

● JUNE 2017

SAVANNAH RIVER NUCLEAR SOLUTIONS



# SRNS Today



## Training Transformation

Improvements in new operator instruction on track to save \$5.6 million

### This month

DOE-HQ visitor • HB Line glovebox success • SRNL cybersecurity • Summer interns • Video award







**Stuart MacVean**  
SRNS President and CEO

# Welcome to the June 2017 edition of SRNS Today

It is my honest belief that Savannah River Nuclear Solutions has some of the most talented and skilled employees around. They work every day to safely and smartly execute the Savannah River Site's crucial environmental and nonproliferation missions. But not only are they talented, they are also a tremendous asset to their communities and continue to show that through their generosity and spirit.

SRNS employees use their talents to ensure work is being done in the most efficient and cost-effective way possible. A Rapid Improvement Event, part of the Focused Improvement Transformation initiative, addressed the challenges involved with qualifying Environmental Management Operations operators. This resulted in an estimated cost avoidance of over \$5.6 million by 2018.

SRS employees recently brought their skills together to safely replace the HB Line Operational Area 5 glovebox panel that was cracked during normal operations earlier this year. This potentially hazardous job was completed without incident and ahead of schedule.

SRNS Video Services was honored for their talents, receiving the Excellence and Distinction Award by the Academy of Interactive and Visual Arts for their video promoting a strong safety culture at SRS. The award is presented for projects that exceed industry standards in quality and achievement. Congratulations to the Video Services employees!

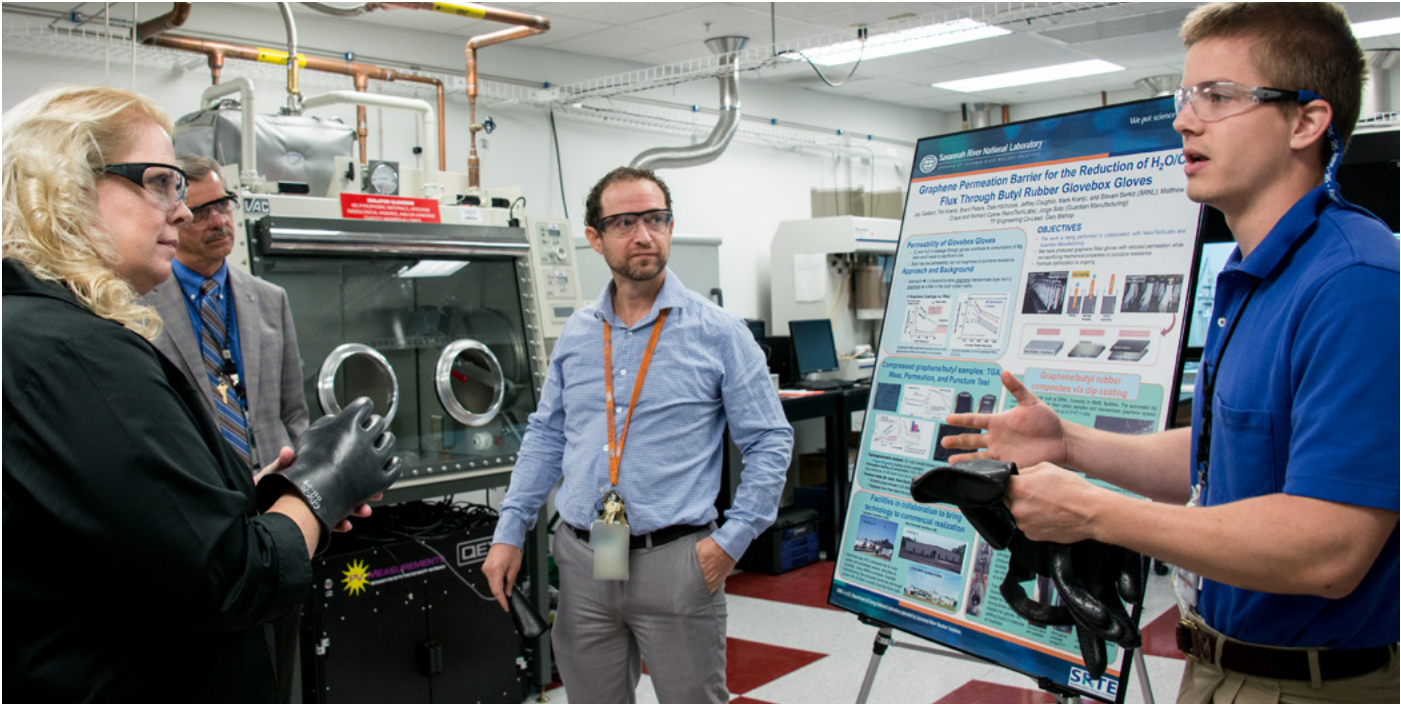
Every day, I am proud of our employees and the work they do to make the world safer.



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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 803.952.9584 or visit our website.

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Charboneau (left) learns about SRNL's glovebox gloves that use an advanced material called graphene from Dr. Jay Gaillard, SRNL Senior Engineer (center), and Dr. Tim Krentz, SRNL Postdoctoral Research Associate. Also pictured is SRNL Laboratory Director Dr. Terry A. Michalske.

## DOE-EM's Charboneau visits SRNL, SRNS operations during two-day tour

Stacy Charboneau, U.S. Department of Energy (DOE) Environmental Management Associate Principal Deputy Secretary for Field Operations, toured SRS June 28-29. Her tour included the Savannah River National Laboratory (SRNL), including the SRNL shielded cells facility, as well as the nano and the Thermal Cycling Absorption Process/water detrition labs at the Applied Research Campus. While at SRNL, she was also briefed on the SRNL-managed Minority Serving Institutions Partnership Program. Other SRNS facilities included in her two-day tour were H Canyon, the Savannah River Tritium Enterprise, L Area Basin and the SRS Curation Facility.



During her visit, Charboneau was briefed about the Minority Serving Institutions Partnership Program (MSIPP). Attending the briefing were (from left) Dr. Jeff Griffin, SRNL Associate Laboratory Director for Environmental Stewardship; Vivian Cato, MSIPP Program Manager; Charboneau; Jack R. Craig, Jr., Manager, DOE Savannah River Operations Office; MSIPP Intern Kevin Blair; and Christopher Walker, Program Coordinator, Savannah River Environmental Sciences Field Station.



Melissa Jolley, curator of the SRS Curation Facility, shows Charboneau one of the many SRS artifacts in the collection. The Curation Facility is managed by SRNS.



# 'One Site One Safety'

## SRNS video wins prestigious AIVA award

SRNS Corporate Communications Media Services has won an annual Communicator Award from the Academy of Interactive and Visual Arts (AIVA).

The Excellence and Distinction Award was presented to "One Site One Safety," a video entry produced and directed by John Brecht of Media Services. The award honors projects that exceed industry standards in quality and achievement.

"We're thrilled and honored to receive this prestigious award and more importantly, it's a testament to the team's talent and dedication to produce effective visual-based communications for our customer, the company and SRS," said Stuart MacVean, SRNS President and CEO.

The AIVA is a 600-plus member organization of leading professionals from various disciplines of the visual arts dedicated to embracing progress and the evolving nature of traditional and interactive media. Current AIVA membership represents a "Who's Who" of acclaimed media, advertising and marketing firms including: AirType Studio, Condè Nast, Disney, Keller Crescent, Lockheed Martin, Monster.com, MTV, rabble+rouser, Time Inc., Tribal DDB, Yahoo! and many others.

"I'm particularly proud of this safety video which communicates the importance of our strong safety culture," said MacVean. "This product achieved the goal of raising the bar to ensure our safety emphasis extends beyond our site boundaries to our families and communities."



Founded over two decades ago, AIVA recognizes cutting-edge ideas in marketing and communications, striving to honor work that transcends innovation and craft – work that made a lasting impact.

Winning entries for The Communicator Awards are selected based on commitment to fairness and merit-based achievement regardless of company size and project budget. This ensures each entry is afforded equal chance of winning an award. All entries are judged to evaluate distinction in creative work. Judging is based purely on quality of craft. A category may have multiple winners or none at all.

"We are both excited and amazed by the quality of work received for the 23rd Annual Communicator Awards. This year's class of entries is a true reflection of the progressive and innovative nature of marketing and communications," noted Linda Day, Executive Director, Academy of Interactive and Visual Arts. She added, "On behalf of the entire Academy, I want to applaud this year's Communicators."

With over 6,000 entries received, the Communicator Awards is the largest and most competitive awards program honoring creative excellence for communications professionals, the best in advertising, corporate communications and public relations.



## Team effort safely completes high-hazard project weeks ahead of schedule

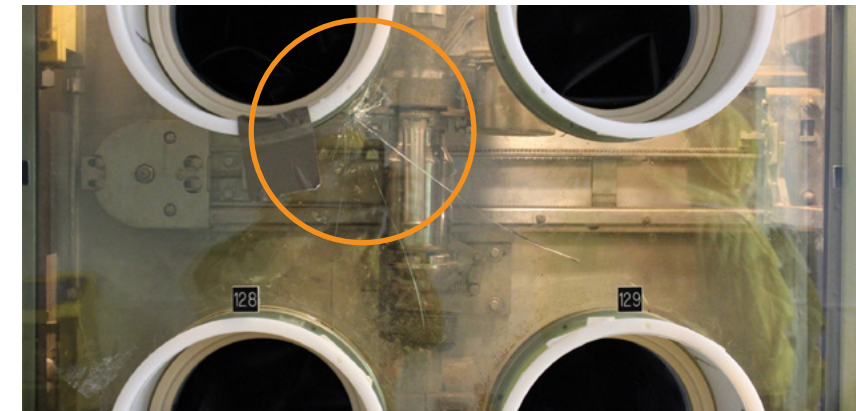
Employees from more than 20 SRS organizations came together to safely repair a glovebox cabinet in HB Line ahead of schedule.

"SRNS replaced the HB Line Operational Area 5 glovebox panel that had been cracked during normal operations within six weeks versus the planned 11 weeks," HB Line Operations Manager and Project Lead Lee Sims said. "But more importantly, this was a complex, high-hazard job in one of the most contaminated process lines in the facility, and the employees did it without injury or contamination."

A glovebox is a stainless steel box with safety glass panels. It has fitted glove-port openings to allow contaminated materials handling, and shields and segregates workers from associated hazards. The panel was cracked during a routine processing activity when equipment internal to the glovebox inadvertently came into contact with the inner-glass panel. The panel is made of a multilayer, shatter-proof safety glass, one of many safety features that protect workers.

"More than 20 functional organizations across SRS came together to ensure we completed this work safely," Sims said. "We looked at lessons learned from prior panel replacements before beginning work and planned each step carefully."

Management used the panel replacement as a teaching opportunity. "We paired seasoned operators, radiological protection department and construction personnel with less experienced employees. Because this is not an activity that is done often, it is important for experienced personnel to pass on the know-how for future work," Sims said.



Photo, top: Employees at work in an HB Line glovebox

Photo, above: Workers replaced the HB Line Operational Area 5 glovebox panel that had been cracked (area in orange circle) during normal operations.

The employees overcame challenges such as locating and dedicating replacement parts for equipment deficiencies discovered during panel removal. These parts required commercial-grade dedications, a weeks-long process to verify commercial items for use in safety-significant applications. The facility also rescheduled outage activities to coincide with processing downtime resulting from the glovebox repair to maximize use of personnel and plant availabilities.

SRNS also implemented corrective actions associated with this event, working with SRNL's material group to help design improvements to equipment used in that glovebox to mitigate risk associated with equipment contacting the glovebox panel.

"I am proud of all the organizations and employees who came together to ensure the panel replacement was completed safely and successfully," said Wyatt Clark, SRNS Senior Vice President, Environmental Management Operations.

## SRS Community Leaders Forum

Approximately 80 members of the CSRA community attended the 2017 SRS Community Leaders Forum on June 29. In addition to remarks from Jack Craig, DOE Savannah River Operations Office Manager, and Doug Dearolph, Savannah River Field Office Manager for NNSA, updates on mission accomplishments and operational status were provided by senior leadership from SRNS, SRNL, SRR, Parsons and Centerra-SR.



SRNS President and CEO Stuart MacVean outlines the company's accomplishments with community leaders attending the Forum.





Hap Arthur (left) and Derrick Benjamin, new operators at SRNS, train under the instruction of John Magruder, SRNS Site Training.

# Training transformation

## Streamlined EM operator instruction and strategies yield big savings

An SRNS team recently took a close look at the challenges involved with Environmental Management (EM) operator qualifications. As part of the SRNS Focused Improvement Transformation initiative, the team's recommended improvements will pay off with an estimated \$5.6 million in cost avoidance by fiscal year 2018.

"Nuclear qualifications are difficult. They are confusing and cumbersome, and we needed to make them more user-friendly and accessible for new employees," said Greg Sanborn, Deputy Site Training Manager. "Historically, the initial facility qualifications were inconsistently tracked with a facility schedule and contributed to delays."

A multifunctional team analyzed the training process to closely examine the period of time from when an employee arrives at the facility after completing fundamentals training to the moment the trainee is ready for the written, performance and oral exams.

The team developed a new and improved method for identifying and incorporating critical training courses into the shift and weekly schedules, and today, is on track to improve the process.

"It has been a breath of fresh air to start training at SRNS," said Sammie McDuffie, an operator-in-training for H Canyon. "Here, they make sure you have all the tools you need to be successful. We stay really busy in the classroom and our online self-paced courses, and we often finish up the day with a walkdown of the facilities where we will eventually qualify to work."



*"It has been a breath of fresh air to start training at SRNS. They make sure you have all the tools you need to be successful."*

**Sammie McDuffie**



After recognizing training expectations in the various facilities at SRS needed to be more clearly defined, the team revised the "qual cards" to be more efficient. (Qual cards are a list of the courses that operators are required to complete, and training expiration dates.) Each SRS facility has different qual cards because each facility presents different hazards and operating characteristics.

The overall strategy for scheduling courses has also been streamlined, which has resulted in less downtime during training for the new operators. In between instructor-led classes held in a central location, operators take self-paced online courses, and a more cohesive schedule for operators has been instituted that includes foundational training common to all SRS facilities.

"To help the operators navigate through their requirements, each facility also started assigning mentors to help guide them as they become acclimated with their facilities and the site as a whole," added Sanborn.



# Next generation

## SRNS intern program continues to grow in quality and quantity

This summer, 147 SRNS and SRNL interns are developing their professional experience while bringing new ideas to the SRS.

On June 19, SRNS hosted an "Intern Meet and Greet," where interns were able to meet executives while connecting with other young professionals.

"Enthusiasm for the Internship program has spread tremendously throughout the ranks of the company," Nate Diakun, SRNS intern coordinator, said. "The goal for our interns is to provide an environment that encourages impactful contributions, and we do so by ensuring managers and mentors facilitate work on meaningful projects and peer to peer interactions. We believe unique internship experiences provided in many of our facilities help make SRNS and SRNL compelling places to start a career once students receive degrees and become eligible for full-time employment."

Attending the event was SRNS engineering intern Lauren Rapp, a rising sophomore at Clemson University who is working in H Canyon facilities. "Our system helps support the Canyon as it runs its processes. I've been working on a spare parts project with two other interns to be able to create a list of parts we recommend should be purchased in 2018," Rapp said. "Being an intern at SRS has been a great experience. It has enabled me to learn more about my college major and has given me great networking opportunities. Overall, I believe it is preparing me for the future."

The summer interns are current college students or recent graduates and come from as far away as Puerto Rico to work



Janessa Smith (left), Workforce Services, talks to electrical engineering student Stephanie Dukes during the intern "meet and greet." Dukes is interning with the Tritium Process Controls group, where she is testing a solar panel design to extend the life of wireless transmitter batteries.

here during the summer. They join 30 year-round interns for a total of 173 interns at SRNS/SRNL, representing 51 colleges and universities. The University of South Carolina (USC), Clemson University and USC Aiken claim the largest number of interns represented; however, there are interns representing schools from all over the United States.

Stuart MacVean, SRNS President and CEO, addressed the interns during the reception. "We're currently in the process of hiring approximately 500 employees this year to prepare for an expected increase in employee retirements over the next several years," MacVean said. "As a full-service company, we offer career opportunities for scientists, engineers, accountants and project management, among many other areas. We really appreciate what all our interns bring to the table, and we hope they have a meaningful experience that provides a strong foundation in their future careers."



# Cybersecurity innovation

## SRNL joins forces with Augusta University to fund cyber sciences faculty position

With the U.S. Army bringing its Cyber Command to Fort Gordon and the recent groundbreaking for the Hull McKnight Georgia Cyber Innovation and Training Center, it's clear that cybersecurity has come to Augusta in a big way. To further strengthen cybersecurity research and education in the region, SRNL and Augusta University have partnered to create a faculty position at the university's newly-announced School of Computer and Cyber Sciences.

As the first partner in the new school, SRNL will jointly appoint a faculty member with Augusta University to foster interdisciplinary research and education in the field of cybersecurity. SRNS is providing \$200,000 to launch the position and will work with Augusta University to fund the faculty member's future efforts. The funding was approved by the SRNS Board of Directors, which includes members from SRNS parent companies Fluor Corporation, Newport News Nuclear, Inc., and Honeywell International, Inc.

"We are excited about our partnership with Augusta University and the opportunity to help advance this region's role in the national cybersecurity agenda," said Dr. Terry Michalske, SRNL Director and SRNS Executive Vice President. "Cybersecurity is a complex national challenge and meeting this challenge will take close partnerships among academia, industry and government to foster innovation and build a highly trained workforce."

Through this partnership, SRNL is seeking to accelerate the pace of cyber innovation in the region because it is actively developing



Dr. Gretchen Caughman, Augusta University Provost and Dr. Terry A. Michalske, SRNL Laboratory Director and SRNS Executive Vice President, shake hands after signing the agreement to create a new faculty position at the university's newly-announced School of Computer and Cyber Sciences.

cybersecurity solutions for DOE missions in the areas of national security, energy and advanced manufacturing. For example, SRNL collaborated with the National Security Agency to create a wireless protocol and encryption method that can be used to transmit data up to the Classified level. When deployed, this wireless technology eliminates the \$2,000 per foot cost of running cable inside a nuclear facility.

For Augusta University, the partnership will build the intellectual bench strength of its new Cyber School. "This partnership will allow us to better recruit the highly qualified faculty needed to train our cybersecurity students for the careers of tomorrow," said Augusta University President Brooks A. Keel, PhD. "We will leverage our shared research infrastructure and expertise in the area of cybersecurity to become the nation's leader in cybersecurity education and discovery."

To be located in the 168,000-square-foot Hull McKnight Georgia Cyber Innovation and Training Center, the School of Computer and Cyber Sciences will enhance and expand on the work done by Augusta University's Cyber Institute. Established in June 2015, the Cyber Institute enables, supports and champions meaningful, innovative, interdisciplinary research and education for cybersecurity. The institute was recently recognized as a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security. Its work focuses on collaborative partnerships to impact K-12 and higher education, health care, government and business communities.



## SRNL welcomes 58 interns for 'real-world' experience

In early June, SRNL welcomed 58 interns who will spend their summer break applying what they have learned in the classroom to real-world applications.

This year's SRNL internships span a number of programs including the Minority Serving Institute Partnership Program, Science Undergraduate Laboratory Internships, Energy Efficiency and Renewable Energy Robotics, Augusta University-Nuclear Workforce Initiative, and DOE Fellows from Florida International University.

Earlier in June, Laboratory Director and SRNS Executive Vice President Dr. Terry Michalske spoke at SRNL's annual intern conference. "Our program is designed to help mold and shape you, the future leaders in science, engineering and research to support and grow SRNL missions," said Michalske. "We want you to use your knowledge, ask questions and make suggestions. We are here to help guide your

passions and in return, we want you to be active in the work you do and in your surroundings."

Focus areas for this year's interns include chemical engineering, robotics, nanotechnology, cybersecurity and physical geography. As the DOE-EM multi-program national laboratory, SRNL offers experiences to match students' interests.

Natalie Ferguson, Program Manager, University Relations/Postdoctoral Research, Workforce Management, said this time of year is exciting because so many benefit from the program.

"It's wonderful when mentors and managers get the chance to share their experience and knowledge with the next generation workforce," said Ferguson. "SRNL has some of the top experts in the world, and for our students to have the chance to learn and develop new areas of expertise from interacting with them, that's a success."

## Get SET for science

### SRNS partners with Girl Scouts to support STEM mini-camp



Wallis Spangler, Senior Vice President, NNSA Operations and Programs, assists camp participants Z'nyia Johnson (left) and Kayla Davis. SRNS mentor Kelsey Schlegel looks on.

Girl Scouts of South Carolina – Mountains to Midlands recently teamed up with SRNS to offer a camp called Girls Get SET for high school girls interested in careers involving science, technology, engineering and math (STEM).

"We are very grateful to SRN and one of its parent companies, Honeywell, for providing the funding for this camp," said Patti Bennett, programs coordinator for the Aiken Girl Scout Service Unit. "The program is a win-win-win situation; the girls get an amazing camp experience, USC Aiken can showcase their campus and SRNS develops potential candidates for a future workforce."

The event consists of a three-day, two-night residential camp that offers participants the opportunity to experience life in a college dorm, engage in hands-on engineering and nuclear science programs and participate in a career exploration forum.

This is the second year the camp has been offered. Rising 11th and 12th graders make their own game board by soldering together an electrical circuit, similar to the game Operation. Rising ninth and 10th graders completed the "Engineers to the Rescue" program where they create different items to help them survive a staged scenario of an earthquake.

"It's really cool how they have us think outside of the box," said Noria Williamson, a rising freshman at Silver Bluff High School. "It's so visual and a great way to learn using hands-on projects. I would definitely recommend this camp to my friends."

The SRNS donation covers the costs of housing, meals, supplies and a stipend for camp counselors.



# Annual softball tournament raises more than \$19K for UW

SRNS employees and the community recently competed in the 13th annual SRS Softball Tournament, a tradition that benefits the United Way and draws hundreds of volunteers, players and spectators.

SRNS raised more than \$19,500 as a result of the teams’ fundraising efforts and concession stand sales, a joint effort among volunteers from SRNS, United Way of the CSRA and United Way of Aiken County.

Throwing the ceremonial opening pitch to kick off the two-night tournament was La Verne Gold, President, United Way of the CSRA and Sharon Rodgers, President, United Way of Aiken County.

Two major contractors—SRNS and Savannah River Remediation (SRR)—participated in the tournament with 15 teams. SRNS Environmental Management Operations (EM Ops) and the SRR Avengers made it to the final round. SRNS EM Ops, which sponsored Area Churches Together Serving, a United Way of Aiken County partner agency, defeated the SRR Avengers with a 17-2 score.

“The EM Ops team would not have been possible without the support of our employees who did such a wonderful job with fundraising, participating in the tournament and cheering on their team members,” said Wyatt Clark, Senior Vice President, SRNS EM Operations.

Prior to the event at Citizens Park in Aiken S.C., SRS employee “owners” raised money for their team, so they could then be eligible to “buy” players, ranging from \$20 to \$350, depending on skill level. Then, each team earned money based on their finish in the tournament.



Tournament organizer and SRNS employee Eric Schiefer was an inaugural participant of the SRS Softball Tournament and has played in the highly competitive event every year.

“I want to thank all the players and volunteers who took time on two weeknights to make this fundraiser a success,” said Schiefer. “Looking back on the past 13 years of the tournament, I would have never envisioned it becoming an event of this magnitude when it first got started. Each year as it increases in popularity, the more money we are able to raise for such a worthy cause.”



## The HUB serves up improved dining experience through cafeteria renovations

Employees from across SRS recently gathered in H Area to celebrate the grand opening of the The HUB, the site’s largest and primary cafeteria, with food sampling from the new menu, music and prizes.

The completion of phase one of a total renovation includes new cafeteria management and a refurbished kitchen. Phase two will focus on the dining and patio areas.

A significant investment was made to upgrade the cafeteria and equipment, including a new salad bar, oven, grill table, steamer and fryer. In the dining area, four large television monitors have been added.

“Food service improvement is about more than just food,” said Jessica Hall of the SRS Compelling Place to Work initiative. “It’s about connecting with one another, and that deserves special consideration, which is why we will continue to focus on improving the dining experience across the site.”

“I got through the line pretty fast and the fresh food was great,” said Barry Knoll of Site Communications. “The beef tips, wild rice and Brussel sprouts were great. I was impressed with all the options. I’d give it an ‘A.’”

The food service improvement is part of the SRS Compelling Place to Work initiative, which strives to make the site a place that attracts and retains talent, while also raising morale.

“This is all part of an evolving process where a series of improvements will continue to be made based on new innovations, employee feedback and expert advice from the café management team,” added Hall.



# American Red Cross honors SRNS employees as ‘Red Cross Heroes’

It’s not every day that a person has the opportunity to be a hero to someone in need, but for 12 SRNS employees, that opportunity became reality.

Eleven SRNS employees were selected as American Red Cross Heroes by the Augusta Chapter, with a dozen SRNS employees selected for the same award by the Red Cross Aiken Chapter.

The employees were selected based on their response to four individual emergencies. Two emergencies required the Heimlich maneuver to assist coworkers; another required immediate response to a serious roll-over car accident on a rural highway. Lastly, SRNS assisted Centerra employees in a well-coordinated emergency response when an SRS helicopter pilot recognized that his co-pilot was having a stroke just prior to take-off.

The SRNS Heroes were recognized at American Red Cross Heroes breakfasts held recently in both Aiken and Augusta.

### SRNS honorees

- Phillip Almond
- Chris Alverson
- Shep Archie
- Eddie Dantzler
- Harold “Thomas” Foster
- Steve Hall
- Cassandra Holloway
- Melanie Lepard
- Richard Pryor
- Cindy Rowell
- Barry Sumner
- Jeremy Thorne

## Bland to serve as loaned professional for “Promise Zone”

SRNS continues to partner with the SouthernCarolina Regional Development Alliance (SCA), whose mission supports industrial development and employment in some of the state’s most rural counties.

Sandra Devoe Bland, Defense Nuclear Facilities Safety Board Liaison and Technical Advisor for the SRNS Executive Vice President & Chief Operating Officer, has been recently assigned to the SCA home office located in Barnwell, S.C., to assist with implementing “Promise Zone” initiatives throughout Barnwell, Allendale, Bamberg, Hampton, Colleton and Jasper counties.



Sandra Bland

“I am pleased to be a part of the SouthernCarolina Regional Development Alliance in their impressive efforts to promote economic growth and employment opportunities to the area through Promise Zone initiatives,” said Bland. She added that the SCA will partner with the federal government to gain access to critical resources and expertise to help these counties grow and thrive within one of four national Promise Zone designees.

Promise Zone recipient counties will have access to multiple federal incentives over the next nine years. These incentives will help establish and nurture new federal programs that are designed to boost economic and educational growth within some of our nation’s most high-poverty, rural and tribal communities.

“I am familiar with the landscape within this Promise Zone. I consider this a tremendous opportunity to give back to the communities in the Low Country, especially since it includes my hometown of Barnwell,” said Bland.

Bland graduated from Barnwell High School (1980), the Georgia Institute of Technology with a Bachelor of Chemical Engineering (1984) and has a Masters of Project Management from Keller Graduate School of Management (2009).





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