Use of the E-Area Trenches Versus the E-Area Vaults for LLW Disposal

Background

The SRS Citizens Advisory Board (CAB) concurred with the use of the E-Area trenches for disposal of low level waste (LLW) meeting the trench Waste Acceptance Criteria (WAC) as detailed in the Solid Waste System Plan (see Recommendation No. 94). Studies associated with the System Plan found that about 50 percent of the LLW now going to the vaults would meet the trench WAC. This meant that expensive vault space originally designed for high activity LLW was being occupied by low activity LLW. Subsequent response to Recommendation No. 94 by SRS has provided information that confirms the decision of the CAB to support this initiative.

SRS reported that by transferring low activity waste from the vaults to the trenches, and by using the trench for generated LLW that meets the WAC, the life expectancy of the existing vault would be extended for 14 years. SRS predicts a total saving of over $63 million dollars by utilizing the trenches instead of the vaults.

The SRS CAB believes the Performance Assessment (PA) and the Composite Analysis (CA) provide a level of assurance that disposal of LLW in the trenches is protective of human health and the environment. The PA and CA analyze the potential release and migration of radionuclides from both the vaults and the trenches over a 10,000-year period. They also establish the maximum number of curies allowed being disposed in a vault or trench to meet drinking water standards in the groundwater during this 10,000-year period.

Commendation

The SRS CAB commends SRS for using scientific/technical criteria and systems engineering approaches to extend the life expectancy of the existing vault plus the tremendous cost savings while at the same time, ensuring protection of human health and the environment. This is a significant accomplishment, one that both SRS and the CAB were instrumental in achieving.