



Savannah River
Nuclear Solutions, LLC
A Fluor Daniel Partnership

Questions? Contact us at 803.952.9584.

Welcome to July's edition of the "SRNS News."

This month we focus on education and several recent community outreach efforts.

SRNS has a robust internship program, with more than 80 student interns, and we're also able to offer special programs for students attending summer school



**A message from
Garry Flowers**
SRNS President and CEO

and other events hosted during the summer months, such as Camp Success. Investing in our youth is very important to SRNS. On page 2, you'll read about our donation to a future track at Allendale-Fairfax High School. When we learned that students were being bussed some distance to practice for track and field, we knew this would be an opportunity to help with their quality of life.

During a recent breakfast for the kickoff of the United Way 2010 campaign, an SRNS-produced video was debuted and presented to more than 20 United Way agencies. Featured on page 3, this service, which is provided annually to the United Way agencies, is another example of our commitment of time and resources from SRS.

Other stories this month include research that some SRNL scientists are doing with several universities to decrease mold growth in flooded homes, and our participation in the Business, Innovation and Technology Expo, held July 17 at the University Convocation Center as part of Aiken's 175th Anniversary celebration.

I hope you enjoy July's "SRNS News." And, look for our special two-year anniversary publication, coming soon.

During July 2010, SRNS Operations and Service Subcontractor employees continued to work safely and maintained their streak of more than 11 million safe hours without an injury causing an employee to lose time away from work.

**11 million
safe hours**

SRNS news

SAVANNAH RIVER NUCLEAR SOLUTIONS

Two SRNS managers honored by National Management Association

Charles Nickell, SRNS Director, Nuclear Material Disposition, was named Executive of the Year by the SRS Chapter of the National Management Association (NMA).

The award honors a senior executive who has gained significant recognition for accomplishments through personal and business actions.

Rich Izard, SRNS Manager, Site Process Control and Automation Engineering, was named Manager/Leader of the Year.

Under Nickell's leadership, the SRS H Canyon and HB Line facilities have experienced their best safety and operational performance in recent history. He has helped to reduce facility operating costs for two years in a row through efficiency improvements, and has also provided senior leadership for the SRS Human Performance Improvement process, a major sitewide safety initiative. He represented SRNS in the 2010 Leadership South Carolina class, and has volunteered locally with organizations such as Christ Central, Area Churches Together Serving,



Charles Nickell



Rich Izard

the Heart Walk Campaign and United Way Project Vision.

Izard was recognized for his effectiveness as a leader and communicator and for pushing new ideas to capture knowledge for use by his entire organization. He has served as Vice President of the SRS Leadership Association, during which he introduced "webinars," increased membership, and worked with the SRS Heritage Foundation to bring the SRS History Series to the Association. Also, he has been instrumental in bringing Strength Based Workshops to the organization.

Both Nickell and Izard are residents of Aiken.

SRNS invests in the future with Camp Success

"Children are the world's most valuable resource and its best hope for the future" – John F. Kennedy

JFK's words sum up the reasoning behind Camp Success, a camp where the educators partner with local industry leaders to allow students to experience state-of-the-art engineering, technology and future challenges first hand.

"The time and resources we invest in programs like Camp Success have a huge pay-back to our company and to SRS," said Barbara Smoak, SRNS Manager, Education Outreach. "Our hopes are that many of these students will one day graduate in science and math and become a part of our company."

Smoak recently presented a check to the Silver Crescent Foundation in the amount of \$4,000 in support of their mission to capture the imaginations of young people and foster a desire to become the designers, engineers and manufacturing leaders of tomorrow.

Seventh and eighth grade students from the Aiken-Augusta area recently attended Camp Success, held on the campus of University of South Carolina Aiken at the Ruth Patrick Science and Education Center.

The students spent a day at the SRNS Center for Hydrogen Research where Dr. Scott Greenway gave a presentation on hydrogen fuel and the challenges associated with its use as an energy source. During a demonstration, the students acted as fuel cell components, representing hydrogen, oxygen and electrons, symbolically coming together to form the fuel of the future.

SRNS engineer, P.K. Hightower, then provided a hands-on example of



Barbara Smoak, SRNS Manager for Education Outreach, presents a \$4,000 check to the Silver Crescent Foundation.

how engineers are tasked with problems in a competitive world and where delivery and customer satisfaction are real time issues. Using only tape and straws, teams were challenged to build the tallest, yet strongest, tower of the group.

According to Tony Smith, a representative of the Silver Crescent Foundation, "Every day, our world faces challenges in many different areas—such as the environment, transportation, food production and healthcare—and someday our children will need to answer these challenges. Camp Success participants will experience how engineering allows them to have fun and find real solutions to real problems."

Racing toward success for Allendale-Fairfax High School track

In July, SRNS donated \$15,000 to go toward a track for Allendale-Fairfax High School, whose track team is a four-time state champion. On hand for the presentation were (from left) Town Councilperson Vernie Harney; Allendale County Schools Superintendent Dr. Harold McClain; Athletic Director Eddie Ford; School Board of Trustees Chairperson Alexis Zeidan; Town Councilperson Valaree Smith; Allendale Mayor Ronnie Jackson; Cliff Webb, SRNS Vice President of Public Affairs; and Town Councilperson Jacqueline Jones.



SRNS-produced video features people helped through the United Way

SRNS Public Affairs and Information Services recently debuted their annual United Way video at the UW campaign kick-off breakfast, and provided a copy to each of the United Way agencies.

Rana O'Bryant is featured in the video as one of the persons helped by the United Way. Rana never expected the United Way to touch her life personally, but when her house took a direct hit from lightning, and she lost everything in less than an hour, she turned to the United Way. "I always thought that the United Way was for those that couldn't take care of themselves. I had a good job at Savannah River Site, but I learned that if you are a person in need, you are all treated the same," she said.

Ora Preister also shares her story of how she was helped by the United Way. Ora has reared her grandson, Terry, who is multi-handicapped. When she could no longer cope, she turned to the United Way. They were able to help Ora get the special services that she needed for Terry. The United Way got Terry a job with the Tri-Development Center yard crew, and he now feels as though he is a contributing member of society.

Gayle Levon, owner of NightinGale Sings Music, BMI, is the featured singer on the video. The video was produced by Brian Tyre, SRNS Public Affairs, and Terry Miller, SRNS Information Services.



Attendees at the UW campaign kick-off breakfast watch the debut of this year's UW video.



SRNS offers ecological learning opportunities for summer students

To some, summer means a break from school and classes, but to the high school students participating in an Agricultural Program at South Carolina State University and those middle school students selected from South Carolina's Barnwell County, District 19, summer means opportunity.

Recent field trips by these groups to the Savannah River Site included demonstrations and presentations involving ecology, potential biofuels, nature walks and an aquatic study of a beaver pond, all in a unique summer classroom. The purpose of the Science and Technology Enrichment Program (STEP) is to enhance mathematics, science, and technology by providing a hands-on experience using the environment as teaching tool.

"With science, nothing seems to capture the attention of a student more than the opportunity to experience it firsthand," said Kim Mitchell, STEP Program Coordinator, Education Outreach, Savannah River Nuclear Solutions, LLC (SRNS). "This program allows us to partner with the teacher and show that learning can be fun and exciting."

"The students talked about their experience all the way back to school," said Shirley Jones, Administrative Assistant/Resource Teacher, Blackville-Hilda Junior High. "They truly enjoyed it. We look forward to coming again."

Hurricanes, floods and mold—oh my!

SRNL microbiologists study ways to reduce mold damage in homes

People are terrified of hurricanes and floods and the damage they can do to their homes. But after a water-related disaster, many are so anxious to get back in their homes to repair the structure that they often overlook the damages hidden within the materials.

Mold from water damage can infect almost every part of a house, including the walls, the siding, the insulation and much more. Re-painting does not prevent spores inside the wall from affecting the air and not every cleaner is effective for eliminating the mold, including the types that are harmful to people.

This common hazard after water-related home damage has led a team of microbiologists at the Savannah River National Laboratory (SRNL) in their work with Tuskegee University and Mississippi State University to decrease mold growth in flooded homes through improved prevention and cleanup.

Funded by the Department of Homeland Security (DHS) through the Southeast Regional Research Institute (SERRI), Mississippi State University asked SRNL and Tuskegee University to join the “Effective Mold and Contaminant Remediation for Flood and Water Damaged Homes” project.

“SRNL’s Environmental Biotechnology Section has a long history of successfully working with the assessment and cleanup of mold and fungi at the Savannah River Site. This is a strong partnership, and I really think we can make a difference,” said SRNL team leader Robin Brigmon, Ph.D.

The research focuses on analyzing common types of mold found after water damage to homes. The research will discover the best ways to clean structures, identify which mold types are most toxic to people, determine how deep into walls and porous surfaces sanitization is needed, assess how long people should wait before safely returning to their homes and investigate how to prepare improved housing materials to prevent mold growth.



SRNL scientist Robin Brigmon, Ph.D., analyzes mold through a laser scanning confocal microscope.

“Just as humans can be identified by their unique fingerprint patterns, microbes can also be identified by their unique DNA fingerprint composed of specific DNA sequences. In this project, we will use a quantitative polymerase chain reaction (qPCR) to amplify and analyze the unique DNA of any mold contamination present on the flooded housing materials,” said SRNL researcher Scott Miller.

“The results generated from the qPCR will provide a DNA fingerprint for any mold present that could cause a health hazard to humans. Using the DNA fingerprint, we can determine whether the mold is a health concern and how much mold is present,” said Miller.

SRNL is also collaborating with the National Oceanic and Atmospheric Administration (NOAA) at the Hollings Marine Laboratory in Charleston, SC, to test mold toxin production on the building materials from the experiment at Tuskegee.

Brigmon expects to produce results from the team’s research by the fall of 2010 and complete the project by the fall of 2011.



SRNS intern Shelby Streetman, as well as SRNS Manager for Media Relations Will Callicott, greet visitors to the SRNS booth at the BIT.

Doing our B.I.T

SRNS welcomed the public at the Business, Innovation and Technology Expo, held July 17 at the University of South Carolina-Aiken. The event was sponsored by the City of Aiken as part of its 175th anniversary celebration.



A family takes a look at technology demonstrated by a representative of the Savannah River National Laboratory.