

February 2012

SAVANNAH RIVER NUCLEAR SOLUTIONS

# SRNS Today

## 'Safety begins with me!'

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focused on employee involvement



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 Savannah River  
**NUCLEAR SOLUTIONS<sup>SM</sup>**  
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**Dwayne Wilson**  
SRNS President and CEO



## Welcome to the February 2012 edition of “SRNS Today.”

Safety begins with me.

It's such a simple sentence. But it's a concept with far-reaching impact.

For the past two months, SRNS has led the way in a campaign not to reinvent safety at the Savannah River Site, but to reinforce the Site's long-standing safety culture. We're asking all Site employees to take personal responsibility for not only their own safety, but also that of their co-workers.



Safety begins with me.

Across the Site, the iconic “green cross” safety symbol is appearing on doorways, hard hats and vehicles. Signs, banners and buttons remind employees: “See something unsafe, say something for safety.” In order to improve our already enviable safety record, our employees have to know that they have the power to speak up and help to change potentially unsafe conditions. I'm glad to say that they are enthusiastically taking this message to heart.

Speaking of safety, I'd like to congratulate the employees at the Savannah River National Laboratory. Their attention to a safe working environment has enabled them to surpass 10 million hours without any employee suffering an injury that resulted in days away from the job—a major milestone in anyone's book.

I am a true believer that employees who commit to work safely tend to carry the concept home to their families. Families influence friends, and like a stone skipped into a pond, one personal safety commitment can ripple into the wider community, to the benefit of all.

If you'd like to know more about our safety campaign, please turn to Pages 6 and 7. And as always, thank you for your interest in Savannah River Nuclear Solutions.



Savannah River Nuclear Solutions, LLC, is a Fluor partnership with 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.

For additional information about SRNS, please visit our website at [savannahrivernuclearsolutions.com](http://savannahrivernuclearsolutions.com).

## SRNS helps fund the future with donation to Aiken County PEP



PEP Board Chair Monica Key accepts a \$20,000 donation on behalf of PEP from Rob Gentry, SRNS Vice President of Site Services.

**SRNS made an investment** in the future of local education as the company presented Public Education Partners (PEP) of Aiken County with a check worth \$20,000 in February.

“SRNS recognizes the value the PEP organization provides to the entire Aiken County School System,” said Dwayne Wilson, SRNS President and CEO. “Their fundamental goals to create highly valued supplemental education opportunities for the nearly 25,000 students who attend public schools in Aiken County closely align with our vision for quality education outreach.”

PEP is an independent, community-based, non-profit organization established in 1995 to support the improvement of public education throughout Aiken County. Since its inception, PEP has identified unmet academic needs in Aiken County public schools and has mobilized community resources to meet these needs.

“We wish to thank our friends at SRNS for their partnership towards enhancing resources dedicated to assisting students and teachers within Aiken County public schools,” said Natalie Fox, PEP Executive Director. “They are a platinum campaign contributor, and we truly appreciate their commitment to support our organization in so many ways.”

PEP has been instrumental in developing supplemental K-12 programs in literacy, math and science, arts and humanities, and workforce preparation. This organization also provides funding for innovative programs and strong community collaborations that leverage the assets of the community to improve education.

SRNS is committed to assisting area school systems develop students who will be equipped to make the future of our country secure, energy independent and environmentally responsible.

“We wish to thank our friends at SRNS for their partnership towards enhancing resources dedicated to assisting students and teachers within Aiken County public schools.”

**Natalie Fox**  
Executive Director  
Public Education Partners

### Community support

During January and February, SRNS proudly sponsored the following:

United Way of the CSRA  
Annual Meeting

Augusta Metro Chamber of Commerce  
Annual Meeting

Columbia County Chamber of Commerce  
2012 Banquet

North Augusta Chamber of Commerce  
Annual Meeting

Antiques in the Heart of Aiken

Clafflin University International Alumni  
Association Annual Alumni Convention

**SRNS employees, subcontractor raise funds for Heart Walk**

Each March, dozens of SRNS employees put on their walking shoes and join the community in the American Heart Association's annual Heart Walk, this year slated for March 3. But during February, employees put their hearts into fund-raising for the Walk. This year, thousands of dollars were donated through events including chili cookoffs, bake sales and a “Heart Boutique.” The total will be revealed at the Heart Walk. In addition, SRS subcontractor E2 donated \$4,000 to the American Heart Association during a ceremony held in D Area with D Area employees, SRNS President and CEO Dwayne Wilson and SRNS Vice President for Site Services Rob Gentry.



## Transition Center wins second award, places nearly half of displaced workers

### Awards and accolades



### NNSA Certificate of Appreciation

Dr. Kevin Greenaugh (right), National Nuclear Security Administration (NNSA) Deputy to Assistant Deputy Administrator for Stockpile Management recently presented a certificate of appreciation to Doug Dearolph (center), NNSA Manager of the Savannah River Site Office, and Dennis Donati (left), SRNS Senior Vice President of NNSA Operations and Programs. The certificate, issued by Dr. Don Cook, NNSA Deputy Administrator for Defense Programs, recognizes the excellence of the team and the successful shipment acceleration to support a Department of Defense scheduled outage at the end of last year.

**SRNS and the Lower Savannah Council on Government (COG)** have earned their second prestigious award for operating the best regional “one-stop” employment center in 2011 based on the design, services and management of the SRS Transition Center (STC) in Aiken, S.C. The award was recently presented to STC personnel by the Lower Savannah Workforce Development Board of Directors.

Nearly 50 percent of all displaced SRS employees offered STC services have found employment with companies locally and throughout the U.S. The STC received the highest score among the nine Lower Savannah COG one-stop centers located throughout the Lower Savannah Region, found in six South Carolina counties.

“The success of this partnership between the Lower Savannah Council on Government and Savannah River Nuclear Solutions has been truly amazing,” said David Moody, DOE’s Savannah River Operations Office Manager. “The Department’s sponsorship and support of this cross-contractor, cross-business sector effort has truly paid dividends for both area employers and those directly affected by recent workforce restructuring at SRS.”

According to Lower Savannah Workforce Development Area Administrator Sam Jordan, the receipt of a national award in 2011 for innovation and now, another major award in 2012, affirms the true value of the SRS Transition Center.

“Two dedicated organizations working closely together to assist those in need can accomplish great things,” said Jordan. “Best to my knowledge, our success rate in placing former employees into new jobs at the Center is unprecedented.”

Bob Rhoden, SRNS Manager, Workforce Planning and Transition Services, explained that a “One-Stop Center” is a facility for unemployed workers within which they can apply for state unemployment benefits while also taking advantage of several job search resources.

“We’ve combined the strengths of public and private industry into a win-win partnership that benefits all involved,” said Rhoden. “In fact, we’ve taken the traditional concept of a one-stop center and greatly enhanced it with additional options and services, all within an outstanding facility. A prime example would include our searchable job database containing thousands of openings directly applicable to the skill sets of the people we’re assisting.”

To date, more than 230 former SRS employees have found employment while using the services provided by the STC, all during a persistent and deep economic recession.



Gary Perez, SRS Transition Center Coordinator, and Bob Rhoden, SRNS Workforce Planning and Transition Services Manager, display the two awards won recently by the SRS Transition Center.

“We’ve combined the strengths of public and private industry into a win-win partnership that benefits all involved.”

**Bob Rhoden**

**Manager**

**SRNS Workforce Planning and Transition Services**

## New life is pumped into retired equipment for use in the community

**A retired pumphouse will soon be put to good use** in the community, through the SRS Community Reuse Organization (SRS CRO).

SRNS Site Services exceeded the 681-3G River Water Pumphouse for the beneficial reuse of DOE assets in support of local community economic development through the SRS CRO’s Asset Transition Program.

In the early 1950s, the pumphouse was installed on the Savannah River to provide cooling water to the five SRS production reactors. As cooling water was no longer required, pump stations were retired, although a few remain operational today, providing water to L Lake and PAR Pond. The excessed equipment was identified as no longer needed for current or future missions.

SRNS Property Management Excess Operations coordinated the details of the disposition including approving the property records, submitting the Declaration of Available Assets and handling applicable screening requirements along with transfer to the SRSCRO. Site Services Utilities and Rigging & Transportation supported removal and loading of the equipment.

The large equipment included one pump, one pump/motor combo, three motors and two valves with associated parts, such as piping and lube oil tank, with a total acquisition value of \$206,033. Four trailer loads of equipment were completed on Dec. 13, 2011.

The equipment will be processed for final disposition by the SRS CRO. This effort supports the Enterprise-SRS strategic initiative of leveraging and revitalizing Site assets to solve national and regional issues.



The pumphouse motor is safely placed on a lowboy trailer.

### In the community



### Tritium employees act as examiners for Governor’s Quality Awards

SRNS employees Donna Wilson (left) and Margy Beckmeyer participated as examiners for the South Carolina Governor’s Quality Award for 2011. The program recognizes S.C. organizations who achieve excellence in developing, implementing and deploying an organizational quality management system.

Examiners are appointed for a one-year term and are selected from leading business, health care, government and education experts from across the state. The examiners volunteer their time and expertise to review submitted applications, evaluating the organizations’ management programs against the Baldrige Criteria for Performance Excellence.

Beckmeyer and Wilson are the first two participants from SRNS to serve as examiners for the award. “We hope to continue participating in this program and others like it,” said Tritium Programs Transformational Governance Manager Jane Fitzpatrick. “It represents a significant level of effort for training, reviewing applications and visiting the sites, but in the end, SRNS benefits from participation in the program.”



**SRNS helps sponsor new chapter of SR-YGN** The Savannah River–Young Generation in Nuclear (SR-YGN) organization recently celebrated its chapter formation with a kick-off event attended by more than 50 young professionals and supporters from DOE-SR, SRNS and SRR senior management. The SR-YGN Leadership Board includes (front row, from left) Candice Dermody (SRNS), Stuart MacVean, Fred Dohse (SRNS), Dwayne Wilson (SRNS), Zach Smith, Dave Olson, Kim Hauer and John Tseng, and (back row, from left) David Beltran-Feliciano (SRNS), Aria Behrouzi, Leslie Sprague (SRNS), Arouna Liloudini, Amanda Bryson, Siobhan Scott (SRNS) and Yara Soto-Toledo (SRNS).



### SRS Safety Core Value

We conduct all aspects of our work safely, continuously improving in pursuit of injury-and incident-free performance.

### SRS Safety Vision

We will be recognized for our world-class safety culture that builds on our history and anticipates the challenges of our current and future missions.

This is Chris (and Jonas).  
They work at SRS.

Chris has the power  
to say something for safety.  
**Just like you.**



See Something Unsafe? Say Something for Safety!

SRS employees  
are featured in safety communications  
each day.

### SRS Safety Principles

These are the key concepts that must stay in the forefront of our thoughts as we work each day.

- The Integrated Safety Management system is the framework for our safety.
- Our safety includes industrial, nuclear, security, environmental and radiological aspects.
- We believe in zero incidents and injuries.
- Our leaders will provide a safe environment.
- We work safely as a condition of employment.
- We report, investigate and act upon all incidents and safety issues.
- We are empowered to prevent incidents.
- We view all of our experiences, including our mistakes, as opportunities to learn.



SRNS is leading the Savannah River Site to reinforce the safety culture in an innovative campaign called...

# Safety begins with me.

Banners stretch over roadways, safety-related stories fill internal communications, posters are popping up on walls and "Safety Begins with Me" buttons and stickers are appearing on badge lanyards, filing cabinets, building doors and car dashboards.

They're all part of an intensive communications campaign aimed at strengthening the already enviable safety performance of SRS. SRNS is leading the way in the campaign which includes all employees at the Site—DOE, major contractors and subcontractors. To introduce the campaign, Site leaders appeared together in a video to emphasize their solidarity for the program. The video can be seen at <http://www.youtube.com/watch?v=xQHcfYk5t6k>.

The "green cross for safety" serves as the primary symbol for the program. It places an intuitive emphasis on a return to basic safety practices and proven programs for SRS employees.

"The results associated with this campaign have already exceeded our expectations," said David Moody, DOE's Savannah River Operations Office Manager. "In fact, the buzz created by this effort is proof alone that our employees fully support our safety culture and pursuit of an injury- and incident-free work environment."

"Safety Begins with Me" is about personal ownership. Each employee is expected to understand their accountability for safe performance and to play an active role in achieving a world-class reputation for safety.

"Time and again, I've heard it said and seen it displayed throughout our diverse workforce ... our employees truly believe the health and welfare of their fellow workers is crucial and nothing less is acceptable," said Dwayne Wilson, SRNS President and CEO. "We take safety very seriously at SRS."

"See Something Unsafe, Say Something for Safety" is the latest campaign element introduced to employees as a part of the program. SRS employees fully expect their fellow workers to proactively speak up and be willing to immediately stop work whenever a potentially unsafe condition exists.

"This new phase will further instill an automatic reaction within SRS employees that does not question the need for a prompt response to prevent a potential injury," Moody said. "We care about and will watch out for each other."



"Our employees truly believe the health and welfare of their fellow workers is crucial and nothing less is acceptable. We take safety very seriously at SRS."

**Dwayne Wilson, SRNS  
President and CEO**



Giant safety banners greet employees driving under the Site's cloverleaf bridge.



## Evans, Ga., school takes home the prize in regional Science Bowl competition

In the community



### New reservoir management system implemented

Dennis Donati (left), SRNS Senior Vice President for NNSA Operations and Programs and Doug Dearolph (right), NNSA Site Office Manager, recently joined in celebrating an important milestone—implementation of the first operational function, H1616 Container Management, on the new Automated Reservoir Management System (ARMS). ARMS maintains an historic database that tracks new reservoirs throughout their lifecycle. The design agencies, NNSA, SRNL, Tritium Engineering and Tritium Operations rely on this data to manage reservoir processing, account for controlled material and maintain a reliable reservoir inventory. ARMS also provides other capabilities such as nuclear materials accountability, H1616 shipping container management, helium cylinder management, cost accounting, safety analysis reporting, and gas mix recipes. Tritium Programs released the H1616 container management function on the new ARMS platform on January 31, which allows receipt, re-verification, and shipment of H1616 containers.

Using a format similar to the television show “Jeopardy,” America’s next generation of scientists and engineers put their knowledge to the test today in the country’s largest science tournament. Teams from across South Carolina and the greater Augusta area relied on their collective knowledge during the regional competition at the University of South Carolina Aiken, with the winning team attending DOE’s National Science Bowl Competition to be held in Washington, D.C.

The local regional competition, managed by SRNS, typically involves approximately 100 students from about 15 high schools. It is the only educational event and academic competition of its kind that tests students’ knowledge in all areas of science and is sponsored by a federal agency.

This year’s first place regional winner was the Lakeside High School Team 1, from Evans, Ga. A team from Lexington (S.C.) High School came in second, with third place going to the Roebuck, S.C., Dorman High School Team 1.

“DOE continues to invest in area school systems through the use of academic competition,” said David Moody, Manager, DOE-Savannah River Operations Office. “For years, the Science Bowl has been an excellent way to focus attention on the importance of science and to spotlight the capabilities of our brightest students.”

Science Bowl teams consist of four students, an alternate, and a teacher/coach, and usually practice for months before the competition.

“The intensity of the competition is amazing,” said Candice Dermody, SRNS Manager, Education Outreach. “You can feel the tension in the air. This is not an easy competition and really tests the student’s science and mathematics skills under pressure. These students are committed to giving it all for their school and their teammates.”

More than 100,000 high school students have participated in DOE’s National Science Bowl since 1991. Competing teams are quizzed on biology, chemistry, physics, astronomy, earth science, general science and mathematics. This year’s top three teams will win prizes including scientific research trips to France and U.S. DOE laboratory sites.

To reach the national level, teams must win one of 69 regional tournaments. The regional champion teams then receive a trip to the nation’s capital to tour museums and participate in Science Day seminars, in addition to being tested against the best during the national competition.

SRS is one of only four DOE sites to have participated each year at the regional level since the start of the Science Bowl competition.



The Lakeside High School team shows off their Science Bowl first-place trophy.

## 10 million!

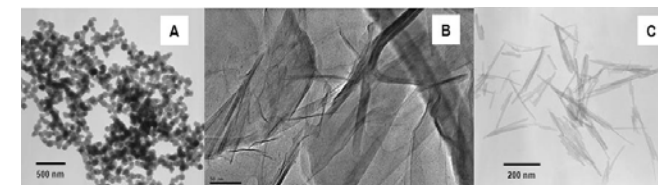
### SRNL employees take pride in major safety record

**SRNL employees have passed a major milestone** in safety performance: 10 million safe hours. SRNL amassed 10 million work hours without any employee suffering an injury that resulted in days away from the job. The last lost-time injury was six years ago.

Every year since being named a National Laboratory in 2004, SRNL has demonstrated the best safety record among all of the DOE national labs. (Other labs’ 2011 statistics are not yet available for comparison.)

“The work the people of this laboratory perform is challenging,” said Dr. Terry Michalske, SRNL Director. “But our people bring a careful attention and focus to the job, and a commitment to watching out for themselves and their co-workers. The result is high-quality work, performed safely. That’s reflected, not just in our safety statistics, but in the trust that the nation puts in us to conduct important tasks.”

SRNS President and CEO Dwayne Wilson said, “I’m pleased to acknowledge great achievements in safety performance, and SRNL is a world leader when it comes to working safely in a laboratory environment. At the same time, we should never take performance for granted. The work we do requires focused commitment from every organization, every day.”



Dr. David Hobbs led a research project examining three methods of producing nano-sized particles.

## Tiny particles may aid in medical treatments

**Researchers at SRNL** have successfully shown that they can replace useful little particles of monosodium titanate (MST) with even tinier nano-sized particles, making them even more useful for a variety of applications.

An ion exchange material used to decontaminate radioactive and industrial wastewater solutions, MST has been shown to be an effective way to deliver metals into living cells for some types of medical treatment. Typically, MST and a modified form known as mMST developed by SRNL and Sandia National Laboratories, are in the form of fine powders, spherically-shaped particles about 1 to 10 microns in diameter (a human hair follicle is 100 microns).

“By making each particle smaller,” says Dr. David Hobbs of SRNL, project research lead, “you increase the amount of surface area, compared to the overall volume of the particle. Since the particle surface is where reactions take place, you’ve increased the MST’s working area.”

The team found that the smaller particles exhibit good ion exchange characteristics. They also serve as photocatalysts for the decomposition of organic contaminants and are effective platforms for the delivery of therapeutic metals.

Tests showed that the metal-exchanged titanates inhibit the growth of a number of oral cancer and bacterial cell lines. Preliminary results suggest that the titanates may be interacting directly with the wall of the nucleus to deliver sufficient metal ion concentration to the cell nucleus to inhibit cell replication.



Mike Brisson



Elise Fox

### SRNL employees co-edit books for two technical societies

Mike Brisson of SRNL Analytical Services is co-editor of an ASTM special technical publication, *Surface and Dermal Sampling*. ASTM International, formerly known as the American Society for Testing and Materials (ASTM), provides test methods, specifications, guides, and practices that support industries and governments worldwide. This is Brisson’s second book in the field of trace level sampling and analysis. The book contains 20 peer-reviewed articles, including one by Linda Youmans-McDonald, also of SRNL, with co-authors Brisson and SRNL’s Maureen Bernard.

Elise Fox of SRNL Materials Science & Technology is co-editor of the American Chemical Society Symposium series book, “Production and Purification of Ultraclean Transportation Fuels,” which is available on-line and in print. The book follows the path of fuel production and purification, including sections on hydrotreating, desulfurization, biomass production, carbon dioxide separation and conversion, and hydrogen production.



# 1 Cat: Free to a good home

## SRNS loan of excavator to Oak Ridge project saves \$1.3 million

**What's better than having a monster** 94-ton 385C Caterpillar Excavator on a large demolition project?

Having a free 385C Cat on the project. Shipping and handling not included—some assembly required.

SRNS recently loaned URS CH2M Oak Ridge (UCOR) such a piece of equipment rent-free for roughly a two-year period. It will be used on the K-25 demolition project at the East Tennessee Technology Park.

This agreement is the first of its kind, “something we need to do more often,” said Kevin Harbin, SRNS Portable Equipment Commodity Management Center (PECMC) Program Manager. “Reusing equipment across DOE sites results in tremendous savings of our taxpayers’ dollars.”

SRS purchased the 385C Caterpillar Excavator a few years ago using American Recovery and Reinvestment Act funds to assist closure projects. According to project officials, SRS determined the \$1.6 million piece of equipment was not needed for the next two years, offering it to UCOR rent-free for that period. Leasing a 385C Cat is normally about \$58,000 per month.

“I was impressed with the coordination between us and the other companies involved,” Harbin said. “Equipment is at every site, and if it is not being used, another site could possibly use it. The goal should be teamwork and asset re-utilization across the DOE Complex.”

UCOR did pay a total of about \$90,000 to have the Cat disassembled by SRNS PECMC mechanics, and shipped on six flatbed trucks to Oak Ridge. Special permitting was required because the reinforced trailer carrying the cab was a wide load. It took two days for the equipment to arrive at Oak Ridge, where it was reassembled and put into service.

The four-story K-25 Building at the East Tennessee Technology Park is located on DOE’s Oak Ridge Reservation and once performed uranium enrichment activities. The building covered 1.64 million square feet of land and stretched for one mile from end to end.

Using an assembly line process, K-25 will be safely decontaminated and demolished, with more than 98 percent of the waste and debris from demolition activities shipped to the on-site Environmental Management Waste Management Facility.

The excavator, with its powerful jaws and other attachments, will be used primarily for size reduction of metal and concrete debris for shipment and disposal.

“DOE staff at Oak Ridge and SRS were instrumental in helping make this happen,” said K-25 Project Manager Mark Ferri. “The equipment was being shipped between DOE sites and required coordination with transportation departments in three states (South Carolina, Georgia and Tennessee). DOE staff facilitated those efforts.”

In the future, SRS will use this piece of equipment to assist with deactivation and decommissioning activities, but for now, UCOR is successfully ripping through metal and crushing concrete at K-25.



(Top) SRNS recently loaned the 94-ton 385C Caterpillar Excavator to URS CH2M Oak Ridge to assist with the K-25 demolition project at the East Tennessee Technology Park. (Above) Aerial view of the K-25 Building. The west wing has been demolished, while demolition and cleanup activities continue on the east wing.

“Reusing equipment across DOE sites results in tremendous savings of our taxpayers’ dollars.”

**Kevin Harbin**  
Manager,  
SRNS Portable Equipment  
Commodity Management  
Center



Scenes  
of SRNS

*A harbinger of spring, a patch of naturalized jonquils brighten a roadway at the Savannah River Site.  
(Photograph by Steve Ashe)*





Savannah River  
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Savannah River Nuclear Solutions is creating  
a new and exciting future at the Savannah River Site.



SRNS offers uniquely skilled people, diverse nuclear operations and research facilities, and first-of-a-kind technologies to spark business opportunities throughout the nation and beyond.



We're home to the Savannah River National Laboratory,  
an engine for growth in advanced environmental and  
national security technologies, as well as clean energy research.



Savannah River Nuclear Solutions.  
Leading the way in innovative and creative solutions  
for our nation's most pressing initiatives.

