

● MARCH 2018

SAVANNAH RIVER NUCLEAR SOLUTIONS



SRNS Today



HFIR spent nuclear fuel campaign begins

For first time, three different uranium streams feed H Canyon

This month

Notable SRS visitors • Welcoming new SRNL director • Heart Walk • Education events





Stuart MacVean
SRNS President and CEO

Welcome to the March 2018 edition of SRNS Today

Savannah River Nuclear Solutions is known in the community for our company's generosity, our Education Outreach program and for the economic impact we make. With all the other excellent work we are doing, it can sometimes be easy to overlook Environmental Management Operations (EMO), which is one of the main reasons the work we do is important.

H Canyon recently restarted dissolving High Flux Isotope Reactor fuel. This marks the first time that three different uranium streams have fed the canyon at one time. It's just one example of how EMO continues to safely perform spent nuclear fuel disposition and nonproliferation work.

EMO is also constantly looking for more efficient and safer ways of working. K Area recently made changes to their annual destructive evaluation program that cut the time needed to perform these examinations in half. In addition, HB Line and K Area are working to cross-qualify operators, leading to better use of Site resources and expanding the knowledge of the operators.

Outside of EMO, SRNS had a busy month. We welcomed a new laboratory director—Dr. Vahid Majidi—to SRNL. We participated in the CSRA Science Bowl, Engineering Teach-Ins, the CSRA Heart Walk and United Way's Project VISION. We were also visited by the new National Nuclear Security Agency Administrator Lisa Gordon-Hagerty and DOE Under Secretary for Science Paul Dabbar.

Looking at the large scope of what we do, keeping safety and security in the forefront and operations at the center, SRNS is truly an impressive place to work.



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 803.952.9584 or visit our website.

www.savannahrivernuclearsolutions.com



HFIR spent nuclear fuel campaign begins For first time, three different uranium streams feed H Canyon

H Canyon at SRS recently began dissolving spent nuclear fuel (SNF) from the High Flux Isotope Reactor (HFIR) at the Oak Ridge National Laboratory (ORNL) in eastern Tennessee.

"This campaign marks the first time H Canyon has dissolved HFIR SNF since 1988, and the first time ever that there have been three different uranium streams feeding H Canyon simultaneously," DOE Nuclear Materials Programs Manager Maxcine Maxted said. "The other streams are Material Test Reactor spent nuclear fuel and Target Residue Material. Multiple uranium streams allow for better utilization of the canyon capabilities."

The HFIR reactor is the highest flux reactor-based source of neutrons for research in the U.S. utilizing highly enriched uranium. The fuel elements, an inner and an outer element, together form a reactor "core." After these cores are used, they are stored at ORNL for eventual shipment to SRS for processing.

Once the cores arrive at SRS, they are stored in the L Area spent fuel basin underwater to reduce radiation rates while awaiting processing in H Canyon. The HFIR reactor at ORNL operates in support of its neutron scattering and isotope production mission, and SRS will continue to receive fuel cores to support its operation. L Area is currently storing 120 HFIR cores, which is the maximum

capacity for HFIR storage. ORNL will reach its maximum capacity for storing HFIR fuel in fiscal year 2020. To ensure there will be enough SNF storage for the HFIR reactor to continue its mission, DOE directed SRS to dissolve HFIR beginning this year.

H Canyon's mission is to blend down highly enriched uranium (HEU) SNF from domestic and foreign research reactor fuel into low enriched uranium (LEU). LEU can be used to make fuel for commercial power reactors and also makes the HEU non-proliferable.

To begin the first step of the chemical processing that turns HEU SNF into LEU, over a period of five months, H Canyon reconfigured one dissolver and replaced the second dissolver that contained a failed cooling coil last year. Preparation for the HFIR mission also included revising the safety analysis and procedures, training personnel and a lot of practicing in both H Canyon and L Area.

"It took a lot of hard work and dedication to prepare for this campaign," Maxted said. "However, we knew that the employees of L Area and H Canyon were up to the task. H Canyon is once again proving that it is a crucial element in enabling other DOE research facilities, such as the DOE National Laboratory at Oak Ridge, to continue operation. It is this kind of collaboration that makes the DOE Complex effective."

Dr. Vahid Majidi named new SRNL director

Dr. Vahid Majidi has been named SRNS Executive Vice President and Director of Savannah River National Laboratory, replacing Dr. Terry Michalske, who recently stepped down.

“Vahid’s extensive experience in addressing national issues and proven leadership skills make him an ideal fit to oversee SRNL,” Stuart MacVean, SRNS President and CEO, said. “His role in this key leadership position, demonstrates our ongoing commitment to achieve meaningful and sustainable mission growth at SRNL.”



Dr. Vahid Majidi

Dr. Majidi is a decorated former member of the senior executive service and senior intelligence service with direct reporting responsibilities to the Secretary of Defense, Director of National Intelligence and the Director of the Federal Bureau of Investigation (FBI).

He has served as a Senior Vice President for Strategic Initiatives at Stinger Ghaffarian Technologies, Inc., providing solutions in scientific, engineering, technical, and research and development environments.

Dr. Majidi served as the Deputy Assistant Secretary of Defense for Nuclear Matters, where he was responsible for all aspects of nuclear weapon surety and the management, integration and coordination of activities relating to the acquisition and modernization of the nuclear weapons stockpile.

Prior to joining the Department of Defense, Dr. Majidi served as the Chief Scientist for Infrastructure Protection and Security business unit at TASC Inc., and the Director of University Multispectral Laboratories focusing on national security, homeland security and issues concerning advanced technologies.

From 2006 to 2012, Dr. Majidi served as the Assistant Director for the Weapons of Mass Destruction (WMD) Directorate at the Federal Bureau of Investigation, where he was responsible for coordinating and managing the FBI’s equities, activities and investigations involving WMD. Specifically, the Directorate was charged with developing and executing an integrated approach to deny access to WMD materials and technologies, prevent WMD attacks and respond to WMD threats and incidents.

In 2003, Dr. Majidi was appointed by the Deputy Attorney General to serve as the Chief Science Advisor to the Department of Justice (DOJ) and was detailed from Los Alamos National Laboratory (LANL) to the DOJ where he was responsible for coordinating science and technology policy among the Department’s component agencies and with state and local law enforcement entities. He served as the lead Department representative for biosecurity, pathogen forensics, DNA technologies, biometrics programs and as the liaison to the scientific community.

Dr. Majidi also served as the Chemistry Division Leader at LANL and was a tenured associate professor of chemistry at the University of Kentucky.

Dr. Majidi received his bachelors degree in chemistry from Eastern Michigan University and his doctorate from Wayne State University. He was a Post Doctoral Fellow at the University of Texas at Austin.



Under Secretary Paul Dabbar (from left) and SRNS Materials Disposition Engineer Mike Lewczyk watch as H Canyon Crane Operator Bruce Cain demonstrates remote-control cranes.

Under Secretary for Science Paul Dabbar tours SRNS operations, signs SRNL MOU

DOE Under Secretary for Science Paul Dabbar recently visited SRS to learn more about site operations and SRNL.

On day one of his two-day visit to SRS, Dabbar focused on nuclear operations with stops at all the site’s major nuclear materials management and cleanup facilities. He first received an overview of the plutonium down blend process in K Area. Down-blending, also referred to as dilute and dispose, involves blending plutonium oxide with an inert material resulting in a final waste form.

Dabbar toured L Area Disassembly Basin and spent nuclear fuel Storage, and was briefed on nuclear processing in H Canyon, the only operating, production-scale, radiologically-shielded chemical separations facility in the U.S. Dabbar also visited the facilities housing the Savannah River Tritium Enterprise, which is operated by SRNS for NNSA. SRTE helps to maintain the U.S. nuclear stockpile by supplying gas transfer systems, which ensure the performance of nuclear weapons.

On the second day, Dabbar signed an agreement establishing DOE Environmental Management’s SRNL as the lead national laboratory providing technical support to DOE’s management of remediated cleanup sites.

According to the Memorandum of Understanding (MOU), the DOE Office of Legacy Management (LM) will gain formal access to SRNL technical expertise and assistance. Since the mid-1990s, the lab has addressed critical technical issues for LM, which manages and monitors more than 90 sites in the former nuclear weapons complex where environmental cleanup has been completed.



Outgoing SRNL Director Dr. Terry Michalske (from left); DOE Under Secretary Paul Dabbar; and Michael Budney, Manager of the Savannah River Operations Office, sign an MOU establishing SRNL as the lead national laboratory providing technical support to remediated cleanup sites around the nation.

“This MOU facilitates SRNL by providing an opportunity to provide technology for DOE’s Legacy Management office for their long-term environmental stewardship mission, with access to some of the best environmental scientists and engineers in the nation,” said Dabbar.

In addition, Dabbar toured facilities at SRNL’s main campus and the materials science laboratories at its Applied Research Campus. Among the highlights of the visit were a stop at the SRNL Tritium Research Laboratories, a briefing on SRNL innovations in high-level waste processing, an overview of its nuclear materials processing expertise in the SRNL Shielded Cells Facility and a discussion about advanced manufacturing.

● A View to the Future

Dr. Majidi shares his observations about SRNL and the opportunities it has for growth during an all-employee meeting on March 27 at the Etherredge Center in Aiken, S.C. In addition to outlining key program areas for expansion, he discussed boosting business development activities and customer engagement.



New NNSA Administrator selects SRS for first visit

Two weeks after being sworn in as DOE's Under Secretary for Nuclear Security and Administrator of the National Nuclear Security Administration (NNSA), Lisa E. Gordon-Hagerty traveled to South Carolina to visit SRS, making it the first field site she visited since being named to the post.



Lisa E. Gordon-Hagerty

The visit gave her an up-close look at facilities that play an integral role in NNSA's nuclear security mission, as well as an opportunity to meet some of the SRNS employees who carry out that mission. Her tour included the Savannah River Tritium Enterprise (SRTE), which supplies and processes the radioactive isotope of hydrogen used in the nation's

nuclear defense. There, she saw how these important functions are carried out, and learned about plans to consolidate the SRTE production processes in more modern facilities to ensure continued success for ongoing and new missions. She also visited K Area for a discussion on the dilute and dispose option for downblending surplus plutonium.

Before heading to the site, Administrator Gordon-Hagerty met with several local officials to formally introduce herself and discuss the vital national security work being done at SRS.

"Savannah River's workforce is world-class and NNSA is committed to a close partnership with this community," she said.

The visit was a homecoming of sorts for the Administrator, who started her career while a graduate student in health physics at what was then the Savannah River Plant.

Rollout of operating system keeps SRTE moving ahead

Even if you're on the right track, the saying goes, you'll get run over if you just sit there.

SRTE has a long history of consistently providing the tritium and related products and services that our national defense requires. Bearing down on SRTE, however, are the realities of aging facilities, constrained budgets, employee turnover and increased work scope.

To continue moving ahead, two years ago SRNS began systematically rolling out SRTE's new operating system called TOPS (for Tiered Operating Performance System), which provides a structure for daily engagement by all employees to ensure the sustainability of improvement gains. As SRTE's TOPS rollout nears completion and begins spreading to other areas of SRS, some of its key elements are readily visible to anyone who visits SRTE's facilities.

The Visual Management System can be seen in the Tier Boards posted throughout the area and updated throughout the day by each work group. They serve as a "scoreboard" for the group's activities to quickly show the current state of the process, with metrics on delivery, disciplined execution of work, safety and other factors, along with issues, action items and daily priorities. These boards are tailored to the group's information needs.

Tiered Accountability is seen in the daily series of brief stand-up interactive sessions, which use the information on the Tier Boards to facilitate employee engagement. These interactions start at the work group level (Tier 1); then representatives from those sessions roll the information up to the facility level (Tier 2), then to the SRTE Operations (Tier 3) session. On a weekly basis, the information rolls up to Tier 4, with management representatives from throughout NNSA Operations & Programs. This structure encourages engagement by all employees, while ensuring that issues are elevated in a timely manner, so that management knows where their assistance is needed to remove roadblocks.

TOPS builds on strategies introduced to SRNS through the Focused Improvement Transformation (FIT) initiative and incorporates many of the FIT/Lean management tools, including Value Stream Analysis, Rapid Improvement Events, "5S" (Sort, Set in Order, Shine, Standardize and Sustain) and Gemba walks (management field observations). The various tools, however, are not the essence of TOPS. "The point of TOPS," said Sr. Vice President – NNSA Operations & Programs Wallis Spangler, "is the way it brings together all of these elements into an operating system that engages all employees and holds everyone accountable for their role in identifying, implementing and sustaining improvement."

The rollout began with the working groups in SRTE's H Area Old Manufacturing Facility (HAOM); once it was implemented throughout that facility, personnel began rolling it out through the other SRTE operating facilities. In each facility, participation includes not only Operations, but also Radiological Protection, Quality, Maintenance, Labs and Engineering Support.

"It was important, as we planned how to roll out the TOPS implementation, that we began with the work groups, with the people who are actually carrying out the work," said Pat Rapp, manager of Continuous Improvement. "They're the ones that know what the daily issues are that get in the way of work and where to best improve our business."

Now, it has not only been implemented up through the senior management level, but is also in use by SRTE's NNSA customer, the Savannah River Field Office. Field Office personnel have their own tier boards and interactive sessions, but they also participate in various levels of the facilities' sessions, to ensure engagement between contractor and federal personnel.

SRTE is continuing to roll out TOPS through support organizations, including Work Management and Projects.

K Area improvements lead to significant time reduction in annual examinations

Improvements in processes in K Area at SRS have increased efficiency and have led to a 50 percent reduction in time needed to complete destructive evaluations (DEs), an annual process that validates the Site's ongoing commitment to maintaining the safety and security of the nuclear materials stored there.

DEs are performed to ensure the integrity of containers holding plutonium-bearing materials, called 3013 containers. A number of these containers are opened every year using the K Area Interim Surveillance (KIS) glovebox, a specialized steel box with glass panels and glove-port openings that allow personnel to handle contaminated materials while shielding and segregating the worker from radiological hazards associated with the materials. Once opened, operators retrieve samples of the materials inside and examine the containers for any corrosion or other signs that the container is losing its integrity.

The KIS glovebox is not only used for Destructive Evaluations, but for plutonium down-blend as well. Down-blend—the process of mixing plutonium oxide with an inert material—is performed to disposition the material out of South Carolina by sending it to a final repository.

"We were challenged by the senior management team to shorten the time it takes to perform annual Destructive Evaluations, which would allow us more time in the glovebox to perform down-blend activities," said K Area Facility Manager Janice Lawson. "We took that challenge to our employees in the field and their innovation helped us lower the time it takes to complete a DE from eight days to four days."

"The Operations and Engineering personnel definitely stepped up to the challenge," K Area Deputy Operations Manager Chris Crawford echoed. "They identified a number of process and procedure improvements, while always making sure to keep safety and security at the forefront of the process."

Cross-qualification pilot program benefits missions, employees

In a new pilot program, operators from K Area and HB Line at SRS are being cross-qualified, leading to better use of Site resources and expanding the knowledge of the operators.

Both K Area and HB Line are used for plutonium operations. Much of that work is done inside gloveboxes, which are specialized steel boxes with glass panels and glove-port openings that allow personnel to handle contaminated materials while shielding and segregating the worker from radiological hazards associated with the materials.

"The need to cross-qualify operators between the two facilities became apparent when K Area accepted a new plutonium blend-down mission last year," said Wyatt Clark, Senior Vice President for Environmental Management Operations. "We looked at the two facilities and realized, because of their similar missions, we had a

50% time reduction
for destructive evaluations
from 8 to 4 days

One of these procedure improvements included modifying an outdated procedure to allow for mass-based inventory of materials versus the old limitation of only allowing one item to be handled in the processing area at a time. This allowed the material inventory to be performed more efficiently and reduced exposure to the workers.

Other improvements included eliminating the need for previously required non-value-added, self-imposed requirements, procedure revisions, and developing activities that reduce the amount of down-time between sending samples of oxide to the Savannah River National Laboratory for testing and receiving the results.

"We are especially impressed with the ingenuity of our personnel considering that, with the implementation of the down-blend program last year, their jobs have changed from surveillance and maintenance facility duties to operating facility duties," said Lawson. "It has been a mind-set change and our personnel have shown that they are flexible and up for any challenge."

According to Lawson, K Area personnel will continue to look for ways to improve their operating time. "We will continue to come up with innovations to make sure we are meeting the needs of DOE, our state and our country. This is our bread and butter and we are the best trained people to do it," she said.

unique opportunity to share resources, expanding the knowledge and qualifications of our workers and benefitting both our facilities and the operators themselves."

A team of HB Line and K Area employees worked with the SRS Training Department to determine what qualifications the operators had and would need to cross-qualify.

"This pilot program will poise our operators for long-term success and give them flexibility to work on future missions and projects more easily. Our glovebox operators are highly trained and skilled and we want to make sure we maximize their utility working on important DOE missions," said Clark.

The initial program will cross-qualify five operators. It will take two to three months to complete all the required training.

Integrated teamwork leads to repackaging of legacy mixed waste

Employees from 13 SRS organizations recently came together to safely and successfully repackage Tritium Gold Trap Cylinders, a mixed waste, for future disposition off site.

“Despite many challenges, we removed these cylinders from a concrete culvert and repackaged them into Standard Waste Boxes (SWBs) without a contamination event or an injury,” said SRNS Solid Waste Management Facility (SWMF) Lead Operations Specialist Renee Hoeffner. “This was thanks to the many site organizations who worked closely together to ensure that the job was done safely.”

In the past, Tritium Gold Traps were used to remove mercury vapor from the tritium process. Between 1985 and 1992, the spent Tritium Gold Traps were placed into stainless-steel cylinders. The radiological activity of the cylinders was significantly higher than the Department of Transportation (DOT) limits, meaning that the cylinders could not be shipped off site. Instead, the cylinders were welded shut and sent to SWMF for future disposition.

Recently, SWMF determined that the radiological activity was well below the DOT Limit for transporting, so they decided to remove four cylinders stored in a concrete culvert and repackage them for shipment off site. However, this work came with several risks.

Hoeffner explained that the concrete culvert had not been opened for eight years, so there was a concern of tritium off-gassing, contamination and deteriorated rigging slings/hardware attached to the cylinders. There were logistical challenges because unloading the concrete culvert would be performed in an enclosed Resource Conservation and Recovery Act (RCRA) permitted storage location. For example, the location limited the crane boom height for lifting the cylinders up and over the lip of the concrete culvert.

This RCRA storage location did not give SWMF the ability to pre-stage the work area because of conflicts between regulatory, fire protection, rigging, radiological protection and safety requirements. The team reconciled these challenges using safety management principles taught at SRS to ensure that the work was performed safely while complying with the various regulations and requirements.

The team proactively addressed the challenges by ensuring aisle spacing requirements by removing equipment by the end of shift; implementing fire protection controls for combustible liquid by removing equipment and transient combustibles by the end of shift; and ensuring Radiological Protection Department controls were in place prior to start of work. Industrial Hygiene also tested for such hazards as noise and carbon monoxide prior to start of work.

All cylinders from the concrete culvert have been repackaged into SWBs. Solid Waste Management is making headway with creating waste profiles for this waste stream so it can be shipped off site to a facility permitted for final disposal.



SRNS engineers Mandy Smith and Jacob Olson work with students at North Augusta Middle School during a Teach-In demonstration.

Annual ‘Teach-Ins’ bring science to life for area students during National Engineers Week

SRS employees observed National Engineers Week 2018 by conducting science and engineering demonstrations for more than 3,000 students throughout the greater Aiken-Augusta area.

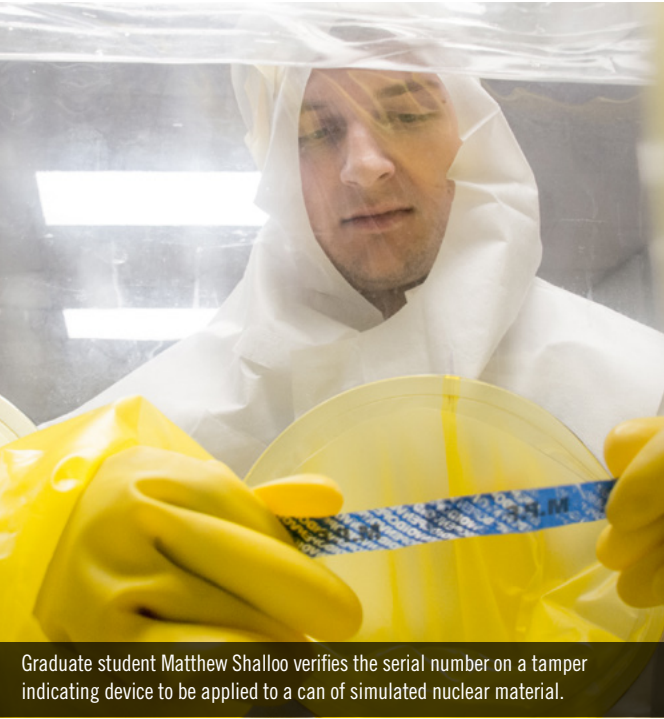
More than 60 SRS engineers, scientists and technicians conducted over 150 “Teach-In” demonstrations during a two-week period at 29 middle schools, with a focus on seventh-grade students.

Teach-Ins promote the importance of math, science and technology literacy. SRS volunteers provide interactive demonstrations and informative discussions to give students a broader understanding, predominantly in the field of engineering.

“Ten years of providing this service has permitted us to improve and fine-tune the program, creating an optimum opportunity for our SRS scientists and engineers to meet the needs of local students in their classrooms,” said Gladys Moore, SRNS Education Outreach.

Middle schools in the South Carolina counties of Aiken, Allendale, Bamberg, Barnwell and Edgefield, plus the Georgia counties of Columbia and Richmond, have participated in this outreach program managed and sponsored by SRNS since 2008. During this time period, over 20,000 students from this region have benefited from the creative work and hours of effort provided by hundreds of enthusiastic Teach-In volunteers.

“I appreciate the time SRNS invested in my students’ future by sharing their time and talent to promote STEM education,” said Deborah Garrett, sixth grade science teacher, North Augusta Middle School. “The visiting engineers made science real to the kids because these adults are doing real science for a living. I saw the interest, engagement and smiles on my students faces today while they were practicing being tomorrow’s engineers.”



Graduate student Matthew Shalloo verifies the serial number on a tamper indicating device to be applied to a can of simulated nuclear material.



Students learned how to create an effective seal for bag-out operations, a crucial step in preventing airborne particulates.

Careers in nuclear safeguards

USC engineering students learn through hands-on activities

SRNL recently hosted 10 undergraduate and graduate students from the University of South Carolina (USC) for a two-day nuclear safeguards workshop.

Safeguards in the international nuclear community are measures that ensure nuclear technology and materials are used for peaceful purposes. As a key nuclear nonproliferation strategy for national security, safeguards are used to deter the spread of nuclear misuse through detection and monitoring.

“The goal of the workshop was to expose the students to the field of nuclear safeguards and get them interested in safeguards careers,” said Catherine Mussi, an engineer in the SRNL Global Security Section and lead for the workshop. “The hope is that many of these students will go on to become the next generation of safeguards professionals.”

The workshop included safeguards-oriented tours of H Canyon, SRNL’s F Area Labs and the Mobile Plutonium Facility. The workshop also included a hands-on material balance activity and lectures presented by subject matter experts.

This activity required students to wear proper personal protection equipment to perform work with simulated nuclear materials. Students performed glovebox operations with the simulated materials and conducted a material balance for nuclear material control and accountability.

“This tour has inspired my interest in nuclear energy,” said Megan Dawson, a sophomore in civil and environmental engineering. “I never knew the process or the safety that went into the handling of nuclear materials.”



Holly Watson, Interim Lead of Nuclear Material Control and Accountability for H Area Operations, explains safe materials handling and inventory differences.

The workshop and its activities provided the students a comprehensive view about nuclear safeguards for national security, the challenges of the field, and SRNL research and job opportunities.

Holly Watson, Interim Lead of Nuclear Material Control and Accountability for H Area Operations for SRNS and lecturer at the workshop, said she was honored to be a part of the event. “Safeguarding nuclear material is critical to our nation, requiring creative solutions to remain effective,” she said.

Heart Walk 2018

SRNS donates more than \$105,000 while 'building healthy hearts'

More than 250 SRNS employees were among thousands of Aiken-Augusta area residents who hit the trails for the 2018 CSRA Heart Walk on March 10. The annual event at the North Augusta Greenway promotes awareness of heart-healthy living and benefits the American Heart Association.

Over the course of a two-month campaign, SRNS employees raised \$95,281, and SRNS provided an additional philanthropic-giving donation of \$10,000.

"I appreciate all of our captains and participants taking the time and energy to get involved with thinking of creative fundraisers, collecting pledges and attending the Heart Walk," said Stuart MacVean, SRNS President and CEO, and charter chairman of the Central Savannah River Area (CSRA) American Heart Association Board. "Your enthusiasm was invaluable to a successful campaign. We all know someone who has been affected by a stroke, heart attack or other heart-related illness, and together we've made a difference for such an important cause."

Proceeds from the Heart Walk will fund the American Heart Association's life-saving initiatives, such as research for the treatment of cardiovascular disease and stroke (the number one and number five killers of men and women in the United States respectively), and teaching Americans how to develop lifelong healthy habits.

"I want to thank all of our walkers and runners for waking up bright and early on Saturday morning to participate in the festivities," added Betsy Westover, 2018 SRNS Heart Walk Campaign Chair. "It was a great way to celebrate how we've helped build healthier lives through our campaign. I appreciate everyone's hard work and continued support that made this possible."



SRNS Heart Walk Vice Chair Ryan Cullum (right) is pictured with his wife Ashley and son Will.



SRNS employees Tysheka Wright (left) and A.D. Bollig at the Heart Walk



Dave Eyler, SRNS Executive Vice President and Chief Operating Officer (left); Rich Baker, 2017 SRNS United Way Chair, and Caroline Reppert, 2017 SRNS United Way Vice Chair, are pictured with awards received from the United Way campaign.

SRNS takes top UW awards

Three agencies acknowledge SRNS contributions to campaign

Employees from SRNS were recognized for their achievements during the 2017 SRNS United Way Campaign at three recent celebration events.

During the United Way of Aiken County's annual meeting on March 15, SRNS employees received eight achievement awards. SRNS won the "Highest Employee Achievement Award" for contributing \$572,257, and the "Second Highest Corporate Contribution Award" for the \$112,000 corporate match.

In addition, SRNS received the Aiken Cup for the highest overall campaign, and the Stanley A. Quarles Memorial Community Spirit Award for going above and beyond during the 2017 employee giving campaign, specifically for engaging young professionals in the campaign. SRNS also made a special effort to bring spirit to their campaign by holding a company-wide kickoff on August 1, the "Day of Unity," to celebrate 65 years of giving to United Way.

"At our 'All Aboard the United Way Express'-themed awards event, we described Savannah River Nuclear Solutions as the engine that leads the way to a successful campaign," said Sharon Rodgers, President, United Way of Aiken County. "SRNS employees give so much of their time and talent and continue to provide the largest overall contribution for our annual campaign. This directly impacts people who live right here in our community, giving them the chance for a better life."

In addition to these awards, four SRNS employees were honored for their efforts. Baker received the distinction of "Campaign Leader of the Year," and SRNS employee Lee Sims received a "Young Philanthropist of the Year" award. P.K. Hightower was

recognized with the "Live United Award" for her leadership and service as a long-time volunteer who has served on the board of directors for over 15 years.

United Way also recognized Missy Byrne, the SRNS loaned professional, for assisting business, schools, state agencies, and county and city governments with United Way campaigns.

Overall, the United Way of Aiken County achieved \$2,908,828, during its 2017 campaign. Supporting 35 partner agencies, the organization strives to help people in Aiken County with the building blocks of life, which include education, access to healthcare and financial stability.

At the United Way of the CSRA's celebration on Feb. 27, SRNS received the top honor, the Pinnacle Award, for the largest employee giving donation for 2017. SRNS Loaned Professional Ben Terry was also recognized for assisting with the development and implementation of workplace campaigns across the CSRA.

During the United Way of the CSRA's annual meeting, officials announced the campaign total of \$3,324,713, of which more than \$400,000 was from SRNS employees.

"SRNS continues to be our top contributor during our campaign, and the generosity shown by SRNS employees year after year is simply amazing," said LaVerne Gold, President and CEO, United Way of the CSRA. "Whether in good times or bad, they go above and beyond, entrusting us to change the lives of so many people in our community."

The United Way of the CSRA funds over 45 partner agencies that provide vital health and human services programs.

SRNS also received the Bronze Award from United Way of the Midlands for giving over \$16,000. The Bronze Award is given to companies with an employee per capita gift of \$50-\$99.

Kick starting careers



Blackville, S.C., resident Valdrena Porcher (left) receives advice on job interviews from SRNS Manager of Education Outreach & Talent Management Francine Burroughs during a job search workshop held in Barnwell, S.C.

Local experts provide advice to Barnwell job seekers

South Carolina Promise Zone has teamed up with SRNS and several regional resources to help Barnwell County residents successfully navigate how to apply and interview for multiple job opportunities available at several companies found “in their own backyard.”

“The SC Promise Zone workforce development goal is to reduce poverty by providing sustainable employment with competitive wages and educating area citizens to meet industry needs,” said Sandra Bland, South Carolina Promise Zone Coordinator for the Southern Carolina Alliance and SRNS employee.

“We have created a traveling information fair called Kick Start Your Job Search in 2018, with the first session held in Barnwell. We also plan to visit the citizens of Allendale, Bamberg, Colleton, Hampton and Jasper Counties, all within the Promise Zone,” she added. “I think of the information fair as a workforce development booster shot.”

Kick Start Your Job Search sessions are not job fairs. It’s hoped that through these information and education events, the residents of Promise Zone counties come to know what companies are located there, what jobs are available, and what requirements and expectations are held by each potential employer.

As described by SRNS Manager of Education Outreach & Talent Management Francine Burroughs, the Kick Start Your Job Search events, like the one held on Feb. 28 at the Barnwell Public Library, are conducted in two parts. The morning session connected local employers with prospective employees in a two-way information session. The afternoon session was devoted to helping attendees understand, develop and retain job search skills, such as preparing strong resumes and participating in effective interviews, as well as learning how to dress for success and basic communication skills.

“You can’t do anything better if you don’t help yourself first,” said Barnwell resident Wanda Calhoun. “I really think this workshop has helped a lot of people move forward in their ability to find a job. It’s events like this that can greatly help a community in many ways.”

“It’s a direct result of Sandra Bland as a loaned executive from SRNS that we had so many grateful participants from the Barnwell information fair. It’s with the support of local organizations like SRNS that we can provide this type of service that is so highly needed and valued.”

Danny Black

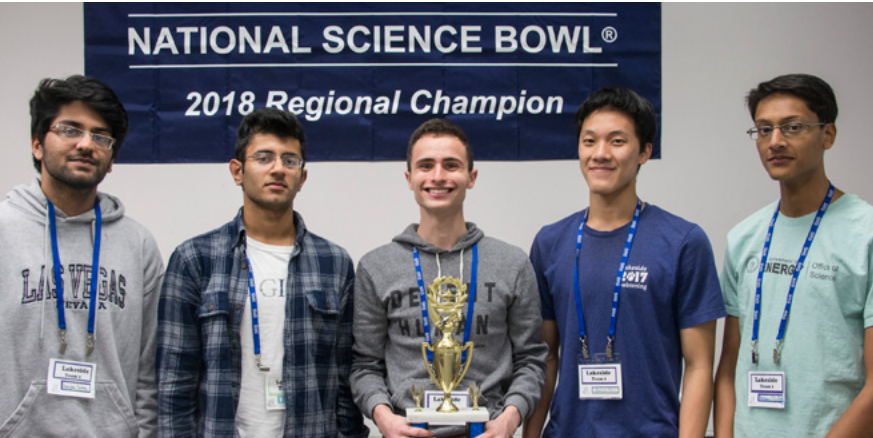
“It’s a direct result of Sandra Bland as a loaned executive from SRNS that we had so many grateful participants from the Barnwell information fair,” said Danny Black, President and CEO, Southern Carolina Alliance. “It’s with the support of local organizations like SRNS that we can provide this type of service that is so highly needed and valued.”

The mission of the South Carolina Promise Zone is to reduce poverty in Allendale, Bamberg, Barnwell, Colleton, Hampton and Jasper Counties by working collaboratively to take advantage of priority federal grant opportunities. Partners and supporters of the Promise Zone are focusing efforts to improve the quality of life of residents by growing jobs, leveraging private capital for economic prosperity, improving education, reducing crime, expanding health care and creating more affordable housing.

“You feel good and proud when people who may have walked in discouraged leave with renewed hope, confidence and success in knowing that their search for a meaningful job is back on track,” said Bland. “Really, that’s what it’s all about, helping people believe in themselves.”



Students from North Augusta High School were among the 24 teams at this year's Science Bowl.



Abhijay Suhag (from left), Saurabh Wakade, William Marcus, Felix Pei and Krishan Mistry were members of the winning Lakeside 1 team.



A.R. Johnson High School students put their heads together to puzzle out the answers to Brain Teaser questions.

Lakeside walks away with top prize at annual Science Bowl

Many of our country’s future scientists, engineers, doctors and mathematicians 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 the greater Augusta, Ga., area.

Throughout the day-long event, excitement filled rooms within the University of South Carolina Aiken facility 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 DOE Science Bowl Competition in Washington, D.C.

The winning team from Lakeside High School, Evans, Ga., will be rewarded with an all-expense paid trip to the National Competition to be held in Washington, D.C., April 26-30. A team from Augusta Prep High School came in second, while third place was taken by Greenbrier High School, also from the Evans area.

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 science 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 120 students from 15 high schools.

According to Kim Mitchell, SRNS Education Outreach, this competition tests the students’ ability to perform under pressure. “The teams arrive fully prepared after extensive practice. I’m always impressed with how much information they can retain and how calm they remain,” said Mitchell.

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.

SRNS employees lend hands and hearts for annual United Way project

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

Hundreds of SRS employees volunteer their day off each year to work on project teams for United Way agencies and private residences.

This year, over 200 volunteers stepped forward to help on 19 project teams. In total, over 1,000 man-hours were invested in projects throughout Aiken County for this year's Project VISION day, part of the "Days of Caring" United Way program sponsored by SRS. 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.

One project was located at Area Churches Together Serving (ACTS) in Aiken, S.C. According to Karen Perry, Operations Manager of ACTS, the agency partners with their clients, who are at-risk individuals of all ages and backgrounds with an array of difficult situations such as unemployment, abusive relationships, disabilities and substance abuse.

The SRNS project team at ACTS spent the day rerouting the parking lot, landscaping, and painting. They also placed six heavy deep-freeze coolers on wooden dollies to make the food storage area easier to clean, and the group revamped multiple clothing collection bins to make them more ergonomic and efficient for ACTS volunteers.



Project VISION volunteer Kim Campbell of SRNS paints a doorframe inside ACTS (Area Churches Together Serving).

In addition to ACTS, United Way partner agencies receiving assistance this year include: Tri-Development, American Red Cross, Child Advocacy Center of Aiken, Community Medical Clinic of Aiken County, Mental Health America of Aiken County, Golden Harvest Food Bank, Helping Hands, Salvation Army and Girl Scouts of South Carolina.

"Project VISION continues a long tradition of SRS employees organizing into teams for a day devoted to community service," said Stuart MacVean, SRNS President and CEO. "I'm proud of the values our employees hold and their seemingly endless generosity to give back to our local communities."

Students vie for top spots in regional Science Fair

With the support of SRNS and the University of South Carolina Aiken's Ruth Patrick Science Education Center, more than 200 CSRA science-savvy students from six counties recently participated in the 2018 Savannah River Regional Science and Engineering Fair competition.

With the support of co-sponsor USCA, SRNS coordinated the competition for the eighth year, ensuring an educational and rewarding experience for each student competitor.

After winning this year and the 2017 Savannah River Regional Science and Engineering Fair, Lakeside High School junior Krishnan Raju stated that the judging aspect of the competition was beneficial. "The questions judges asked were useful, as their expertise helped me find areas of my research that I will read more on to gain a broader understanding of the field related to my project," he said.

"My trip to the Intel International Science and Engineering Fair last year was the most rewarding part of my experience as I had a chance to see finalists as interested in science as me. This



This year's Savannah River Regional Science and Engineering Fair competition winners (High School Best of Show) Thomas Collingsworth (left), Cross Creek High School, third place; Madi Hancock, South Aiken High School, second place; and Krishnan Raju, Lakeside High School, first place.

program immerses students in an atmosphere of innovation and learning," said Raju.

Forty volunteers from SRS, USCA and the community typically participate as officials and judges for this competition.



SRNS Engineer Annamarie MacMurray (left) explains how toy and consumer robots are designed, built and operated during this year's Introduce a Girl to Engineering event.

SRNS introduces area middle school girls to engineering careers

SRNS, in partnership with the Society of Women Engineers and The Ruth Patrick Science Education Center, recently extended invitations to middle schools throughout the greater Aiken-Augusta area to select young women to participate in this year's "Introduce a Girl to Engineering Day."

Each participating school selected three students who have shown an interest in a career involving engineering to attend the event, held at the Ruth Patrick Science and Education Center at USC Aiken.

According to Gladys Moore, SRNS Education Outreach and Talent Management, the Introduce a Girl to Engineering program is designed to emphasize the DiscoverE Engineers Week message of encouraging students to consider careers in engineering, science and technology.

"Our program typically consists of a series of hands-on activities and intriguing demonstrations that prove to these young ladies that being a scientist or engineer can be interesting, rewarding and even exciting at times," said Moore. "These activities also show how natural problem-solving abilities form the basis for many engineering skills."

During the day-long event, the participants also interacted with women currently working in various fields of science and engineering.

"We understand the need for and importance of being role models for these young ladies," said SRNS Engineer Jane Carter. "We know that sometimes all it takes is that one spark to generate a lifetime interest in a particular career."

Students attending this year's event were from schools in the counties of Aiken, Allendale, Bamberg, Barnwell and Edgefield in South Carolina, and Columbia and Richmond Counties in Georgia.

It's 'Science on Tap' for USC Aiken students

SRNL, the USC Aiken College of Sciences and Engineering, and the USCA Office of Sponsored Research co-hosted an event March 1 to bring students together with top scientists in their fields to discuss science.

An interactive speaker series, "Science on Tap" connects students and faculty from the USC Aiken campus with scientists from SRNL to discuss science and their research findings.

"Promoting partnerships between colleges and businesses serves to empower all community stakeholders," said Haley Cave, a chemistry major. "The

partnership between SRNL and USC Aiken offers students collaborative projects and job shadowing opportunities, career connections and the knowledge of skills required for competitive employment."

The students, faculty and scientists met at Pacer Alley, the USC Aiken location on Newberry Street, in the heart of downtown Aiken. The inaugural event began with a student poster session, followed by speakers from SRNL and USC Aiken's College of Science and Engineering, and ended with a networking session.

"I think it was a great and successful avenue to connect SRNL scientists to our local research college, and could spark positive fruitful collaborations that could accelerate long-term meaningful changes in our community," said Jay Gaillard, Senior Scientist, SRNL. "I hope to see more events like this."

The group plans to continue the Science on Tap series at Pacer Alley throughout the semester.



"The partnership between SRNL and USC Aiken offers students collaborative projects and job shadowing opportunities, career connections and the knowledge of skills required for competitive employment."

Haley Cave



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