

This month

Reducing discrepant condition items • Four-shift glovebox operations • Coding 4 Kids



Stuart MacVean SRNS President and CEO

Welcome

to the July 2021 edition of **SRNS** Today

This month, the Department of Energy exercised the option to extend the SRNS contract through September 30, 2022. I congratulate the workforce on earning the extension and for safely and securely delivering results for our customers. These results are evident in some of the successes we celebrated this month, including being named one of the "Best Places to Work in South Carolina" by an independent assessment organization.

Recently, the Plutonium Downblend program in K Area moved to four shift glovebox operations ahead of schedule, increasing downblending rates and furthering our nation's nonproliferation objectives. This is just a part of overall optimization activities, and I am pleased with the progress they have made.

SRNS also surpassed a major environmental restoration milestone with the deactivation and decommissioning of 50 buildings at SRS, covering over one million square feet. This helps to steadily reduce the Site's footprint and prepare for future missions.

In July, three of SRNS' young professionals were named as the Aiken Standard's Young Professionals 2 Follow 2021 award winners; Education Outreach continued their work with the community; and the SRNS Receiving Inspection organization closed the last item on the discrepant condition list that exceeded 180 days, a heavy lift requiring coordination from departments across the Site.

When we put our minds to it, we accomplish great things.



COMMON ACRONYMS

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. The SRNS corporate and community offices are located in the renovated 1912 "Old Post Office" building in Aiken. 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.

www.savannahrivernuclearsolutions.com

Savannah River Nuclear Solutions (SRNS) • Savannah River Site (SRS) • Department of Energy (DOE) • National Nuclear Security Administration (NNSA)

Photos in this issue include prior COVID-19 guidelines, regarding no mask requirements for vaccinated employees.



he SRNS Receiving Inspection (RI) organization has achieved major milestone towards revitalizing and further improving the management of purchased items that did not pass inspectio and resulted in a discrepant condition (DC).

RI recently closed out the last item on the DC list that exceeded 18 days. Two years ago, that list included 114 items more than 180 days old.

"When purchased items fail during inspection, it is very important tha the issues with the failed items are resolved in a timely manner. Quicl resolution ensures that facilities across the Site receive the items as ordered without negative impact to operation or project schedules. Additionally, the longer items are in DC status, the more expensive th are to resolve," said Will Leschak, SRNS RI Manager. "Examples wou include being unable to return items, higher return fees, issuance of non-conformance reports, consumption of vital storage space, and additional efforts expended to track and trend these items."

When Quality Assurance (QA) Engineer Grant Kirkendohl took over the duties of the SRNS DC Coordinator, the Supply Chain Management Q Team had established improvement initiatives that were well underwa

"Even though I had seen the DC count drop significantly, from as high as 450 items in 2017, there still seemed to be a mountain of DCs th needed to be investigated and resolved," said Kirkendohl. "Fortunate we had fantastic support from Site Supply Chain Management and

Material Acquisition Engineering, including field and QA engineers from across the Site."
Kirkendohl believes a large part of this success story can be attributed to improved procedures and systems, good communication practices and developing relationships with SRNS suppliers. With many process improvements in place and extensive hard work, today the list has only 38 open DCs, all less than 124 days.
According to Supply Chain QA Manager Joe Fulghum, this type of teamwork played a major role in reducing the amount of time it takes to resolve an item on DC status.
"It is vital to receive a resolution path from the requisitioning organization (QA and Engineering), and support from the buyer, and to maintain a strong relationship with suppliers. The role of RI is to give prompt notification of the failed inspection and then coordinate that resolution path such that items are processed through RI. It is rewarding to see the vast improvements in RI, from software enhancements to more efficient item workflow management and, of course, quicker DC resolutions," said Fulghum.
"Safety and security are our highest priorities here at SRS," added Kirkendohl. "We're going to ensure the integrity and quality of each and every Safety Class and Safety Significant item, confirming all are in compliance with industry and U.S. Government regulations and standards."

Plutonium downblending moves to four-shift glovebox operations



perators Andrew Kline (left) and Charlie Stokes work in the K Area Interim Surveillance glovebox mockup.

K Area plutonium downblend work at SRS has recently moved from two- to four-shift glovebox operations to advance the DOE's mission of removing plutonium from South Carolina.

"Moving from two- to four-shift glovebox operations increases our plutonium downblending rates through our existing glovebox," said Maxwell Smith, SRNS K Area Deputy Operations Manager, "Along with the total of 48 operators needed to fill the four shifts, we have put a team of support personnel in place and are managing a pipeline program of 10 employees to fill positions as needed from attrition. Many of those pipeline employees are a part of the apprenticeship program in place with Aiken Technical College. We are also looking into expanding the apprenticeship program to other local technical colleges, providing us with more resources to fill our pipeline."

Moving to four shifts is just a part of the overall optimization activities in the K Area Complex. Last year, the facility completed an optimization project to add efficiencies to the K Area Interim Surveillance (KIS) glovebox, where downblending is currently occurring. The KIS glovebox is a stainless-steel containment enclosure that is approximately 15 feet long and three feet wide.

The glovebox contains safety glass panels and fitted gloveports to allow radioactive materials handling, and isolates workers from associated hazards.

Additionally, construction has recently been completed on a storage and shipping pad for interim storage of downblended materials before they are shipped out of South Carolina for permanent disposal.

"The fact that we were able to train employees, prepare, and initiate the additional shifts ahead of schedule was an impressive feat given the COVID-19 pandemic and the associated reduction of on-site staffing and social distancing requirements," said SRNS K Area Complex Facility Manager Lee Sims. "We attribute much of this success to the veteran operators on staff who have worked diligently to make sure the newer operators are trained, prepared and ready to work safely."

"We know that just initiating four-shift glovebox operations is not the end of the journey," Smith said. "Continuing training, mentorship and growth of experience are required to ensure the continued safe and successful operation of the program."

Plutonium downblend, also referred to as dilute and dispose, is the process of mixing plutonium oxide with a multicomponent adulterant to produce a mixture that is more secure (not usable for nuclear weapons). This mixture enables DOE to meet requirements for shipping plutonium to an out-of-state repository for disposition (i.e., the Waste Isolation Pilot Plant in New Mexico).

"Initiating four-shift glovebox operations helps further our nation's nonproliferation objectives," said Virginia Kay, Director, Office of Material Disposition, NNSA. "We are committed to removing excess plutonium from South Carolina by safely disposing of this material, and achieving this milestone is demonstrative of progress toward that objective. We are pleased that SRNS was able to initiate the additional shifts ahead of schedule, even when faced with the challenges presented by the pandemic."

Reason to celebrate

Last month's approval of the Savannah River Plutonium Processing Facility (SRPPF) Critical Decision-1 (CD-1) marked a major milestone for SRS and the nation: approval to proceed with planning the facility to supply plutonium pits for the nation's nuclear deterrent. As a thank you for the two years of hard work that made the successful CD-1 possible, SRPPF employees enjoyed a celebratory lunch. Dave Olson, SRNS Executive Vice President - NNSA Capital Projects, thanked the gathered employees for the long hours and quality products they delivered. The team's efforts produced a package including the conceptual design for the facility and over 4,500 documents — a submittal that one DOE reviewer called the best CD-1 package they had ever reviewed.



Restoring 1M square feet and counting Demolition of Cold War buildings



RNS has surpassed a major environmental restoration Made by Ford Motor Company, these control systems played an important role as part of Site programs that produced plutonium and tritium. milestone with the deactivation and decommissioning of 50 buildings at SRS — more than 1 million square feet of space Later, the Ford Building was reconfigured to function as a repair facility — since August 2008. Within the next year, an additional 13 buildings for nuclear reactor heat exchangers used to cool reactor vessels. During are scheduled to be demolished within the Site's D Area, where the Cold War. SRS operated five reactors, each using 12 heat exchangers. electricity, steam and heavy water (moderator for reactor vessels) "What most people don't realize is that each building we take down were once produced.

The SRNS Area Closure Projects management team is working from a federally-approved list of buildings to deactivate, decommission, grout or demolish at SRS.

"As a result of this extensive number of deactivation and decommission projects across the Site, we no longer need to incur the ongoing costs associated with these inactive and obsolete structures," said Steve Conner, an environmental project manager with SRNS. "We can continue to safely and efficiently demolish and remove unneeded buildings to eliminate the need for surveillance and maintenance activities, while preventing any potential release of hazardous substances to the environment."

According to Conner, various structures such as warehouses, reactors, reactor fuel manufacturing facilities and an enormous cooling tower no longer stand at SRS.

Built in the 1950s, the P and R Reactor buildings were mammoth structures both above and below the ground. In 2011, they were decommissioned, using a unique process that filled the structure to ground level with a specially designed concrete-like grout. This cleanup work locked contamination inside the buildings and avoided the cost of continuing interior maintenance.

More recently, SRS demolished the radiologically contaminated Ford Building.

Decades ago, employees at the Ford Building worked daily on hundreds of control rod assemblies, which were used to ensure a stable nuclear criticality within reactor vessels that now are dormant.

presents its own set of challenges from beginning to end," said Chris Bergren, SRNS Director, Environmental Compliance and Area Closure Projects. "Often hundreds of hours and a lot of hard work goes into planning and preparing a building for grouting or destruction, long before the heavy equipment arrives. Electrical wiring, radioactive contamination

and friable asbestos are just a few of the hazards we may face. Safety is preeminent — the structure has to be cold, empty and dark before the roof and walls can be touched by the demolition equipment."

SRNS continues to steadily reduce the Site's environmentally impacted footprint, while preparing for future missions. Currently, only 15% of remaining SRS property will require environmental cleanup.



filling the structures with concrete-like grout.

TOP **OF THE** LIST

SRNS is one of South Carolina's 'Best Places to Work'

You can view the Best Places to Work in South Carolina video on the SRS YouTube channel at www.youtube.com/ user/SRSNews. Just search for "SRNS Best Places," or click on the screenshot above.

SRNS has been selected as one of the 2021 "Best Places to Work in South Carolina," a statewide award competition that recognizes employee workplace approval among small, medium and large employers.

"While the acknowledgement and award are exciting, the real driver to a compelling workplace is the attitude and behaviors of our employees," said Stuart MacVean. "Many employees provided feedback on subjects such as benefits, safety culture and work environment. The report generated from the study echoed the effort each of you make, every day, to improve the experience and our valuable work here at SRS."

South Carolina's "Best Places to Work" award is in its 16th year, and is sponsored by the South Carolina Chamber of Commerce; SC Biz News Magazine; and Best Companies Group, an independent national firm that gathers data through a two-step process: an employer survey on each company's workplace policies, practices, philosophy and demographics; and an anonymous employee survey to measure employee satisfaction.

As one of the largest employers in both Georgia and South Carolina, SRNS and its 6.000-strong workforce have a substantial economic impact across the Central Savannah River Area (CSRA). Employees gave SRNS high marks for work revolving around missions tied to our nation's security; available career development and mentoring; plus opportunities to give back to the community. SRNS employees serve on more than 50 community and non-profit boards of directors in the CSRA, and contribute financially and volunteer their time across our region. One employee commented on the survey: "What made me want to work here is that I have the opportunity to be a part of something that is much bigger than I am, every day."

"Companies like SRNS — recognized this year as one of South Carolina's 'Best Places to Work' — deserve immense recognition for continuing to put their employees first during these challenging times and recognizing that when employees thrive, businesses thrive," said South Carolina Chamber of Commerce President and CEO Bob Morgan.



"Our mission is important to the nation. We work as a team to make that mission happen. Helping to ensure world security is important."

Survey respondent

were satisfied with work environment

praised leadership and supervisors

Meeting the need

Education Outreach programs excel despite COVID-19 restrictions

Last year, SRNS Education Outreach programs faced daunting limitations due to the COVID-19 pandemic, but the organization saw an opportunity to enhance and extend the reach of their broad range of initiatives despite these challenges.

According to Kim Mitchell, SRNS Education Outreach, the staff explored and optimally utilized virtual tools in place of face-to-face communication.

"Adopting a new web-based approach to meet the needs of those participating in our various programs required a fast and steep learning curve for us. This was true for the participating educators and students, as well. That said, the end-result was a high level of success combined with a rewarding experience," said Mitchell.

"By providing new and innovative virtual opportunities to our schools, we were able to reach more students and educators than ever before," said Taylor Rice, SRNS Education Outreach. "Offering web-based programs allowed schools throughout the region the opportunity to participate in our competitions and programs, without travel being a problem."

Mitchell explained that the benefits found through efforts to work through the pandemic will continue to play an important role in the future of Education Outreach. Examples include the creation of a new program, STEMulating Conversations with SRS Experts, as well as video and virtual reality programs that bring SRS to classrooms throughout South Carolina and Georgia.

"Our 'Wet Wonders' and 'Feathers in the Forest' videos demonstrate the value of this concept," said Mitchell. "In the past, we brought a limited number of groups of students each year to SRS for a series of 'hands-on' environmental science experiments and lessons. Though I'm confident we will return to this popular method, we will also continue to reach deeply into classrooms throughout our region — and beyond — with the current and future videos, plus virtual reality programming.

"We recently completed and made available a science-based video on how a mass spectrometer fexperunctions. Students journey through this highly sensitive piece of equipment by riding on an electron beam to demonstrate the spectrometer's ability to identify the molecular makeup of a substance. It will soon be added to our new web-based library as a virtual reality program as well," Mitchell added.

At this point, the demand for these videos is quickly growing. To date, more than 23,000 students have seen the videos, and educators have received corresponding guides.

"It's important to credit the value of this new approach to members of our video production, graphics, laboratory, Research and Development, engineering and IT groups within SRNS," said Mitchell. "They stepped up and teamed up with us in our hour of need. None of this would have been possible without their assistance."



Four-person teams worked together to program a robot and monitor its performance, at the SRNS sponsored Coding 4 Kids summer camp.

Coding 4 Kids camp 'Cool' activities during hot summer

Some robots performed as programmed, while some went astray, during the Coding 4 Kids summer camp at the Ruth Patrick Science Education Center (RPSEC). Just the same, participants gained valuable experience during the week-long SRNS-sponsored event.

The camp's innovative, hands-on projects and challenging activities taught students how to handle a world where computer chips are found in numerous consumer products and industrial equipment. The campers learned basic coding skills and applied those skills in various ways, including programming robotic objects.

"This year, two of our camps focused on cyber and coding with the help of SRNS," said John Hutchens, Director of Special Programs, RPSEC, University of South Carolina Aiken. "The overarching goal was to inform kids about cyber and coding in a fun and interesting way. They're all from local schools, third through fifth grade."

Hutchens explained that a wide array of occupations require some coding knowledge, even indirectly. And the need for experience with coding will only increase, due to the growing number of Aiken and Augusta area organizations and universities moving into the field of cybersecurity and technology.

According to a 2019 article in the New York Times, there will be an estimated 3.5 million unfilled cybersecurity jobs worldwide this year, an increase of 350% from 2014.

The camp provided a variety of games and activities to pique the interest of each student and, hopefully, inspire them to pursue future academic and occupational opportunities related to cyber technology, cybersecurity and coding.

"I think this camp has been cool because we got to program robots to move stuff. Not many people get to do that," said Gunoor Sarmaha, a fourth grade student at Stevens Creek Elementary in Augusta.

Ariana Lopez, a Chukker Creek Elementary fifth grader from Aiken, was impressed with the high degree of interaction within the Coding 4 Kids Camp.

"I've been to other coding camps, and this is the most hands-on one that I've ever attended," said Lopez. "It's really neat. This is definitely my favorite coding camp."

Lopez stated her dream job was to use concept art to design characters used in video games, which heavily involves programming. "This camp is helping me to understand what I need to learn," she said.

Interns and apprentices enter job pipeline



ozens of year-round SRNS student interns have been reclassified as apprentices at SRS. This change has benefitted participating students and the company.

"This is important, since they can receive a certification at the end of their apprenticeships once they are registered into one of our 13 Department of Labor (DOL) approved apprenticeship profiles," said Rainer Neely, SRNS Intern Program. "It's a significant advantage over our largely 'experience-based' summer interns, who still play a very important role within our company."

Currently, seven DOL paid apprentice "profiles" are available: Facility/ Production Operators, Software Engineers, Records Management Clerks, Process Software Engineers, Systems Engineers, Computer Systems Support Technicians and Maintenance Mechanics.

An additional six apprentice profiles will soon include: Electrical and Instrumentation Mechanics, Project Controls personnel, Fire Protection Engineers, RadCon Inspectors, Supply Chain Management Resource employees and Associate Chemical Management Center Analysts.

Neely explained that SRNS' multi-mission contract with the DOE provides opportunities for a wide range of occupations.

"We're working within our missions to accomplish, if not exceed, goals in areas such as safety, security, nuclear operations, environmental cleanup and the nonproliferation of nuclear materials," said Neely. "How better to fill these needs than with a year-round intern who is now an apprentice?"

Neely added that the SRNS management team recognizes the substantial value of apprenticeship programs and the job pipeline they naturally generate for the company. "Without a doubt, registered apprentice programs are the wave of the future here at SRS and throughout South Carolina. We're confident this change in policy

Former SRNS intern and newly-hired employee Cassie Sistare evaluates a training session utilizing a dynamic learning activity she developed during her internship.





will lead to an even stronger workforce ready to take on the challenges of the future at SRS," he said.

Though the conversion of year-round interns to apprentices has impacted the number of interns in the program, 125 summer interns are expected to make significant contributions to SRNS this year.

In fact, this year's interns will fill 37 different types of jobs and support 97 managers.

"Summer interns enjoy a wide range of potential careers to test drive. Many will find a vocation they had not previously considered; others might pivot to another dream job. At the least, each will experience life at SRS and get a glimpse of work within a U.S. industrial complex," said Neeley.

A graduate of Augusta University, Cassie Sistare completed her second internship in December 2020. In that time, she learned about Human Performance Improvement (HPI) principles, which provide a systematic approach to improving individual and organizational performance with an emphasis on enhancing safety.

"During my time at SRNS as an intern, I've come to greatly value the importance of safety, including HPI, and I want to instill that same value in others," said Sistare.

The SRNS organization that hired Sistare as an intern recently offered her a full-time position, which she accepted.



In for a TREAT

Workshop helps area teachers understand environmental justice

ince 1995, local educators have attended the Teaching Radiation, Energy and Technology (TREAT) Workshop. During the annual DOE-sponsored workshop. SRNS presented multiple topics about SRS and environmental justice.

Environmental justice strives to inform U.S. citizens, regarding the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Fair treatment means that no population bears a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or from the execution of federal, state, and local laws, regulations, and policies.

Meaningful involvement requires effective access to decision makers for all, and the ability in all communities to make informed decisions and take positive actions to produce environmental justice for themselves.

Melinda Downing, Environmental Justice Program Manager, DOE Headquarters, welcomed the group and emphasized the importance of the workshop, which began with a talk entitled "Radiation 101, An Overview and Demonstration," provided by Greg Joyner, SRNS Senior Instructor, Radiological Protection.

Other presentations by SRNS personnel during the three-day event included "SRS Environmental Monitoring: Wildlife Surveillance Program," "Emergency Preparedness," and "Education Outreach," provided by Taylor Rice, SRNS Education Outreach.

"I was there to educate the teachers about programs we offer and the ways we can support them as well as their students during the

upcoming school year," said Rice. "This is a great opportunity for teachers to learn about all the different missions that make up SRS and how we work to meet the needs of the communities near the Site."

Additional speakers included:

- Amy Boyette, Director, DOE-Savannah River (DOE-SR) Office of External Affairs (OEA), "SRS Overview"
- Mindy Mets, Director Regional Workforce Programs, SRS Community Reuse Organization, "Overview of Nuclear Technology Regionally and Globally"
- Kyle Bryant, Physical Scientist Response Support Corps Coordinator, U.S. Environmental Protection Agency Region 4. "Emergency Preparedness for EJ Communities"
- Rev. Brendolyn Jenkins Boseman, Executive Director, The Imani Group, Inc., "Environmental Justice 101 – Community Perspective"

Workshop coordinator and SRS Environmental Justice Program Manager, De'Lisa Carrico, DOE-SR OEA, noted the high value placed on this type of communication with teachers throughout the region.

"For several years now, we've added a second workshop for faithbased and community leaders," said Carrico. "The participants, primarily low income residents, particularly minorities, have been highly engaged in productive discussion and have also expressed their appreciation for this special opportunity. To best reach this audience, we usually meet in churches offering fellowship and dinner."

The two types of workshops are just one aspect of DOE-Savannah River's Environmental Justice Program.

Carrico said, "Working closely with Dr. Kenneth Sajwan, Project Director, Savannah State University, and Rev. Brendolyn Jenkins Boseman, Executive Director, The Imani Group, Inc., we've conducted a series of activities promoting environmental justice in addition to the TREAT workshops. For example, we hold outreach meetings in different locations throughout the region where the general public is invited. This approach has been guite successful as well."



Rev. Brendolyn Boseman of The Imani Group speaks at the at the Teaching Radiation, Energy and Technology workshop.

THE PEOPLE OF SRNS

Aiken Standard's 2021 winners from SRNS Laura Russo **Candice Gordon**



Laura Russo – Media Specialist, Communications and Media Services

Since 2016, Laura Russo has worked as a staff photographer and multimedia specialist in the Corporate Communications group for SRNS. Her work duties include capturing visual images and supporting video production for SRS missions.

Russo has been part of the \$1 million SRNS Employee United Way Campaign Committee since 2016 and has led the Corporate Communications group's United Way solicitation effort since 2019.

In 2020, Russo and her husband Jarett Acosta bought an abandoned golf course in Jackson, South Carolina, and opened Boondock Farms — a new venue for farmers and artisans to come together, meet their community and sell fresh produce, flowers and other locally crafted items. Boondock Farms hosts weekend vendor and music events; and has a farmers market store for fresh, local produce including eggs and goat cheese. The farm has working gardening beds, a greenhouse and small pasture, plus 20 acres of woodlands and farmland available for nature trails and camping.

Candice Gordon – Principal Business Analyst for the SRS Solid Waste Management Facility

Candice Gordon joined SRNS in 2013 and is an engaged leader at SRS who enjoys finding ways to make a positive impact for her colleagues and community. As the 2021 Vice-Chair for the SRNS Central Savannah River Area (CSRA) American Heart Association Heart Walk effort, she helped lead the company in surpassing its fundraising goal. She also has served as Treasurer for the SRS Toys

for Tots and Salvation Army Angel Tree donation drive events that benefit hundreds of children each year across the CSRA.

Gordon serves as the 2021 Vice President of Aspiring Mid-Career Professionals (AMP), an SRNS peer-led career development group, A native of North Augusta, Gordon enjoys spending time with family, traveling, cooking, event planning, do-it-yourself crafting and shopping.

Bryan Ortner – Manager, Talent Acquisition and Human Resources Analytics

Brvan Ortner began his career at SRNS in 2014 and has held positions of increasing responsibility in the staffing functions. He delivered significant process improvements in hiring and recruiting top technical talent, while adhering to strict compliance standards.

Ortner is currently in the development of a Human Capital Management Plan and Resource Management Board for the NNSA Capital Projects organization, which is now planning a significant hiring surge related to three capital projects at SRS.

A native of Aiken, Ortner has served as an SRNS United Way Ambassador and Campaign Kickoff Coordinator; participated in the Aiken Chamber of Commerce Ambassador Team; and was selected for leadership roles within the SRNS Leaders Emerging Among Professionals (LEAP) organization, a peer-led early career development group at SRS. He is also an active supporter of several local mental health organizations, and volunteers with United Way's Project VISION (Volunteers In Service In Our Neighborhoods), Friends of the Aiken County Animal Shelter and Habitat for Humanity of Aiken County.

INNOVATION • DEFENSE NONPROLIFERATION • ENVIRONMENT

Savannah River Nuclear Solutions We make the world safer.