

News from the Savannah River Site

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Principal Media Contact: Lindsey MonBarren
Savannah River Nuclear Solutions, LLC
803.952.8053
lindsey.monbarren@srs.gov

DOE Media Contact: Bill Taylor
803.952.8564
bill.taylor@srs.gov

FOR IMMEDIATE RELEASE

Expanded Operations Resume in H Canyon to Allow for Increased Spent Fuel Processing

AIKEN, S.C. April 15, 2015 – H Canyon, the only operating production-scale, radiologically shielded chemical separations facility in the U.S., located at the Department of Energy's (DOE) Savannah River Site (SRS), is resuming process operations in portions of the Canyon to allow for continued spent nuclear fuel dissolution.

The spent fuel processing campaign is the current major mission for H Canyon.

“This campaign is important because it removes spent nuclear fuel from the state of South Carolina,” said Mike Swain, Director, EM Programs. “It is also a nuclear non-proliferation campaign that provides a service to the Tennessee Valley Authority (TVA) and a return to the tax payer.”

Low-enriched uranium (LEU) is formed by blending highly enriched uranium with natural uranium and can be used to make fuel for commercial nuclear power reactors. Between 2003 and 2011, H Canyon provided 335 trailer shipments, or 300 metric tons, of LEU to fulfill a contract with the TVA. This quantity of uranium would provide enough power for all South Carolina residences for 8.5 years or every house in the U.S. for 47 days.

After meeting National Environmental Policy Act requirements, H Canyon recently began



Canyon Operators Terry Usry (left) and Audrey Davis start Head End operations.

the current campaign to process aluminum clad spent nuclear fuel presently stored at SRS. H Canyon will process up to 1,000 bundles of Material Test Reactor (MTR) spent nuclear fuel and 200 cores of High Flux Isotope Reactor fuel. As before, SRS will blend the resulting HEU to LEU and provide that to the TVA for the manufacture of commercial reactor fuel for use in its reactors. The canyon has already run spent fuel through the dissolver this year, the first step in the operations process.

In order to dissolve additional spent fuel, H Canyon must resume the remaining process operations. Each batch of MTR must be transferred from the dissolver into the next process to allow room for a new batch to be introduced. Each process operation (called Head End, First Cycle and Second Cycle) that the fuel moves through further purifies the uranium to meet the specifications established by TVA.

Since it has been more than a year since they last operated, each of these processes requires a Readiness Assessment (RA) to be completed to ensure the processes and personnel are ready for safe operations. The RA for the second step of process operations, the Head End, has been completed and resumption of Head End operations has been authorized by DOE. The goal for FY15, which remains on schedule, is to then complete First Cycle and Second Uranium Cycle RAs.

In FY16, the LEU Blending and Loadout RA is planned to be completed, allowing for LEU trailers to be loaded and shipped to TVA.

H Canyon was originally constructed to produce nuclear materials in support of our nation's defense weapons systems. Today, it continues to play an important role in the efforts to eliminate or minimize nuclear materials through safe stabilization and/or disposition of DOE's nuclear materials.

Savannah River Nuclear Solutions is a Fluor-led company whose members are Fluor Federal Services, Newport News Nuclear and Honeywell, responsible for the management and operations of the Department of Energy's Savannah River Site, including the Savannah River National Laboratory, located near Aiken, South Carolina.

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