

Recommendation 319

Planning for Disposition of SRS Canisters and L-Basin Materials

Background

Plans to disposition SRS defense waste in the form of DWPF canisters and L-Basin Materials (both domestic and foreign) to an off-site location has been in process for decades. Given the pending actions to make available a national deep geologic repository there is a need for pre-disposition tests and demonstrations.

The 1982 Nuclear Waste Policy Act (NWPA), amended in 1987 designated Yucca Mountain as the national site to be developed for America's permanent waste repository. This planning was interrupted in 2010 when the Obama administration directed the Department of Energy Secretary, Dr. Steven Chu, to withdraw its application from the Nuclear Regulatory Commission (NRC) for licensing the site for that function. Funding was also withdrawn. No technical basis was ever presented for such an action. A recent Government Accountability Office report found that there appears to be no scientific evidence supporting claims that the Nevada site is geologically inappropriate as a national waste repository. There is now no defined disposition planning for SRS canisters and L-Basin materials.

Following the withdrawal action for licensing Yucca Mountain, the President established a Blue Ribbon Commission (BRC) for the purpose of identifying alternatives to the Nevada site that could permanently accommodate America's current and future nuclear waste. The BRC released its final report in July of 2012 with general recommendations that generated the DOE 2013 Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste. The 2013 Strategy calls for a national deep geologic repository to be made available by 2048. The repository is to be preceded by an Interim Storage Site that may be co-located with a Pilot Site.

Recent court actions in August 2013 (based on court challenges by Aiken County and the states of South Carolina and Washington) have directed the administration to resume the licensing procedure, indicating that the President exceeded his authority in cancelling the Yucca Mountain program since it was directed by a Congressional Act. A recent federal study recommended that planning for a federal repository commence immediately. The 2013 Strategy is uncoordinated and unfocused, leaving such requirements as "consent-based" undefined, not addressing the court's decision that withdrawing licensing procedures for Yucca Mountain was an illegal act, and providing no assurances that the Strategy will remain in tact almost nine potential presidential administrations later. The recent court decisions raise the possibility that Yucca Mountain may potentially be available sooner than 2048.

Discussion

Since the court rulings, and 2014 federal budgeting for Yucca Mountain licensing procedures make that program once again viable there is a critical need for preliminary planning to test and demonstrate disposition requirements for DWPF cans and L-Basin materials. DWPF canisters and L-Basin materials at SRS may be uniquely useful in determining the variable requirements throughout the DOE complex for packaging, transporting, and storing nuclear waste in a deep geologic repository. Such evaluations will be requisite to the site selection, development, and

ramp up of any repository receiving these used nuclear fuel and high-level radioactive waste materials.

Recommendations

Given the issues described above, the SRS CAB recommends that:

1. DOE develop a plan for pilot testing of used nuclear fuel and high-level radioactive waste as a basis for establishing the variable handling, shipping, and storage requirements for permanently disposing of such materials in a deep geologic repository.
2. DOE include in the plan's preliminary/pilot tests the utilization of SRS DWPF canisters and L-Basin materials (both foreign and domestic).