



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

By: Gerges Scott
Senior Public Relations Consultant
for
Holtec International
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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

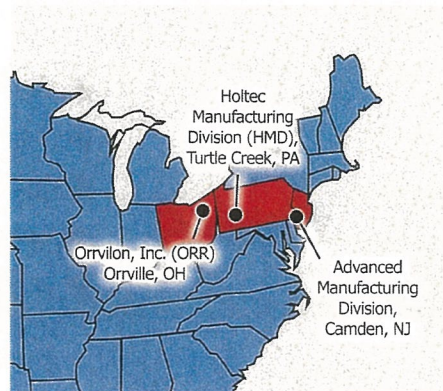


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Holtec's Manufacturing Capabilities Three Major U.S. Manufacturing Plants



- Holtec Manufacturing Division (HMD)
 - Turtle Creek, PA
- Orrvilon, Inc. (ORR)
 - Orrville, Ohio
- Advanced Manufacturing Division (AMD)
 - Camden, NJ
- 1.4M ft² of Total Shop Space



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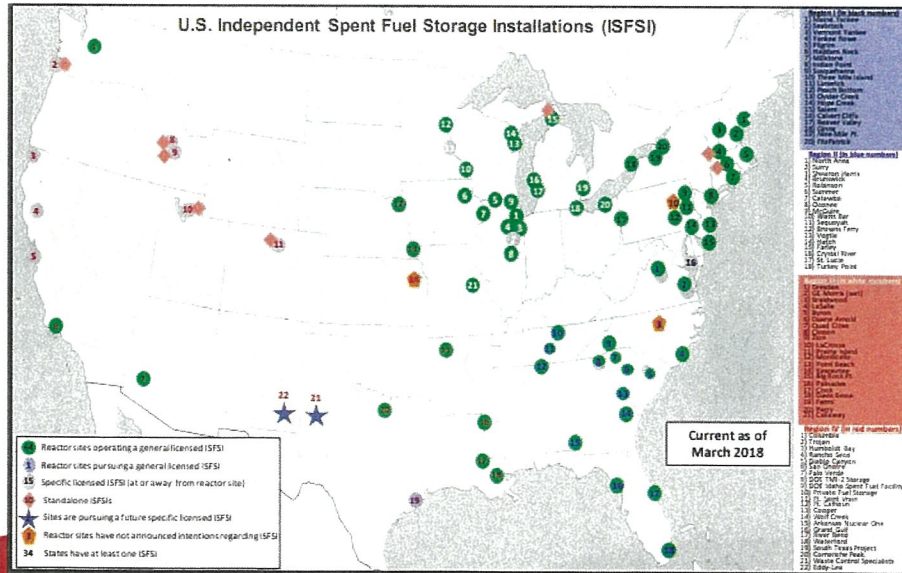
What is the Issue?



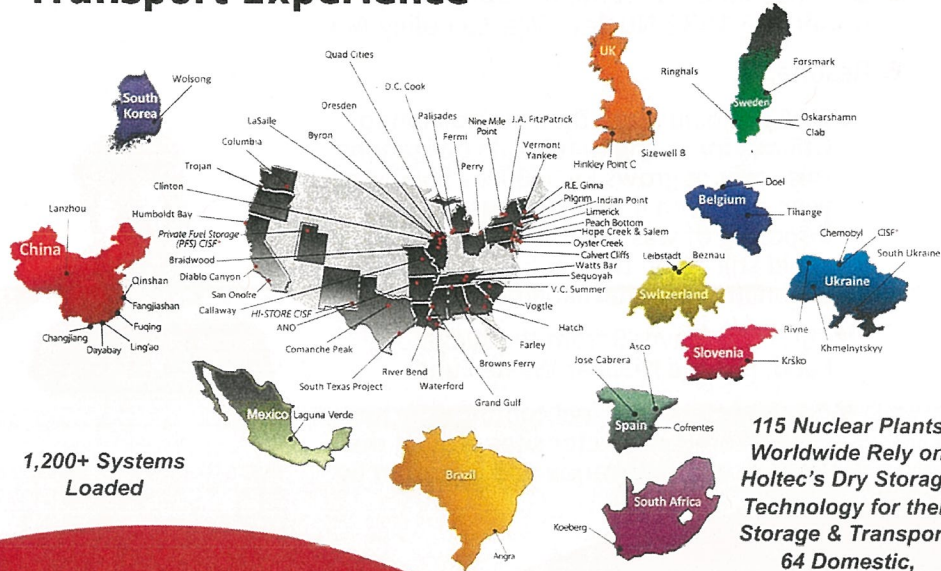
- DOE has failed to fulfill it's obligation under the 1982 Nuclear Waste Policy Act
- Results:
 - ✓ DOE has paid more than \$6.2 billion to Utilities for failing to fulfill its obligations, this amount grows by \$300M - \$500M each year, and even if DOE manages to start disposing of waste in the next 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

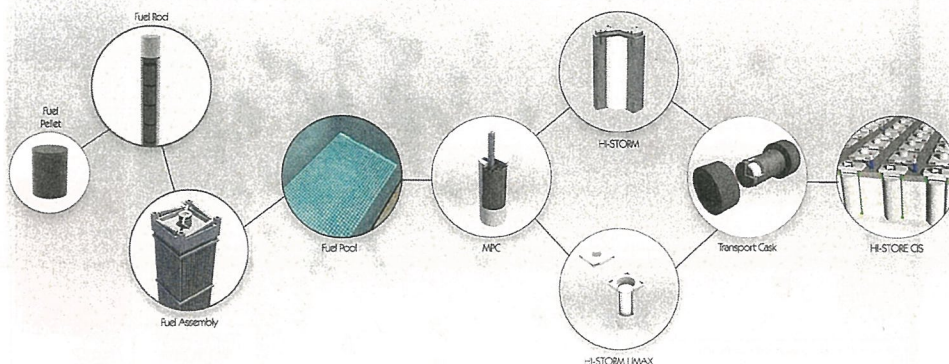


Holtec's Worldwide Dry Storage and Transport Experience



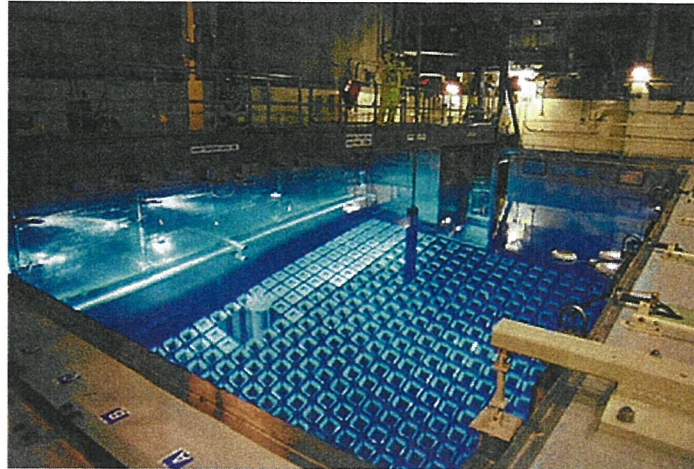
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Nuclear Fuel & How it is Stored



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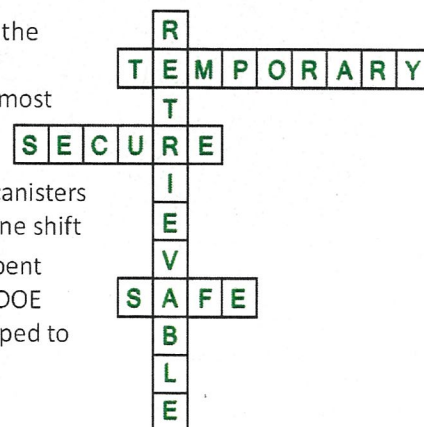
Nuclear Fuel in a Pool



Consolidated Interim Storage



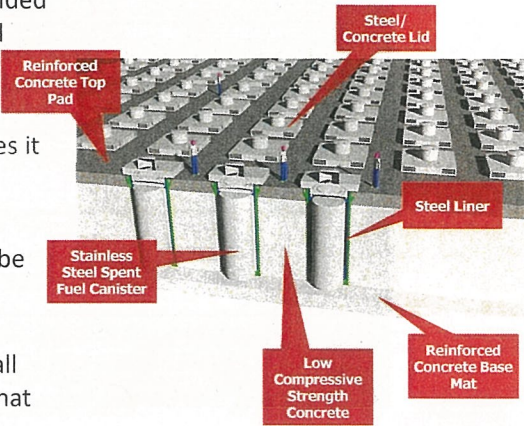
- **Safe:** The spent fuel storage system is designed and built to withstand natural and man-made events with no release of radioactivity
- **Secure:** The spent fuel storage system and the facility provide an impregnable fortress for protecting the spent fuel against even the most egregious attacks
- **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



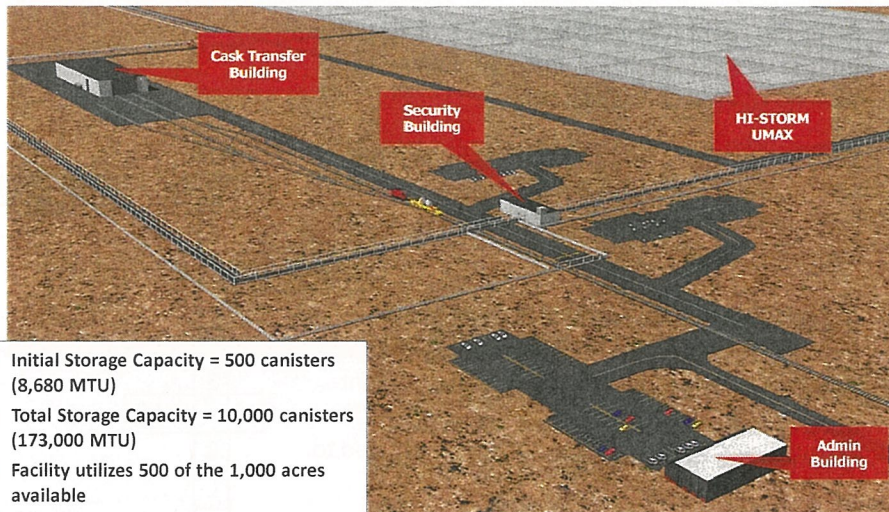
HI-STORE CISF Utilizes the HI-STORM UMAX Technology



- 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?



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