trump Administration reversed support for the project. Due to lack of Congressional funding, the NRC has not completed its environmental review of Yucca Mountain.

In 2021 through the present, as recommended in the Blue Ribbon Commission findings, the DOE recently issued a Request For Information (RFI) regarding consent-based siting of Federal interim storage facilities to all interested stakeholders and a related Funding Opportunity Announcement (FOA) intended to reinvigorate stalled efforts addressing nuclear waste storage. The DOE has not initiated plans to site a permanent geologic facility aside from Yucca Mountain, raising concerns about the 'interim' status of any facility.

A bipartisan House 'Spent Fuel Nuclear Solutions Caucus' seeking to address the challenges associated with stranded commercial spent fuel across the country was created in 2021. Multiple bills related to the NWPA were drafted and proposed in the 115<sup>th</sup>, 116<sup>th</sup> and 117<sup>th</sup> congressional sessions, but nothing of significance has been passed, nor has there been progress with resolving long term solutions for SNF and HLW.

**We are requesting** that you, our speakers, focus upon, and be prepared for questions regarding:

1. Any additional details (not currently outlined in this background summary) from a historical perspective you feel may benefit our sub-committee and attending members of the public for this discussion.
2. A synopsis of the current state of any relevant legal proceedings and/or legislative action associated with the NWPA you can share with us including DOE funding of NRC's approval of interim storage in NM and TX under NWPA now.
3. Whether any of the several bills related to NWPA that have been proposed in recent Congressional sessions appear to have a better chance of becoming law than the rest?
4. Your professional opinion and expectations for what could and should happen as a solution regarding Federal nuclear waste policy.