Some Concerns about the Holtec Proposal

Radioactive and Hazardous Waste Committee
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Nuclear Power Plants

- ~ 94% of operating reactors are east of 100th meridian
- ~ 92% of spent fuel is east of 100th meridian
How much waste?

Current amount of commercial spent fuel = ~80,000 metric tons

Holtec: “this ER analyzes the environmental impacts of possession and storage of SNF containing 100,000 MTUs.” Holtec Environmental Report, p. 13.
**Very Radioactive Waste**

**Total Radioactivity**

*23.8 billion Ci*

- Commercial Spent Nuclear Fuel (SNF) Radioactivity: 23 billion Ci, 97%
  - Commercial HLW glass (West Valley Demonstration Project): 15 million Ci, 3%
  - DOE HLW calcine (Idaho National Laboratory): 26 million Ci, 5%
  - DOE HLW (Hanford Site): 134 million Ci, 27%
  - DOE HLW (Savannah River Site): 332 million Ci, 65%

- High Level Radioactive Waste (HLW) and DOE SNF Radioactivity: 813 million Ci, 3%
  - DOE SNF: 190 million Ci, 23%
    - DOE cesium and strontium capsules: 109 million Ci, 13%
    - DOE "German" glass: 6.2 million Ci, <1%
    - DOE sodium-bonded SNF (ceramic and metal HLW products): 1.6 million Ci, <1%

Notes:

1. Data from Carter et al. (2012) and SNL (2014).
2. Radioactivity is for the following years: commercial SNF 2011; HLW 2017; DOE SNF 2010; capsules 2006; and "German" glass and sodium-bonded SNF 2000.
3. Radioactivity for DOE SNF represents the inventory proposed for disposal as SNF. Radioactivity for DOE sodium-bonded SNF is the projected radionuclide inventory of ceramic and metal HLW products that will be created from electro-chemical processing of all DOE sodium-bonded SNF.
Storage Today

Surry - Virginia

San Onofre - California
Existing Consolidated Storage

- Private Fuel Storage is located in Tooele County, Utah
- NRC issued 20-year license on February 21, 2006
- Site not used because of public and state opposition, establishment of Cedar Mountain Wilderness Area, BLM not granting access, and BIA not approving lease
Law: Nuclear Utilities do Storage

“the generators and owners of high-level radioactive waste and spent nuclear fuel have the primary responsibility to provide for, and the responsibility to pay the costs of, interim storage of such waste and spent fuel until such waste and spent fuel is accepted by the Secretary of Energy in accordance with the provisions of this Act.” NWPA Sec. 111(a)(5).
Law: DOE does Disposal

“following commencement of operation of a repository, the Secretary shall take title to the high-level radioactive waste or spent nuclear fuel....” NWPA Sec. 302(a)(5)(A).
“Phase 1 construction would begin after issuance of the license and after Holtec successfully enters into a contract for storage with the U.S. Department of Energy (DOE).” Holtec Environmental Report, p. 13.
Holtec: DOE does Transportation

“The U.S. Department of Energy (DOE) would be responsible for transporting SNF to the CIS Facility in transportation casks licensed by the NRC pursuant to 10 Part CFR 71.” Holtec Environmental Report, p. 198 (and p. 155).
“The Federal government, through DOE, is responsible for providing emergency training to states, tribes, and local emergency responders along the transportation routes where SNF would be transported to the CIS Facility.”
Holtec Environmental Report, p. 198.
Holtec: Return leaky containers

“CIS Facility plans to reject and return canisters that have unacceptable external contamination.” Holtec Environmental Report, p. 214.
HI-STAR 190 Transport Cask

Cask length = 15’ 9”/17’ 8”
Internal Diameter = 6’4”
Outer Diameter = 8’10”

Waste Loaded weighs 371,000 lbs. to 414,800 lbs.
Figure ES.1 New Mexico State Rail System in 2014
Lots of Opposition

April 25, 2018 – NRC webinar –
25 commentors: 0 support Holtec

April 30, 2018 – Roswell meeting –
53 commentors: 45 oppose Holtec, 7 support, 1 neutral

May 1, 2018 – Hobbs meeting
47 commentors: 33 oppose Holtec, 14 support

May 3, 2018 – Carlsbad meeting
61 commentors: 32 oppose Holtec + 1,300 letters, 29 support
Basic Questions

- If the waste is safe where it is, why bring it to New Mexico?

- If waste storage is good for the economy, why do the nuclear reactor communities not want to keep it?
Hardened On-Site Storage (HOSS)
Resources

Holtec NRC documents:  
https://www.nrc.gov/waste/spent-fuel-storage/cis/holtec-international.html

Holtec community opposition:  
http://nonuclearwasteaqui.org

Holtec’s website:  
Contact Information

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