

Recommendation 349

Oppose Consolidated Interim Storage of Spent Nuclear Fuel and High-Level  
Waste at SRS

Background

The Nuclear Waste Policy Act (NWPAA) of 1982, created a timetable for the creation of a deep geologic repository for disposal of spent nuclear fuel and high-level radioactive waste, including such wastes at Savannah River Site. The permanent repository was slated by the NWPAA to begin receiving commercial and defense wastes by the middle of the next decade (1995). After over two decades of site studies, DOE filed a construction license application with NRC in 2008. However, in 2009 the President determined the proposed location “is not a workable option” and tasked a Blue Ribbon Commission (BRC) to find alternatives. The BRC issued its final report in 2012, and included among its recommendations to: (1) develop one or more consolidated interim storage facilities and (2) provide for the siting and development of one or more deep geological disposal facilities. In December 2015, DOE formally initiated a siting process for storing and disposing of America’s nuclear wastes and then President Obama tasked DOE with establishing a separate disposal site for defense wastes. DOE is also planning to research the potential of deep borehole disposal. The current Trump administration has indicated the desire to restart the Yucca Mountain licensing process.

Discussion

The 2013 DOE response to the BRC recommendations states that over the next ten years it plans to implement a program to make a disposal site available “...by 2048” – over 50 years after the date intended by the NWPAA. DOE’s poor track record in managing large capital projects indicates the likelihood that this estimate will only elongate. Even finishing the Yucca Mountain project would entail decades. In the meantime, DOE plans to establish consolidated interim storage sites for spent nuclear fuel and/or high level waste. DOE-EM currently stores SNF containing over 22 metric tons of heavy metal (MTHM) at SRS and plans to store over 8,000 canisters of vitrified high-level waste. Because of existing SRS storage, DOE may consider Savannah River Site a suitable “eastern” consolidated interim storage alternative despite its close proximity to water and population centers. Establishment of consolidated interim storage locations will likely have the unintended consequence of reducing motivation to create a permanent repository, thereby dramatically extending the period of interim storage at consolidation sites.

Conclusions

- a. Establishment of permanent repository location(s) for spent nuclear fuel and/or high-level waste is, at best, decades away.
- b. Creation of consolidated interim storage sites will be extremely costly, and would reduce the motivation to create a permanent repository.

- c. Pending establishment of repository(ies), DOE may consider the Savannah River Site a suitable alternative for consolidated interim storage some portion of spent nuclear fuel and/or high level radioactive waste.
- d. Continued disposition of surplus nuclear material will continue to add to SRS' long term waste storage liability.
- e. SRS has not been adequately evaluated under the National Environmental Policy Act for storage of spent nuclear fuel and/or high-level waste for the long time period likely to occur under DOE's current strategy.

### Recommendations

Based on the forgoing, the Savannah River Site Citizens Advisory Board recommends that DOE:

1. Not consider SRS as a reasonable consolidated interim storage location for EM spent nuclear fuel and high level radioactive waste pending establishment of a permanent geologic repository
2. Stabilize and remove such waste from SRS as soon as possible and not wait until establishment of a permanent geologic repository.