

Recommendation 358  
Restart the SRS/INL SNF Exchange

Background

SRS stores two basic types of SNF: aluminum (Al) based and non-Al based. SRS has the currently operating capability to process the Al based SNF. The reusable uranium is recycled back into power production (off site disposition) and the unusable portions (fission and activation products including any small amounts of plutonium in the fuel) are processed through the high-level waste operations and end up in glass canisters ready for permanent disposal when it becomes available. Regardless, glass canisters are a far superior long-term storage form compared to SNF stored in water.

SRS does not currently have a means to process the non-Al based fuels. Dry storage is NOT a means to process or disposition SNF off site; it is simply another means of storage. However, INL has currently operating means to dry store non-Al based SNF but not a proven capability for long term dry storage of their Al based SNF, nor can they process these fuels.

Back in 1995, DOE's Record of Decision (RoD) (DOE 1995b) for the SNF management programmatic EIS included consolidating SNF regionally by type. The RoD stated that SRS would store all Al based SNF, and INL would store all non-Al based SNF. Under this RoD, SRS would ship its non-Al based SNF to INL and INL would ship its Al based SNF to SRS (referred as the SRS/INL Exchange). After several modifications to this RoD (none of which deleted the option of the Exchange), a new RoD in 2000 (DOE 2000b) reaffirmed the Exchange but was subsequently put "on hold."

In 2006, DOE approved the "mission need statement" (the first step in defining a "project" through Project Management implementation) for processing all of the SRS Al based SNF through H-Canyon. This project included implementing the SRS/INL Exchange and, if implemented, would have had the L-Basin totally empty and ready to decommission by 2019. This project was never implemented.

H-Canyon is now successfully processing Al based SNF from L-Basin. This begins the de-inventory of L-Basin. It's time, once again, to implement the SRS/INL Exchange so that SRS can de-inventory the non-Al based SNF from SRS without having to build additional multi-billion-dollar facilities that would also need to be decommissioned in the future (dry storage facility).

Recommendation

The SRS CAB recommends that DOE implement the SRS/INL SNF Exchange.