

Recommendation 378
Integrated System Materials Processing

Background

At present, the Savannah River Site (SRS) Liquid Waste mission has moved into full production, and the Accelerated Basin De-inventory program has been approved and is in startup phase. By 2024, H Canyon is planned to process 2,700 bundles/cores of spent nuclear fuel per year until 2034. This material is processed in batch mode and each batch of material must meet a set of specifications before proceeding on to the next process step. Achieving and maintaining the desired production rate requires close cooperation between H Canyon, the Defense Waste Processing Facility, the Salt Waste Processing Facility, and the Saltstone Disposal Facility. In addition, due to the variety of waste materials to be processed, it is reasonable to assume that an assortment of technical issues will arise that may impact production rates.

Discussion

The CAB has consistently been a supporter of increasing nuclear waste material processing (see list of recommendations below) and thereby reducing the risk associated with handling nuclear materials. The CAB will continue to support and encourage DOE to rapidly process L Basin nuclear waste inventory into a form suitable for long-term storage.

Recommendation

The CAB recommends that the Department of Energy – Savannah River perform the following: 1) identify the criteria for integration between Nuclear Materials and Liquid Waste to ensure successful completion of both organizational missions; 2) provide a joint briefing to the CAB on the identified criteria; and 3) provide the CAB periodic updates on criteria completion and impacts to mission performance.

Related Recommendations: 2017-2022

- 349 Waste removal and storage at SRS
- 348 H Canyon and SRS spent Nuclear Fuel Program
- 358 Restart the SRS/INL Exchange
- 365 Plutonium Processing
- 363 Preferred H Canyon Future Operations Options
- 373 Plutonium Downblend Acceleration