

● MARCH 2019

SAVANNAH RIVER NUCLEAR SOLUTIONS



# SRNS Today



## Dunbarton Bay

Environmental cleanup  
project begins in P Area

### This month

Regional economic development • MOUs with Ft. Gordon • Education events • Heart Walk





**Stuart MacVean**  
SRNS President and CEO

# Welcome

to the March 2019 edition of

# SRNS Today

On any given day, Savannah River Nuclear Solutions employees are fulfilling national missions, conducting research, managing environmental projects and preparing our local economies and the workforce for the future. Their talent, dedication and commitment to safety and security, are the foundation for our company's success.

This month, excavation began on the Dunbarton Bay environmental cleanup project. Scheduled for completion in 10 months, the project will relocate about 22,000 cubic yards of ash to an SRS landfill. This cleanup project protects an SRS wetlands known as a Carolina bay and is another great example of how SRNS is making the world safer.

SRNS is a strong supporter of our area's business and economic development. Whether it's working to grow and sustain our local suppliers or providing opportunities to the Community Reuse Organization, SRNS takes pride in our ongoing encouragement of area businesses for the common good.

I'm excited about new partnerships with Ft. Gordon and the University of South Carolina Aiken. SRNS and the Savannah River National Laboratory will join these organizations in cyber opportunities as well as career advancement and insights.

Preparing the pipeline for tomorrow's workforce remains a priority for SRNS. Our employees supported numerous education outreach programs during March, reaching students from colleges to elementary schools.

I hope you enjoy this month's edition of SRNS Today, and as always, thank you for your interest in Savannah River Nuclear Solutions.



Savannah River Nuclear Solutions, LLC, is a Fluor-led company whose members are Fluor Federal Services, Newport News Nuclear and Honeywell. Since August 2008, SRNS has been the management and operating contractor for the Savannah River Site, a Department of Energy-owned site near Aiken, South Carolina, including the Savannah River National Laboratory. The SRNS corporate and community offices are located in the renovated 1912 "Old Post Office" building in Aiken, S.C. The primary initiatives of SRNS are national security, clean energy and environmental stewardship. SRNS Today is published monthly by SRNS Corporate Communications to inform our employees and other stakeholders of the company's operational- and community-related activities. If you have questions or comments, please contact us at 803.952.6131 or visit our website.

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# Dunbarton Bay

## Environmental cleanup project begins in P Area

**F**or more than three decades, the SRS P Area powerhouse created electricity and produced steam in support of P Reactor and its mission to produce plutonium-239 in support of the nation's nuclear defense program.

Coal ash generated from powerhouse operations was disposed of within a basin in P Area. This basin was remediated; however, additional ash was discovered outside of the basin extending to a nearby wetlands area.

Excavation has begun to relocate an estimated 22,000 cubic yards of ash to an SRS landfill. This project is expected to be completed within 10 months.

According to SRNS Project Manager Kelsey Holcomb, the ash remediation project will remove a one- to three-foot layer of ash located near the center of the 310-square-mile Environmental Management (EM) site. "Heavy equipment is being used to remove the soil and ash one acre at a time to minimize erosion," said Holcomb. "In all, about 10 acres adjacent to the wetlands area will be cleaned up. Six acres are wooded and will need to be cleared."

Holcomb explained that a dominate feature of this area consists of a Carolina bay, locally known as Dunbarton Bay. Carolina bays are elliptical depressions varying in size with each bay aligned in

a northwest-southeast direction. The term "bay" is a reference to the variety of bay trees that grow in and around these depressions. Many are marshy, especially rich in biodiversity and are ecologically sensitive.

"SRS worked with representatives from state and federal regulators to preserve the bay," added Holcomb. "Ash removal is being controlled to protect Dunbarton Bay's sensitive ecosystem from damage caused by construction activities."

During the last phase of this project, the affected area will be graded and stabilized with sod. "Our plans are to restore the excavation site with the expectation that one day it will return to hardwood forest," he said.

Though P Reactor and the adjacent powerhouse have been decommissioned, P Reactor played an important and historic role throughout the Cold War with the Soviet Union. In 2011, P Reactor was filled to ground level with an estimated 260,000 cubic yards of concrete-like grout. The structure is expected to stay in its present state indefinitely.

The closure of this area and removal of coal ash are significant steps towards completing the EM mission of environmental cleanup at SRS.

## SRNS QA improves inspection safety and accuracy plus ‘reverse engineering’ services

SRNS recently acquired a FaroArm Quantum<sup>s</sup> probing and laser scanning device to improve personnel safety and simplify the process of taking component measurements on site.

The FaroArm offers benefits such as transportability, measurement accuracy, cost and time efficiency, ease of use and increased safety. Most importantly, the FaroArm can be used to aid in the fabrication of obsolete parts through reverse engineering and 3-D printing, reducing maintenance time and associated safety hazards to employees performing the intricate work of identifying needed repairs.

Data can now be easily collected about parts through point-to-point probing or laser scanning; the FaroArm has the capability to scan 600,000 dimensional points per second. Once the information is gathered, it is digitally displayed using computer-aided design (CAD) software, providing a report containing the part's specific measurements. This file can also be uploaded to a 3-D printer for actual fabrication at the Savannah River National Laboratory (SRNL).

In the past, 3-D printed models of SRS facilities have played an important role in the remediation, deactivation and decommissioning of several legacy structures. With the addition of the FaroArm, SRNS can expand the use of 3-D printing technology to improve operations in facilities that have an enduring mission.

“The FaroArm meets all the latest industry standards in laser technology accuracy. We are excited about the prospects for advancements this device is expected to bring to inspection and reverse engineering processes on site,” said Chris Boschetti, SRNS Quality Assurance Manager for Nuclear Materials/Nuclear Material Storage, Environmental Compliance/Area Completion Projects, and Site Services/Infrastructure.

Previously, measurements were taken by hand using micrometers and calipers, which was more time consuming and labor intensive, increasing risk associated with human error and worker safety in environments ripe with potential hazards.

In addition to improving working conditions and personnel safety, the FaroArm is a portable and flexible solution for measurement taking. This allows quality assurance operators to easily transport the device around the site when necessary. In order to use the FaroArm, personnel must first undergo classroom training, demonstrate proficiency and receive a qualification card.

“SRNS is dedicated to continuously improving all aspects of work, both for the enhancement of processes and the safety of our employees,” stated SRNS President and CEO Stuart MacVean. “With new technology comes the potential for innovation, which can help us as we strive to make the world safer.”



Chris Hall of SRNS Quality Assurance demonstrates the capabilities of the FaroArm in taking measurements.

“The FaroArm meets all the latest industry standards in laser technology accuracy. We are excited about the prospects for advancements this device is expected to bring to inspection and reverse engineering processes on site.”

**Chris Boschetti**



The FaroArm has the capability to scan 600,000 dimensional points per second.

## Teamwork leads to safe disposition of contaminated equipment

Solid Waste Management Facility (SWMF) personnel at SRS recently completed the challenge of preparing and shipping a high activity waste tank trailer (HAWTT) safely and without incident.

The HAWTT was previously used by SRNL to transfer high activity liquid waste samples for on-site disposal. This contaminated equipment had been replaced and was safely stored at SRNL. It was then transported to the SWMF for future disposition.

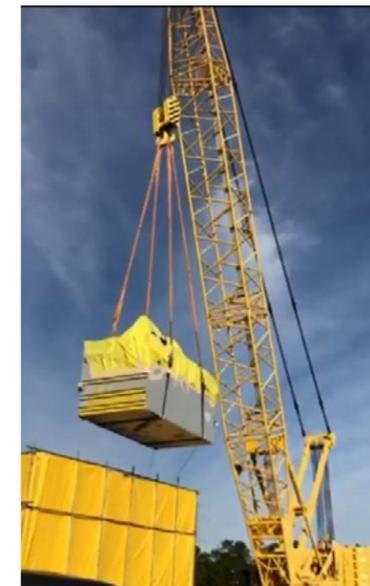
“The project required extensive pre-planning to ensure that it was done safely because of internal contamination in the inner tank,” said Renee Hoeffner, SWMF Project Lead. “The equipment also weighed 124,000 pounds and needed to be lifted and moved from the low-boy trailer it was shipped on to a rail car for disposal.”

The first lift of the HAWTT from the low-boy trailer included the use of jacks and cribbing for an initial radiological survey. Then, wire rope slings and rigging was passed in between the HAWTT and the low-boy. This allowed the HAWTT to be lifted by crane for a full radiological survey and decontamination of the underside. Finally, the HAWTT was loaded by crane into a shipping package, which was staged on a rail car. Much of this work was completed with personnel in air supplied plastic suits inside a containment hut.

“The scope of this activity required the interaction of many departments,” said Hoeffner. “The impressive, strategic teamwork involved many detailed discussions, scope meetings, and walk downs with all team members. Part of our accomplishment came from the agreement to not count the work as successful until it was finished. This way, we were continuously watchful for any changing condition throughout the process.”

The HAWTT was shipped to a company that specializes in nuclear services and decontamination so that it could be disassembled for recycle and disposal.

“The team delivered excellent results without compromising safety,” said Verne Mooneyhan, SWMF Facility Manager. “Our employees were always engaged and proactively looking for hazards and risks in order to mitigate them with the proper controls.”



A crane lifts the HAWTT from containment to place on the railcar.



An SRNS employee safely packages transuranic waste in specialized containers for shipment to the Waste Isolation Pilot Plant.

## SRNS honored by SCMA for continued excellence in safety performance

SRNS was recently recognized by the South Carolina Manufacturers Alliance (SCMA) for continued excellence in safety performance in 2018 at an annual safety summit held in Spartanburg, S.C.

The SCMA recognizes companies across South Carolina with an incidence rate below the statewide average. SRNS completed 2018 by extending the company's strong safety record for another calendar year, accumulating nearly 20 million safe hours since the last lost workday case due to an on-the-job injury.

“The companies who earn this award are held to very high standards,” said Sara Hazzard, SCMA President and CEO. “Strong company cultures recognize that their most valuable assets are their associates and that safe working environments is a collaborative and constant necessity every day.”

In 2018, the SRNS team welcomed 947 new employees to the Site, comprised of 736 full service employees, 192 interns from colleges and universities across the country and 19 laborers. Introducing the company's newest team members into the safety culture required an all-hands-on-deck approach to safety mentoring and engagement from all levels of the organization.

“It was a busy and exciting year for SRNS in terms of hiring and safety performance sustainment. Thanks to the teamwork of our seasoned employees, coupled with the willingness to learn from our new hires we have continued to pass on the strong safety legacy that has been sustained at SRS for more than a half-century. This award recognizes the commitment to safety shown by more than 6,000 employees who are focused on the same goal; to ensure that every employee goes home in the same condition they arrived at work,” said MacVean.

SRNS has earned 124 safety-related awards and commendations since becoming the SRS management and operations contractor in 2008.

# Powering local communities

## Area economic development a priority for SRNS

Economic development across local communities is a top priority for SRNS. Over the past three years, the company has spent more than \$213 million with local area businesses and contracted with 108 new small businesses in the five-county region of Aiken, Barnwell and Allendale counties in South Carolina and Columbia and Richmond counties in Georgia.

“As our missions evolve onsite, we recognize the importance of growing and developing our suppliers as well as attracting new suppliers. This in turn will create an economic boost to our local communities by bringing in money to our municipalities and education system and providing additional jobs,” said Jay Johnson, Director, SRNS Procurement.

According to Aiken Chamber of Commerce President and Chief Executive Officer J. David Jameson, the Savannah River Site drives the economy of this region. “Year after year, there has been a stable workforce and for every job created on the site, additional jobs are created in the region. The site and its employees help to shape the community’s education system, housing needs, amenities and quality of place,” he said.

To attract local suppliers and connect them with SRNS and other contractors across the DOE complex, SRNS hosted three procurement conferences in 2018. These events were co-hosted with the Energy, Technology and Environmental Business Association; the Carolinas-Virginia Minority Supplier Development Council; and the Georgia Minority Supplier Development Council. The next series of procurement conferences will be held in June, July and September.

In addition to the those conferences, SRNS hosted DOE’s 2018 Service Disabled Veteran Owned Small Business Conference, which gave local veteran-owned companies opportunities in both the region and across the complex.

Additional support for local business comes through SRNS’ community support program. Company leadership



participates on various community boards and panels to stimulate growth and development of local small businesses. This program includes SRNS participation in events with the Service Corps of Retired Executives, North Augusta Chamber of Commerce, Aiken Chamber of Commerce and Barnwell County Chamber of Commerce. Through these organizations, SRNS mentors and engages local businesses regarding topics such as working at SRS, as well as general business development best practices.

An example of SRNS’ commitment to local suppliers and economic development is KAMO Manufacturing Company, an SRNS supplier whose mentorship and development has been a local success story. At the 2018 DOE Small Business Forum, KAMO received the Small Business of the Year award for being good stewards of taxpayer dollars and for their contributions toward the continuous improvement of SRS.

## SRNS Procurement shares keys to success with potential partners

SRNS partnered with the Augusta Metro Chamber of Commerce for their March Third Thursday Business Builder, a seminar series on business operations and growth. SRNS provided insight on becoming a supplier of choice and best practices for executing with excellence.

SRNS Director of Procurement Jay Johnson spoke about the site’s missions, the importance of small businesses and supplier expectations. “As our missions evolve, the need for suppliers grows. They are an extension of us. We are searching for suppliers who will be our partner in mission success,” he said.

SRNS event speakers included J. Alex Agyemang, Manager of Small Business Programs and Supplier Partnering; Lorri Wright, Senior Manager of Materials and Acquisition; and Janette Robinson, Manager of Acquisitions Support.

Agyemang gave partnering top tips for small businesses at SRS. He spoke about the importance of developing strong relationships, driving collaboration, performing the assigned scope of work and building core competencies and new skill sets.



SRNS Small Business Programs and Supplier Partnering Manager J. Alex Agyemang (right) speaks to local small businesses about best practices on becoming suppliers of choice at SRS.

Wright spoke about procurement opportunities. She discussed the “ins and outs” of government contracting, the business and missions of SRS and the importance of constant communication and networking. Wright recommended that small businesses “understand safety and security are at the forefront of everything we do. Don’t try to be everything to everyone—find your core competency and communicate your value and what sets you apart from the rest,” she said.

Robinson concluded the session with a discussion on sustaining performance, which included managing your business, increasing your value to SRS and managing your reputation.

## Crane and CRO Vintage crane transfer, sale to bolster area development

SRNS Solid Waste Management (SWM) in partnership with DOE has recently transferred ownership of a 1960s vintage Manitowoc 4600 Ringer Crane to the SRS Community Reuse Organization (SRSCRO). The crane is no longer needed to support Solid Waste missions at SRS. Transfer and removal of the crane by SRSCRO will result in a cost avoidance of nearly \$2 million versus alternative disposition to a landfill. SRSCRO is selling the crane and has begun disassembly for transport to an offsite vendor. Proceeds from the sale will go toward SRSCRO’s directed community programs related to economic and workforce development in the region.



# Fueling the workforce

Job shadowing at SRNS gives participants a look at real-world experience

## *SRNS, Ft. Gordon partner to provide career advancement opportunities*

SRNS is partnering with Ft. Gordon to extend its current job shadowing program on site, to provide career advancement opportunities for veterans, military families and transitioning service members.

The Ft. Gordon job shadowing program will give qualifying U.S. Army personnel an opportunity to gain hands-on experience while rotating through various organizations across the site. Each soldier's 90-day shadowing experience will include rotation opportunities shadowing safety engineers and industrial hygienists that support Site Maintenance, Construction, Subcontractor Safety and facilities in areas such as F Area and Solid Waste.

Not only will the program provide career-building experiences, but participants will also receive one-on-one resume writing and interview-prep skill courses to prepare for future job opportunities.

"The site has an interest in obtaining more individuals who have an established background in safety and leadership training, making the military population prime candidates," said SRNS President and CEO Stuart MacVean. "Veterans have a proven desire to make the world safer, so our mission also aligns with their values."



Stuart MacVean (right), SRNS President and CEO and Col. Jim Clifford, Ft. Gordon Garrison Commander signed a Memorandum of Understanding on March 11 that will allow service members to job shadow at SRS.

The job shadowing program is the first step toward a larger initiative to increase veteran employment at SRNS.

## *USC Aiken nursing students gain clinical insights through SRNS Medical rotations*

As part of SRNS' job shadowing program, SRNS Medical is hosting soon-to-be graduating nursing students from the University of South Carolina Aiken (USCA) to observe the facility's practices while receiving credit towards their Community Health Nursing Course.

Nurses are scheduled to rotate through SRS Medical twice a week in groups of two for eight weeks. Each week, four different nursing students will have the opportunity to be on site for the day and learn about occupational health and safety.

"We are thoroughly enjoying having the USCA students shadow our facility and are looking forward to providing this opportunity to more students in the weeks to come," said SRNS Medical Clinic Manager Cynthia Kroes. "It is so important to give students a glimpse into the work we do at the site as they consider their career options. Nothing could be more rewarding than having students that you mentor to take an interest in a field you are passionate about."

Through this program, students are able to observe nurses as they interview employees, review employee health history forms, work with audiometers and perform pulmonary function tests and



USCA Nursing students Paul McDaniel (left) and Shelby Valentine (center) observe Registered Nurse Misty McCully at SRS Medical.

electrocardiograms. Students also observe SRS medical physicians and nurse practitioners as well as discuss disease processes.

"I'm grateful to have been given the chance to come on site and see occupational health in practice," said USCA Nursing student Paul McDaniel. "Having different clinical experiences like this is really helping to steer me towards the area of nursing I would like to pursue professionally once I graduate."

## SRNL, Cyber School sign strategic relationship MOU

The U.S. Army Cyber School and SRNL have signed a Memorandum of Understanding (MOU) that is a step toward establishing a long-term strategic relationship between the organizations.

The MOU addresses two primary objectives: the potential establishment of a cyber training range at SRNL that would supplement the Army's existing field testing capability and an exchange program that would create continuing education opportunities for personnel from the school and SRNL. SRNL will identify both short-term and long-term national security projects for potential Cyber School student participation; the Cyber School will identify relevant classes that may be audited by SRNL staff members who are working in areas related to cybersecurity.

"There is a significant element of our national security and energy related research that involves securing critical national assets from a variety of different potential threats," said Dr. Vahid Majidi, Director of SRNL. "We believe this is the beginning of a very important partnership that will allow us to improve what we do through collaborating, sharing information and working together with the Army on a key national security imperative."



Brigadier General Neil Hersey (left), Commandant of the U.S. Army Cyber School and SRNL Director Dr. Vahid Majidi signed an agreement that will pave the way for collaborative national security projects between the two organizations.

## Project VISION: SRNS employees volunteer on day off to help others

The ringing of hammers and the shrill screech of saws recently filled the air during this year's SRNS Project VISION (Volunteers in Service in our Neighborhoods) charitable event.

Project VISION was established in 1996 as a way to help United Way (UW) of Aiken County partner agencies with facility maintenance. Many of these agencies operate on limited budgets and contending with day-to-day costs is often difficult.

"I can't speak highly enough about the hundreds of SRS employees who come out each year and accomplish so much for those in need," said Joey Smiley, SRNS employee and Project VISION Coordinator for the company. According to Smiley, more than 200 SRNS employees volunteer to take a day off each year to work on one of 17 teams. Over 500 man-hours were invested in projects throughout Aiken County for this year.

UW partner agencies receiving assistance this year include: Tri-Development, YMCA, Child Advocacy Center, Community Medical Clinic of Aiken County, Mental Health America of Aiken County, Golden Harvest Food Bank, Helping Hands, Salvation Army and ACTS (Area Churches Together Serving).

Team projects typically include clearing debris, applying paint, repairing flooring, performing minor electrical work, putting up dry wall, constructing fences, building wheel chair ramps, replacing rotting boards, fixing faulty plumbing, caulking and performing yard work.

Days of Caring Projects CARE and SERVE will take place in April. Project CARE will focus on residents of Barnwell County, while Project SERVE will assist those living in Richmond County.



Ed Scott of SRNS digs post holes for a set of steps at a project site in New Ellenton, S.C.



SRNS employees, families and furry friends all turned out for the 2019 Heart Walk.

# Super Heroes of Heart

## SRNS employees turn out for Heart Walk, raise \$109,711 for AHA

SRNS recently hosted a record-breaking 2019 American Heart Association (AHA) Heart Walk Campaign by raising \$109,711, exceeding the original \$90,000 goal. SRNS was recognized for being the seventh company across five states to join the AHA Mid-Atlantic Affiliation for raising over \$100,000 and joining the ranks of prestigious companies as a six-figure-level contributor.

Participants met at the North Augusta Greenway on March 9 for the annual Central Savannah River Area (CSRA) Heart Walk, which is hosted by the AHA. The event invited sponsors from across the CSRA and offered attendees informational booths and activities to participate in while raising awareness for cardiovascular health.

American Heart Association of the CSRA Director of Development Kim Enoch was very appreciative of the hard work and dedication put in by SRNS employees. "The funds raised by SRNS employees will help the local American Heart Association make an impact in our community by funding education – reaching people to help them lower their risk for cardiovascular disease and stroke."

## Fundraising on the half-shell

On March 1, over 165 SRNS employees, their families and friends, gathered at the Fermata Club in Aiken, S.C., for an oyster roast, raising over \$8,000 for the American Heart Association's Heart Walk.

"This year, I wanted to do a different kind of fundraiser," said Janice Lawson, SRNS Heart Walk Campaign Executive Sponsor and Deputy Vice President of EM Operations. "We all know someone who has been touched by heart disease. Our donations help the AHA provide life-saving initiatives such as research and education tools."

Entertainment was provided by the band Reverse Effect, whose members include two brothers who are SRNS employees. The event also featured a silent auction.



SRNS LEAP members assisted with tent set-up at the event.

SRNS employees across the site held fundraisers from January to March to raise money for the AHA Heart Walk. Fundraisers included candle sales, a cornhole tournament, luncheons and silent auctions.

2019 SRNS Heart Walk Chair Ryan Cullum was thankful for the amount of participation throughout the campaign. "I would like to personally thank the employees of SRNS for making this year's campaign a success. We were able to shatter the original \$90,000 goal and raise \$109,711," said Cullum. Since 2009, SRNS has been a leading contributor to the CSRA Heart Walk benefitting the AHA.

"It's inspiring to see our team coaches and all of the SRNS employees join forces for such an important cause," said Janice Lawson, SRNS Heart Walk Campaign Executive Sponsor and SRNS Deputy Vice President of Environmental Management (EM) Operations. "Being recognized as the second company in the CSRA to ever raise over \$100,000 goes to show the hard work and dedication of the employees that work for SRNS. It's truly an honor to know and work so closely with so many selfless individuals."



# Area students work 'inside the box' at Youth Forum to learn about potential SRNS careers

Nearly 250 high school seniors from the Aiken County School District attended the Lower Savannah Council of Governments and S.C. Department of Commerce annual Youth Forum at Aiken Technical College (ATC), and SRNS was there to provide a "hands-on" experience for potential careers for these students.

The Youth Forum is designed to target high school students who have not decided their path after graduation. The forum exposes students to local industry careers, college readiness, career preparation and life choices.

"Encouraging the next generation to pursue careers in STEM fields is a real need for SRS," said Francine Burroughs, SRNS Talent Acquisition and Development. "Right now, we need graduates of one- to two-year degree programs, which include operators, radiation control specialists, welders, mechanics and other personnel," said Burroughs. "We are reaching out to these students early in their academic life to encourage them to consider this career path."

Students worked with glove boxes to experience what it would be like to work in a radiation protection area at the site. Students also saw exhibits and interactive demonstrations in nuclear energy, cyber security, health sciences and advanced manufacturing.

"It's very important for them to have this opportunity to see firsthand the careers we have available in the area," said David

Deal, ATC Radiation Protection Technology Program Instructor. "It's also important for them to come to ATC and get a start on their career and education."

In addition to the Radiological Protection Technology degree program, SRNS and ATC have partnered to create a Nuclear Fundamentals Certificate Program for process operators, akin to the program at Augusta Technical College.

The SRNS Training Department has also participated in the "Aiken Works" High School Career and Transition Fair for tenth grade students. "Aiken Works" teams up with local businesses to prepare students for the workforce through authentic hands-on paid experiences, allowing students to develop employable skill sets while building a future workforce for the community.

South Aiken High School guidance counselor Heather Price brought students "who haven't really made their minds up about where they want to go" next year, she said. "It's been wonderful for them to see all the hands-on technology," she said. "They're seeing what new jobs are available at the site."

Hiring at SRS is at a higher than normal level and expected to continue for several years as a large percentage of employees become eligible to retire. "As our missions continue to expand, there are a vast number of opportunities at the Site," said Burroughs.



Aiken County School District students and SRNS Site Training Department's Booboo Roberts work with glove boxes at the Youth Forum.



SRNS engineer Nathan Derussy works with a group of Kennedy Middle School students in Aiken, S.C., to assemble and test a fiber-optics based, two-way communication system.



Bruce Easterson, SRNS Senior Vice President, Chief Engineer and Nuclear Safety Officer, provides advice to Kennedy Middle School students building an air-powered racecar.

## Teach-Ins bring science to life for middle school students

SRS engineers and scientists recently provided interactive demonstrations and informative discussions to give area students a broader understanding of the fields of science and engineering. “Teach-Ins” were held featuring interactive, science and engineering-based demonstrations at 30 middle schools in South Carolina and Georgia in support of National Engineers Week. In total, 72 teach-in sessions were conducted over a two-week period. More than 60 SRS engineers and scientists volunteered to support this program. Managed by SRNS since 2008, Teach-Ins have reached more than 20,000 students within this region. Over the years, hundreds of enthusiastic SRS Teach-In volunteers have provided thousands of hours of assistance and shared high-level skills. The students at participating schools benefit from a wide range of science and engineering demonstrations and clever presentations to include the following topics: the properties of fire, making a bridge out of straws, air-powered model cars, creating homemade hover crafts and fiber optic communication systems. “With this approach to learning, you see the practical applications they are bringing to us,” said Reginald Dupree, Kennedy Middle School, seventh grade science teacher. “It’s not just me providing information. The students are engaged and deeply involved with the presenters who are a part of the real world.”



Larry Morris (left), mentor; Jill Potvin, educator; Jenna Potvin; Kyle Kaufelds; and Eliza King are shown receiving their National Future City award for Best Future City Project Plan at the finals in Washington, D.C.

## Local students win special award at national Future City competition

The winning team from the S.C. Future City Regional Competition, “Urbe Grafito,” Aiken Area Home Educators, recently won a National Future City award for Best Future City Project Plan.

Competing with teams from 37 national and five international regions, the team showcased their creativity and knowledge of the engineering design process in front of 20 teams of special award judges and two panels of preliminary judges.

The team also ranked fifth overall in the nation for their 1,500-word essay describing the features and advantages of their city.

S.C. Regional Coordinators, Taylor Rice and Kim Mitchell, both SRNS employees, and John Hutchens, USCA, were also honored for winning the 2019 Leadership Development Award for making improvements to their local Future City organizational structure and for having a history of strong leadership.

## SCIENCE FAIR

With the support of SRNS and the USCA Ruth Patrick Science Education Center, hundreds of CSRA science-savvy students recently participated in the 2019 Savannah River Regional Science and Engineering Fair competition.

This year’s winners within the High School “Best of Show” category are: First place, Madison Ackroyd, Aiken Scholars Academy; second place, Kiara McKnight, Allendale-Fairfax High School; and third place, Rhys Medcalfe, Davidson Fine Arts Magnet School.

More than 200 students representing schools from a seven-county region located within the greater Aiken-Augusta area put their project on display at USCA in an attempt to impress the judges.

Each year, about 7 million high school students around the globe develop research projects and present their work at local science and engineering fair competitions with the hope of making it to the Intel International Science and Engineering Fair in Phoenix, Arizona.

With the support of co-sponsor USCA, SRNS coordinated the competition for the ninth year. Forty volunteers from SRS, USCA and the community typically participate as officials and judges for this competition.



Science Fair second place winner (High School: Best of Show) Kiara McKnight, Allendale-Fairfax (S.C.) High School, explains her project to judge Dave Fauth.

“The Savannah River Regional Science and Engineering Fair gives young people from the area the opportunity to explore the world of science and technology and develop their scientific investigation skills,” said Taylor Rice, SRNS Science Fair coordinator.

Projects were judged for scientific reasoning, creative ability, thoroughness, technical skill and clarity.

# Science Fair + Science Bowl

## Annual competitions focus area students on STEM subjects

## SCIENCE BOWL

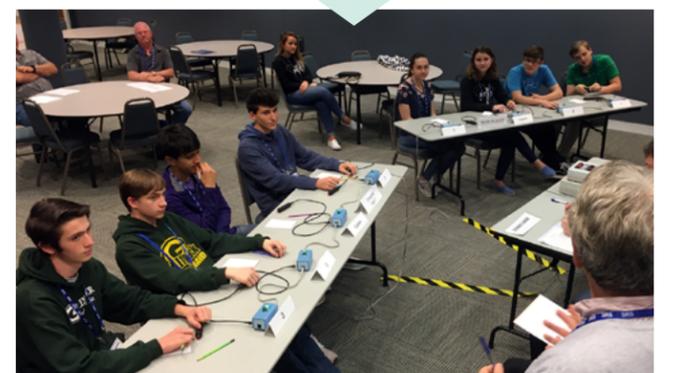
Some of our country’s future scientists, mathematicians and engineers recently put their knowledge to the test during this year’s DOE Savannah River Regional Science Bowl® Competition, which attracted 24 teams from South Carolina and Augusta, Ga.

This year’s winning team from Lakeside High School, Evans, Ga., has earned an all-expense paid trip to the National Competition to be held in Washington, D.C., April 25-29.

During the day-long event, tension and excitement filled the rooms at USCA, where competing teams listened carefully to questions, hands ready to buzz-in, knowing every correct answer is one step closer to representing their school and region at the national level.

The format used is similar to the television show “Jeopardy,” where teams face-off during a timed period of fast-paced question-and-answers. Questions cover a wide range of academic disciplines including biology, chemistry, earth science, physics, energy and math.

Science Bowl teams consist of four students, an alternate and a teacher who serves as an advisor and coach. This year’s regional contest involved 119 students from 17 high schools and is the only



DOE Science Bowl teams from Greenbrier High School (foreground), Evans, Ga., and North Augusta (S.C.) High School make last minute preparations moments before the next round of competition during the regional competition.

academic competition of its kind that tests students’ knowledge in all areas of science and is sponsored by a Federal agency.

SRS is one of only four DOE sites to have participated each year at the regional level since the start of the Science Bowl competition. Managed by SRNS, the event depends heavily on volunteers from the community and multiple contractors at SRS who work as scorekeepers, timers, judges and other functions.



SRNS engineer Steve Watson helps Millbrook Elementary students create battery-powered Lego windmills during Science Enrichment Day.

## Elementary students celebrate science with SRNS engineers

SRNS scientists and engineers recently engaged students and piqued their academic curiosity during this year's Science Enrichment Day at Millbrook Elementary School in Aiken, S.C.

According to Gladys Moore, SRNS Education Outreach, these employees chose to use their day off to touch the lives of as many students as possible, creatively providing a wide variety of STEM-based hands-on activities.

The students of Diane Hyatt's kindergarten class were enthralled when challenged to create a battery-operated windmill made of Legos. "I think it's incredible that SRS is partnering with us, bringing science and math to our students in a whole new light, enabling them to see

the careers that involve these fields. They were extremely excited about what we were learning," said Hyatt.

SRNL scientist Fabienne Johnson explained that this event allows her to share her knowledge with the students. "It's really cool to see the way their eyes light up and to experience their enthusiasm," she said.

From slime and magnets to dancing spiders and the science of fire, the topics experienced were as diverse and energizing as the delight and creativity displayed by the students.

"This has all been interesting," added fifth-grader Ryan Crapse. "We got to incorporate science into something fun, play with stuff called 'slime' and learn about internet safety."



Rick Sprague (with microphone), SRNS Senior Vice President of Environment, Safety, Health and Quality, welcomes AMP members to the recent development event.

## AMP event focuses on overcoming unconscious bias in the workplace

More than 100 Aspiring Mid-Career Professionals (AMP) members and guests recently gathered for a highly interactive workshop titled "Lead From Within: Overcoming Unconscious Bias in the Workplace."

The event was led by Melissa Furman, Assistant Dean at the James M. Hull College of Business at Augusta University and founder of Career Potential, LLC.

Furman began the workshop by providing examples of unconscious biases. She explained that humans have a natural instinctive response to stimuli, originating from fight or flight responses to danger. That instinctive response often leads us to make decisions faster than conscious thought. Authors for job descriptions often make unconscious word choices that conform to one gender or the other when they have a pre-determined bias about the gender of the person best to fit the role.

The workshop included the introduction of the 2019 AMP Steering Committee Members.

"I've studied unconscious bias before, and Melissa did a much better job of explaining it than I ever have," said AMP member Jesus Mancilla. "It was great to see other people's awareness developing as we listened, and I look forward to collective improvements as we tackle this issue."



Keynote speaker Melissa Furman, Assistant Dean at the College of Business at Augusta University, leads a group exercise during the event.

## SRNS intern named 'Future Leader' by welding society

An SRNS intern has been named as a "Future Leader" by the American Welding Society (AWS).

Tori Shekasteband first got involved with welding in high school when her mother Le Anne Barkley, who works in SRNS Records Management supporting Area Completion Projects, encouraged her to pick welding as an elective. Before long, it became Shekasteband's favorite class.



Tori Shekasteband

"When I was in high school, a speaker from SRNS visited my welding class and talked about the high demand for qualified

welders at SRS," Shekasteband recalled. "Hearing about the important role welders play led me to consider taking welding beyond high school. I knew there could be the opportunity to pursue a lucrative career, and I could stay local."

Shekasteband, a sophomore business major at the University of South Carolina Aiken (USCA), earned her associate degree in welding from Aiken Technical College (ATC) in August 2018. She has interned in supply chain management at SRNS since October 2018.

This is the first year for AWS' Future Leaders Program, which offers opportunities for early-career professionals in welding to interact with industry leaders, gain leadership skills and participate in discussions to set policies within AWS.



## SRNS LEAP members volunteer with ReStart Augusta

SRNS Leaders Emerging Among Professionals (LEAP) recently volunteered with ReStart Augusta, a non-profit organization that provides beds to children, families and veterans in the CSRA who are in need of a comfortable place to sleep.

LEAP volunteers contributed 54 man-hours of service, helping cut, sand, paint and assemble two twin beds, as well as assist in the process of deliveries and donation pick-ups.

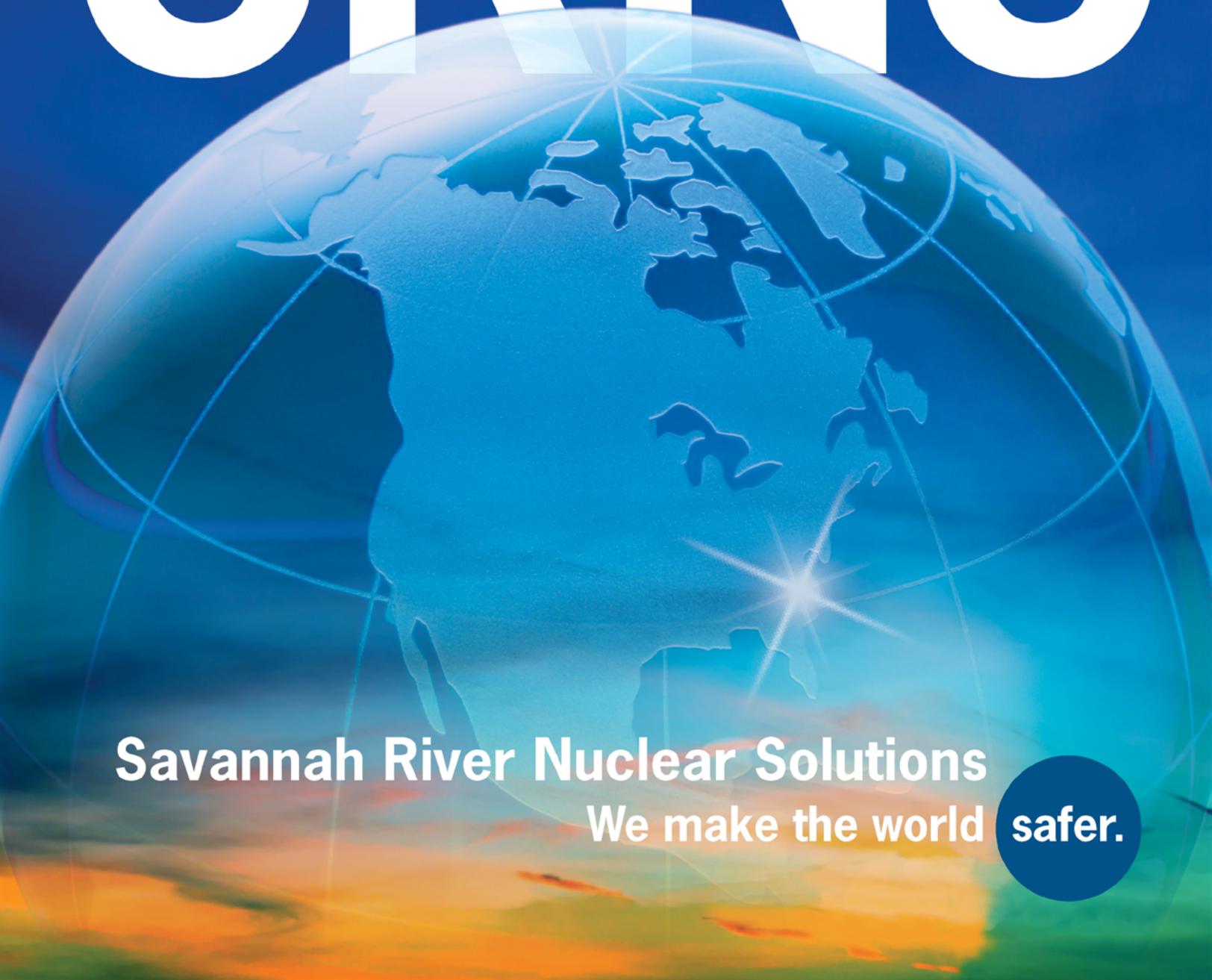
"We have the ability to shape the future and improve the lives of others," said Savannah River Tritium Enterprise Quality Engineer and LEAP committee member Taylor Gomillion. "Providing early-career professionals with opportunities to give back to the community is such a rewarding experience."

Over the past five years, ReStart Augusta has worked diligently to improve the lives of those in the area, donating over 2,000 beds to approximately 750 families with the help of more than 300 volunteers, such as those from LEAP.

LEAP is a peer-led organization whose members are full-time employees at SRNS and have earned, at a minimum, an associate degree within the past seven years. LEAP focuses on professional development and business awareness specific to SRS. In addition, it provides employees with career development tools through monthly lunch and learns, networking opportunities, increased visibility and overall engagement within the company.

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