Evaporators Minimize Waste

The production of nuclear weapons materials at the Savannah River Site (SRS) during the 1950s generated a large amount of radioactive liquid waste which was collected in 51 massive, underground waste storage tanks with a combined capacity of 59 million gallons.

Continued operations of SRS facilities as well as on-going missions such as liquid waste tank cleaning and operational closure activities for eight tanks, resulted in additional waste.

During the past 60 years, SRS operations produced over 150 million gallons of liquid waste. The use of evaporation has reduced the volume to about 35 million gallons, currently stored in the 43 remaining waste tanks.

SRS evaporators are a major factor in the treatment of liquid waste. Currently, SRS has two evaporators. The 2H and 3H Evaporators are found in H Area and began operations in 1982 and 2000, respectively.

The evaporators reduce the volume of the salty liquid waste such that space within storage tanks is available for continuing liquid waste operations. This supports cleaning and closure of the tanks as well as other SRS missions.

The evaporators boil the salty waste water, causing the water to separate from the waste. The separation of the water from the waste reduces the waste volume to about 25 to 30 percent of the original volume.