

● MAY 2014

SAVANNAH RIVER NUCLEAR SOLUTIONS



SRNS Today



A change in leadership

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Welcome

to the May 2014 edition of

SRNS Today



Dwayne Wilson
SRNS President and CEO

Moving boxes.

Square brown cardboard, designed to efficiently cart your belongings from one place to another.

Fill them up with personal items and empty them again in a new office, in a new town, in a new job.

**But one thing is true:
You can't put a memory in a moving box.**

As you may know, I'll be departing from Savannah River Nuclear Solutions in June to work in the Office of the Fluor Chairman. Carol Johnson will succeed me as President and CEO of SRNS, and I know you'll join me in wishing her every success in her new role.

As I prepare to leave, the moving boxes will fill up with physical items. But what they won't hold are the memories from my years here at SRNS.

I'll remember seeing the "Safety and Security Begin with Me" banners for the first time, stretching across the SRS roadways.

I'll remember the operational successes—H Canyon, transuranic waste shipments, Tritium Facilities improvements and Savannah River National Laboratory, just to name a few.

I'll remember children dressed in sunny yellow T-shirts, handing me notes drawn with Crayons, thanking SRNS for helping to fund the programs at the Aiken Family Y.

But mostly, I'll remember the men and women of SRNS, working with them daily, sharing a meal at celebrations and sharing their concerns during hard budget times. They are an inspiration, and the memories of these people—their drive, their dedication and their creativity—will be a part of me for the rest of my life.

This is my last letter to you in SRNS Today. I look forward to reading about great SRNS accomplishments in the years to come.

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

About Savannah River Nuclear Solutions

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 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.

www.savannahrivenuclearsolutions.com



Fluor names Carol Johnson as new SRNS President and CEO

Carol Johnson has been named as the incoming president and chief executive officer of SRNS.

She will be responsible to the Department of Energy for the safe, effective and efficient management and operations of the Savannah River Site (SRS). Her responsibilities include providing vision, leadership, mission growth, technological advancement, a performance-based culture of safety and operational excellence at the Site.

Carol Johnson has more than 30 years of leadership experience in the operation of high hazard nuclear facilities, environmental management, decommissioning and infrastructure at several DOE locations.

Prior to joining SRNS, Johnson was President and Project Manager at Washington Closure Hanford, LLC, at the Hanford Site in Richland, Wa., where she led the \$2.4 billion environmental cleanup of the Hanford 220-square-mile Columbia River Corridor.

She has also served as the Executive Director of Infrastructure at the URS-led Sellafield remediation project



Carol Johnson

in the United Kingdom, where she was responsible for critical nuclear safety related infrastructure and support services, commercial fuel transport, and nuclear materials safeguards and security.

As Director of Infrastructure for Battelle Energy Alliance at Idaho National Laboratory (INL), Johnson successfully managed infrastructure capital projects for both research facilities and support facilities and led the effort to develop and implement a behavior-based safety strategy for INL.

Johnson also provided operations and management consulting services as the Director of the Los Alamos National Laboratory Advisor Program, including development of a work control system for the laboratory

Johnson previously worked at SRS from 1981-2004, and has held various positions at the Site, including business manager for all nuclear operations, general manager for facility support services, area operations manager for nuclear materials storage and stabilization in F Area plutonium processing facilities, and facility manager for the high level waste tank farm and effluent treatment facilities.

Johnson served on numerous boards in the Tri-Cities area in Washington state, serving on the Chaplaincy Board of Directors, the United Way Board of Directors and Tri-Cities Development Council.

Carol and her husband Mike Johnson will reside in Aiken.

SRNS Operations employees recognized for 20 million safe work hours

SRNS was recently recognized by the National Safety Council (NSC) with its Million Work Hours award for the achievement of a monumental safety performance milestone. The company surpassed the 20 millionth safe-hour worked in late January.

"At the average industrial plant in the U.S., working one million hours is an admirable achievement," said Alice Doswell, SRNS Senior Vice President for Environmental, Safety, Security and Health. "For SRNS employees to reach 20 million is an immense accomplishment and speaks to their unwavering commitment to perform all aspects of their work safely and securely."

The company began its safe work-hour streak on October 19, 2011, and since then has completed some of the most highly hazardous work associated with the American Reinvestment and

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"For SRNS employees to reach 20 million is an immense accomplishment and speaks to their unwavering commitment to perform all aspects of their work safely and securely."

Alice Doswell

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Recovery Act Project. This milestone also encompasses day-to-day work that is often performed in a nuclear environment.

This is the fifth time the Operations employees have been recognized by the NSC with the Million Work Hours award since SRNS assumed the management and operations contract in August 2008.

serving up some help

SRNS employees
roll up their sleeves to volunteer
for Project Serve opportunities



Jesse Fields replaces ceiling tiles at the Easter Seals facility.



A wall at the Heritage Academy gets a new coat of paint from the SRNS team.

More than 85 employees from SRNS volunteered in May at six United Way agencies located throughout the greater Augusta area as part of this year's Project Serve.

Each year, a large number of SRNS employees commit to work at a project during their day off that will improve the quality of life for disadvantaged children, low-income senior citizens, the disabled or single-parent homeowners.

"SRNS gives a lot to the community monetarily," said volunteer Dick Dermody, an SRNS engineer assigned to the Savannah River National Laboratory. "But Project Serve gives us an opportunity to take a day and do something even more meaningful. In fact, what we do each year for these United Way agencies, they could never afford to have done through local contractors."

According to SRNS Project Serve team lead for the Shiloh Community Center Dan Armstrong, most of the United Way Agencies supported by this effort have limited budgets dedicated to support programs and even smaller amounts of funding dedicated to lawn care and building maintenance. "We come here for a day with a little bit of material and a whole lot of manpower and very likely double or triple what would have been accomplished for that budget year related to landscaping and simple maintenance."

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"We greatly appreciate Savannah River Nuclear Solutions employees coming out to help us on this day of service. It's awesome and powerful that we have people who are committed to help us restore and preserve this historical site. Without their help, these buildings probably would have fallen apart long before now."

Elizabeth Jones

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Tasks typical of Project Serve include clearing debris, painting, repairing flooring, putting up dry wall, building wheel chair ramps, installing smoke detectors, fixing faulty plumbing and doing yard work.

"It's my understanding that SRS employees have been helping here for 14 years," said Elizabeth Jones, Executive Director, Shiloh Community Center, Augusta, Ga. "We greatly appreciate Savannah River Nuclear Solutions employees coming out to help us on this day of service. It's awesome and powerful that we have people who are committed to help us restore and preserve this historical site. Without their help, these buildings probably would have fallen apart long before now."

The mission of the Shiloh Community Center is to provide services for people living in the inner-city of Augusta. More than 80 percent of those served by this agency live beneath the poverty level. Services include free tutoring, a food pantry and activities for seniors.

Other 2014 Project Serve teams worked at several locations, including the Easter Seals facility, Kroc Center, Heritage Academy and Senior Citizens Center Council.

"It's rewarding when you see the people you're helping and the results of what you're doing," said JR Ludwick, SRNS Project Serve Coordinator. "It's a humbling experience when you realize just how blessed we are. I'm proud to work with a company that allows us to put a smile on someone's face."

Information Pods coming to Barnwell

Presentations, poster show will focus on missions at SRS

Curious about the Savannah River Site?

In June, you'll have the chance to find out about some of the major missions at SRS and the Savannah River National Laboratory.

The SRS Information Pods will be held on Thursday, June 12, at Barnwell High School, located at 474 Jackson St., in Barnwell, S.C. Co-sponsors of the event include the Barnwell Chamber of Commerce, the Barnwell People-Sentinel, Southern Carolina Alliance and USC Salkehatchie.

Participants at the Information Pods may select two of the following four presentations to attend:

- Nuclear Materials Management
- Environmental Monitoring and Restoration
- Waste Management
- Savannah River National Laboratory

Registration will begin at 5 p.m. on the day of the event and is on a first come, first served basis. Poster displays will also begin at 5 p.m., with presentations beginning at 6 p.m. and concluding by 8 p.m.

The event is free of charge.



Like us? Like us!

SRS social media features current Site events, 'Throwback Thursday'

SRS is always on the cutting edge of innovation, new technologies and communication. Social media has become one of the most popular and efficient ways to stay in touch with the world around us, and SRS social media is quickly becoming a favorite method for people both on and off site to keep up with SRS news and events.

Some of the recent information shared with social media followers includes live coverage of community events such as the SRS InfoPods, the SRNL 10 Year Anniversary celebration and the Historically Black Colleges and Universities event held at the Applied Research Center in Aiken, S.C.

"One of the reasons I follow SRS social media is to get a different view of what is happening around the Site," said Thomas Cowlam, SRNS Quality Services Manager. "It's easy to get focused on your function or area and to forget about all the other great work that is done out here. Social media helps keep me informed and in touch with more of what goes on at SRS."

SRS social media has also recently seen success with the addition of the popular social media trend, Throwback Thursday. Since March, when SRS began Throwback Thursday posts, the SRS Facebook page "likes" have seen weekly growth.

"Even though I am retired from SRNS, I still like to keep up with what's going on at the Site," said Linda Bridgmon. "I'm excited to see SRS participating in the social media arena. I have especially enjoyed learning more about the history of SRS through the Throwback Thursday posts."

You can find SRS on Twitter under @SRSNews; on Facebook by searching Savannah River Site; on YouTube by searching SRSNews and clicking on the link with the DOE seal; or on flickr by following Savannah River Site.



..... "Throwback Thursday" is a popular SRS Facebook posting and features historical SRS photos.

Honoring the researchers

Reception celebrates SRNL science, technology accomplishments

In early May, SRNL celebrated research and technology accomplishments at the annual Research and Technology Recognition Reception held at Aiken's Newberry Hall.

The annual event recognizes recipients of patents, copyrights, commercial licenses, Cooperative Research and Development Agreements (CRADAs) and other special awards for categories such as early career achievement and exceptional scientific and technical achievement. More than 40 individuals were honored for the past year's work.



"The staff is the heart and soul of the laboratory, and the examples recognized here tonight are snapshots of all that we do as a national laboratory."

Dr. Terry Michalske



SRNS Executive Vice President and SRNL Director Dr. Terry Michalske noted that the event recognizes "the spirit of innovation at the Savannah River National Laboratory. The staff is the heart and soul of the laboratory, and the examples recognized here tonight are snapshots of all that we do as a national laboratory."

Dr. Michalske also noted that the evening includes family members of the honorees. "This is an opportunity for you to hear how much we appreciate the contribution your spouses make to the work of the lab," he said. "I know that, in many cases, this involves long hours, time away from home and family, and we're extremely grateful to you as well."

DOE-Savannah River Manager Dr. David Moody spoke as well, recognizing the honorees for "talent and technologies worthy of a national laboratory."

The event is coordinated each year by SRNL's Office of Strategic Development and Technology Partnerships.

And the winners are...

Patents

Dr. Ragaiy Zidan
Thomas A. Nance
Frank T. McCoy
Dr. David T. Hobbs
Dr. Steven M. Serkiz
Dr. George Wicks
Dr. Leung K. Heung
Ray Schumacher
Burgess M. Allen, Jr.
Paul S. Blanton
Kurt R. Eberl
Dr. David P. DiPrete
Dr. Tad Whiteside
Donald J. Pak
Cecilia C. DiPrete
Henry T. Sessions
Dr. Steve Xiao

CRADAs

Joseph V. Cordaro
Dr. Glenn A. Fugate

Licenses

Matthew J. Parker
William R. Hinz
Sherrod L. Maxwell III
Gregory C. Rucker
Dr. George Wicks

Copyright

Otto K. Morrell, Jr.
William Kilgore, Jr.

Don Orth Award of Merit

Dr. Samuel D. Fink

Laboratory Director's Awards

Dr. David Hathcock
Dr. Kevin Fox
William Hinz
Jean Plummer
Dr. James Klein
Mark Phifer
Sherrod Maxwell III
Kerry Dunn
Dr. Jeff Allender
Dr. Katie Heroux
Dr. Aaron Washington
Dr. Wendy Kuhne
Dr. Charles James

Embassy Science Fellow

Dr. Robert L. Sindelar



When Dr. Carol Jantzen was just one year old, her father gave her a mineral pick. Even though she was barely able to hold the tool, it sparked a lifelong interest in rocks, minerals and fossils.

Dr. Jantzen is now a materials scientist and geochemist at SRNL and has donated her extensive mineral collection to the Ruth Patrick Science Education Center at the University of South Carolina Aiken for the creation of the Fredericks Mineral Gallery. The gallery is named for her parents and features a 250-pound feldspar crystal.



"I hope students learn a love of geology from this collection, a love of earth science and how natural minerals form in wondrous shapes and sizes. The crystal can be touched, stroked and hugged, so children can run their hands along the crystal faces and consider how neat it is that it wasn't cut that way, but it grew that way."

Dr. Carol Jantzen



Dr. Jantzen has been collecting minerals, rocks and fossils since she was a child. "My dad had me collecting minerals and rocks when I was barely able to walk," she said. "My father was a geologist and a rock and mineral 'dealer.' We made educational kits for the Hayden Planetarium and Museum of Natural History in New York City. When I was seven or eight, I got the job of gluing the little numbers on each rock or mineral in the educational kits. I got good at gluing and watching television at the same time. Later, after I had my BS and MS, I wrote guide books for the educational kits with titles like 'How is Coal Formed?' and 'What is a Mineral?'."

"My father went on to supply educational kits for schools and later universities around the country, as well as dinosaur bone and other minerals, for cereal giveaways. He also bought and sold large quantities of minerals and I was paid in minerals rather than money." Dr. Jantzen said she received the best of the specimens.

Dr. Jantzen said it's important for this collection to continue educating students. "I am a strong believer in science education as I lived it all my life. I hope students learn a love of geology from this collection, a love of earth science and how natural minerals form in wondrous shapes and sizes. The 250-pound feldspar crystal can be touched, stroked and hugged, so children can run their hands along the crystal faces and consider how neat it is that it wasn't cut that way, but it grew that way."

Dr. Jantzen said it's vital for scientists and researchers to share their knowledge with the next generation. "If the current scientists, researchers and collectors do not reach out to the next generation and beyond, we will be a country without scientists. The time to interest a child in science is early. The earlier the interest, the more certain one can be that the boy or girl will carry that interest into adulthood."

More of Dr. Jantzen's collection will be donated to the Ruth Patrick Science Education Center over the next 10 years.



Dr. Carol Jantzen with the feldspar crystal, and pictured with her father in 1947.

paying it forward

SRNL researcher donates extensive mineral collection to Ruth Patrick Science Center





Georgia Power Company and Plant Vogtle Visit: SRNS President and CEO Dwayne Wilson welcomed managers from Georgia Power and Plant Vogtle, who visited SRS on May 1. The group heard overview presentations on SRS and SRNL, and toured the Defense Waste Processing Facility and other Site operations. “The visit to SRS was one I’ve wanted to do since moving to the area in 2007, which is why I jumped at the opportunity,” said Mike McCracken, Communications Supervisor, Plant Vogtle Visitors Center. “The magnitude of the site and the expertise of the people are most impressive. I’ve heard people talk about the importance of the Site to us ‘winning’ the cold war, but it took experiencing the presentations and tours for me to truly understand it all. Participating in the tour will help me for years to come to connect our activities with SRS and to help me represent the entire nuclear industry accurately as well as positively,” he said.



Leadercast 2014: SRNS VP of Operations Paul Hunt addressed SRNS employees during Leadercast 2014 on May 9 at Cedar Creek Church in Aiken, S.C. The leadership event was broadcast live from Atlanta to hundreds of locations around the world and featured world-renowned speakers such as Archbishop Desmond Tutu, Laura Bush, Andy Stanley and Simon Sinek. The local viewing was arranged by Aspiring Mid-Career Professionals, an organization that serves SRNS full-time employees who have between five and 20 years of work experience.

SRNL leads Hanford site review

Chemical vapors, worker protection at center of external review

Washington River Protection Solutions (WRPS) has asked SRNL to establish and oversee a panel of external experts to examine hazardous chemical vapors management and related worker protection measures at the U.S. Department of Energy’s Hanford nuclear waste cleanup site in Washington state.

WRPS is the DOE contractor responsible for the management and cleanup of millions of gallons of nuclear and hazardous waste currently stored in underground tanks at Hanford. SRNL is a multiprogram national laboratory providing scientific and technical expertise to support DOE’s Environmental Management program.

The request for the review and recommendations comes after more than 24 workers received medical attention this spring following apparent on-the-job exposures to vapors emanating from the waste storage tanks. WRPS has requested that this new study have an enhanced scope for analysis and recommendation beyond that of the two previous technical reviews of Hanford tank waste vapor policies and issues in 2008 and 2010.

“While a number of steps have been taken and improvements made in recent years to address chemical vapors hazards, the latest set of exposures shows that more work needs to be done. This new review, with its broad scope and the involvement of recognized experts, will make a difference in better protecting Hanford workers from future chemical vapor exposures,” said WRPS President and Project Manager Dave Olson.

Features of the panel’s work are expected to include:

- A review of the last four years of relevant technical data gathered as part of the WRPS industrial hygiene program and actions taken as a result
- An overall examination of both the adequacy and implementation of present policies, protections, practices and responses to potential vapor exposures, particularly in light of the new exposures
- A review of currently used and additional available technology that can provide protection against inhalation or other contact with tank vapors, including the use, effectiveness, and availability of personal protective equipment
- A look at how to improve data collection, retention and analysis to assist in developing workforce and individual worker protection and health evaluation
- A review of the response to past recommendations and their implementation and potential improvements
- Methods to institutionalize the knowledge and ongoing application of best practices in vapors protection and monitoring

“SRNL’s role is to ensure that the best experts are brought in and given full latitude to ask hard questions and make their recommendations,” said Dr. Terry Michalske, SRNS Executive Vice President and SRNL Director. “This is one more important way that the national lab can provide relevant scientific and technical assistance for the safe execution of a critical DOE environmental management mission.”

SRNL will manage the interface of the panel with WRPS and will ensure that its report is made public. The final scope and schedule for the review will be developed in consultation with the expert panel. Any recommendations are entirely the domain of the expert panel.



Workers in Hanford’s C Tank Farm where tank waste retrieval is under way

SRS named as historic landmark by professional society

Joining a list that includes structures like the Statue of Liberty and the Eiffel Tower, SRS has officially been named as a historical landmark by ASM International, the professional society for materials science and manufacturing.

SRS is one of only three landmarks designated from the current year's class of nominees. ASM historical landmarks identify sites and events that have played a prominent part in the discovery, development and growth of metals and metalworking and engineered materials.

The designation became official with the presentation of a historical marker, presented by Professor Ravi Ravindran, current President of ASM International. Ravindran noted that the award recognized SRS "for advancing the materials technologies necessary to produce tritium, plutonium and other isotopes for national defense, research and medical applications."

Ravindran cited several contributions over SRS' history, including large scale production of aluminum-lithium alloys; production of kilogram quantities of radioactive waste glass; materials science improvements made at SRS through the U.S. tritium program; and, discovery of the neutrino, a Nobel Prize winning experiment conducted at the P Reactor.



President of ASM International Professor Ravi Ravindran (left) presents the ASM historical landmark plaque to Dr. Terry Michalske.

SRNS Executive Vice President and SRNL Director Dr. Terry Michalske joined Ravindran at the marker presentation, acknowledging that that the listing validated the work of people who contributed over decades of research, development and execution.

"This is really a tribute to the can-do spirit of a lot of people who looked at things and said 'we can do that,'" Michalske said. "That's as true today as it's ever been, and it's a fitting recognition for the quality of work that's been done here."

The marker will be permanently placed near the former M Area facilities, where fuel and target assemblies were once produced for the site's production reactors.

The nomination was submitted by Dr. Elizabeth Hoffman of SRNL and Dr. Elliott Clark, formerly of SRNL, on behalf of the Savannah River Chapter of ASM.

Celebrity Waiter event raises \$28,695 for Children's Place

SRNS employees got a chance to be served by their bosses at Celebrity Waiter Night on May 12 when SRNS executives and leaders served as waiters at Newberry Hall in Aiken, S.C., raising \$28,695 for charity.

Approximately 240 participants enjoyed an evening of good food and laughter, including a live auction at the event.

Auction items included framed prints, gift certificates, jewelry, pottery and a catered dinner.

All proceeds from the dinner, the auction and the "tips" received by the celebrity waiters benefitted Children's Place, a non-profit agency that provides therapeutic child care in Aiken County.



Auctioneer and SRNS employee Dennis Cheeks exhort the crowd to bid high and bid often during the Celebrity Waiter event.



'Meet the Grandparents': Leaders Emerging Among Professionals (LEAP) and the SRS Heritage Foundation members shared stories about SRS on May 7 during "Meet the Grandparents" at the Applied Research Center in Aiken, S.C. The event provided an opportunity for networking, mentoring and sharing different perspectives. Executive Director of the SRS Heritage Foundation Walt Joseph was the keynote speaker, and he addressed missions from the past and present, including an overview of projects completed for NASA and a history of the founding of the Savannah River Ecology Laboratory. Chairman of the Board Joe Ortaldo (pictured above) was one of the SRS Heritage Foundation members participating in the event.

Dr. Whiteside honored by Erskine

Dr. Tad Whiteside has been presented with the 2014 Erskine College Outstanding Young Alumni Award.

Dr. Whiteside attended Erskine College from 1996-2000 where he graduated with a BS in Chemistry, a BA in Physics and a minor in Mathematics. From 2000-2004 he earned his PhD in Physical Chemistry, studying the physicochemical properties of organic compounds at the University of Georgia. From 2005-2007, he was a post-doctoral researcher for the U.S. Environmental Protection Agency, studying the mobility of those compounds through the environment.

In 2007, he joined SRNL where he works in the Environmental Restoration Technologies section and assists in Performance Assessment modeling as well as with several other organizations measuring and detecting radiation. He is a past Chair of the Savannah River Section of the American Chemical Society (ACS) and is currently the treasurer for the Southeastern Regional Meeting of the ACS.



Dr. Whiteside

Hogue published in 'Health Physics'

SRNS principal health physicist Mark Hogue was published in the May 2014 issue of "Health Physics" Operational Radiation Safety quarterly supplement.

"Health Physics" is a journal that features technical information on radiation safety.

Hogue's article, "Hand Calculations for Transport of Radioactive Aerosols through Sampling Systems," detailed an organized approach for calculating the effectiveness of air sample collection.

Hogue's method provides a step-by-step way of estimating how many of the tiny dust particles in workplace air (or in an exhaust stack) make it to the sample filter versus how many particles are lost along the way.

The article provided electronically attached files with "scripts" for the R Programming Language (an open source statistical software package).

Overall, Hogue's model offers a baseline for evaluating the effectiveness of sampling systems (e.g., filters) that collect radioactive air samples through sample lines.



SRNS. Trusted.

For diligent environmental stewardship

For reducing the Savannah River Site's
Environmental Management operational footprint by a remarkable 85 percent

For successful remediation of more than 5,000 cubic meters
of legacy transuranic waste and its shipment out of South Carolina

For international leadership in the radiological cleanup
of Japan's Fukushima Daiichi power plant



Savannah River Nuclear Solutions.
Trusted to get the big jobs done.