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For Immediate Release

SRS Employees Complete 100th Plutonium Downblending for FY23

AIKEN, S.C. (September 19, 2023) - Contractor employees at the Department of Energy's (DOE) Savannah River Site (SRS) recently completed their 100th plutonium (Pu) downblend in fiscal year 2023 - safely and ahead of schedule - as part of the ongoing activities to remove Pu from South Carolina.

"Reaching the 100th Pu downblend well ahead of schedule is a huge accomplishment and a testament to our team's commitment to remove Pu from the state," said K Area Deputy Facility Manager Maxwell Smith of Savannah River Nuclear Solutions (SRNS), the managing and operating contractor at SRS. "Much of our work in the past few years has been to introduce efficiencies and speed up our processing rates in the KIS glovebox and it's gratifying to see the results of those efforts."

Downblending began in K Area in 2016. In 2019, K Area paused downblending activities to optimize equipment, training and personnel in order to expedite the process. Some of these optimization activities included installing new material entry and removal devices for the glovebox; designing and fabricating special carts to move the downblend containers through the glovebox; and relocating equipment inside the glovebox to improve efficiency of the downblend process flow. The facility also moved from two- to four-shift operations and more than doubled the amount of trained operators in the facility, so downblending could be done 24/7.

"SRNS has safely accomplished a great amount of work in an effort to increase downblending operations," DOE Nuclear Materials Program Manager Bert Crapse said. "Because of their commitment, K Area went from completing nine downblends in fiscal year 2017 to completing over 100 in fiscal year 2023."

Smith explained that, because K Area reached its downblending goal for the fiscal year ahead of schedule, employees are going to be able to begin processing material

originally slated for fiscal year 2024. "Downblending supports DOE's nonproliferation mission, and the K Area team is proud to be part of that mission," he said.

In conjunction with NNSA's Surplus Plutonium Disposition mission, K Area is installing three new gloveboxes, support systems, and constructing a High Efficiency Particulate Air (HEPA)/Electrical Building and ventilation stacks in K Area as part of a project to help further increase downblending rates.

Plutonium materials in K Area are sealed inside a robust configuration of storage and shipping containers. The material is stored until such time as the containers are ready to be opened and the material inside then downblended utilizing the KIS glovebox - a stainless-steel containment enclosure that is approximately 15 feet long and three feet wide. The glovebox contains safety glass panels and fitted gloveports to allow radioactive materials handling, and isolates workers from associated hazards. Downblending involves mixing the plutonium materials with an adulterant, which produces a mixture that can eventually be safely disposed of in the geologic repository at the Waste Isolation Pilot Plant.



The K Area Complex at the Savannah River Site recently completed their 100th plutonium downblend for fiscal year 2023.

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