

Comments on the **Draft Blueprint for Consideration of Advanced Nuclear Technologies**, by NYSERDA.

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**The United States Nuclear Waste Technical Review Board** released a report in February of this year that addresses important considerations related to future management of commercial Spent Nuclear Fuel.

In the US commercial Spent Nuclear Fuel or SNF is stored at more than 70 sites and continues to be generated at a rate of more than 2200 metric tons per year. Much of this inventory has been stored inside large, welded canisters known as dual purpose canisters or DPCs that were designed for interim storage and transportation but NOT for geologic disposal.

By 2080 10,000 dry storage casks may be discharged from spent fuel pools at nuclear plants to dry storage.

A Key problem looms because these casks have not addressed criticality. Preventing criticality might require smaller capacity casks to ensure that the SNF remains subcritical.

**UNITED STATES NUCLEAR WASTE TECHNICAL REVIEW BOARD**

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For Immediate Release External Affairs

**U.S. NWTRB Releases Report on Canisters Containing Spent Nuclear Fuel from Commercial Nuclear Reactors**

On February 29, 2024, the U.S. Nuclear Waste Technical Review Board (NWTRB) issued a new report to the U.S. Congress and the Secretary of Energy titled **Evaluation of The U.S. Department of Energy Research and Development Activities on the Disposition of Commercial Spent Nuclear Fuel in Dual-Purpose Canisters.**

In the US, commercial SNF is stored at more than 70 sites and continues to be generated at a rate of more than 2,200 metric tons per year. Much of the SNF Inventory has been stored inside large, welded canisters known as dual- purpose canisters or **DPCs**. The canisters are located at Nuclear Power Plant sites. **The canisters or DPCs were designed for interim storage and transportation, but NOT for geologic disposal.**

**10,000 dry storage casks are expected by 2080 when all SNF casks are discharged from spent fuel pools at nuclear plants to dry storage.**

**Given the difference in criticality safety requirements for storage and transportation, nuclear utilities may have to repackage some SNF from large dry-storage casks into different, possibly smaller capacity, casks prior to transportation to ensure the SNF remains subcritical.**

**The Board examined 3 options:**

- 1. Storing SNF at ISFSIs indefinitely with none transported to a repository or consolidated storage facility.**

2. **Repackaging in smaller canisters prior to disposal in a geologic repository.**
3. **Direct Disposal of SNF in DPCs in a repository.**

**The Board recommends:**

**Greater efforts on comprehensive analysis to address critical issues so decision makers are better informed in making important decisions.**

**10,000 dry storage casks are expected by 2080 when all SNF casks are discharged from spent fuel pools at nuclear plants to Dry Storage.**