

SAVANNAH RIVER NUCLEAR SOLUTIONS

# SRNSToday

## **Charging ahead**

The Site begins conversion of gasoline cars, vans and light duty trucks to electric alternatives





SCAN ME to connect with our social media

#### This month



Stuart MacVean SRNS President and CEO

#### On the cover

Mike Budney, Manager, Savannah River Operations (red shirt), cuts the ribbon during a ceremony celebrating over 100 zero-emissions vehicles that are now part of the SRS fleet. Assisting are (from left, holding the ribbon) Jeff Allison, Deputy Field Office Manager, NNSA Savannah River Field Office; Stuart MacVean; Angelia Holmes, DOE-SR Deputy Assistant Manager for Infrastructure and Environmental Stewardship; and Mike Swain, SRNS Senior Vice President, Technical Services.

## Welcome

## to the July 2023 edition of SRNS Today

It is with mixed emotions that I write my final letter as part of SRNS Today. I have decided to retire after seven years at SRNS. I will always remember what SRNS employees accomplished throughout the years leading to my retirement and this month was no exception.

SRNS has completed the physical work involved in environmental remediation of the Lower Three Runs Stream System with the cleanup of the R Area Discharge Canal. Successful completion of this project means the completion of the final remediation for an entire geographical area at SRS that includes P and R Reactors.

We welcomed Weapon Intern Program participants from Sandia National Laboratories to the SRNS NNSA facilities as part of the program's mission to allow interns to see the overall nuclear weapons enterprise. Additionally, SRNS hosted a high-risk property training for employees around the DOE complex, which focused on how to prevent the unintended or illicit transfer of strategic commodities to individuals who may use them in a weapons program.

In addition, 180 summer interns reported to the Site. It's always exciting to see the potential new generation of workers learn about careers available to them at SRS.

While I look forward to spending more time with family, on hobbies and traveling, I am equally saddened to leave SRS and will be a proud spectator cheering you on in the years ahead. I am very proud to have been a part of this tremendous workforce that understands the true meaning of mission and commitment.



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.

#### savannahrivernuclearsolutions.com

#### **COMMON ACRONYMS**

Savannah River Nuclear Solutions (SRNS) • Savannah River Site (SRS) • Department of Energy (DOE) • National Nuclear Security Administration (NNSA) Central Savannah River Area (CSRA) • Science, technology, engineering and math (STEM)



#### High-risk property training helps protect U.S. strategic commodities

Periodically, SRNS property management employees publicly release a wide variety of excess materials and equipment. A vital aspect of their day-to-day responsibilities is to ensure none of the items designated for public release could potentially impact our national security, a challenging task.

According to Krystee Ervin, Nuclear Nonproliferation and Export Control Specialist, Oak Ridge National Laboratory, what radically increases the difficulty of this task is that these strategic goods are incredibly common. The majority of them have an everyday industrial purpose yet also play an important role in the development of nuclear, chemical or biological weapons.

Recently, SRNS employees and other individuals from DOE sites across the U.S. underwent 3.5 days of intensive training on this topic. The course focused on how to prevent the unintended or illicit transfer of strategic commodities to individuals who may use them in a weapons program. "That's DOE's mission when it comes to high-risk property," said Ervin, who was the team leader for the training.

A few years ago, a U.S. company purchased a large box of miscellaneous equipment at a DOE laboratory's public sale. The box contained a small, metal component that could be used to enrich uranium. That company later sold the box at a secondary auction to a woman who then sold the high-risk component to China.

"She gets caught by enforcement agents and says, 'Hey, I got it from that company and they didn't say anything about it," said Ervin. "About a month later, she was caught again committing a similar act. That said, it's important to note the DOE lab had provided proper notice to the company that made the original purchase."

Ervin explained that incidents like this often occur due to a lack of education. "Our team of six from Oak Ridge National Laboratory are here this week to familiarize participants about high-risk commodities and the regulations that control them. We're not here to make anybody an expert. We want them to know where to go to for assistance," she said.

The course was designed for DOE and DOE-contractor personnel who are responsible for the life cycle management of proliferation-sensitive property. This includes employees involved in property management, procurement, excess and sales, material management, shipping and receiving, and export-control and classification, among others.

The primary objective of the training is to provide a basic understanding of U.S. nonproliferation policy and applicable requirements for handling proliferation-sensitive equipment, materials and technology. The agenda included a detailed review of controlled equipment, including hands-on exercises, interactive modules and exercises.

"We have several SRS employees attending this course to receive certification regarding high-risk, proliferation-sensitive property, which will be beneficial to multiple Site tenants," said Tammy Rimes, SRNS Director, Supply Chain Operations and Programs.



Contaminated sediment from the excavation area was placed into sacks for disposal during the cleanup of R Area Discharge Canal.

#### Remediation Phase of Lower Three Runs Project

SRNS recently completed the physical work involved in environmental remediation of the Lower Three Runs (LTR) Stream System with the cleanup of the R Area Discharge Canal.

LTR is composed of several ponds and canal systems that have received thermal discharges from cooling water systems associated with the P and R reactors, which were shut down in the 1980s. The discharges included radionuclides that may pose a threat to human health, as well as mercury from the Savannah River that poses a risk to the environment.

To safely isolate the identified area for cleanup, large aqua barriers were placed, blocking off the area with higher concentrations. The barriers were inflated, and the water from the contaminated area was pumped out exposing the sediment underneath. The sediment was treated with a drying agent and excavated to approximately 1 foot deep. The excavated sediment was then safely discarded into sacks and transferred to a lined roll off pan to be disposed of as low-level waste in E Area. Approximately 21 cubic yards of sediment were removed from the 500-square-foot excavation area.

"The planning and field implementation on this project was very well orchestrated," said Susan Blas, Fellow Scientist, SRNS Environmental Compliance and Area Completion Projects (EC&ACP). "As with any field deployment, there were aspects that were not anticipated. The team did an excellent job suspending work when unexpected conditions arose, meeting at the field site where all variables were discussed, and a safe alternative was agreed upon by the entire team. They say it takes a village, which was proven to be true during this field project. The expertise applied to this type of project makes all the difference."

Field work for the project was performed by CTI and Associates, a small construction and remediation company based in Michigan, and one of several businesses who has partnered with the Site through its successful mentor-protégé program with EC&ACP. The LTR project was approved by the Environmental Protection Agency and the South Carolina Department of Health and Environmental Control and led by EC&ACP personnel from Radiological Controls, Generator Certification Officials, Planning, Engineering and Project Management.

## EMO performs lockout/tagout training at WSB

RNS employees are taking advantage of a unique training resource, the SRS Waste Solidification Building (WSB), to strengthen their lockout/tagout training capabilities.

"H Area management noticed a perceptible negative trend with respect to operations rigor associated with lockout/tagouts," said Doug Brill, EM Operations Senior Conduct of Operations Technical Advisor. "We knew we had a unique and proven training setting with WSB, so we decided that location would be the best possible training venue to reinforce expectations to our employees while practicing the skills and mindset needed for effective and safe hazardous energy control."

The three-hour class involved several two-person teams, subdivided into lockout/tagout installer and independent lockout/tagout verifier teams. Teams utilized Human Performance Improvement error prevention tools such as task previews, job-site reviews, peer reviews, questioning attitude, three-way communications, the phonetic alphabet, pre-job briefing and verbatim procedure compliance.

"We introduce a lot of anomalies into the procedures when we write them," said Brill. "We want the employees to be able to work through unexpected issues together, rather than rely on a rote memorization response only. Having a real-life facility to practice in, with actual equipment to manipulate, is also extremely valuable because we can introduce anomalies that wouldn't work in just a classroom setting. I'm excited to see what other training we can host here in the future."

Brill believes that the time-spent in training is a solid investment in our workforce, with employee safety being the dividend.

"Safety is our number one priority at SRS and working with hazardous energy sources is a very serious matter," he said. "We never want to get complacent. We must perform HEC tasks perfectly to ensure the safety of ourselves and our colleagues. This training will help reduce classroom-setting refresher training and make it as close to real as possible, in a controlled field training setting."

Lockout/tagout and hazardous energy control (HEC) are synonymous terms at SRS. HEC is the program and methods used to protect workers from hazardous energy sources during active maintenance and servicing activities. Manual 8Q, Procedure 32 contains the details and requirements of SRS' HEC program.



John Harris (left) and Michael Andis of H Area Operations serve on a team practicing task preview activities during training at the Waste Solidification Building.



From gallons to volts

Joey McDaniel, Site Trucking First Line Supervisor, plugs a charging cable

into the truck

Site's vehicle fleet goes electric

SRNS is rapidly moving from burning fossil fuels to utilizing electricity to power a fleet of nearly 1,000 vehicles at SRS, fulfilling a U.S. Presidential Executive Order.

The initial phase of the Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability order is underway, with the conversion of gasoline cars, vans and light duty trucks to electric alternatives.

"SRS personnel have successfully converted over 10% of our light duty, gasoline powered vehicles to those powered by electricity," said Joe Solesby, SRNS Logistic Manager, Site Services. "We now have 76 zero-emission vehicles on-site, with more to come by the end of our fiscal year in September."

According to Solesby, multiple charging stations are being placed at locations across the Site. "Our goal is to have the electric vehicle infrastructure in place to support our zero-emissions vehicles as they are being delivered, working towards fully meeting all the directives within the Executive Order," he added.

In one area of SRS, crews have installed eight fast charging stations near administrative buildings that will provide a zero-to-80% charge within 60 minutes, providing a range of approximately 200 miles. A bank of slower charging stations was more recently installed several miles away in another part of the Site. A third bank is currently under construction in another area at SRS.

During additional phases of the project, SRS will convert mid- and heavy-duty vehicles to zero-emission engines, as well.

The Executive Order also specifies that gasoline powered, light duty vehicles may not be purchased for use at federal facilities after 2027, if an electric version is available.

"The work accomplished at the Savannah River Site on this project has been impressive," said Mike Budney, DOE-Savannah River Manager. "It's truly taken a team effort from multiple individuals and organizations to realize the progress we've seen to date. Preserving, protecting and improving the environment continues to be a top priority for us."



DOE-Savannah River Manager Mike Budney, center, addresses a group before the ribbon cutting event celebrating the Site's new electric vehicles.

#### 66

"We now have 76 zero-emission vehicles on-site, with more to come by the end of our fiscal year in September."

Joe Solesby, SRNS Logistic Manager, Site Services





#### SRNS achieves DOE Laboratory Accreditation Program success

A DOE Laboratory Accreditation Program (DOELAP) on-site assessment was recently conducted on the SRS radiobioassay program to ensure practices comply with DOELAP criteria.

Based on interviews with SRS staff members and reviews of selected documents, assessors concluded that SRS continues to meet all DOELAP standards. The program is operated by qualified individuals who are highly competent and dedicated to providing technically sound data while maintaining a high quality of service to the DOE site and its contractors.

"The assessment team identified 10 observations, with four being identified as noteworthy practices. The assessment included a review of the technical basis of the program, procedures, reports, training records and the quality assurance plan," said SRNS Health Physics Services Manager, Wendy Furtick. "We are pleased to say that no deficiencies nor concerns were noted. This is a great accomplishment as this was the first time this program has been assessed using the updated DOELAP checklist."

The SRS radiobioassay program is managed and operated by SRNS, which provides radiobioassay services for itself and other contractors. The program conducts approximately 5,500 urinalyses, 3,000 tritium analyses and 1,500 direct radiobioassay measurements annually. Both direct and indirect radiobioassay services are performed in-house by Radiological Protection Health Physics Services and the Environmental Bioassay Laboratory (EBL). EBL also provides radiobioassay services to the Lawrence Berkeley National Laboratory and backup services to Oak Ridge National Laboratory.

"This was the first time we have been tested by DOELAP since the implementation of upgraded software and instruments," said Teresa Eddy, Manager of Environmental Bioassay Laboratory and Environmental Monitoring Program. "Receiving a successful assessment affirms that our lab is operating at a high level and is meeting its standards of excellence. I am proud of our team and the quality of work they strive to maintain."



Environmental Bioassay Laboratory personnel prepare to test urine for radiation exposure.



As part of their OSHA-10 certification, interns learned about a variety of topics, including health hazards in construction.

## Interns get safety certified in OSHA-10

Throughout the month of June, the SRNS Safety and Health organization offered Occupational Safety and Health Administration (OSHA) certification courses to incoming interns.

To obtain an OSHA-10 Construction Certification, interns had to complete a 10-hour class over the course of two days conducted by Site employees, Kevin Malone and John Teasdale, who are designated as OSHA Outreach Program Trainers. Three courses were held with a combined number of approximately 100 participants.

"Teaching this course has allowed me to demonstrate the importance of ownership, accountability, and being courageous enough to speak up for the safety of ourselves, others and the community," said Kevin Malone, Senior Safety and Health Engineer. "This course allows us to help shape the future of our safety culture at SRNS."

SRNS Safety and Health Intern Tyler Schroeder said, "I enjoyed this course so much that I changed my undecided major to Occupational Health and Safety. The OSHA-10 training course introduced safety to me in such a way that I felt persuaded and inspired to consider safety as a career path. Kevin and John helped me realize that safety across the industry is ultimately about securing people's basic rights of life, liberty and the pursuit of happiness, which is something I feel passionate about."

OSHA-10 has specific course requirements including an Introduction to OSHA; Personal Protective Equipment and Life Saving Equipment; Health Hazards in Construction; and the Focus Four: Struck By, Caught-In or Between, Falls, and Electrocution. However, topics were added based on the kind of work most interns will participate in at the Site to make the course more relevant to their experience, including material handling and storage, ergonomics, stairways and ladders, and hand and power tools.

Additionally, an elective Safety Leadership course was added, providing a more interactive approach where interns were able to introduce themselves and discuss what safety means to them. Trainers were then able to relate interns' thoughts on safety to the expectations of the Site and how they can become safety leaders.

## **Educators visit a 'National Treasure'**

Teachers from Aiken, Orangeburg and Barnwell counties recently learned what it takes to successfully lead students to a future in the nuclear industry during the Site's first educator tour of H Canyon.

"Attending educators were able to witness the scale and variety of work we do inside this national treasure," said Kim Mitchell, SRNS Lead, Education Outreach. "Being able to experience H Canyon's unmatched safety and security culture in a limited security area is a wonderful addition to our educator tours."

H Canyon began operations in 1955. It's a one-of-a-kind national asset serving the state, nation and world by processing weaponsgrade nuclear materials for future disposition out of South Carolina. H Canyon is the only operating, production-scale, radiologically shielded chemical separations facility in the United States, making it a unique tour opportunity.

Barnwell High School Career Specialist Judy "JJ" Cone was impressed by the sheer size of H Canyon.

"This opportunity put into perspective the unique and advanced operations of the Site," said Cone. "I would recommend other educators take part in this tour and gain firsthand knowledge of the types of career specialties available to our students."

The tour provided an overview of operations with an emphasis on connecting classroom material with future career opportunities.

"It was a full-circle moment running into one of my old students, Dylan,



during this tour," said Kaylyn Baxley, Career Specialist, Barnwell High School. "He is a prime example that you can have a secure and wellpaying job straight out of high school through the Site's apprenticeship and internship programs."

SRNS Education Outreach personnel hope to offer more tailored community tours to provide a better understanding of different SRS areas and missions that cannot always be described in words.

"Educators can implement what they experienced during this tour, taking it back into the classroom where it can impact hundreds of students," said Mitchell. "By utilizing in-person tours, we continue to highlight and promote the positions we need filled that can positively impact the workforce."

#### Weapon Intern Program participants tour SRS facilities

Participants of the Sandia National Laboratories Weapon Intern Program (WIP) were welcomed at SRS in June.

The intern program includes participants from across the Nuclear Security Enterprise and seeks to transfer weapons knowledge and experience and increase the understanding of those working in the nuclear weapons field.

"WIP is a prestigious leadership development program used to prepare the future generation of experts in nuclear weapon stewardship," said Lisa Lee, SRNS Knowledge Transfer and Engineering Competency Development Manager. "The WIP interns are required to have two to five years of experience in a nuclear weapons organization, and many of them have 10-plus years of nuclear weapons experience."

The WIP curriculum includes classroom instruction from nuclear weapons subject matter experts, DOE and Department of Defense site facility tours, and a nuclear weapons research final project.

The purpose of these site visits is to reinforce classroom instruction and allow interns to see the overall nuclear enterprise, gain a greater appreciation of how each site contributes, see other perspectives and appreciate what each site does within its constraints and requirements.

During their visit, participants toured the Savannah River Tritium Enterprise (SRTE) and the Savannah River Plutonium Processing Facility (SRPPF), both under the direction of NNSA.



SRTE is the only facility in the nation capable of preparing tritium for the nuclear weapons stockpile, and SRPPF is part of NNSA's twosite strategy between SRS and Los Alamos National Laboratory to produce no fewer than 80 war reserve plutonium pits per year to meet national security requirements.

The two-site approach will provide an effective, responsive and resilient nuclear weapons infrastructure with the flexibility to adapt to shifting requirements and counter future threats.

Former WIP participants Lee, an SRPPF employee, and Hope Nehring, an SRTE employee, helped plan the visit.

#### SRNS Celebrity Waiter Night raises over \$40,000 for Children's Place



A silent and live auction took place during SRNS Celebrity Waiter Night that helped contribute to the overall funds raised in support of Children's Place, Inc.

ince 1994, Celebrity Waiter Night has been the largest fundraiser for Children's Place, Inc. Annually, SRNS employees show their support for this non-profit through a private event for employees and their family members. This year's event raised over \$40,000 in support of Children's Place, Inc.

Brittany Thiel, SRNS Senior Training Specialist and Celebrity Waiter Night Co-Chair stated, "I appreciate all the volunteers, and my Co-Chair Joanne McKinney, who worked so hard to make this event possible – for our event committee, waiters and volunteers behind the scenes. This fun night with friends and co-workers gives us the opportunity to raise much-needed funds for Children's Place, which allows them to support Aiken County children and their families."

All proceeds raised from the event and "tips" for the celebrity waiters go towards the needs of the non-profit organization.

"This was our first in-person event since the pandemic, so we wanted to make it an incredible experience," said Kevin Whitt, SRNS Site Training Director and Executive Sponsor for the event. "Joanne, Brittany and the entire team went above and beyond to make this night special for the guests and raise a record amount for Children's Place."

Celebrity Waiter Night specifically supports the Therapeutic Childcare Program at Children's Place, one of only two programs of its kind in South Carolina. The program serves children ages 18 months to five years old who have endured adverse childhood experiences and offers early childhood mental health services and occupational, speech and play therapies.



SRNS Executive Vice President Dennis Carr (right) and SRNS employee Justin Malaguti are pictured in front of Newberry Hall during this year's Celebrity Waiter Night.



Employees ended the night dancing in celebration of another successful year of raising funds to support Aiken County children and their families.

### THE PEOPLE OF SRNS



**Joanne McKinney** – Principal Training Specialist, Regulatory and General Training

Joanne McKinney has served as a Principal Training Specialist in Site Training's General Regulatory Department since 2021.

In this role, she has instructed various courses for personnel across the Site, including: respiratory; plastic suit and hood; confined space; hazardous energy control; CPR, and others. McKinney is also a qualified mask fit technician and General Employee Training instructor.

"I am constantly looking to add to my list of courses as I love to learn new things and share my knowledge with others," said McKinney. "I truly believe that to be a great instructor, you must have an open mind and learn from every person and opportunity that comes along."

Prior to coming to the Site, McKinney worked in the public school system for 29 years as a second through seventh grade teacher and taught college courses in continuing education to fellow educators. After retiring from the South Carolina school system, she worked for Milliken in Johnston, South Carolina, updating and digitalizing their Voluntary Protection Program documentation to ready the company for recertification as well as training new hires in safety.

As the co-chair of Celebrity Waiter Night, McKinney helped lead the company in raising over \$40,000 for the Children's Place, Inc. Previously, she judged for the Future City Competition, assisted in cleanup efforts with Adopt-a-Highway and raised funds for various charities including the American Heart Association and United Way.

In her free time, McKinney enjoys relaxing with her husband and friends on her back porch, playing with their three yorkies, listening to '60s and '70s music and playing puzzle games.

#### **Brittany Thiel** – Principal Business Analyst for the SRS Solid Waste Management Facility

Since 2022, Brittany Thiel has worked for SRNS Site Training as a Senior Training Specialist teaching respiratory and CPR courses. Previously, Thiel worked as Savannah River Mission Completion's Training Coordinator for Defense Waste Processing Facility and Saltstone.

This year, she served as co-chair of Celebrity Waiter Night, her first volunteering experience at the Site. She said, "This was such a fun and rewarding event to be a part of. I'm so glad we were able to raise so much for Children's Place so they can continue to support Aiken County children and their families."

When asked what she enjoys most about working at SRNS, Thiel stated, "I enjoy leading our students towards a better understanding of sitewide policies, procedures and safety concepts."

In addition to supporting Celebrity Waiter Night, she has volunteered with Restart Augusta, a nonprofit organization that provides beds to children, families and veterans in the Augusta area. She also served as a volunteer for the Augusta Humane Society. Recently, she joined the Site's Training Organization's Unity in Diversity Council.

Prior to her career at SRNS, Theil worked in the public school system as an educator in chemistry, biology, physical science and environmental science. She holds a Bachelor of Science and master's degree in science education.

Outside of work, Thiel enjoys family time, hiking, camping and watching movies.

## We make the world safer.

Developing innovative approaches to deliver on our environmental commitments and nuclear materials challenges

Supplying products and services necessary to maintain the nation's nuclear deterrent

Securing nuclear materials to prevent unwanted proliferation

Transforming nuclear materials into assets and stable wasteforms



#### For more information

www.savannahrivernuclearsolutions.com

Follow us on Facebook, Flickr, Instagram, LinkedIn, Twitter and YouTube



30000028