FEBRUARY 2021

SAVANNAH RIVER NUCLEAR SOLUTIONS

SRISTOday



This month

H Canyon completes waste transfers early • Living on the Moon • COVID-19 vaccine event



Stuart MacVean SRNS President and CEO

Welcome

to the February 2021 edition of

SRNS Today

SRNS does amazing work, both at SRS and in the community. I've repeated this – or words like it - many times over my years as President and CEO of SRNS, and this month is no exception.

We completed transfer of Sodium Reactor Experiment spent nuclear fuel from H Canyon to the Defense Waste Processing Facility (DWPF) in February, ending a long campaign that creates more space for additional materials.

Dozens of SRNS employees served on teams that were recognized with Secretary of Energy Achievement Awards, which represent some of the highest internal, nonmonetary recognition that DOE employees and contractors can receive. I want to congratulate all SRS recipients of this distinguished award for a job well done.

Our efforts in Education Outreach and College Recruitment continues to pay dividends, with two examples provided within this edition. Although virtual, we were also able to continue our tradition of hosting the Future City Regional Competition.

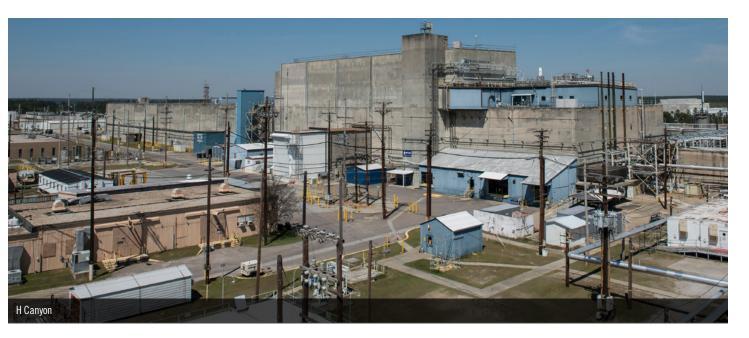
SRNS also hosted a COVID-19 vaccine event for employees 65 years and older and their spouses, as part of our commitment to keep the health and safety of our employees at the forefront of all we do.

I am very proud to be a part of the SRNS Team. We continue to meet and exceed expectations, perform at the highest levels and help our community grow stronger because of our highly dedicated and talented employees.



Savannah River Nuclear Solutions, LLC, is a Fluor-led company whose members are Fluor Federal Services, Newbort 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.

www.savannahrivernuclearsolutions.com



H Canyon completes waste transfers early

RNS recently began the last transfer of dissolved Sodium Reactor Experiment (SRE) spent nuclear fuel (SNF) from H Canyon to the DWPF for processing. This transfer happened early, freed up space in H Canyon tanks and helped reduce the current L Basin inventory in order to accelerate DOE missions at SRS.

H Canyon has been storing SRE material since 2012, awaiting transfer to DWPF, which was originally planned for 2022. The material could not be processed into low enriched uranium like other SNF processed in H Canyon because it contained high levels of thorium.

"The need for H Canvon space for future missions allowed H Canyon to work with the SRS liquid waste contractor, Savannah River Remediation, to manage an early discard of SRE. An alternative approach to open a liquid waste receipt window in 2020 was successfully pursued due to the effective working relations between SRNS and Savannah River Remediation," said SRNS H Canvon Project Manager Elov Saldivar.





"L Basin is nearing storage capacity, so freeing up room allows us to process more material in H Canvon. This helps accelerate the reduction of the current L Basin inventory."

Jacyln Fitzpatrick



DWPF converts radioactive liquid waste currently stored at SRS into a solid glass form suitable for interim storage and eventual off-site disposal.

"We completed 19 transfers of SRE material to the new sludge batch in May 2020, removing 47 kilograms (kg) of fissile material from H Canyon. We have since completed an additional 22 transfers of material to liquid waste, which disposed of another 84 kg of material," said H Canyon Process Engineer Jaclyn Fitzpatrick. "This creates more storage in the Canyon and allows the SRE storage tanks to be re-purposed."

SNF is received and stored in the L Area Disassembly Basin until H Canyon is ready to process the material. "L Basin is nearing storage capacity, so freeing up room allows us to process more material in H Canyon. This helps accelerate the reduction of the current L Basin inventory," Fitzpatrick added.

SRS is home to many different facilities performing a variety of nuclear material management and environmental cleanup missions. The integration among these facilities is an important part of how SRS is helping to make the world safer.

4 | SRNS TODAY | FEBRUARY 2021 | SRNS TODAY | 5



SRNL researcher joins Purdue University special graduate faculty

Savannah River National Laboratory's David DiPrete, Ph.D., has been named special graduate faculty member at Purdue University, a premiere educational, engineering, science and research doctoral granting-university located in West Lafayette, Indiana.

Nominated by Rusi Taleyarkhan, Ph.D., a Purdue faculty member and SRNL research partner, the nomination notes DiPrete's position will aid in developing future collaborative projects with Purdue and provide more opportunities for students to gain experience in the fields of chemistry and nuclear engineering. This collaborative technical partnership will join Purdue and SRNL resources, as well as yield a potential career path for Purdue alumni

"As we continue to collaborate with SRNL on various research projects, DiPrete's special graduate faculty position officially welcomes and recognizes his stature as a stalwart in the field, and integrates him [and SRNL] into our program and the educational-research workforce pipeline," said Talevarkhan

As a special graduate faculty member, DiPrete will serve on the Graduate Committee of several students pursuing Master of Science to Ph.D. degrees, contributing his specialized expertise to the work of graduate students. He will also serve as a research adviser, joining Purdue University faculty and students with SRNL researchers on future projects.

DiPrete explains that partnering with universities cultivates diverse areas of expertise for the future of SRNI

"Collaborating with universities adds to resources available, increases funding opportunities, advances DOE's missions, and strengthens future talent," said DiPrete.

DiPrete received a Bachelor of Science in chemistry from Rensselaer Polytechnic Institute and a doctorate in nuclear chemistry from the University of Kentucky.

Intern's role integral to H Canyon mission

Anna Whitfield has been an SRNS H Canyon Process Engineering intern since June 2020 and has been an integral part of planning for the new Accelerated Basin De-inventory (ABD) potential mission in H Canyon.

"Anna's input has been invaluable in the planning for ABD," said Tara Smith with H Canyon Engineering. "We entrusted her with some very complicated projects, and she has exceeded all of our expectations in completing them."

Working with H Canyon engineers, Whitfield spent countless hours during the summer making changes and perfecting input to an operational research model for ABD. SRNS commissioned the construction of the model to assess and further improve the ABD approach. Built in collaboration with a leading engineering firm, Different by Design (DBD), the model identifies production bottlenecks and demonstrates potential solutions to improve process throughput.

"Anna was dedicated to perfecting the input so that it would be relatively easy to understand and would satisfy the needs of the H Canyon staff," said Smith. "Her pride in her work and her confidence in presenting her results led H Canyon management to extend her employment beyond the summer."

"For me, I think my biggest achievement throughout my internship was working on projects that were unlike anything I had ever worked on before," said Whitfield. "Along with the modeling project, I also began writing the First Uranium Cycle layup documents, including the First Cycle Flush Plan."

Whitfield credits her internship with helping to prepare her for

r internship Anna

her future career by allowing her to work in a completely new aspect of chemical engineering and by helping develop her professional soft skills. "Each day, I'm learning something new, whether it be navigating Site-specific software or honing my technical writing skills or working with a team of peers, which continues to push me and allows me to grow as a professional." she said.

Originally from Pensacola, Florida, Whitfield is a student at Clemson University. She heard about the internship opportunities at SRS from family that live in the Central Savannah River Area. Although she started as a summer intern, Whitfield has continued her work on the ABD project through teleworking while also completing classes.

At Clemson, she is a member of the university's chapter of American Institute of Chemical Engineers, Order of Omega and the Epsilon Tau Chapter of Kappa Delta. Order of Omega is a Greek honor society consisting of the top 3% of Greek Life in academics, leadership and scholarship. In Kappa Delta, she has served in a variety of positions and is currently the Parenting Place Committee Head, where she serves as the chapter's direct connection to their local philanthropy.

Life after College Night

Former scholarship winner job shadows SRNS nurses

As a high school student in 2017, little did Kayla McElmurray realize that winning a CSRA College Night scholarship would eventually lead to a job shadowing assignment at SRS just a few years later.

Every year, SRNS organizes, manages and helps to sponsor CSRA College Night. "I was at College Night with a church group and about to leave, when I suddenly heard my name announced as a \$1,000 scholarship winner," said McElmurray. "And I thought 'no way! No way they just called my name out of all these people. This is crazy."

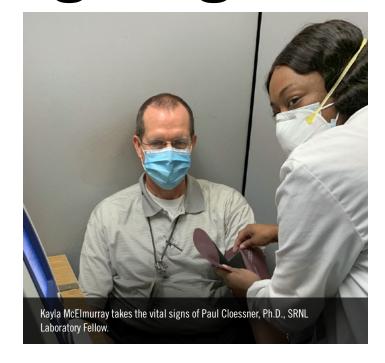
McElmurray has since used the scholarship to pursue a nursing degree at the University of South Carolina Aiken (UofSC Aiken) where she is now a senior. Kayla recently spent two days observing and, at times, assisting SRNS nurses at the SRS Medical Department.

"The College Night scholarship was such a blessing my first year at UofSC Aiken," she said. "It really made a difference."

To date, over \$300,000 in scholarship funding has been offered to those attending past College Nights. "The generosity of our scholarship sponsors and help from more than 100 volunteers are major reasons why this program is consistently successful each year for local students like Kayla," said Gladys Moore, CSRA College Night Chairperson and SRNS employee.

Since 1993, more than 100,000 high school students, parents and educators from the greater Aiken-Augusta area have attended CSRA College Night at the James Brown Arena in Augusta. Though the event was cancelled in 2020 due to the COVID-19 pandemic, a virtual version may be considered for 2021, if need be.

In order to complete the nursing program at UofSC Aiken, McElmurray is currently participating in the university's Community



Health Clinicals program where students are required to spend 90-100 hours shadowing nursing practices used within different local medical organizations.

The goal of nursing clinicals is to add to the student's newly learned skills in a hands-on learning environment within a variety of practices, including women's health, medical-surgical, pediatrics, psychiatric, community and occupational medicine.

SRNS has been hosting student nurses for years, providing them a unique opportunity to experience occupational medicine at SRS medical facilities.

SRNS receives **OpExChange Employee Development Award**



Lisa Steed

OpExChange recently presented SRNS with the 2020 Employee Development Award.

SRNS was recognized for demonstrating an ongoing and exceptional commitment to employee growth.

OpExChange, a non-profit South Carolina Manufacturing Extension Partnership program, is a peer-to-peer network of companies in South Carolina

dedicated to learning and growing together. Member companies host events and share practical examples of industrial automation, lean manufacturing improvements and leadership development.

According to P.K. Hightower, SRNS Director, Interface Management and Continuous Improvement, SRNS received the award largely due to the efforts of Continuous Improvement employee Lisa Steed.

"Lisa leads this effort for our organization, and she diligently takes the time to poll the SRNS community to ensure that employees who are interested in virtual training sessions have an opportunity to learn without the associated training and travel cost," said Hightower. "Our employees participate in classes, webinars and plant report-outs, the most of any company in South Carolina."

According to Steed, Continuous Improvement involves engagement and participation to create new attitudes and behaviors, which are especially needed during the pandemic. "OpExChange has done a tremendous job in coordinating opportunities for us to participate in virtually, and it's rewarding to have so many of our employees eager to learn and expand their areas of knowledge," said Steed.

David Lentz

Pat Livengood

Butch Marshall

Neil McIntosh

Stan Meeks

Charles (Chuck) Messick

Nick Miller

Marc Nadeau

Steve Osteen

Eddie Rains

David Rose

Gary Rose

Rahn Ross

Michael Shaffer

Tim Spieker

Don 7ahaba

SRNS employees achieve Highest DOE Honors

Secretary of Energy Achievement Awards, which represent some of the highest internal, non-monetary recognitions that Department of Energy employees and contractors can receive, have been bestowed on dozens of SRNS employees. These awards recognize DOE employees and contractors for their service and contributions to the Department's mission and the benefit of the nation.

Achievement Awards were presented to 24 teams nationally for accomplishments during 2019. All nominations for Achievement Awards went through a comprehensive evaluation and selection process. Nominations were endorsed by Heads of Departmental Elements and were approved by the Secretary of Energy and colleagues in the Secretary and Deputy Secretary offices.

Departing Secretary Dan Brouillette announced the awards in a farewell message, saying "To the award recipients, thank you for your vital contributions to the Department's mission and to our country. I am truly honored to work alongside such brilliant, talented individuals who show unwavering commitment to public service. Thank you for all you have done and congratulations on this well-deserved recognition."

A team from the Savannah River Tritium Enterprise (SRTE), the SRS W87 ALT 360 First Production Unit Team, received one of the Achievement Awards. This 42-member team, made up CALLET MENT OF BILLIANS of personnel from SRTE and its SRNL partner, was recognized for support of the National Nuclear Security Administration's (NNSA's) mission to maintain and modernize the nuclear stockpile.

Other SRNS personnel were recognized for their roles in award-winning multi-site teams. More than 30 SRNS personnel were part of the National Research Universal (NRU) and National Research Experimental (NRX) Highly Enriched Uranium Removal Team. NNSA's NRU/NRX highly enriched uranium campaign represented the largest removal of spent nuclear fuel from other nations to the U.S. Employees from SRNS Environmental Management Operations and SRNL, alongside DOE and NNSA partners, supported the receipt and safe storage of the material in the L Area Disassembly Basin at SRS.

Thirteen SRNS employees were part of a large multi-site team recognized for the successful emergency response, recovery, stabilization and investigation of a breached radioactive source at the University of Washington's Research and Training Building. Site Services Containment Fabrication Facility employees performed the fabrication and shipping of a radiological containment hut used in these efforts. Other SRNS employees recognized as part of this effort included members of the Radiological Assistance Program (RAP) Region 3 team, along with the RAP Team's NNSA sponsor, and the late William Wilmarth, Ph.D., of SRNL, who served as a technical consultant.

Two SRNS employees were recognized as members of the Nuclear Security Enterprise (NSE) Supplier Quality Working Group, a large multi-site team honored for achieving new efficiency and cost avoidance by developing and implementing the ability to share supplier assessments across the NSE sites.

> Two representatives of SRNL were recognized for their role in an NNSA project that supports a long-standing international collaboration.

> > An SRNL Associate Lab Director is one of the honorees on The Science and Technology Risk Matrix Team, an effort across the national labs.

Joint Development Environment (JODE) Team

> Randy Coleman William Miles

The Nuclear Security Enterprise (NSE) Supplier Quality Working Group

Joseph Fulghum Charles F. Mackie

""To the award recipients, thank you for your vital contributions to the Department's mission and to our country." **Dan Brouillette**



The challenge coin presented to W87 ALT 360 **Product Realization Team members**

SRS W87 ALT 360 First Production Unit Team

Lillie D. Aldrich Joseph L. Jones James L. Ashby, Jr. Anne E. Kelly Kassie A. Bailey Carol S. Kestin C. Brett Bell Kenneth R. Lamb Charles R. Bell, Jr. Robert C. Lillis Kelsey M. Bowen Mauricio U. Martinez John R. Brooks Gregory E. McGee Calvin M. Clamp T. Scott McGee Jose A. Cortes-Concepcion Matthew A. Muehlfeld Julie R. Pica Kevin M. Cross Joshua P. Dean Jack O. Radeck Patrick L. Dorr Jason B. Reppert Ashley D. Elizondo M. Lane Rogers J. Colin Ferguson Edward A. Stein Chad E. Sweeney Tracey L. Franklin Willie D. Syms Randy L. Gagnon, Sr. Taylor P. Gomillion Wanda E. Tyler John R. Gordon Jerry L. Vue Larry H. Hancock Roy E. Watson Nicole M. Hatch Jason L. Whitson William C. Hopkins Michael R. Williams

National Research Universal (NRU) and National Research Experimental (NRX) HEU Removal Team

Maxine Adams Jimmy Adamson Susan Bell Robbie Black Ray Boyd Ric Castles **Kevin Counts** Rich Deible Nathan Drinkwater Ghada Flchouf Mike Flli Robert Gunby Geoff Hendrick Glen Jackson Lawrence Jessee Luke Jolley Don Joyner Kiran Karanth Otis Key Janice Lawson

The Seattle Response and Recovery and **Cs-137 Joint Investigation Teams**

Kelly Crandall Johnny Lott Robert (Bobby) Smith John W. Burke

Johnny R. Dyer Tracy D. Ennis

Phillip H. Laird Janice V. Love Tomasita B. Ray

The Science and **Technology Risk Matrix Team**

Ralph James

SRS members of the Seattle Response and Recovery and Cs-137 Joint Investigation Teams constructed and shipped radiological containment structures.



8 | SRNS TODAY | FEBRUARY 2021 | SRNS TODAY | 9

Savannah River Tritium Enterprise team awarded for excellence

The NNSA Savannah River Field Office recognized an SRNS team with the Excellence Every Day award for exemplary conduct of operations while carrying out their mission in support of the nation's nuclear deterrent.

The H Area New Manufacturing (HANM) Tritium Facility N3 shift team received the award, which was instituted by the NNSA-Savannah River Field Office to recognize the disciplined operations it takes to accomplish the complex mission carried out on behalf of NNSA. The team is responsible for loading and unloading tritium storage containers, called reservoirs, for the Department of Defense. They also perform activities to store, process, purify and separate various gas isotopes.

The team excelled in areas of conduct of operations and human performance improvement (HPI) tools, including prudent use of timeouts to stop work when an issue arose with systems, procedures or equipment. Additionally, they successfully replaced or repaired various facility equipment. Their diligence resulted in the team achieving zero recordable safety or security cases.

Jeffrey Allison, NNSA-Savannah River Field Office Manager (acting), said, "Operating a complex facility such as HANM offers numerous challenges each day. I am pleased to recognize this team for taking ownership of those challenges and applying principles of HPI to get the job done safely. Thank you for your commitment to excellence."

Joshua Lanni, HANM N3 Shift Operations Manager, said, "I attribute our success to strict adherence to the principles of conduct of



operations and rigorous use of HPI tools. The willingness to say something when a problem or unexpected result is encountered is not only the expectation but is encouraged every day."

Mark Davis, SRNS Senior Vice President of NNSA Operations and Programs, said, "I am proud of the exemplary work this team does on a day-to-day basis to make us the backbone of deterrence in support of peace. This recognition from the NNSA-Savannah River Field Office is a great honor and speaks volumes of the team's dedication to safely and proficiently execute our mission."

Taking leadership skills to new heights

The Leadership 101 class recently went back into session. This workshop was filled with presentations and lessons to promote and foster improved managerial and leadership skills for managers at SRNS. Due to COVID-19 protocols, Leadership 101 became a one-day course taught through Microsoft Teams.

This unique educational course offered hands-on sessions with many key presentations. Participants also took a policy and procedure refresher. In addition, attendees also heard from renowned Site leaders, who offered advice and guidance from their years in executive leadership roles.

"Over the past year, we have identified managers and supervisors that have not attended our leadership workshop, and we want to ensure that every supervisor has the opportunity to benefit from our Leadership 101 course," said SRNS Talent Acquisition and Development's James 'Malik' Lightbourne.

Leadership 101 presentations included: highlighting the importance of the SRS safety culture, communication and listening skills, leadership fundamentals, learning to identify and understand generational differences and best practices on how to hold employees accountable.

Manager, Talent Acquisition and Development Francine Burroughs believes it is imperative to foster an opportunity to provide leaders and supervisors with the skills and assets to succeed in any position they are put in. "It's important to invest in the leadership and management at SRNS to ensure a bright and sustainable future pipeline of top-notch leadership for years to come," said Burroughs.

Living on the Moon

Future City Regional Competition

eams of middle school students from across South Carolina recently participated in this year's virtual Future City Regional Competition, providing a look at how cities might thrive and grow 100 years from now on the moon. The team from Spartanburg, McCracken Middle School took first place.

"All of our SRNS educational outreach programs have been impacted by the COVID-19 pandemic," said Taylor Rice, SRNS Education Outreach. "We've worked with the region's school systems, our volunteers and IT professionals to discover and implement innovative solutions to this ongoing challenge."

Rice noted that due to the normal complexity of the Future City competition and the fact it involves various components for judging, technological hurdles during the academic year have been daunting.

The virtual version of the competition proved to be a success, with students from Kennedy Middle School winning second place (Team Odyssey Outpost) and third place (Team Celestial Station).

Future City starts with a question, "How can we make the world a better place?" To answer it, students imagine, research, design and build cities of the future that showcase their solutions to a sustainability issue.

This year's topic, Living on the Moon, challenged students to design a future lunar city and provide examples of how their city uses two moon resources to keep their citizens safe and healthy.

Participants completed five deliverables: a 1,500-word essay; a scale model built from recycled materials; a project plan; a presentation video; and a virtual, online question and answer session with judges. The first-place team will represent South Carolina at the International Finals.

To be successful, students use a variety of skill sets and interests, like creative problem solving, building scale models, researching, writing and public speaking.

"Future City has become a valuable part of our school," said Amber Bryan Dobbs, science teacher at Merriwether Middle School. "The students who participate not only learn how to work together, but they



develop a deep sense of understanding of the STEM fields (science, technology, engineering and mathematics). Future City empowers them to push the boundaries of what they think they can do. They suddenly realize that they can speak in front of large groups and create innovative technologies. Future City has helped my students achieve a sense of independence that they have never had before."

This cross-curricular educational program gives students the opportunity to do things engineers do: identify problems; learn the specs and brainstorm solutions; design solutions; build, test and retest; and share their results. Future City provides an engaging way to build students' skills, while they apply math and science concepts to real-world problems.

"I cannot imagine being able to complete this project without the support of SRNS. From supplying engineer mentors to funding the registration fees, they have truly given us the chance to participate in this amazing program," said Dobbs. "Many of my students have now been exposed to careers at SRNS and have serious interest in becoming engineers one day because of this program and all the work that they do."

Now accepting teachers' applications for mini grants

SRNS is now accepting applications for the Innovative Mini Grants Program, a competitive process that rewards innovative elementary and middle school educators in science, technology, engineering and mathematics (STEM).

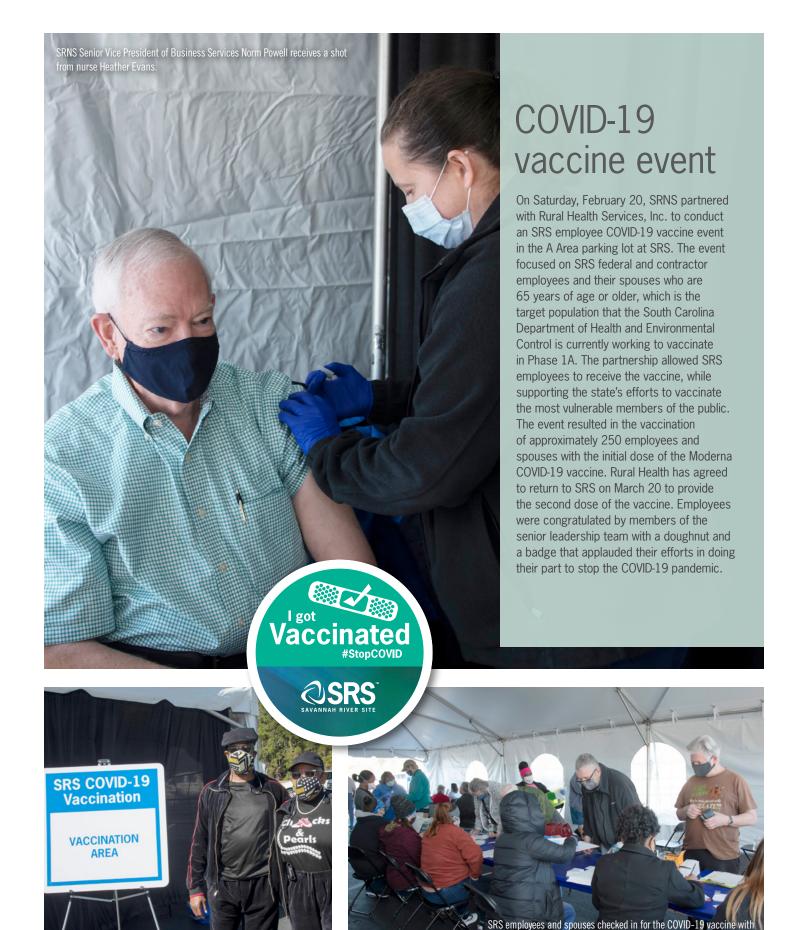
Public and private teachers in Aiken, Allendale, Bamberg, Barnwell and Edgefield counties in South Carolina, and Columbia and

Richmond counties in Georgia may participate.

Beginning this year, educators can submit grant applications online. A rule change has been put into effect, as well; for Category A (\$500), Category B (\$750) or Category C (\$1,000) grants, educators may apply as a single applicant or as a team with no more than three members.

To apply, visit: https://www.srs.gov/general/outreach/edoutrch/mini_grant.htm

10 | SRNS TODAY | FEBRUARY 2021 | SRNS TODAY | 11





Ted Myers

AT SRNS: Senior Vice President, Workforce Services and Talent Management

IN THE COMMUNITY: Aiken County Habitat for Humanity Board of Directors

THE PEOPLE OF SRNS

SRNS employees have continued a legacy of giving by taking their expertise into their communities, serving on over 50 boards for local charities, chambers of commerce and educational organizations. Senior Vice President, Workforce Services and Talent Management Ted Myers, a North Augusta resident, is an accomplished executive with over 30 years of experience in human resources, including personnel management, health and welfare administration, business development and strategic business planning. Myers is dedicated to continuing the legacy of giving back and will be joining the Aiken County Habitat for Humanity Board of Directors.

The Habitat for Humanity creed, "we build strength, stability and self-reliance through shelter," is a mission that Myers is excited to execute. "Helping Aiken County establish safe, affordable housing creates a life-changing impact on families and the community. I look forward to assisting this wonderful organization to create spaces for families to call home," said Myers. Habitat Board President Jim Marra said, "Ted's experience will guide the direction of the organization and being a South Carolina licensed builder will be invaluable."

Heart Walk campaign underway

Since 1964, February has been observed as American Heart Month. Each year, SRNS raises awareness of cardiovascular disease and stroke through its American Heart Association (AHA) Heart Walk Campaign. The 2021 SRNS Heart Walk committee has been dedicated to raising funds for the AHA with innovative ideas throughout the COVID-19 pandemic.



The SRNS Heart Walk campaign included a recent drop-in event.

epresentatives from Rural Health Services, Inc

Some of these fundraisers include a 5K, 10K and 40-mile walk, run or ride virtual race; an individual fishing tournament where participants send in photos of their biggest, prettiest, coolest and ugliest fish for a chance to win prizes; a virtual golf tournament; various on-site lunch fundraisers; a to-go dinner and low country boil pick-up dinner fundraiser: and more.

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Lindsay Robinson

"American Heart Month is a time to encourage our friends, families and coworkers to focus on cardiovascular health," said 2021 SRNS Heart Walk Chair Lindsay Robinson. "We knew going into this year's campaign that we would have to think outside the box to continue raising funds. Thanks to the creativity of the SRNS workforce, we are working hard to meet our goal of \$120,000 this year."

The 2021 CSRA Heart Walk will be hosted virtually on Saturday, March 13.

INNOVATION • DEFENSE NONPROLIFERATION - ENVIRONMENT

Savannah River Nuclear Solutions We make the world safer.