

● APRIL 2022

SAVANNAH RIVER NUCLEAR SOLUTIONS



SRNS Today

On the move

Final transuranic waste
Standard Large Box leaves SRS



SCAN ME
to connect with
our social media

This month

New Mission/Vision • First equipment for Plutonium Disposition Project • United Way awards



Stuart MacVean
SRNS President and CEO

Welcome

to the April 2022 edition of

SRNS Today

On the cover

The final shipment of Standard Large Box 2 containers holding transuranic waste recently left SRS.

SRNS makes the world safer through disciplined performance in producing and protecting nuclear materials for our nation's security, promoting global nuclear deterrence, and protecting the environment for future generations. This is the new Mission statement for SRNS that was rolled out this month to the workforce, along with a new and improved Vision statement. Combined, these two statements lay the foundation for employees to stand on while completing our important missions.

The Surplus Plutonium Disposition Project, which is expanding SRS' capability to downblend surplus plutonium for removal from South Carolina, took a big step forward with the delivery of air filter housings. This marked the first major receipt of safety significant, procurement level 1 equipment for any of our three NNSA capital projects.

The Solid Waste Management Facility celebrated the final shipment of Standard Large Box 2 containers holding transuranic waste from SRS, making their commitment to environmental cleanup this month. This campaign started in 2011, was paused when the Waste Isolation Pilot Plant paused receipt of TRU waste in 2014 and restarted this year.

Also this month, SRNS was honored by the United Way of Aiken County and the United Way of the Central Savannah River Area for our outstanding 2021 campaign; SRNS employees participated in Project VISION, benefitting the United Way of Aiken County; and SRNS celebrated Earth Day 2022.

With our new Mission and Vision statements to guide us, SRNS will continue to be a leader in the Department of Energy Complex and will continue to make the world safer.



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.

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COMMON ACRONYMS

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



New Mission/Vision statements reflect company changes

A lot has changed at SRS in the past few years.

With an announcement of an indefinite delay to the SRNS contract and an influx of new hires, SRNS leadership took another hard look at the tenets that will define and shape the company moving forward.

As a result, a diverse team of employees from across the company developed new Mission and Vision statements that will help shape our day-to-day business.

"These statements provide a framework to help integrate all of the SRNS workforce under one common purpose," said Stuart MacVean. "They lay out clear goals and priorities that employees can strive for in their everyday work. These new Mission and Vision statements also directly tie in with our core values of Safety and Security, Integrity, Teamwork, and Customer Satisfaction."

The new Mission statement helps explain how SRNS makes the world safer through innovation; producing and protecting nuclear materials for national security; promoting nuclear deterrence globally; protecting the environment; and operating with integrity in a safe, disciplined manner.

The new Vision statement explains how the company strives to be the leader in nuclear operations and management by prioritizing

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safety and security, investing in people, executing with discipline, and adapting to change.

"I'm excited to see what the future holds for our company and for the Site," said MacVean. "What I am certain of, though, is that with new Mission/Vision statements to guide us, we will continue doing our part to make the world safer."

MISSION

SRNS makes the world safer through disciplined performance in producing and protecting nuclear materials for our nation's security, promoting global nuclear deterrence, and protecting the environment for future generations.

VISION

SRNS aspires to lead the Nuclear Operations industry by prioritizing safety and security, embracing change, investing in people, and employing a commitment to innovative operations.



First step

Major equipment for Surplus Plutonium Disposition expansion received



Surplus Plutonium Disposition Project Procurement personnel examine the large HEPA filter housings after receipt in the Site's shipping and receiving facility. From left to right (background) Mary Hall, Edward Green, (foreground) Gwenn Corriero, Andy Johnston, Bart Meyer

SRNS NNSA capital projects have taken a big step forward with the delivery of the first long-lead materials for the Surplus Plutonium Disposition (SPD) Project. Project personnel procured large high efficiency particulate air (HEPA) filter housings as part of the project to expand the Site's capability to downblend surplus plutonium for removal from South Carolina.

SRS is currently using facilities in the Site's K Area Complex (KAC) to downblend these materials for disposal at the Waste Isolation Pilot Plant in New Mexico. The SPD Project will add three additional gloveboxes in an existing KAC building and develop supporting facilities to expand the capacity for carrying out this mission.

"To accelerate completion of the SPD Project, NNSA approved a Tailoring Strategy that authorizes us to move forward with low-risk activities, like the procurement of certain long-lead items," said Gwenn Corriero, Project Manager (SPD Long Lead - Procurements). Long-lead items are materials that need to be purchased early in the project because they take a long time to obtain, or because they are needed before other construction activities, to reduce the risk of potential delays to the schedule. "Because of their size, these filter housing units need to be installed in the facility before we erect interior walls there," Corriero said.

The SPD Project has completed Phase 1 site preparation activities and is scheduled to begin additional site preparation activities later this year, with field construction to begin in 2023. In addition to the HEPA filter housings, the other long-lead equipment being procured includes the gloveboxes and a diesel generator; project

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SRNS Project Manager (SPD Long Lead – Procurements)

personnel have awarded contracts for fabrication of these items.

The HEPA filter housing units are a safety significant part of the Active Confinement Ventilation System for the new processing areas. The filter housings, which were manufactured in North Carolina, arrived April 1.

Delivery of the units was the first major receipt of safety significant, procurement level 1 equipment for any of SRNS' three NNSA capital projects. In addition to the SPD Project, SRNS is converting an unfinished NNSA facility into the Savannah River Plutonium Processing Facility to produce plutonium pits for the nation's nuclear deterrent and building a new Tritium Finishing Facility to replace a Cold War-era facility used in the mission to supply the radioactive form of hydrogen used in the nation's nuclear defense.

Sale of transformer and tank helps regional industries

SRS Community Reuse Organization (SRSCRO) recently removed a large electrical transformer and a 15,000-gallon carbon steel tank from D Area at the Site. SRSCRO will use sale proceeds for economic and workforce development of regional businesses and industries

"We've had a long and successful history working with the SRSCRO, going all the way back to 2014, when it was agreed that much of the excess government-owned property in D Area would be provided to the SRSCRO, while the area was steadily decommissioned and much of it demolished," said Terry Schallick, SRNS Contract Technical Monitor.

In the 1950s, D Area was created to serve two primary purposes: to produce heavy water for use in the Site's nuclear reactors and to produce steam and power in a large, coal-fired powerhouse.

According to Schallick, a wide variety of items have left D Area bound for SRSCRO facilities for resale or reuse by numerous organizations.

Examples include engines, turbines, industrial-grade transformers, switchgear, electrical motors, storage tanks, railroad tracks, steam lines and seven large metal buildings. "At one point, they had to drain the lowest level of the powerhouse of accumulated rainwater to remove over 100 spools of cable," she added.

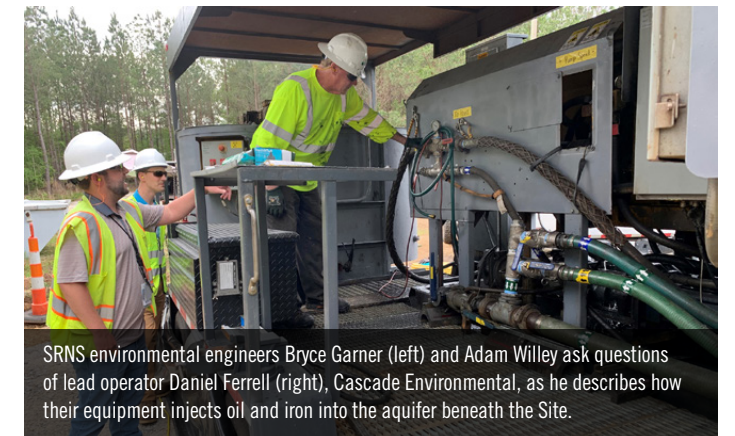
Schallick expressed admiration for SRSCRO employees. "They work hard and are very conscientious, especially when it comes to safety. They certainly have my respect," she said.

Since 2013, SRNS personnel have obtained a cost avoidance of nearly \$12 million by partnering with the SRSCRO to safely and cost-effectively remove items no longer needed by the U.S. government.

"The SRSCRO was designated as the community reuse organization for SRS in 1996," said Andy Albenesius, SRNS Program Manager. "They know the people in the counties that surround SRS, the potential strengths there, waiting to be tapped, and they know the region's economic issues. All of this combined supports their ability to strategically promote economic growth in areas that, without their help, would have seen economic loss – instead of significant growth – through the years."



SRNS employees secure a 15,000-gallon carbon steel tank to a trailer. DOE recently released the tank and a large electrical transformer to the SRS Community Reuse Organization.



SRNS environmental engineers Bryce Garner (left) and Adam Willey ask questions of lead operator Daniel Ferrell (right), Cascade Environmental, as he describes how their equipment injects oil and iron into the aquifer beneath the Site.

Using oil and iron to remediate groundwater

Personnel from SRNS successfully reduced degreasing solvents beneath SRS by using a technology developed by NASA that injects zero-valent iron and oil into groundwater.

"The oil attracts the Cold War cleaning solvents, while the iron degrades and neutralizes the contamination," said Shannan Lucero, SRNS Manager for Area Closure Projects.

In the Site's early days, tons of grease cleaning solvents were released from these buildings into clay-bottom holding ponds, known as basins. Although it was the best technology at the time for storing this type of waste, the solvents began to slowly – over the decades – leach down into the groundwater, forming a plume beneath SRS.

Use of innovative technology to close basins and eliminate the chemical solvents beneath the open fields where M Area production facilities once stood, has led to exceptional cleanup success.

"Though half of the chemicals have already been safely and harmlessly removed, we will continue to effectively operate cleanup equipment impacting the two primary areas where these solvents have pooled within the plume," said SRNS Environmental Engineer Branden Kramer. "We know the solvents will naturally move from the water into the oil, allowing the iron to finish the job. It's kind of like feeding your pet a pill wrapped in cheese."

SRNS purchased tons of commercially manufactured micron-sized iron bits encased in tiny globules of oil. Then, they injected that mixture into the ground at the most needed locations. Studies have shown the iron neutralizes about 90% of the affected solvent.

"It's amazingly effective in its simplicity. We're really excited about the potential this cleanup technology presents for us and other DOE sites," said Kramer.

"Environmental cleanup at SRS is often like a series of ongoing, often overlapping, 'battles' with different types of waste," said Lucero. "Some of the waste above ground and some below, some chemical and some radioactive. We're attacking it with cost-effective, innovative and frequently low-energy, sustainable green technology. We're confident this will lead us to achieving our long-term cleanup goals for the Site."

Solid Waste Management sends off final TRU Waste SLB2

Background photo: Members of Solid Waste Management recently saw transuranic legacy waste leave the Site.



Employees at the Solid Waste Management Facility recently saw the final shipment of Standard Large Box 2 (SLB2) containers holding transuranic (TRU) waste leave SRS. TRU waste SLB2s are shipped to the Waste Isolation Pilot Plant (WIPP) in New Mexico within a Transuranic Package Transportation Model 3, or TRUPACT-III, shipping package.

The TRUPACT-III is a larger cask than used for smaller TRU waste containers, such as standard waste boxes or 55-gallon drums, that has been approved by the Nuclear Regulatory Commission for shipping TRU waste containers to WIPP.

"SRS is the only site to use the TRUPACT-III so far," said SRNS Solid Waste Programs Manager Kerri Crawford. "We began using TRUPACT-III in 2011 due to our need to package larger TRU waste volumes and in order to avoid the radiological dose and industrial hazards of having employees cut large pieces of TRU waste to fit into smaller waste containers."

The SLB2 and TRUPACT-III were developed to support shipment of these larger TRU waste items from SRS to WIPP. Larger equipment was utilized for characterization and certification of the 239 SLB2 containers that were packaged at SRS. This equipment was

demobilized following the characterization campaign.

Each SLB2 holds 6.6 cubic meters of TRU waste, as compared to the 1.8 cubic meters that is held in the smaller Standard Waste Box, which is commonly used for SRS TRU waste. SRS shipped 232 SLB2 containers to WIPP from August 2011 through February 2014, with seven remaining legacy SLB2 containers to go when WIPP paused receipt of TRU waste in 2014.

"We are excited to see this legacy waste leave the Site, as part of our commitment to environmental cleanup," said Crawford.

With the completion of the SLB2 shipping mission, the TRUPACT-III

loading equipment will be dismantled and offered for use at another DOE site.

TRU waste, typically consists of protective clothing, tools, rags, equipment and miscellaneous items contaminated with small amounts of plutonium and other heavy elements.



WATCH THE VIDEO:

Go to the SRS YouTube channel and search "Site in 60 - Final TRUPACT-III Shipment"

Fire Department puts new trucks to the test



Earlier this month, SRNS firefighters responded to a tractor-trailer fire on Highway 125.

The SRS Fire Department (SRSFD) was called to the scene of a tractor trailer fire on April 13, putting their training and new fire engines to the test.

A call was received by dispatch from a driver of a tractor trailer carrying tires along Highway 125, bordering the Site. The driver exclaimed that his trailer was on fire, caused by a malfunction with the rear axle. Within a few short minutes the SRSFD was suited up, and two of the Site's newest fire engines were headed to the blaze.

Constructed of plywood and fiberglass and filled with tires destined for disposition at the Ameresco Tire Processing Site, the truck caught fire only slightly more than two miles away from the processing plant, which turns tires into a renewable energy source.

"SRS firefighters are trained to respond to an array of situations, and like every fire, this one had its fair share of challenges that had to be overcome," said SRSFD Chief Rob Still.

When the two newest fire trucks of SRS' fleet pulled up, the tractor-trailer was engulfed in flames. The truck driver was able to act fast and disconnect the trailer from the truck to prevent an already bad situation from turning worse. With the closest fire hydrant located by the tire



recycling plant, SRS firefighters cycled the fire trucks to the hydrant to fill up their tanks and race back to the scene, where they dumped a combined 27,000 gallons of water to snuff out the flames.

"Burning tires present a unique challenge due to the flammability of rubber and the noxious smoke that they give off. It can be challenging enough to manage the rapidly changing conditions of a fire while safely utilizing firefighting equipment, but to do so in a respirator and full fire suit increases the complexities our firefighters' experience," said Rick Sprague, SRNS Senior Vice President, Environment, Safety, Security, Health and Quality. "As they always do, this was another demonstration of the SRSFD's strong capabilities and invaluable training, and we are fortunate to have that level of skill on-site."

SRS traffic was diverted from the area to minimize traffic congestion, and the SRSFD had the fire under control after several hours, without incurring injury to a single firefighter.

Since the SRSFD fleet modernization effort began in 2010, SRS has replaced five fire engines, two of which were used in when they responded to the tire trailer fire on Highway 125. SRS has also replaced one ladder truck, one rescue truck and four ambulances.

SRNS honored with United Way awards

SRNS was recently recognized by the United Way of Aiken County and United Way of the Central Savannah River Area (CSRA) for the outstanding 2021 United Way Campaign.

The 2021 United Way Campaign was a joint campaign with SRNS, Battelle Savannah River Alliance, Centerra and the previous liquid waste contractor, Savannah River Remediation (presently Savannah River Mission Completion). The joint campaign goal was \$1.4 million, with SRNS raising \$827,691, surpassing the \$800,000 company goal. To celebrate the overall success of the 2021 United Way Campaign, United Way of Aiken County and United Way of the CSRA hosted celebration events to honor all the companies who contributed to the campaign.

During the United Way of Aiken County's campaign celebration, SRNS was presented the Top Employee Fundraiser Award for raising \$405,821 for the United Way of Aiken County. SRNS was also recognized as one of the Top Corporate Contributors for the efforts in the 2021 United Way Campaign. For having the highest overall contribution during the 2021 campaign, SRNS also received the "Aiken Cup" for its fundraising efforts.

A special recognition was given to SRNS Principal Health Physicist and Project VISION Coordinator Joey Smiley for 10 years of service coordinating the SRNS efforts for the annual Days of Caring event – Project VISION.

United Way of Aiken County President Sharon Rodgers is continuously appreciative of the hard work put forth by SRNS employees each year. "Our 2021 United Way of Aiken County fundraising campaign was successful because of you," said Rodgers. "Your payroll deduction pledges, fundraisers and events helped raise the necessary dollars for us to assist our 30 partner agencies and 45 critical need programs that help seniors, children, the disabled and those in crisis throughout Aiken County."

During the United Way of the CSRA campaign celebration, SRNS was awarded the Silver Champion Award for raising over \$200,000.



2021 SRNS United Way Campaign Chair Rachael Simon (left) and 2021 SRNS United Way Campaign Co-Chair Candace Stevenson (right) accept the Top Employee Fundraiser Award from Keyatta Priester, Aiken Electric Cooperative (middle).

United Way of the CSRA President and CEO Brittany Burnett was blown away by the support from SRNS. "Last year, because of the support from SRNS, we were able to impact the lives of over 124,000 residents throughout our 12-county footprint," said Burnett. "As one of the top supporters to United Way of the CSRA, our community is so grateful for the leadership, commitment and creativity brought forth by the team at SRNS year after year."

"We are so grateful for the continued support from the employees at SRNS. Giving back to the community is in the DNA of the company, and during a time like this when there is such increased need in our area, we wouldn't be able to have this level of impact without SRNS," continued Burnett.

SRNS United Way Campaign Chair Rachael Simon was humbled by the teamwork and dedication from SRNS employees during the 2021 United Way Campaign. "We would not have been able to meet our goal this year without the support from our United Way leads and our employees continuing to hold our fundraising campaign close to their hearts," said Simon. "Thank you to all of our SRNS employees for helping us make a difference within our community."

SRS celebrates Earth Day 2022



To watch the Site's Earth Day video, go to the SRS YouTube channel and search for "Earth Day 2022 Round Table."

SRS continued its focus on its decades-long mission to "Invest in Our Planet" this Earth Day, with a roundtable featuring Stuart MacVean and other leaders from across the Site discussing their commitment to leaving the earth a better place.

"This year's national Earth Day theme, 'Invest in Our Planet,' is a concept that SRS puts into practice every day," said Jared Wicker, SRNS Environmental Engineer and Earth Day Team Lead. "Earth Day reminds us that we only have one Earth and, much like a bank account, we need to invest in it regularly for future generations to see the return."

SRS embodies the spirit of Earth Day through missions that include cleanup of legacy contamination and the deactivation and decommissioning of legacy facilities. Employees are encouraged to provide suggestions for continuous improvement of the Site's environmental posture and conduct their work in an environmentally compliant and responsible way.

Working together for Project VISION



Volunteers worked on multiple tasks during Project Vision.

Since 2008, SRNS employees have donated their time to give back to the local communities by volunteering for Project VISION, which benefits partner agencies of the United Way of Aiken County.

The SRNS Days of Caring (Projects VISION, SERVE and CARE) promotes the spirit and value of unmatched employee volunteerism, increases the awareness of local human service agencies and demonstrates what people working together for the community's well-being can accomplish in a day.

With over 130 SRNS employees volunteering, each United Way of Aiken County partner agency was able to get the help they needed. The eight partner agencies that received assistance this year included: American Red Cross, Area Churches Together Serving (ACTS), Salvation Army Shelter, Tri-Development Center, Mental Health America Nurture Home, Child Advocacy Center, Helping Hands and Golden Harvest Food Bank. In addition to these agencies, volunteers worked on two community home projects.

SRNS Principal Health Physicist and Project VISION Coordinator Joey Smiley is constantly blown away by the support from SRNS employees each year during this event. "For me, it is a way we give something back and also have an impact on our community," said Smiley. "Our employees give their time and energy for a cause that they truly care about, and these employees think about others before they think about themselves. They understand that one act of kindness can change the world, which makes them special."

Team projects that were accomplished this year included: repainting interior and exterior walls, various landscaping projects, pressure washing exterior areas and sidewalks, assembling picnic tables, putting up fencing, building a wheelchair ramp, installing home underpinning, building a backdoor staircase, and sorting and organizing food donations.

United Way of Aiken County President Sharon Rodgers is continuously humbled by the support and selflessness of SRNS employees. "Over 200 SRNS and other SRS volunteers fanned out across Aiken County to 19 sites, including partner agencies and Project VISION clients that needed repairs. The impact was immense as safety lights were installed, grounds were cleaned, painting was freshened and ramps were built," said Rodgers.

"Our gratitude to SRNS and employee volunteers is hard to convey as words are inadequate to describe the feeling we experienced as we toured the sites and saw the work being done firsthand," she continued. "Thank you, SRNS, for sponsoring this annual event, and thank you to the hundreds of SRS employees who volunteered to work."



Joey Smiley

AT SRNS: Senior Principal Health Physicist

IN THE COMMUNITY: Project VISION Coordinator

THE PEOPLE OF SRNS

Each year, United Way partner agencies and several senior citizens in Aiken County benefit from a one-day service event called "Project VISION." Over the past 20 years, the day has engaged at least 300 volunteers annually and has provided over 100,000 hours of service in Aiken County, supporting 15 or more partner agencies each year.

Since 2012, Joey Smiley has coordinated the tremendous volunteer efforts for Day of Caring for SRNS. Over his tenure, Smiley has helped to recruit over 2,200 employee volunteers (around 250 volunteers annually) to serve. Smiley was honored for his 10 years of service at the recent United Way of Aiken County Annual Meeting and Celebration. "His leadership and fun-loving spirit are unmatched," said Tammy Ruth, Project VISION Director.

A graduate of Georgia Southern University, Smiley is a Senior Principal Health Physicist who has worked at SRS since 2001. Serving as the Air Monitoring Lead, Smiley provides overall program support including general field support, procedure and review, communicating with and hosting other subject matter experts from other DOE facilities, writing technical documents and conducting feasibility testing for updating new software and equipment. Smiley is the current president of the Savannah River Chapter of the Health Physics Society. Outside of his demanding career and volunteer work, Smiley enjoys spending time with his son Brandon and cheering for the 2021 National Champion Georgia Bulldogs.



Jessica Lape, SRNS Defense Programs Process Control and Automation Engineering Group Administrative Assistant; Ellen Luton, Director of Resource Development For United Way (UW) of Aiken County; Parrish Underwood, SRNS Senior Operations Support Specialist; Danielle Elliott, SRNS Technical Operations Training Specialist; Sharon Rodgers, President of UW Aiken County

SRNS employees contribute to Be a Bunny

For the past two years, SRNS Aspiring Mid-Career Professionals (AMP) have collected gift basket items for the United Way of Aiken County's Be a Bunny program, which distributes baskets filled with comfort items to homebound senior citizens every spring. Recently, AMP contributed towards the distribution of over 600 baskets filled with toiletries, games, non-perishable foods and other items.

INNOVATION • DEFENSE

NONPROLIFERATION • ENVIRONMENT

SRNS



Savannah River Nuclear Solutions

We make the world **safer.**