

● SEPTEMBER 2019

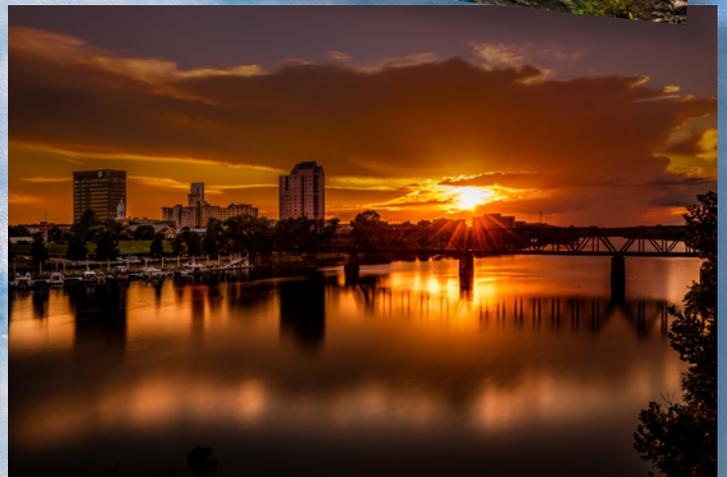
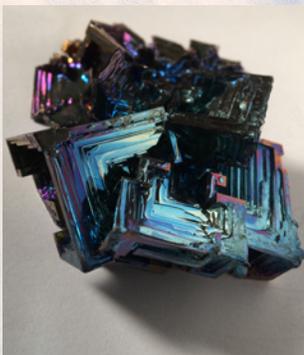
SAVANNAH RIVER NUCLEAR SOLUTIONS



SRNS Today

Snap **SRS**

SRS employees tap into creativity
in first-ever sitewide art contest



This month

Infrastructure improvements • Drone program honored • 17th VPP Star of Excellence



Stuart MacVean
SRNS President and CEO

On the cover
SRS employees tap into creativity in first-ever sitewide art contest

Welcome

to the September 2019 edition of

SRNS Today

At Savannah River Nuclear Solutions, we focus on innovations to enhance our Department of Energy-Environmental Management and National Nuclear Security Administration missions. We focus on being good neighbors in our community. And this summer, Savannah River Site employees focused on finding beauty on our site and in the area in our first-ever Snap SRS competition.

Our mission support remains steadfast, and we constantly look for ways to improve our cost-effectiveness. I'm pleased that DOE recently recognized a team that included SRNS and Savannah River National Laboratory employees with a national sustainability award for the cost-effective use of aerial drones at SRS. And this month, we opened a "one-stop shop" for new hire onboarding, making use of an existing renovated building and accruing a substantial cost-savings in the process.

SRNS is proud to support our community. We recently donated \$75,000 to Aiken Technical College for its radiation protection technology program, which provides a skilled workforce pipeline to the area. In addition, SRNS donated \$20,000 to the Golden Harvest Food Bank, continuing a decades-long tradition. The food bank works with a multitude of agencies for hunger relief in our community, and we welcome the opportunity to support this organization that does so much good.

Creativity from across SRS poured in during this summer's "Snap SRS" competition, a part of the Compelling Place to Work initiative. Site employees submitted artwork in four categories, and in a tiered judging, 33 of 246 eligible submissions were part of a "People's Choice Award" competition. The four winners appear in this edition, and all 33 competitors' artwork will be featured at an open-to-the-public exhibit at the Aiken Center for the Arts in November. The artwork will also be displayed across the site. Congratulations to all the participants!

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



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

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Stuart MacVean (left, center) presents \$75,000 to ATC President Dr. Forest Mahan to purchase additional high-tech equipment for the college's Radiological Protection Technology (RPT) Program. RPT students Heyden Bradley (left) and Lance Rey assist.

SRNS donates \$75K to Aiken Technical College for radiation protection technology program

SRNS continues to recognize the value Aiken Technical College (ATC) offers SRS, local industry and area students. A recent donation of \$75,000 reinforces the partnership established between the two organizations 10 years ago.

The funding will be used to purchase hardware and software for two simulator systems involving the detection of and proper response to potential radioactive contamination of workers or equipment, all part of the ATC radiation protection technology program.

"Radiation protection personnel are without a doubt the frontline for nuclear safety," said David Deal, ATC Instructor, Radiological Protection Technology. "There's an old adage that says you need to practice like you play. If I can make it real to them through simulation, they're going to be better technicians."

Training simulators reveal deficiencies in each student and strongly reinforce the correct response to routine, as well as potentially hazardous situations. "Working within real-world conditions creates learned behavior that will automatically trigger the proper response later, when they are on the job," Deal explained. "That's in the best interest of the students, and that's what employers greatly value."

One system uses a mannequin and a software controlled visual display. The instructor can demonstrate proper technique and then allow students to practice on the mannequin, performing proper surveys of personnel for contamination. The results of both the practice and evaluation sessions are provided to the student and the instructor.

"We understand the need for Radiation Protection Technology graduates to help fill the employment pipeline at the Savannah River Site," said Dr. Forest E. Mahan, ATC President. "To fill that



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David Deal



pipeline, we need to train our students on equipment that is being used out in the field and with this donation we can more effectively meet this goal."

According to Stuart MacVean, a significant percentage of the classes and degrees offered by ATC intentionally coincide with the skills and knowledge needed by the SRS workforce. Both organizations worked collaboratively to develop the programs. "We share a vision with ATC to help develop highly qualified graduates who will arrive on the job site having met the majority of the nuclear industry's fundamental training requirements."

SRNS has donated more than \$500,000 to ATC with the addition of the \$75,000 donation.

"We greatly appreciate the generosity that SRNS has provided ATC over the years," said Mahan. "It is partnerships with corporations like SRNS that help keep ATC at the forefront of providing a highly skilled workforce in our region. For 47 years, Aiken Technical College has provided thousands of area residents with the opportunity to pursue higher education."



Two drones fly high above a decommissioned reactor at SRS.

SRS receives national sustainability award for drone use at closed P and R Reactor facilities

DOE recently recognized a team composed of DOE-Savannah River, SRNS and SRNL employees, presenting them with a national award for a highly cost-effective approach to sustainability involving the use of aerial drones at the SRS.

The Innovative Approach to Sustainability Award recognizes the use of innovative methods, technologies or new processes in the pursuit of excellence in site sustainability practices. The competition rewards candidates who have demonstrated original, out-of-the-box or inventive ideas with applicability across the DOE complex.

“We’ve recognized for some time now the tremendous potential drone technology offers us in multiple areas within the missions SRNS is contractually tasked to achieve at SRS,” said Chris Bergren, SRNS Director, Environmental Compliance & Area Completion Projects (ACP). “Working with SRNL, we realized drones could be used to control the growth of vegetation on the roofs of our two sealed and closed reactor buildings, saving over \$170,000 a year.”

P and R Area reactor buildings were decommissioned in place by filling the structures below ground level with grout. The above ground reactor building structures remain and are expected to continue in their present state for hundreds of years.

“Specific areas of the reactor roofs were strengthened with high strength concrete to ensure the long-term integrity of the overall roof structure and promote drainage,” said Bergren. “With the discovery of vegetative growth on the reactor roofs that may allow root intrusion, we began to use a helicopter crew and an SRNS photographer to determine the amount of growth and then spray the plants as necessary. This approach was effective, but also very expensive.”

To improve upon this process, ACP and the SRNL flight program deployed a small drone to capture video and photos of the roof tops using a high-resolution video camera, allowing a much more thorough inspection than previously accomplished with a helicopter crew. The use of a drone allows for rapid mobilization and instant data analysis, while increasing safety.

ACP and SRNL then partnered with Virginia Tech to build a custom heavy-lift, hexacopter drone to spray herbicide at half the cost of traditional means. SRS is the only site within the DOE complex that has developed the use of drones for surveillance and maintenance of closed reactor facilities.

“The closed P and R Reactors are unique in that their closures are the first-of-their-kind in the DOE Complex. Using aerial drones to inspect closed reactor roofs high above the ground using 4K high resolution technology provides for significant improvements in our efficiency and effectiveness. The drones also allow post-closure surveillance and maintenance activities to be performed remotely at these facilities,” said Philip Prater, DOE-Savannah River Physical Scientist.

This year’s Innovative Approach to Sustainability Award was presented to Peter Avioli, Ronald Bartholomew, David Bender, Chris Bergren, Joe Burch, Todd Coleman, Herb Craven, Jeffrey Crenshaw, Marcia Delmore, James DeMass, Alan Doane, Jim Fudge, Mike Griffith, Avery Hammett, Todd Hatfield, Kelsey Holcomb, Angelia Holmes, Gary Hoover, Tommy Johnson, Charles Koss, Troy Lorier, Jimmy McMillian, Amy Meyers, Ted Millings, Earl Morrison, Carl Noe, Tony Polk, Philip Prater, Kirby Scott, Tommy Sessions, Mark Spurlock and Robbie Wood.

Improving infrastructure

New employee ‘one-stop shop’ latest in cost-saving upgrades

The cost savings accrued during FY2019 related to SRS infrastructure improvement projects has enabled the recent renovation of Building 703-47A for use by SRNS employees, while consolidating the new employee on-boarding process.

“It’s now a ‘one-stop shop’ for new employees,” said Stuart MacVean. “General Employee Training, badging and medical testing are all in one location. This also frees up much needed office space at other SRS facilities.”

According to MacVean, this building was renovated for \$2.9 million dollars, about a third of the cost of a new facility comparable in size and furnishings.

“It’s a great news story regarding bringing together a lot of folks that had different needs that could all be consolidated and pulled together in one place,” he said. “Thanks to all the people who made this possible, from the planning phase through moving and setup.”

Ironically, SRS plans had called for the demolition of Building 703-47A, scheduled to be leveled and the remnants removed within weeks of the final decision to renovate.

Don Turno, Site Program Support Manager, noted that a company in Augusta was in the process of loading the wrecking ball and support equipment onto a trailer when a phone call was made to put a hold on the implementation of the demolition project.

The refurbishing of Building 703-47A exemplifies that SRS is a site in the DOE complex with a robust, vibrant and promising future.

“Improving and sustaining our site’s infrastructure is an area of strength where steady progress has been and continues to be made, whether it’s roofs, roads or buildings,” said MacVean. “We completed \$120 million worth of infrastructure improvements over this past fiscal year with significant costs savings.”



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Stuart MacVean



The type and size of improvements to site infrastructure over the past few years have varied greatly. Examples include upgrading cyber security, replacing emergency service vehicles and refurbishing emergency power generators and fire water support systems.

Other examples include: paving 50 miles of roads; replacing more than 25 roofs (encompassing 178,700 square feet or about three football fields); and replacing power distribution systems in K and L Areas.

As with 703-47A, the comprehensive refurbishing of the Patrol Headquarters Building for SRS security contractor Centerra – this past fiscal year – typifies efforts to ensure employees enjoy a healthy, productive and comfortable work environment.

In all, from FY16 through FY19, more than 50 projects were completed, representing an investment of over \$350 million dollars to improve working conditions and ensure our utilities, facilities, roads, equipment and other assets related to SRS infrastructure are safe, secure and in good condition.

Future funding to support ongoing and near-term infrastructure improvements looks promising as well with a total request for more than \$600,000 for FY20-23.



Attending a ribbon-cutting for the newly-renovated 703-47A were (from left) Norm Powell, SRNS Senior Vice President, Business Services; Mike Budney, DOE-Savannah River Operations Office Manager; Mac McMillian, DOE-Savannah River Assistant Manager Infrastructure and Environmental Stewardship; Stuart MacVean;; Thomas Johnson, Jr., DOE-Savannah River Deputy Site Manager; Don Turno, SRNS Site Services Business Support Manager; and Mike Swain, SRNS VP Technical Services.

Snap SRS



(Photo at top)

James Therrell

SRNS Engineering

“Bismuth Crystal”

Crystal of pure bismuth,
grown by the submitter

Science as art

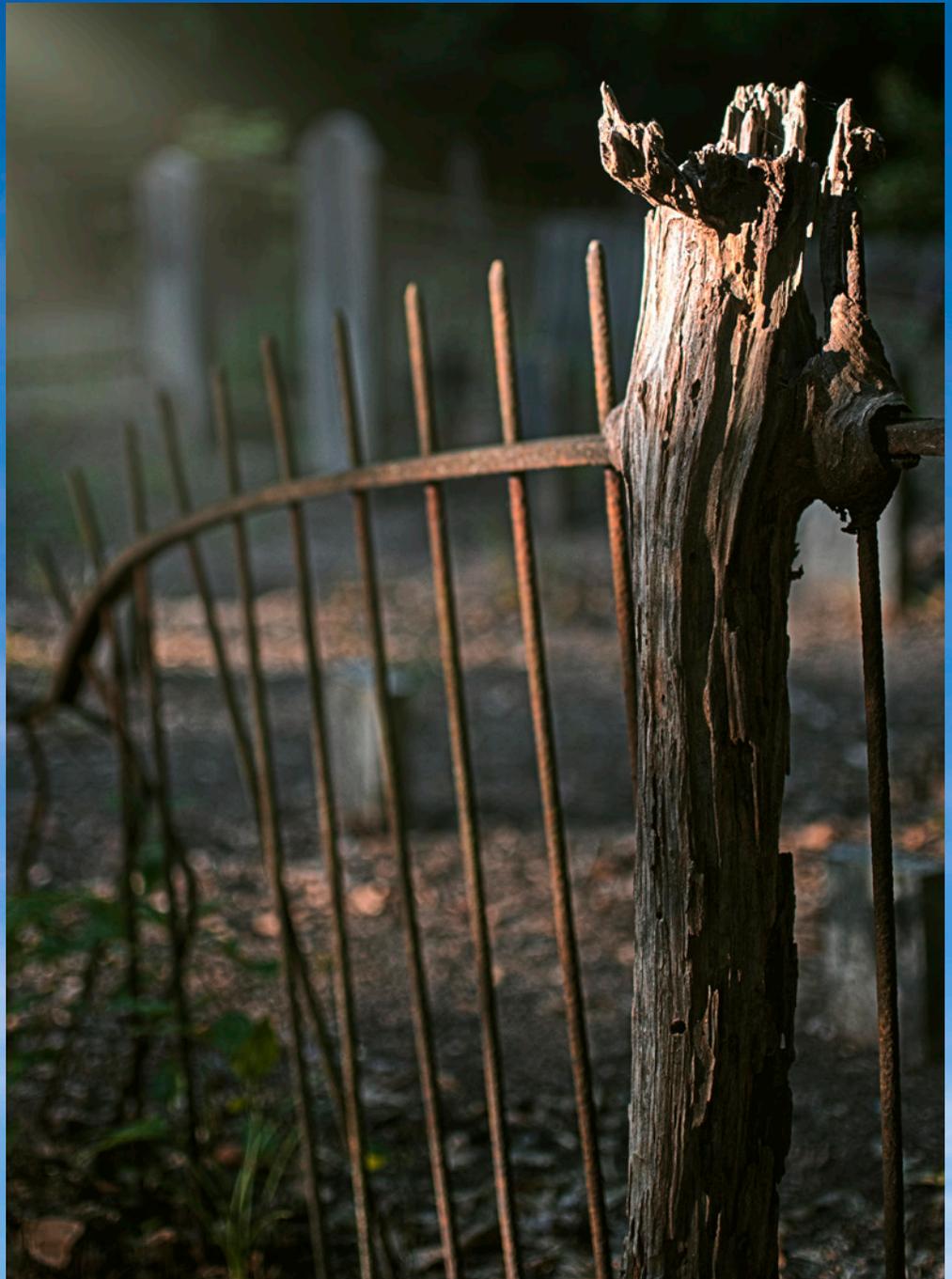
Max Bassett

SRNS Nuclear Material
Control/Accountability

“Old Jackson Cemetery”

When the Savannah River
Plant was built 65 years
ago, entire towns—along
with 126 cemeteries—were
relocated to make way for
the nuclear facility. The
relocated inhabitants,
along with their dead, were
in the vanguard to usher in
the Nuclear Age and
to win the Cold War.

Nuclear knowledge





SRS scenery

Sean Havens
SRR Project Controls

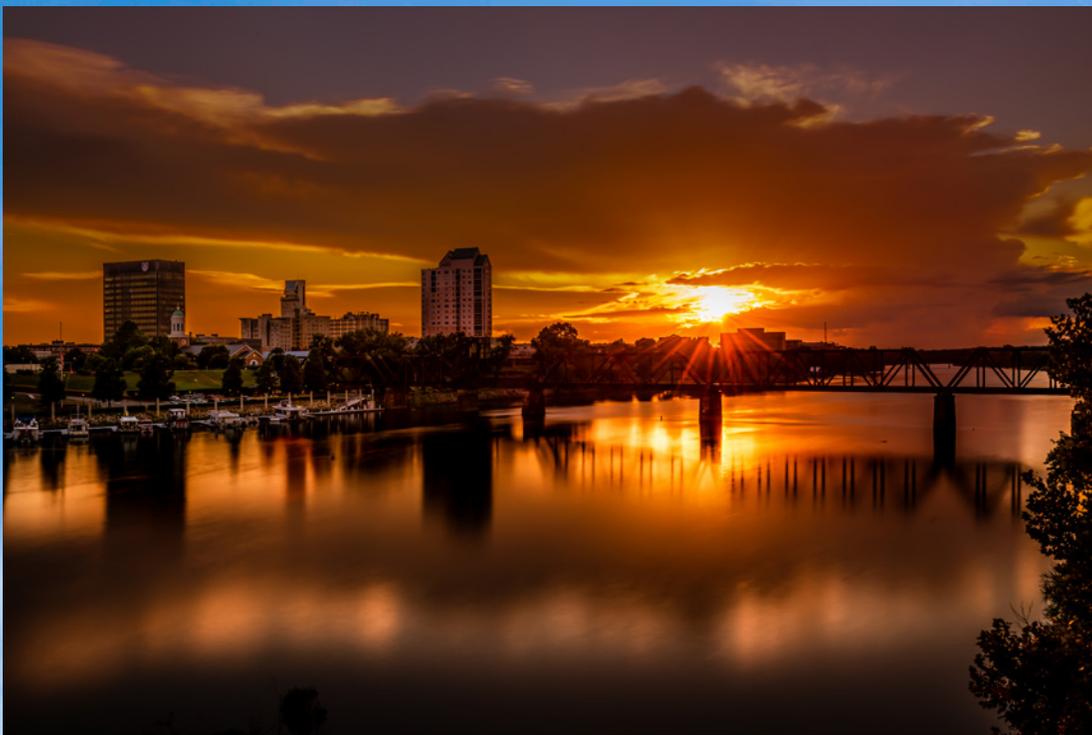
“Time will Tell”
Old train tracks at SRS

Art contest puts focus on employee creativity

Dreamy sunsets and poignant graveyards. Train tracks that disappear into nature and the complex beauty of a lab-grown crystal. These images were part of 246 submissions in the first-ever “Snap SRS” art contest. ● All SRS employees were invited to submit their original artwork this summer in four categories: Science as Art, Nuclear Knowledge, SRS Scenery and Local Scenery. ● A panel of judges, representing each site entity, reviewed the eligible submissions “blind”; only the images, titles and captions were provided. The panel selected 33 images that will eventually be displayed throughout SRS. ● Site employees had the opportunity to view the 33 selections and vote for their favorites during the “People’s Choice Award” competition. More than 2,100 employees participated, selecting photographs from Mark Amidon, Max Bassett, Sean Havens and James Therrell as winners. ● Led by the SRS Compelling Place to Work initiative, Snap SRS focused on promoting site pride, improving facility appearances and boosting workplace morale through art.

On exhibit

The Aiken Center for the Arts will host the “Snap SRS” exhibit Oct. 29-Dec. 2, with an opening event on Nov. 7 from 6-8 p.m. at the Center on Laurens Street in Aiken. The artwork of all 33 People’s Choice Award finalists will be featured. The exhibit is free and open to the public.



Mark Amidon
SRNL Environmental
Stewardship/Geosciences

“Sunset over the River”
The Savannah River in
autumn, near Augusta, Ga.

Local scenery

College bound

25th annual College Night draws thousands of students

Since 1993, more than 100,000 high school students, parents and educators from the greater Aiken-Augusta have attended CSRA College Night.

“I can remember the first year we held a College Night over 20 years ago. It was in the gym at North Augusta High School,” said Jay Jefferies, CSRA College Night Master of CeremonIES. “We had about 200 to 300 students and we were amazed with the turnout. And, now, we’re filling the James Brown Arena wall to wall.”

More than \$300,000 in scholarship funding has been offered to area students who have attended College Night in the past. “The generosity of our scholarship sponsors and much appreciated help from more than 100 volunteers are major reasons why this effort is consistently so successful each year,” said Gladys Moore, CSRA College Night Chairperson and SRNS employee.

This year’s event featured recruiters from over 130 colleges and universities with scholarships, each worth \$1,000, awarded to 16 students during drawings held throughout the evening.

“The CSRA community provides a tremendous amount of support, both financially and with in-kind donations of service,” said SRNS’

Francine Burroughs, who manages the company’s Education Outreach Program. “The community partnerships allow our committee to provide more resources for the students and parents each year.”

Evans High School senior Kiana Glasker expressed her appreciation for this opportunity and was amazed with the number of college recruiters. “When we walked in here, I said ‘wow’... but it’s great, because I can finally narrow down my list.”

CSRA College Night is sponsored by the U.S. Department of Energy-Savannah River Operations Office, SRNS and iHeartMedia.



SRNS Talent Acquisition and Development Manager Francine Burroughs (right) and Nylada Brady, one of 16 scholarship winners.



Students and university representatives filled the James Brown Arena in Augusta.



Travis McNeal (left), Golden Harvest Food Bank Executive Director, accepts a \$20,000 SRNS donation from Stuart MacVean.

SRNS provides \$20,000 in funding to Golden Harvest Food Bank

For more than a decade, SRNS has contributed to the largest food bank in the region. Recently, SRNS continued that tradition with a \$20,000 donation to the Golden Harvest Food Bank (GHFB).

“The fact is multiple organizations like Savannah River Nuclear Solutions, combined with our amazing staff and volunteers, are the backbone that enables the work we do,” said Travis McNeal, GHFB Executive Director. “SRNS has been a highly valued, long-term partner whose executive team and employees understand the value of our mission. Their extremely generous donation will be put to good use. We are able to distribute \$9 worth of food for every dollar donated.”

GHFB supports several services including the Senior Food Box, Master’s Table, Mobile Food Pantry and Student Backpack Programs.

“Golden Harvest has a vision to provide quality food and groceries to hungry individuals throughout the region,” said Stuart MacVean.

“The results of their dedication are truly remarkable having distributed more than 250 million pounds of food throughout counties in Georgia and South Carolina. Their desire to help those in need has impacted millions of people.”

GHFB has been noted for the exceptional efficiency of their operations and practical policies. Only four percent of donations received go towards overhead costs, leaving 96 percent to support a wide variety of services and programs.

More than 300 local hunger relief agencies work closely with Golden Harvest to provide food to the hungry where they need it most, right in their own neighborhoods.

“We’re pleased to provide support to an organization that is devoted to successfully fight hunger in so many ways,” added MacVean.

SRNS earns 17th DOE-VPP Star of Excellence for safety programs

On Aug. 26, SRNS was awarded its 17th DOE-Voluntary Protection Program (VPP) Star of Excellence for demonstrating continued excellence in safety programs, performance and culture at SRS.

“SRNS has always strived to instill a strong safety culture in employees,” said Stuart MacVean. “Receiving our 17th Star of Excellence validates our workforce’s commitment to ensuring our company remains the industry leader in nuclear-and-workplace safety.”

The DOE-VPP is a DOE-led organization that promotes and validates contractor safety and health excellence at all DOE sites. This certification validates that the company’s safety and health programs, training and culture are operating at best-in-class standards, ranking 75 percent better than the average of businesses in the same industry.



SRNS Engineer Rachaud Keys safely works on a cart in Tritium.

SRNL internships: National lab welcomes students from across U.S. for real-world experience

Savannah River National Laboratory recently hosted 48 college students, representing 20 colleges and 16 U.S. states and territories, across seven distinct summer internship programs. The interns worked in a variety of research disciplines within SRNL, including cybersecurity, computational sciences, environmental biotechnology, nuclear measurements and process technologies and made significant contributions to current lab projects.



Corbin Reyes, an Environmental Science major from the University of Texas at San Antonio, working with the SRNL environmental biotechnologies group.

The two-month internship programs culminated in August with an SRNL Intern Research Poster Session, a public event where students gained valuable experience presenting their summer's work to SRNL leadership. Many interns also are scheduled to present their research posters at upcoming conferences in collaboration with their sponsors or to their respective academic departments.

The SRNL internship programs offer tangible benefits to both students and the organization. Interns benefit from the opportunity to participate in and contribute to significant, real-world projects in the

areas of basic and applied science – specifically, the chance to be a named contributor to published or patented work.

For example, this summer, one SRNL intern participating in the DOE Office of Science's Science Undergraduate Laboratory Internships Program will be included on a patent application due to her contributions to research on 3D printable polymers for radiological applications. In addition, the contributions of three interns participating in the Augusta University (AU) Nuclear Workforce Initiative to Environmental Science and Biotechnology Research will be included in upcoming publications and SRNL modeling systems.

"My AU students have contributed to five peer reviewed publications since 2014," said SRNL Fellow Technical Advisor in Environmental Sciences Tim Jannick.

Patents and publications are widely accepted performance indicators in the scientific community, and these accolades will help enhance the interns' academic pursuits and jumpstart their future professional careers.

SRNL's Vivian Holloway, program manager of the DOE Office of Environmental Management's Minority Serving Institutions Partnership Program (MSIPP), observed, "SRNL's internship programs create opportunities for some of the most unique and talented next generation scientists and engineers to gain exposure to a genuine laboratory working environment as well as first-class, world-renowned research." The MSIPP promotes STEM in higher education. This summer, SRNL hosted 10 MSIPP interns as well as 16 interns from the Savannah River Environmental Science Field Station, also funded through the MSIPP.

To deliver a well-rounded development program, SRNL also provides personal-professional development, educational and social networking opportunities, including workshops on strength finding, resume writing, interviewing skills and work-life balance; a lecture series in partnership with the Office of Science Visiting Faculty Program; a videoconference series; luncheons and receptions; and extracurricular events.

Internship participant feedback and retention indicates the valuable experience is felt all around. Many students have expressed interest in returning next year. As Steven Poore, a chemical engineering major from Clemson University, recently explained, "This summer opened my eyes to what it means to be an engineer."

Herman receives Rankin Award from American Ceramics Society

SRNL's Connie Herman has been named the 2019 recipient of the D.T. Rankin Award by the Nuclear & Environmental Technology Division of The American Ceramics Society (ACerS). This award recognizes a division member who has demonstrated exemplary service to the division. Herman will be formally presented the award in the Division Business Meeting during the ACerS annual meeting Sept. 29-Oct. 3 in Portland, Ore.

Herman is currently the Associate Laboratory Director of SRNL's Environmental Stewardship Directorate,



Connie Herman

which provides strategies and technologies for remediation of former nuclear weapons sites.

"Connie has expertly overseen one of our primary mission areas at the lab," said Laboratory Director Vahid Majidi. "The award is deserved recognition of the hard work and commitment that we have all seen in her tenure here at SRNL."

Herman has been with SRNL for 28 years and engaged primarily in the development and deployment of technologies and processes for stabilization of nuclear waste. She is a Fellow of ACerS, has held several leadership positions in the Nuclear and Environmental Technology Division, and is a past chair of the Fellows Committee for the Society.

The award's namesake, Tom Rankin, a distinguished SRNL employee, served as chairman of the ACerS Nuclear and Environmental Technology Division.



Taylor Baldwin took home first place and \$2,000 in LEAP's 4th annual Shark Tank competition.

Early-career professionals take the plunge in LEAP's annual Shark Tank event

Leaders Emerging Among Professionals (LEAP) recently held its fourth Shark Tank event, based on the ABC television show, providing early-career professionals with the opportunity to submit ideas to improve SRS.

The pre-screened groups presented their ideas to a panel of "Sharks," members of SRNS senior leadership, for a chance to win a share of \$5,000 divided among the three finalists. Contenders were required to demonstrate how their idea could improve SRS in relation to one of SRNS's Strategic Goals: Deliver Results Safely and Securely, Meet DOE National Needs, Advance SRNL and Compelling Place to Work.

This year's panel of judges included SRNS Executive Vice President and SRNL Director Dr. Vahid Majidi; SRNS Senior Vice President of EM Operations Wyatt Clark; Deputy Vice President of EM Operations Janice Lawson; and Senior Vice President, Chief Engineer and Nuclear Safety Officer Bruce Easterson.

Following the presentations, the judges awarded first place to Engineer Taylor Baldwin for his idea to "Advance SRNL" through the "Modernization of SRNL's Underground Counting Facility" by replacing dated equipment to improve technical capability as well as increase the facility's attractiveness to potential customers.

Second place was awarded to Joy McNamara, Senior Scientist, and Breia Stamper, Software Engineer, for their idea to make SRS a more "Compelling Place to Work" by building a "SRS Family Wellness Center" just outside of the site boundary. Receiving third place was Christian Sanchez, H Canyon EM Operator, for his idea, "Lockout Tagout Tracking System" to "Deliver Results Safely and Securely" by implementing a software and scanner system to precisely identify components in a Lockout/Tagout.

SRNS wins international award for safety culture video

SRNS Corporate Communications Media Services Department is a recipient of their second Distinction Award for a safety-based video entry, recently announced by the Academy of Interactive and Visual Arts (AIVA).

The production, "Safety & Security Begins with Me at Work, at Home and in the Community," merited the annual Communicator Award. The Distinction Award is presented for



Shown with the AIVA award are SRNS employees (from left) Kristin Huber, Community Affairs; Brad Bohr, Communications & Media Services; and Angie Benfield, Safety Communications.

projects that exceed industry standards in quality and achievement. The video was produced and directed by Brad Bohr, SRNS Communications and Media Services.

"Our video, photography and media professionals continue, year-after-year, to produce effective, visual communications for our customer, the company and SRS," said Stuart MacVean.



'Raising the Steaks' cooks up \$4,500 for United Way

The SRS "Raising the Steaks" recently raised more than \$4,500 for the United Way of Aiken County. Sponsored by SRNS, Outback Steakhouse and Savannah River Remediation, the fundraiser served 340 people. This year's event also featured a new delivery option to allow SRS employees to participate even if they were unable to attend the event. Pictured above (center), 2019 UW Campaign Chair A.D. Bollig said, "I want to thank all of the volunteers and attendees for coming out to support one of our traditional United Way fundraisers. The generosity of the SRS workforce is awesome, and I cannot thank them enough for supporting such a great cause."

INNOVATION • DEFENSE
NONPROLIFERATION • ENVIRONMENT

SRNS

Savannah River Nuclear Solutions

We make the world safer.

safer.