News from the Savannah River Site
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For Immediate Release

Equipment procurement solidifies partnership with local HBCU

AIKEN, S.C., (November 25, 2024) – The Savannah River Site (SRS) continues to reinforce partnerships with Historically Black Colleges and Universities (HBCUs) in South Carolina, in support of the Site's pit production mission.

Savannah River Nuclear Solutions (SRNS), the Site's managing and operating contractor, recently supported procurement of a Focused Ion Beam Scanning Electron Microscope (FIB-SEM) to be housed on the campus of Allen University in Columbia, South Carolina. The microscope will be used by both Allen University students and SRNS staff, to advance the pit production mission required to strengthen the nation's nuclear stockpile.

These efforts are part of the SRNS Workforce Development Program Plan initiative to engage colleges, universities, high schools and community groups in developing and establishing a qualified workforce capable of operating the Savannah River Plutonium Processing Facility (SRPPF) at SRS. Funding for the FIB-SEM was earmarked for Minority Serving Institutions by the U.S. Congress through special workforce development funding.

Personnel from Allen University and SRNS Pit Production Operations and Programs discuss potential locations for the FIB-SEM.

To help address SRPPF staffing needs, SRNS has spent the last several years establishing relationships with eight South Carolina HBCUs, focusing on workforce development and training. Allen University

was selected for this specific partnership due to their close proximity to the Site and strong programs in fundamental science and math.

“Installation of the FIB-SEM at Allen University will enable students to use state-of-the-art equipment, similar to equipment commonly used at Doctoral, high-research-activity universities,” said Dr. James Maner, SRNS Technical Lead for Material Characterization Laboratory. “The FIB-SEM at Allen University will allow the SRNS technical staff to begin method development for future operations.”

The FIB-SEM will be used for providing 3D characterization of materials at the micrometer scale. Installation, testing and training on the microscope, one of a select few instruments of its kind housed at small HBCUs in the Southeast, will take place at Allen University throughout the next year. SRNS technical staff will support the installation and testing phase of the new equipment and will complete the training phase of the project, working in tandem with university faculty and students.

“Acquisition of the FIB-SEM for joint utilization by Allen University and SRNS affords students and faculty the distinct opportunity to collaborate with industry experts in high-demand fields such as environmental science, nuclear energy and sustainability,” said Dr. Oluwole Ariyo, Allen University Dean for Division of Mathematics & Natural Sciences. “This not only enhances the student learning experiences but also opens a direct pipeline to workforce development, ensuring that students from the integrated program will be well prepared to excel in today's job market and have potential to lead and innovate in a wide range of careers at SRPPF.”

Upon reaching steady-state operations, it is estimated that SRPPF will require more than 2,000 full-time positions.

“SRNS will work directly with Allen University to develop student capstone projects using the new equipment,” said Maner. “This represents a great opportunity for students to expand existing skillsets and build competency development, in support of our long-term pit production mission. Allen University is an ideal partner to establish a staffing pipeline and address select research needs.”

Established by Congress in 2000, NNSA is a semi-autonomous agency within the U.S. Department of Energy responsible for enhancing national security through the military application of nuclear science. NNSA maintains and enhances the safety, security, and effectiveness of the U.S. nuclear weapons stockpile; works to reduce the global danger from weapons of mass destruction; provides the U.S. Navy with safe and militarily effective nuclear propulsion; and responds to nuclear and radiological emergencies in the U.S. and abroad.

Savannah River Nuclear Solutions, a Fluor and HII partnership company, is responsible for the management and operations of the Department of Energy's Savannah River Site, located near Aiken, South Carolina.

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