Training for success

Efficiencies put maintenance workforce in the field faster, saving time and dollars

This month

Castor Creek cleanup • Family Scholarships • Ft. Gordon job shadowing • AMP, LEAP
Welcome to the May 2019 edition of SRNS Today

Employees at Savannah River Nuclear Solutions are always looking for ways to improve our operations, our environment and the future of our company.

Our Savannah River Site Training organization recognized a need to enhance our ability to quickly train new maintenance workers while ensuring that they are qualified to perform their tasks. These employees’ skills keep our operations moving smoothly and getting them ready for hands-on work is vital. Strategic efficiency improvements have resulted not only in a reduction in total training time, but also produced a $1 million cost savings. It’s a win-win for everyone.

We continue our Environmental Stewardship work with proven cleanup techniques, such as the ones being used to clean the groundwater from the decommissioned C Reactor to Castor Creek. These low-cost yet high-impact techniques help in our efforts to return SRS to its natural state.

During May, we celebrated our developing workforce and the youth who may be our workforce in the future. Our company's leadership attended the annual Leadercast event with our mid-career professionals and a management social with our early-career professionals. These two events give all the participants a chance to network, to learn about each other, and our company’s goals and missions. Plus, we’re happy to have presented 15 scholarships to children of our employees. We’re excited to play a part in furthering their education and hope that they’ll consider SRNS in their career plans.

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

SRNS Today is published monthly by SRNS Corporate Communications to inform our employees and other stakeholders of the company’s operational- and community-related activities. If you have questions or comments, please contact us at 803.952.6131 or visit our website.

www.savannahrivernuclearsolutions.com

Stuart MacVean
SRNS President and CEO

Low cost, high impact

Cleanup method safely removes chemicals from Castor Creek

During the Cold War, chemicals like trichloroethylene (TCE) were often used to remove grease from nuclear components manufactured throughout the Department of Energy (DOE) complex. Disposal of these chemicals often resulted in groundwater contamination in areas such as the now-closed C Reactor facility at SRS.

Ninety-nine percent of the degreasing chemicals found in the groundwater were removed during an earlier cleanup action that used high-voltage electricity to heat the subsurface, vaporizing the TCE, which was then extracted. However, TCE in the groundwater from C Reactor to Castor Creek still exists in a narrow plume about one mile long.

A low-cost, low-energy cleanup method using nature’s microorganisms is being implemented by SRNS to safely remove any remaining chemicals.

Terry Killeen, SRNS Environmental Engineer, explained that 36,000 gallons of vegetable oil mixed with water, a pH buffer, vitamin B-12 and vitamin C will be injected through 15 pipes driven into the earth to a precise depth within the aquifer below. The groundwater must move through this area as it slowly travels past the two lines of injection points toward the creek.

SRNS employees Terry Killeen (left) and Jimmie Lee take baseline groundwater samples prior to the start of a cleanup project that will inject 36,000 gallons of emulsified oil mixed with water, a pH buffer, vitamin B-12 and vitamin C into the earth at a precise depth within the aquifer below.

SRNS employees Terry Killeen (left) and Jimmie Lee take baseline groundwater samples prior to the start of a cleanup project that will inject 36,000 gallons of emulsified oil mixed with water, a pH buffer, vitamin B-12 and vitamin C into the earth at a precise depth within the aquifer below.

“Whenever possible, we believe it is best to harness and use nature for our environmental cleanup projects,” said Killeen. “Through extensive study and testing it has been proven that a certain type of microbe, native to this area, actively eats TCE. We provide the oil and microbes, and mother nature does the rest. The oil and microbes thoroughly mix with the groundwater and coat particles of sand and clay in the subsurface. The TCE flowing through the area sticks to the oil, where both are eaten and ingested by the microbes, resulting in harmless compounds.”

Killeen noted that another advantage of this type of treatment is that it involves a one-time injection of a relatively small amount of oil, which will treat a large amount of water over three to five years. Conservative estimates indicate more than one million gallons of groundwater per year will be treated. Remedializing the groundwater using microbes and oil costs 30-60 percent less than many traditional types of TCE remediation at SRS.

“Finishing this last phase will aid in the cleanup of the C Area Ground Operable Unit, another important environmental restoration project towards returning SRS to its natural state,” said Karen Adams, DOE-Savannah River Federal Project Director.
Efficiency improvement cuts training time, saves $1 million

Strategy puts qualified maintenance workforce in the field faster

Through strategic training efficiencies, SRNS recently graduated 68 new Maintenance, and Electrical and Instrumentation mechanics, while saving $1 million in the process. Many of SRNS’ newest employees are from the local area, and their arrival helps SRNS address workforce sustainment needs created by current and expected attrition. SRNS Site Training Department standards require scenario-based, performance-based and problem-solving training. The required training for these skill sets typically takes six months for new hires to complete to gain their initial qualifications. By doubling the size of a normal training group and implementing additional program efficiencies, graduates were able to complete the necessary training in four months.

“A two-shift training schedule was necessary because of the demand our operations facilities have for new mechanics, who are replacing retiring employees,” said Robert Williamson, SRNS Maintenance Training Manager. “It takes a great deal of coordination and trainers to prepare these students to be immediately productive in the facilities,” he said. Because of the larger number of students, SRNS Site Maintenance Training personnel expedited the onboarding of the new hires and developed a compressed training schedule to allow students to complete initial qualifications early. Several courses had to be offered multiple times, including three weeks of night-shift training. Students were also provided additional classroom training and facility-specific online training to help increase their productivity when they begin work in SRS facilities. The expedited onboarding process and efficiencies resulted in a $1 million cost savings.

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New ladder truck adds versatility to SRSFD capabilities

The SRS Fire Department (SRNSFD) recently purchased a new 2018 Pierce 100-foot Velocity ladder truck as a part of their fleet replacement project. The ladder truck meets all applicable National Fire Protection Association codes for ladder safety and design. The new ladder truck offers versatility in reaching both high and low spaces, supporting elevated rescue operations as well as having the capability of reaching approximately 20 feet below ground surface. This ability makes it possible to reach someone in distress using a ladder or bucket attachment in locations that may have been more challenging to access in the past.

Compared to previous models, the new truck is equipped with several features that will simplify processes and increase safety. Such features include airbags, air rod suspension, capacity to hold more equipment, and enhanced lifting capabilities, which allow the basket to hold 1,000 pounds compared to the old ladder truck that held 750 pounds. Not only does this addition to the fleet provide on-site benefits but it can also be used to respond to emergencies in the surrounding six SRS mutual-aid communities.

“SRNS holds the safety of SRNS employees and citizens in our surrounding communities as a core value,” said Rick Sprague, SRNS Senior Vice President, Environmental, Safety, Health and Quality. “In the event of an emergency, the SRS fire fighters and their equipment must be ready to respond to a variety of unique facilities and environments quickly and effectively. The upgrades completed within the SRS emergency fleet give our emergency responders improved resources when seconds count.” In addition to the new ladder truck, two new fire trucks have been purchased, all SRS ambulances have been remounted and the capability of reaching approximately 20 feet below ground surface. The upgrades completed within the SRS emergency fleet give our emergency responders improved resources when seconds count. In addition to the new ladder truck, two new fire trucks have been purchased, all SRS ambulances have been remounted and the site is scheduled to get another rescue and HAZMAT truck in the coming years.

Since arriving on site on April 1, SRS’s newest ladder truck has already responded to one call for mutual aid in the local community.

Fishing event at SRS honors wounded warriors, mobility impaired

DOE and U.S. Forest Service personnel from SRS, working with the National Wild Turkey Federation (NWTF), recently held the fifth annual Ultimate Fishing Challenge at SRS to honor our nation’s wounded warriors and mobility-impaired residents from throughout the region. “We have a wide variety of natural resources at SRS that we can share from time to time with members of those groups who have risked their lives for us, such as our military veterans and first responders,” said Tony Toombs, DOE Natural Resources Program Manager. “Along with our annual Wounded Warrior Deer Hunt and SRS Ultimate Turkey Hunt, this fishing event is one more way we can express our appreciation for their service to our country.”

Recently, dozens of military veterans wounded in combat and U.S. citizens with serious mobility issues enjoyed hours of fishing on a lake at SRS, appreciating the near-wilderness conditions.

Army veteran Jeffrey Lanier, a former Apache Helicopter Crew Chief in Afghanistan and current SRNS employee, said, “This is a once-in-a-lifetime experience that makes you not want to fish anywhere else. I really appreciate this opportunity.”

The catch-and-release fishing contest was held May 18 and ended with a cookout and awards ceremony for the two largest fish caught, as well as the single largest fish presented at the weigh-in. The record for single fish caught since the inception of this event is 10.4 pounds. The participants are chosen through a lottery system administered by NWTF personnel at their office located in Edgefield, S.C. More than 80 applications were received for this year’s competition, with 25 being selected.
Ft. Gordon soldiers begin 90-day SRNS job shadowing program

Soldiers from Ft. Gordon recently began their job shadowing program at SRS within the SRNS Health and Safety division. This program provides career advancement opportunities for veterans, military families and transitioning service members.

Each soldier reports to the site from 7 a.m. to noon during their 90-day shadowing experience, which will provide rotation opportunities to work with safety engineers and industrial hygienists (IH). The 13-week program begins with an orientation followed by four job shadowing assignments in Site Maintenance, F Area, Project Management and Construction Services and Subcontracts. The first wave of job shadowing participants are scheduled to complete the program on July 18.

Not only will the program provide career-building experiences, but participants will also receive one-on-one resume writing and interview prep skills courses to prepare for future job opportunities.

AMP goes to Leadercast

More than 225 SRNS executives, senior leaders, work group managers and Aspiring Mid-Career Professionals (AMP) members gathered on May 10 in Aiken, S.C., for the sixth annual Leadercast.

Leadercast is the largest one-day leadership event in the world. This year’s event included nine leadership and emotional health experts respected global leaders to create a one-of-a-kind training experience.

“Leadercast is the largest one day leadership event in the world,” said Natalia Johnson, SRNS AMP President. “This event special for us as well.”

“My vision for this year’s Leadercast was to create a fun and energetic environment where everyone felt comfortable to engage and be inspired,” said Natalia Johnson, SRNS AMP President. “The AMP community is extremely fortunate to have this level of support and engagement from our executive team and senior leadership.”

AMP serves SRNS full-time employees who have between seven and 20 years of work experience, offering professional development, networking and community outreach opportunities.

“A decade of Mini Grants

Over the last decade, SRNS has donated $600,000 to enhance local education through the annual SRNS Innovative Teaching Mini-Grants program.

More than 200 grant proposals were submitted, with 80 being selected. $50,000 in Mini Grants offered each year. This year, more than 200 grant proposals were submitted, with 80 being selected.

More than 100 educators from the greater Aiken-Augusta area recently gathered to be honored and receive grants ranging from $500 to $1,000.

“We realize funding issues often limit the goals and plans our local educators have for their students,” said Francine Burnoughs, SRNS Manager, Talent Acquisition and Development. “We want to reward their impressive dedication and extreme desire to academically grow their students. This is where our Mini Grants program can often help.”

The program recognizes and supports projects that enhance elementary and middle school science, mathematics and technology programs.

Typically, the grants are used to purchase materials and hands-on kits such as: Making a Splash in Learning with Underwater Robotics; FUNdamental Fractions; Limitless Learning in 3-D; Raising Awareness of Our Environment; and Creating “Tasty Treats” with Math and Science.

“It’s very nice what SRNS does for us,” said Janie Dee Johnson, a fourth-grade teacher at Greendale Elementary, New Ellenton, S.C. “Not many people understand how much of our own money we spend on supplies and materials for our students. It’s a great feeling that a company would spend that much to support local teachers. It shows just how much they value education.”

Jannie Dee Johnson

“The grant for our project involves several grades of students working with area colleges and civil engineers to design and build a model of a pedestrian bridge to be constructed over a very busy highway next to our school,” said Denise Newman, STEM Coordinator for Jackson Middle School, Jackson, S.C. “Hopefully, by the end, we’ll have a nice presentation for the County Board of Supervisors to review and consider.”

Funding for the grants is provided through the parent companies of SRNS (Fluor, Newport News Shipbuilding and Honeywell).

“Rewarding these teachers who work so hard for our children is important,” said Gladys Moore, SRNS Education Outreach. “Their enthusiasm and heartfelt expressions of appreciation make this event special for us as well.”

The primary goal of the extensive SRNS education outreach program is to enhance interest in science, mathematics, engineering and technology while supporting improvements in education by using the unique resources available at SRS. The SRNS management team believes business, industry, government and the academic community should work together as partners to improve educational opportunities for all students in our region.

SRNS provides local teachers with $600,000 over past 10 years

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Diggin' Science: Williston kids turn out for STEM event

This year’s DIG (Dreams, Imagination & Gift) STEM Festival in Williston, S.C., recently saw more than 50 exhibitors working together to provide a day of fascinating hands-on learning involving a myriad of topics for over 4,000 visitors.

The event was created to showcase a multitude of local exhibitors who provide engaging activities, live performances, interactive demonstrations and family-oriented STEM (science, technology, engineering and math) entertainment featuring drone simulators, robotics, virtual reality and 3D printing.

Aisles and exhibits were filled with area children, teens and their families as they browsed through high-tech machines and other intriguing devices found at exhibits in this science wonderland. One clever demonstration featured musical bananas that acted as a simple keyboard. When touched, each played a specific note of music. The day also featured STEM-based competitions, inflatable play equipment, games and live music.

Steven Brown, DIG president and founder, sees the success of a play equipment, games and live music.

As a part of that cultural shift, we realize something big is happening in the rural communities we serve and SRNS is at the center of it,” added Brown. “SRNS has been supporting our programs and festival for four years, and we are positive that the success we’ve had over those years would not be possible without them. All things engineering-related and industry-related stems from SRNS first, and we are glad that they are partners of our STEM outreach initiatives.”

SRNS employee Taylor Rice assists Harper (left) and Landen Still to created a geodome out of gumdrops and toothpicks.
LEAP Management Social cultivates a culture of relationships, development

SRNS Leaders Emerging Among Professionals (LEAP) members recently met at the Aiken Center for the Arts for the annual 2019 LEAP Management Social. The social is considered one of LEAP’s capstone events. During the event, members are encouraged to network directly with experienced managers from across the Site. In a professional yet relaxed atmosphere, members can build personal and lasting relationships with upper management and other LEAP members.

LEAP Networking Sub-Committee Co-Chair Peter Gula finds the social a one-of-a-kind, unique professional development event. “With a company the size of SRNS, it is tempting for young professionals to feel like a small cog in a large machine,” said Gula. “This event cuts directly through this challenge. The Management Social is an event intentionally designed to cultivate a culture of personal relationships and talent development.”

SRNS Senior Vice President Business Services Norm Powell believes it is important to offer events that foster relationships and mentorship opportunities to the future workforce across the site. “The younger workforce joining SRNS come to us with new technical skills and a differing perspective on how our work can be performed. This allows us to adopt new ideas and approaches to more efficiently perform our vital scope of work,” said Powell. “These young professionals are the future leaders of SRS and need every opportunity to quickly grow and develop into the management team of tomorrow,” Powell continued.

With a focus of business awareness specific to SRNS, LEAP provides early-career professionals with networking, professional development and community outreach events, as well as increased visibility with management.

LEAP climbs to new heights in networking, development events

LEAP recently offered a professional development presentation from the Chief Nuclear Officer of Fluor, Dave Olson, who is also leading the proposed pit production project at SRS. Olson’s interactive presentation kept LEAP members engaged by providing a scenario and allowing them to work together in teams to discuss the best approach to handling difficult situations. Throughout the presentation, Olson introduced a multitude of scenarios, ranging from conflicts within a work group to sexual harassment issues. One key piece of advice he gave was to make use of company resources rather than trying to navigate workplace challenges alone.

Thirty-eight years in the nuclear cleanup business—with the last 15 years in executive positions—Olson provided Olson with a unique perspective on how to navigate complex challenges that he shared with LEAP members. Not only are LEAP members climbing to new heights professionally, but also on the rock-climbing wall.

Recently, members from a variety of disciplines across the site were able to build relationships with peers that they would normally not have an opportunity to interact with as they took the leap onto the rock-climbing wall at Active Climbing, a rock climbing and ninja training center located in Grovetown, Ga., that offers activities for people of all ages.

LEAP members learned how to properly and safely climb, jump and secure climbers using a belayed rope while encouraging teambuilding at the event. Aside from climbing, the facility offered activities such as bouldering, a warped wall, salmon ladder, climbing peg boards and areas for games such as foosball and four-square.

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Faculty from USC Aiken, Salkehatchie tour SRS facilities

SRS recently hosted faculty members from the Universities of South Carolina Aiken (USCA) and Salkehatchie to tour facilities around the Site and evaluate opportunities for future partnerships. During the driving portion of the tour, visitors were able to view M Area cleanup and closure; F Canyon and F Tank Farm; Low-level Waste Disposal Facilities; the Salt Waste Processing Facility and the Saltstone Facility. The tour also featured stops in the Savannah River National Laboratory to observe virtual reality equipment, robotics and additive manufacturing; an overview of physical protection systems engineering; and the Tritium Extraction Facility.

“We are so thankful for the opportunity to have such an indepth tour of SRS. With our colleagues from USC Salkehatchie, the USC Aiken faculty hoped to learn more about the operations and needs of SRNS, SRNL and SRR,” said USCA Interim Dean of the College of Science and Engineering Chad Leverette. “There are so many great opportunities for us and our students to partner with SRS going forward. With the new perspective provided by the tour, we have already had follow up conversations with SRNS staff on growing our partnership.”

Chad Leverette