STORAGE

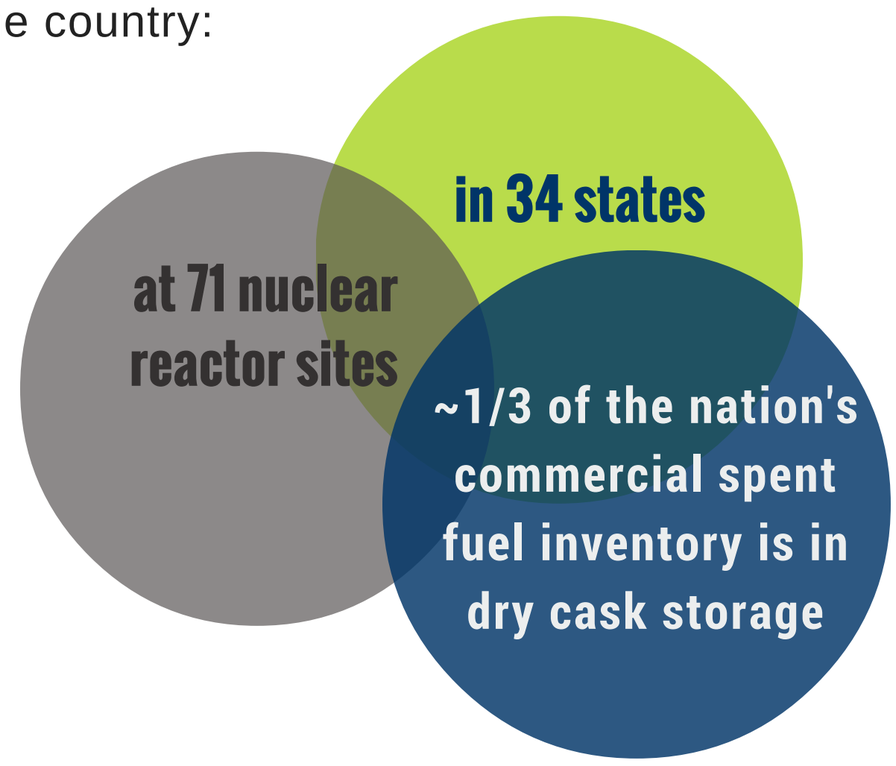
WET STORAGE AT REACTOR SITES

When spent nuclear fuel is removed from the reactor, it is transferred to a water-filled storage pool inside or adjacent to the reactor building. Immersion in water cools the fuel and shields personnel from radiation. The spent fuel remains in the pool typically for at least 5 years. As the fuel cools and the pools fill up with additional spent fuel from continued electricity generation, the fuel can be moved to dry cask storage inside the power plant's protected area.

Photo courtesy of the Nuclear Regulatory Commission .

DRY CASK STORAGE

Dry cask storage is licensed at sites across the country:



Casks are large, protective containers--typically made of steel or concrete--that are either welded or bolted closed. Depending on the design, the casks can be stored in a vertical or horizontal orientation, either above ground on a concrete pad, or below ground.

THE NEED FOR CONSOLIDATED INTERIM STORAGE

Developing a consolidated interim storage capability is an important component of the Department's planned integrated waste management system. Consolidated interim storage facilities would provide several specific benefits to the waste management system as a whole. In particular, it would:

- allow for the permanent removal of spent nuclear fuel from shutdown reactor sites
- allow the federal government to begin meeting its contractual waste management commitments
- provide crucial flexibility for the overall nuclear waste management system, including ability to re-package waste as needed for permanent disposal
- provide useful learning and experience, including R&D opportunities and lessons learned in siting, design, construction, and operations
- build confidence with stakeholders and the public by demonstrating a consent-based approach

Photo courtesy of Sandia National Laboratories.

U.S. DEPARTMENT OF ENERGY

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