

Construction Started for Advanced Manufacturing Collaborative on USC Aiken campus

Site preparation for the 60,000-square-foot Advanced Manufacturing Collaborative facility planned for the University of South Carolina Aiken (USCA) campus began this spring, with actual construction expected to start soon. The project is a partnership between USCA, the Department of Energy (DOE) Office of Environmental Management (EM) and North Wind Construction Services, LLC (NWCS).

The AMC will combine the unique capabilities of Savannah River National Laboratory (SRNL), industrial enterprises and educational institutions to drive practical, cost-effective solutions to many of the nation's most challenging environmental cleanup and energy security challenges while facilitating long-term sustainability of the U.S. manufacturing sector.

Plans include new laboratory, office and conference space suitable for advanced manufacturing research and development, and innovation space adaptable to collaborative ventures with academia and industry for commercializing new technologies.

The facility will be located on USC Aiken's campus, adjacent to the proposed National Guard Cybersecurity Readiness Center and collaboration space.



Architect's rendering of the completed AMC.



Replacement of Cell Windows in Shielded Cells Facility Complete

Replacement of the last three cell windows in the Shielded Cells Facility is complete and project closure has begun. Additional steps will now be taken to ready the facility to accommodate the Mk-18A Target Recovery Program, SRNL's Actinide Science and Engineering Testbed, and other long-term innovative nuclear energy, nonproliferation, and safeguards science and technologies.

The Shielded Cell Facility includes skilled operators able to safely remain outside the cells and use manipulator arms to perform complex tasks securely and safely inside a concealed environment. The facility includes 16 6' x 6' workstations with exterior walls made of 3-foot thick, high-density, reinforced concrete with an 1/8-inch-thick stainless-steel liner, and a 3-foot-thick cell shielding window featuring multiplate layers of leaded glass. The SRNL Shielded Cells Facility includes the largest collection of cells with this type of capability in the country, allowing for material handling up to 5,000 curies of 1 Mev gamma radiation.

SRNL Works to Implement Wearable Robotics Technologies

SRNL's Advanced Engineering has been working with other DOE sites to implement wearable robotics technologies. In March, the SRNL team travelled to Sandia National Lab to collaborate with their team to develop and observe Sandia's wearables testbed. The testbed has a collection of wearable devices and exoskeletons with a wide array of sensors and imaging systems to analyze the kinematics of various activities. Additional SRNL work involves collaborations with Florida International University (FIU) and Oak Ridge National Lab. SRNL is working with FIU to integrate their custom device into site operations and have started working with site ergonomists to analyze the device for use in gloveboxes. SRNL is collaborating with Oak Ridge to identify other potential applications to apply wearable technologies.





K-12 Catalyst Grants for STEM Education

Proposals Now Being Accepted for \$125,000 in K-12 Catalyst Grants for STEM Education

Battelle Savannah River Alliance, LLC, the manager and operator of Savannah River National Laboratory (SRNL), announced in February the availability of \$125,000 for its 2023 K-12 Catalyst Grants for STEM Education. One-time grants in the amount of \$2,500 or \$5,000 are available to educators to advance activities and programs relating to science, technology, engineering and mathematics (STEM) in classrooms. Applicants must be a certified K-12 teacher or school administrator in public, charter, or independent STEM schools within the Central Savannah River Area. Applications/proposals are being accepted now through May 31, 2023, and grants will be awarded in August 2023. The online application, Q&As and other information about the K-12 Catalyst Grants for STEM Education can be found at www.battellesra.org/catalyst.

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SRNL UAS Team Receives National Award for Second Consecutive Year



Program won for the third consecutive year.

The SRNL Unmanned Aircraft System (UAS) Program received a government-wide aviation safety award from the U.S. General Services Administration (GSA) and Interagency Committee for Aviation Policy (ICAP) for the second consecutive year. The ICAP promotes sound policy and fosters the highest safety standards across the U.S. government. The 2022 GSA/ICAP Federal Aviation Safety Award follows a recent award presented by the Department of Energy (DOE) Office of Aviation Management to SRNL for the Best UAS Program within the DOE, which the SRNL UAS

The SRNL UAS team consists of a program manager, operations manager, an aviation safety officer, six FAA Part 107 certified pilots, and a trusted operator program level 2 remote pilot. Another individual serves as ground control support and as a visual observer.

The SRNL UAS Program currently has 20 UAS aircraft (rotary and fixed-wing) in its fleet. The team works closely with the DOE-Savannah River Site aviation manager and safety officer to plan and conduct on-site missions under an approved flight readiness review board. The SRNL UAS Program was created in 2017 and provides support to SRNL, the Savannah River Site and its various tenants, the Armed Forces, U.S. Government, law enforcement, and the intelligence community. The UAS Program also supports emergency response, as necessary, to the Savannah River Site (SRS) and the local community.

Savannah River and Navy Engineering Lab Partner to Advance Innovation

The Department of Energy – Savannah River (DOE-SR) signed a memorandum of agreement with the Naval Information Warfare Center (NIWC) Atlantic to open channels of collaboration that advance technology solutions for each organization. Savannah River National Laboratory (SRNL) will act as an agent of the DOE-SR and will directly support the cooperative science and technology interchange with NIWC Atlantic. The cooperative agreement seeks to develop dual-use training, testing and experimentation to enhance each organization’s research and development efforts – from electromagnetic warfare and spectrum operations to cybersecurity and autonomous systems. More information about the agreement can be found at https://www.srs.gov/general/srnl/news/releases/newsrelease_march2023_NIWC_final.pdf.

SRNL in the Community



SRNL Heart Walk participants at SRP Park in North Augusta, South Carolina



SRNL Day of Caring volunteers.

SRNL had a great turnout this year at SRP Park in North Augusta, South Carolina, for the annual Central Savannah River Area (CSRA) American Heart Association Heart Walk. SRNL proudly served as the 2023 Heart Walk National Anthem sponsor and finished in the Top 5 Heart Walk companies in the CSRA raising more than \$18,000. Additionally, 52 SRNL volunteers took part in the United Way Project Vision Day of Caring. The volunteers helped with clean-up and improvement projects at four CSRA area locations: Mental Health of America - Nurture Home, Aiken Youth Development, the Community Ministry of North Augusta, and Tri-Development Aiken.