NEWS from The Savannah River Site



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For Immediate Release

Dissolution, Processing of SRS Fuels Completed

AIKEN, S.C., (August 3, 2006) – Workers at the Savannah River Site (SRS) recently completed the final dissolution and processing of SRS reactor fuels, reaching a major site milestone.

These materials, known as Mark 22s, were fuel assemblies that were fabricated in SRS's M Area to be irradiated in SRS reactors. These particular assemblies were never irradiated; they have been stored at SRS's K Area Complex since the site's reactors were shut down in the late 1980s.

"This is the end of an era that began in July 1959, when uranium processing began in H Canyon," says Stuart MacVean, who manages H Area Completion Projects for Washington Savannah River Company (WSRC). "These workers have done a phenomenal job throughout the years, and specifically in safely meeting this major milestone. I'm proud of them all."

Historically, raw materials were converted to fuel tubes in M Area, then were shipped to site reactors to be irradiated. Then, the resulting radioactive materials were sent to F or H Area to have the desired nuclear materials – plutonium and uranium – chemically separated from waste. The end products were used for the national defense and NASA missions.

When the site's reactors were shut down, SRS had materials remaining in the pipeline, many of which had not been irradiated. The highly enriched uranium (HEU) Blend Down program was designed to convert these materials into a form suitable for use in a commercial reactor. In this program, highly enriched uranium is blended with depleted uranium to create low-enriched uranium. The HEU Blend Down program is a key component for expediting the cleanup of nuclear materials throughout the DOE complex.

One primary source of legacy material used by H Canyon for this program was derived from the HEU in Mk-22 fuel assemblies.

Since February 2003, SRS uranium has been blended down and shipped to TVA for eventual use in its Browns Ferry reactors. Since earlier this year, this material has been providing electricity for homes throughout the Southeast.

The HEU Blend Down program began with irradiated fuels. When these were completed, the focus shifted to unirradiated fuels, which were shipped from the K Area Complex beginning in February 2004. Each transfer was made safely and in accordance with the H Canyon schedule for dissolution.

The K Area campaign began with a successful cropping effort to remove unwanted material from each assembly. This allowed H Canyon to minimize waste streams and expedite dissolution times by processing only the desired fuel material from the cropped assemblies.

"We're proud of our part in this success," says Larry Davis, president of BWXT Savannah River Company, which operates WSRC's K Area Complex. His workers are responsible for the safe storage, cropping and transfer of the uranium materials. "We began planning for this years ago, and it's very satisfying to see our efforts come to fruition. HEU Blend Down is truly a program that benefits everyone."

The site is owned by DOE and operated by a team of contractors led by WSRC, a wholly-owned subsidiary of Washington Group International.

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