



# **HI-STORE CISF:** ***A Consolidated Interim Storage Facility for Used Nuclear Fuel in Southeast New Mexico***

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# Topics

- About Holtec International
- What is the Issue?
- Nuclear fuel and How it is Stored
- Consolidated Interim Storage
- HI-STORE: A Consolidated Interim Storage Facility for Used Nuclear Fuel & High Level Waste

# About Holtec International

- A vertically integrated turnkey supplier of goods and services to the power generation industry
- Established in 1986
- Orders booked for future deliveries: 5.0 Billion USD +
- No history of long-term debt
- Highest industrial credit rating [D&B-1R2]
- Financially strong with self-financed R&D
- Core Business Activities
  - ✓ Safe & Secure Used Fuel Storage
  - ✓ Heat Transfer Equipment
  - ✓ SMR-160
  - ✓ Decommissioning of Retired Nuclear Plants
  - ✓ Consolidated Interim Storage

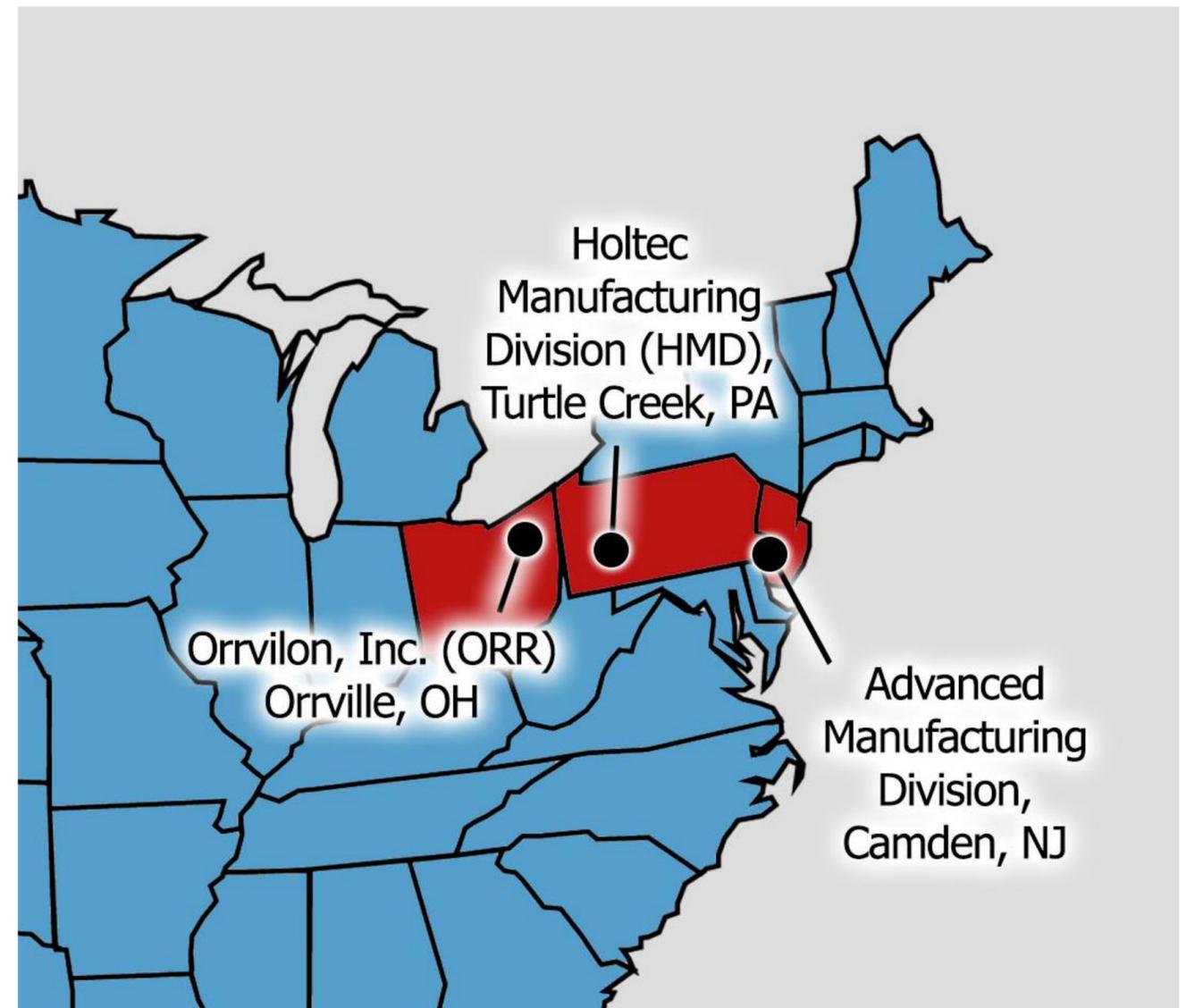


# Holtec's Manufacturing Capabilities

## Three Major U.S. Manufacturing Plants



- Holtec Manufacturing Division (HMD)
  - Turtle Creek, PA
- Orrvilon, Inc. (ORR)
  - Orrville, Ohio
- Advanced Manufacturing Division (AMD)
  - Camden, NJ
- 1.4M ft<sup>2</sup> of Total Shop Space

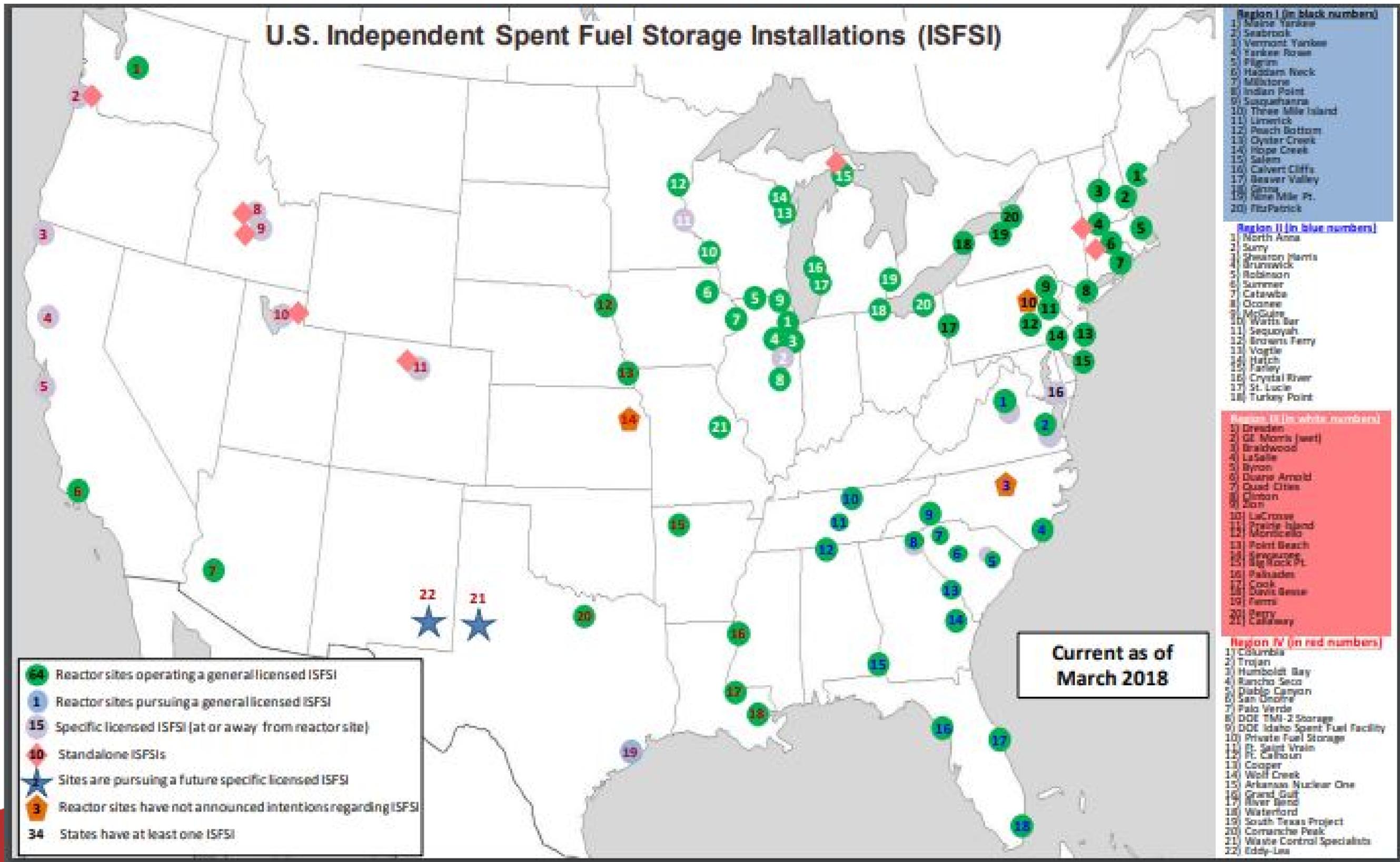


# What is the Issue?

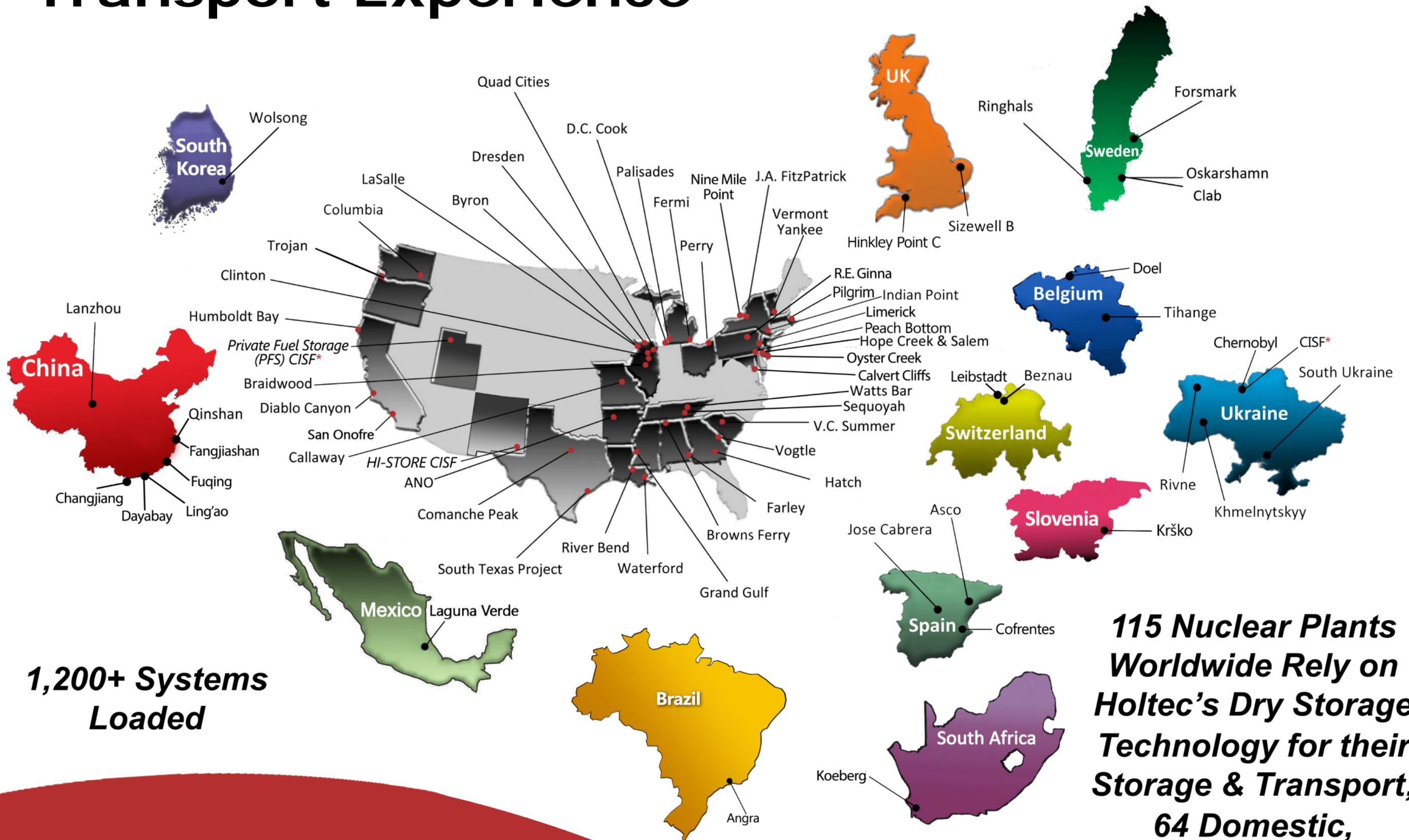
- DOE has failed to fulfill its obligation under the 1982 Nuclear Waste Policy Act
- Results:
  - ✓ DOE has paid more than \$6.2 billion to Utilities for failing to fulfill its obligations, this amount grows by \$300M - \$500M each year, and even if DOE manages to start disposing of waste in the next 10 years, it could still be on the hook for nearly \$24 billion in additional liability
  - ✓ This is tax-payer \$ from the Judgment Fund, not the Nuclear Waste Fund
  - ✓ Commercial spent fuel continues to be safely stored at reactor sites around the country with regulation and oversight by the NRC



# Storage Locations in the US



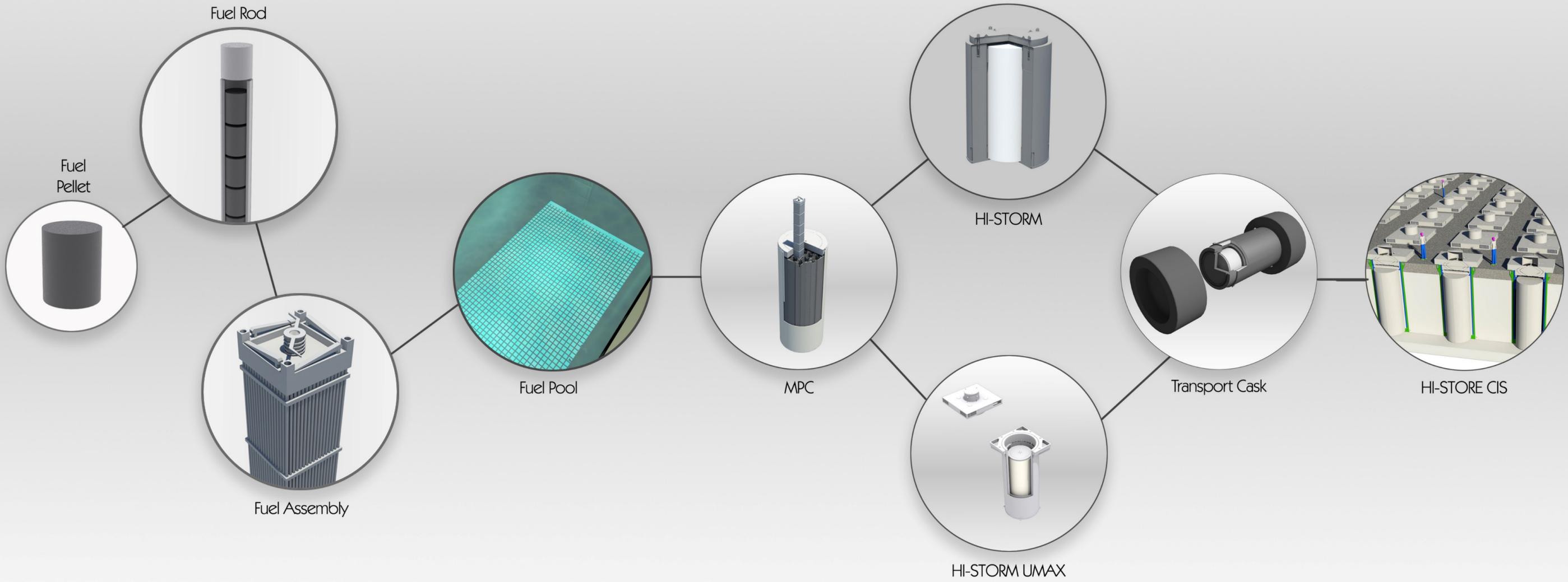
# Holtec's Worldwide Dry Storage and Transport Experience



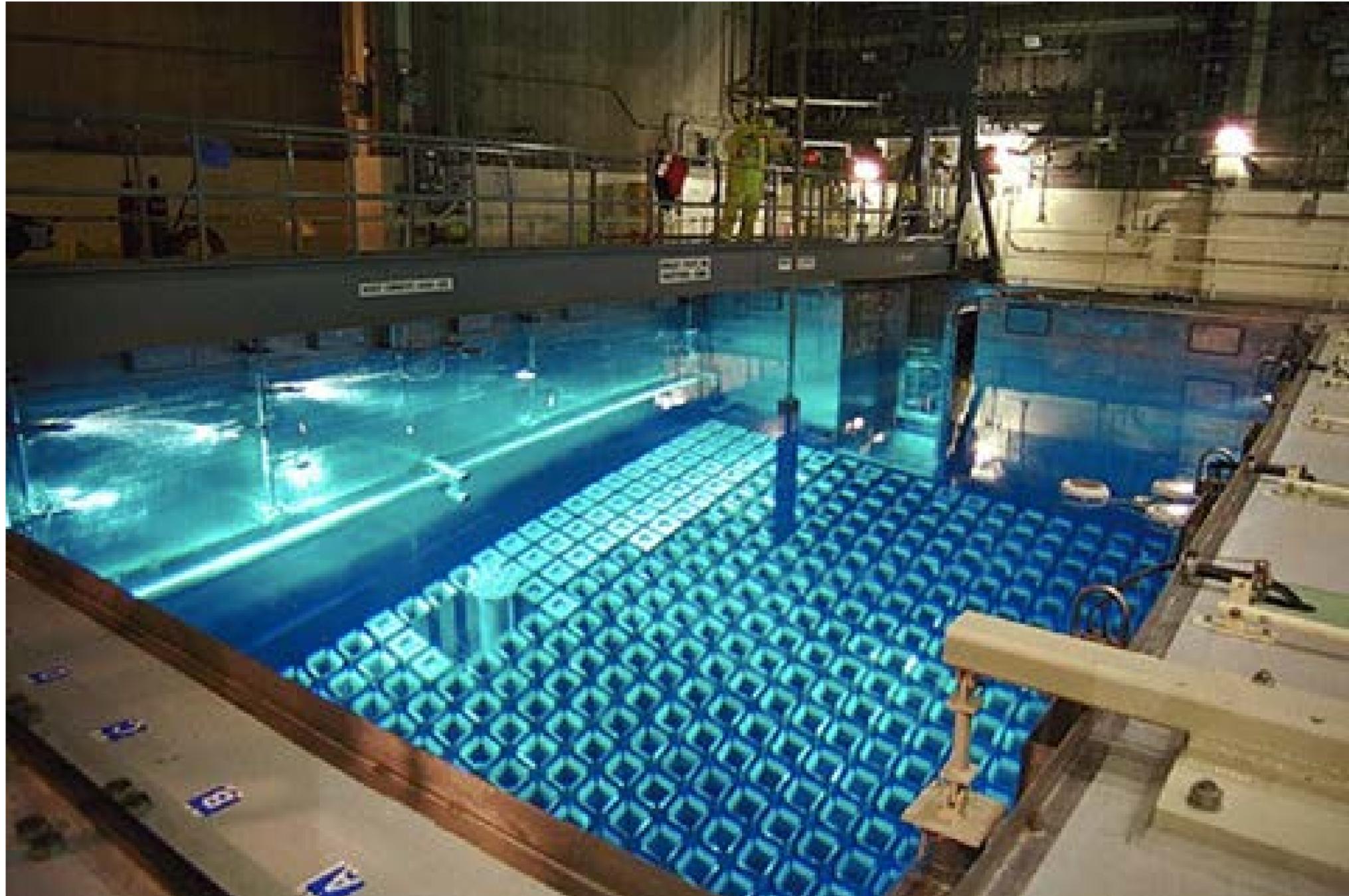
**1,200+ Systems Loaded**

**115 Nuclear Plants Worldwide Rely on Holtec's Dry Storage Technology for their Storage & Transport; 64 Domestic, 51 International**

# Nuclear Fuel & How it is Stored

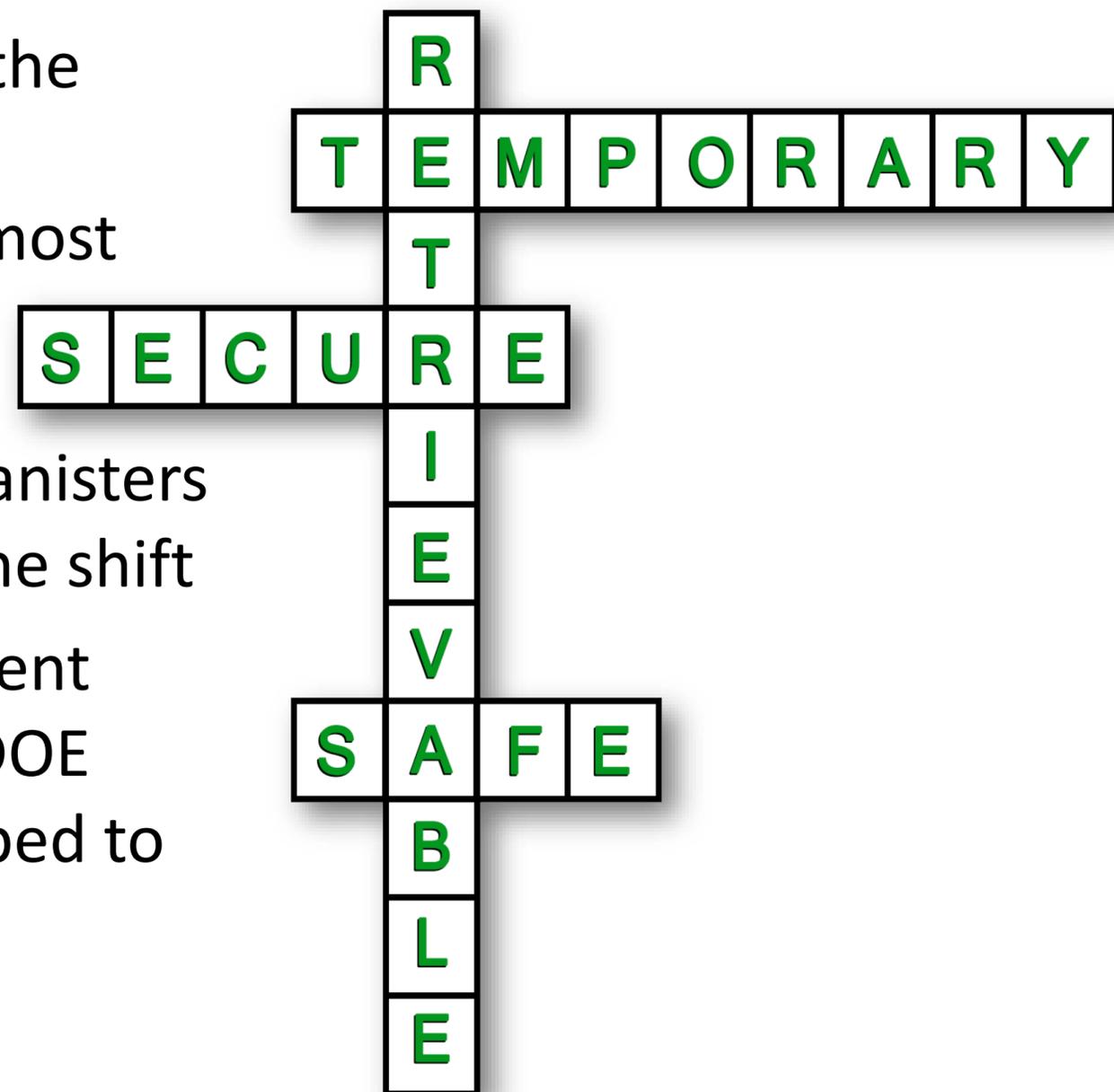


# Nuclear Fuel in a Pool



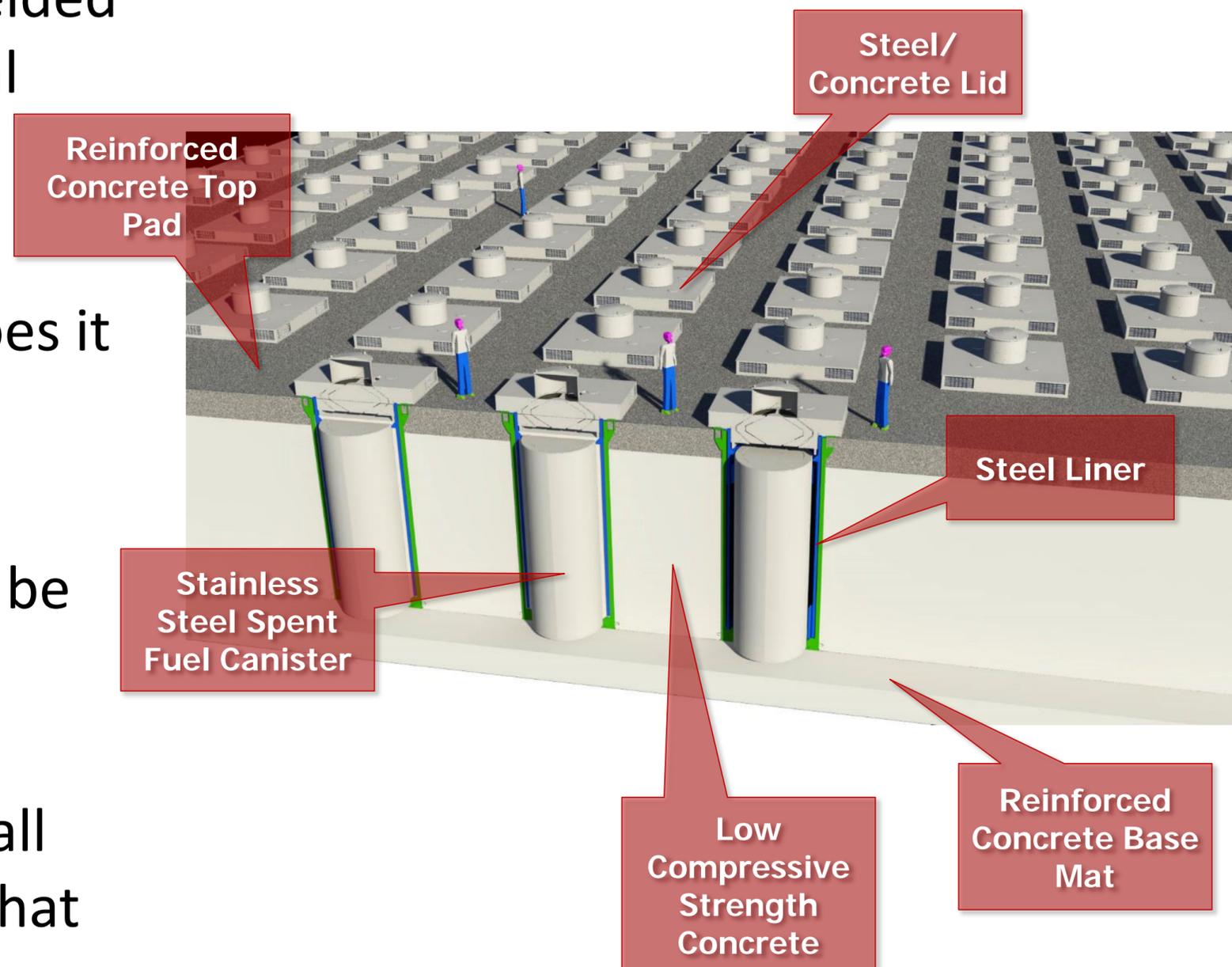
# Consolidated Interim Storage

- **Safe:** The spent fuel storage system is designed and built to withstand natural and man-made events with no release of radioactivity
- **Secure:** The spent fuel storage system and the facility provide an impregnable fortress for protecting the spent fuel against even the most egregious attacks
- **Retrievable :** Allows removal of used fuel canisters from the facility to the final repository in one shift
- **Temporary:** The canisters containing the spent nuclear fuel will be shipped off site to the DOE facility in the same manner they were shipped to the site

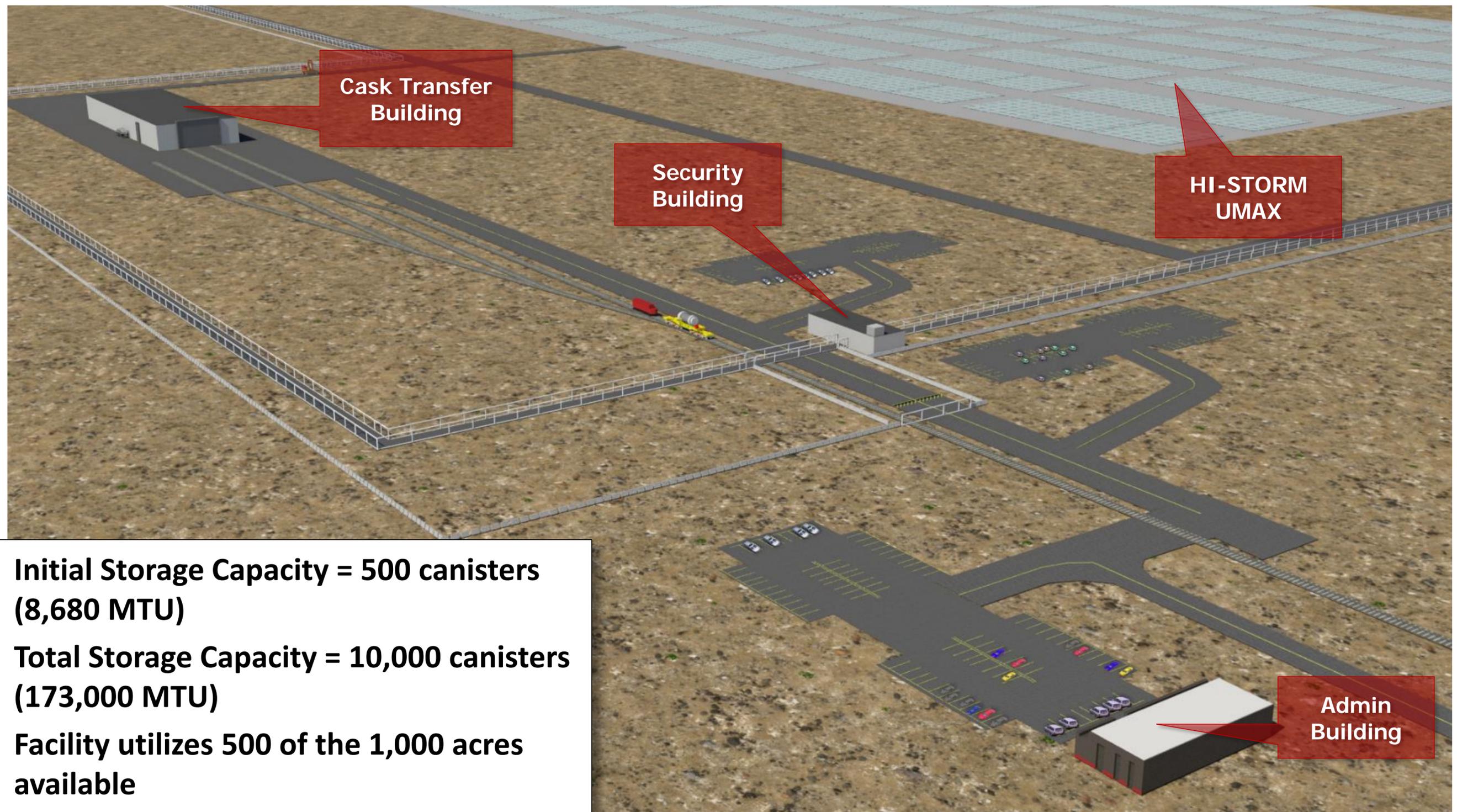


# HI-STORE CISF Utilizes the HI-STORM UMAX Technology

- Maximizes safety & security
- Stores used nuclear fuel in all-welded canisters in below ground vertical silos
- Produces no pollution
- Does not need any water, nor does it emit any water or any chemical
- It does not make any noise
- No aquifers or ground water will be affected
- The radiation dose at the site's protected boundary will be a small fraction of the cosmic radiation that bathes the state every single day



# Site Layout



- Initial Storage Capacity = 500 canisters (8,680 MTU)
- Total Storage Capacity = 10,000 canisters (173,000 MTU)
- Facility utilizes 500 of the 1,000 acres available
- Operations could commence by 2023

# HI-STORE Site-Specific License Timeline

- Application submitted to USNRC: March 2017
- Application accepted by USNRC: March 2018
- NRC public meetings (phone & in NM): April – May 2018
- RAI #1 received (partial): September 2018
- Adjudicatory process closed: September 2018
- Holtec answers to petitions submitted: October 2018
- RAI #2 (if needed): February 2019
- NRC completes review: July 2020



# HI-STORE CISF Construction Timeline

- Pending Agreement w/DoE and/or Nuclear Utilities:
  - ✓ Construction Start: 2020
  - ✓ Construction Complete: 2023
  - ✓ Accept First Shipment: 2023



# Questions?

