

Questions? Contact us at 803.952.9584.

Welcome to the January 2011 edition of the SRNS News.

SRNS is off to a safe start in the new year, with SRNS employees working 6 million safe hours without an injury causing time away from work. SRNL is celebrating an entire year with no recordable injuries. In 2011, our safety focus will be on prevention: making safety our first consideration.



A message from
Garry Flowers
SRNS President and CEO

We rolled out the welcome mat in January to the Blue Ribbon Commission on America's Nuclear Future, a group established by President Obama to provide recommendations on the nuclear fuel cycle (see story at right). January also saw the first three 2011 SRS public tours (see story on Page 3). If you'd like a first-hand view of SRS, seats are still available for the tours.

The education of our area young people remains an SRNS commitment. On Page 2, you'll see who won the Future Cities competition, and learn about the 2011 Innovative Teaching Mini Grants program, which funds innovative classroom methods to enhance

science, mathematics and technology programs.

2011 is a year full of promise and 2010 a year of achievement for SRNS. Our 2010 annual report, "Results for Today. Vision

for Tomorrow," highlights our most important achievements from last year. You can view the book on our website: savannahrivernuclearsolutions.com.

As always, thank you for your interest in SRNS. We look forward to a year of challenge and achievement in 2011.



**IT'S NOT
YOUR AVERAGE
BUS TOUR!**

Seats for the 2011 SRS public tours are still available. To learn more, please see Page 3.

SRNS news

SAVANNAH RIVER NUCLEAR SOLUTIONS



Dave Eyler (right), SRNS Vice President for Nuclear Materials Operations, leads the Blue Ribbon Commission on a tour of H Canyon.

Blue Ribbon Commission visits SRS

The Blue Ribbon Commission on America's Nuclear Future toured the Savannah River Site and held a public meeting in Augusta to hear comments and suggestions from stakeholders on January 6-7, 2011.

Appointed by the Obama Administration, the Commission was established to conduct a comprehensive review of policies for managing the back end of

the nuclear fuel cycle and provide advice and recommendations on issues including alternatives for the storage, processing and disposal of civilian and defense spent nuclear fuel and nuclear waste. The Commission is scheduled to submit a draft report to the Secretary of Energy by July 2011, and a final report is expected by January 2012.

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SRNL celebrates a year of safe operations

When the ball dropped marking the end of 2010, employees at the Savannah River National Laboratory had one additional reason to celebrate: SRNL's employees completed 2010 with no recordable injuries.

Just a few days later, the Laboratory reached another significant milestone: As of January 10, it has been five years since the last injury requiring days away from work.

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SRNS provides update at SC Chamber 'Business Speaks'

SRNS was the Presenting Sponsor of the South Carolina Chamber of Commerce's Business Speaks at the State House event at the Columbia Metropolitan Convention Center on January 26. About 350 members of the state's business community, constitutional officers and members of South Carolina's General Assembly attended the town meeting, where SRNS President and CEO Garry Flowers provided an update about SRNS and operations at SRS.



SRNS accepting applications for Mini Grant proposals

SRNS is now accepting proposals from educators for its 2011 Innovative Teaching Mini Grants program. Mini grants provide funding to educators who demonstrate, through their grant proposals, the use of innovative methods to enhance science, mathematics and technology programs in the classroom.

"I don't know what we would do without the Mini Grants program," said Leavelle-McCampbell teacher Brishundra McGrier, a previous Mini Grant winner, who describes the program as "rewarding and a blessing."

Elementary and middle public school educators in the seven-county Central Savannah River Area (Aiken, Allendale, Bamberg, Barnwell, and Edgefield counties in South Carolina, and Columbia and Richmond counties in Georgia) are eligible to receive grants in \$500, \$750 or \$1,000 categories. Winners, and all others who submitted proposals, will be honored at the awards ceremony in April.

Applications were mailed directly to the eligible schools earlier this month. Interested teachers may obtain applications from their school principal or SRNS Program Coordinator, Angela P. Martin, (803) 952-9120. Applications are also available on the SRS web site: http://www.srs.gov/general/outreach/edoutrch/ed_home.htm. Grant proposal applications must be received at SRS by March 4. Applications cannot be hand-delivered by non-SRS employees.

Students present their visions of Future Cities

Blythewood (S.C.) Middle School took top honors on Jan. 22 at the eighth annual Future City South Carolina Regional Competition, sponsored by the DOE-Savannah River and SRNS in partnership with the Ruth Patrick Science Education Center/USC Aiken. Thirty-six teams from South Carolina and the Central Savannah River Area (CSRA) competed to be regional champions. The Blythewood team will now compete in the national event in Washington, D.C., February 18-22, 2011. In addition to the top three positions, 15 special awards were given by professional societies and other organizations.



First Place Winners:

Blythewood Middle School, Blythewood, S.C. Team includes (from left) Jessica Fox (teacher), Valerie Miller, Lillie Buschmann, Anthony Richards, Nicole Schuldts (teacher), Steven King (engineer mentor, not shown)



Second Place

Winners: Kennedy Middle, Aiken, S.C. Team includes (from left) Alex Coleman, Margo McDowell Gore (teacher), Lacie Leach, Randy Coleman (engineer mentor), Makenzie Cude



Third Place Winners:

Aiken Area Home Educators, Aiken, S.C. Team includes (from left) Marjorie George, Aaron George, Alexis Ansele, Vickie Boyd (teacher), Jacob Boyd, Ian Stembridge, Samuel Boyd, Larry Morris (engineer mentor, not shown)

Blue Ribbon Commission

► *Continued from Page 1*

While at SRS, the commissioners toured H Canyon, the Defense Waste Processing Facility and the MOX construction site. Separately, 53 members of the public toured the site as well, receiving driving tours and briefings of the same facilities. The Commission hosted a public meeting at the Marriott in Augusta, Ga., on Jan. 7 to hear presentations and statements from various stakeholder groups.

Fifteen members participate on the Commission, which is co-chaired by Lee Hamilton and Brent Scowcroft. Lee Hamilton represented Indiana's 9th Congressional district from 1965-1999 and is a member of the President's Intelligence Advisory Board and the President's Homeland Security Advisory Council. Brent Scowcroft served as National Security Advisor to Presidents Gerald Ford and George H.W. Bush. Commission members include Mark Ayers, Vicky Bailey, Albert Carnesale, Pete Domenici, Susan Eisenhower, Chuck Hagel, Jonathan Lash, Allison Macfarlane, Richard Meserve, Ernie Moniz, Per Peterson, John Rowe and Phil Sharp.

They will look at options for decision-making processes for nuclear materials management and disposal that are flexible, adaptive, and responsive and ensure that decisions on management of used nuclear fuel and nuclear waste are open and transparent, with broad participation.

SRNL marks year of safety

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This is only the second time since 1997 (the earliest year for which comparable statistics are available) that any DOE National Laboratory has achieved a full-year Total Recordable Case rate of zero. The only other National Laboratory we know of to achieve this milestone was the Thomas Jefferson National Accelerator Facility in 2007.

SRNL's last recordable injury was in August of 2009. Dr. Terry Michalske, SRNL Director, says that, while achieving a Total Recordable Case rate of zero, and going five years without a days-away case are both outstanding achievements, the statistics are not the real accomplishment. "What is important is that since August of 2009, each person working in SRNL has been able to come to work and return home each day without a serious injury. That is truly something for which we can be proud!"

Seats available for SRS public tours

Thirty general site driving tours of SRS are being offered to the public in 2011, providing openings for approximately 1,500 people to visit the site. Tour check-in begins at 12:30 p.m., at the Aiken County Center for Hydrogen Research, located off Highway 278. Guests will be given an overview presentation and safety briefing with the tour beginning at 1 p.m. and concluding at 5 p.m.

Site tours provide an opportunity for those interested in SRS to better understand DOE's facilities and workers that changed the face of Aiken, Barnwell and Allendale Counties, nearby cities and helped win the Cold War. Guests will also learn about facilities supporting future missions of SRS.

All tours are free of charge and each will accommodate 50 participants. To sign up, visit the SRS tour website at <http://www5.hanford.gov/SRSTours/>

If no Internet access is available, individuals may call (803) 952-8467 for assistance. Seats are limited to two individuals per reservation, and participants may reserve only one tour date per year. Seats are filled on a first-come, first-served basis.

2011 Tour Dates

February 10, 16

March 1, 16, 24

April 12, 20, 28

May 10, 19, 25

June 7, 15, 23

July 12, 28

August 4, 16, 31

September 8, 20, 28

October 11, 20, 26

November 15

December 6

SRNS receives 'Alive at 25' award

SRNS recently received a sponsorship award from the S.C. Safety Council for support through the partnership with the 'Alive at 25' program at the ALIVE Benefit Dinner in Columbia. The Alive at 25 program, developed by the National Safety Council, is designed to be an early intervention course to help educate young drivers in order to prevent traffic violations, collisions and fatalities.

SRNS was recognized for their creative partnership in educating young drivers within their community and received the SCNSC's "Zero Hero" Award for "unwavering support, dedication and true passion exhibited in educating young adults within your community through the partnership with SC NSC and The "Alive at 25" program."

SRNL develops new software to detect ship piping flaws

New software developed by SRNL and Northrop Grumman Shipbuilding (NGSB) may lead to a less expensive and faster method to detect corrosion or other defects in a ship's pipes.

The copyrighted software, which is used to analyze digitized x-ray images to determine loss of wall thickness in pipes, was developed as the result of a six-month cooperative research and development agreement between SRNL and NGSB. SRNL has granted NGSB a license to commercialize and continue maturing the software for shipboard pipe analysis.

Ships contain vast quantities of piping that is subject to corrosion and other types of failure issues. The current method of inspecting for these issues is to strip insulation from portions of piping, then test the piping to see if there is corrosion or other issues. Because the new approach uses digital x-rays, it does not require the removal of the insulation, resulting in more piping being evaluated in a shorter period of time.

The new software, which is based on existing Digital X-Ray Pipe Inspector Software, combines a tool for examining a region of interest on the outside wall of a pipe with a tool for examining a region of the interior of the pipe. The software compares the resulting digital x-rays of the interior and its corresponding exterior region to quantitatively assess defects between the pipe walls.

Development of the new software builds on SRNL's expertise in digital imaging and other radiography techniques, which has been applied to develop methods for examining components used in the processing and disposal of radioactive materials.

In recent years, this expertise has been extended, with applications for medical research and other fields.

For more than a century, Northrop Grumman Shipbuilding (NGSB) has been designing, building, overhauling and repairing a wide variety of ships for the U.S. Navy, the U.S. Coast Guard and world navies. NGSB is the largest shipbuilder in America and builds more ships, in more ship classes, than any other U.S. naval shipbuilder.

SRNL's Adams honored for research on nuclear fuel management

Dr. Thad Adams of SRNL has been recognized by the DOE Office of Nuclear Energy (DOE-NE) for his research on the management of commercial nuclear fuel that could eventually lead to new approaches to clean nuclear energy. At the Winter 2010 American Nuclear Society meeting in Las Vegas, Dr. Adams was recognized with a Fuel Cycle Research and Development Program Award for Excellence in Research.



Dr. Thad Adams

Dr. Adams is leading a team at SRNL focused on the development of a transformational "dry separations recycle" technology for commercial used nuclear fuel (UNF). This novel dry recycle process could allow for increased utilization of the uranium resources in the commercial UNF while significantly reducing the waste volume in comparison to conventional aqueous recycle technologies.

Poirier elected Fellow of American Institute of Chemical Engineers

SRNS's Dr. Michael Poirier was elected as a Fellow of the American Institute of Chemical Engineers (AIChE).

The rank of Fellow, the highest grade in membership in AIChE, recognizes and honors members who have made meaningful contributions to the chemical engineering profession. Fellows make up fewer than five percent of the membership of AIChE.



Dr. Michael Poirier

Dr. Poirier is noted for his work developing techniques for the treatment of radioactive waste, including recent work on a process to separate highly radioactive solids from large volumes of liquid waste, enabling more efficient treatment and disposal of both. "This is an excellent recognition of the work that Dr. Poirier does to benefit both the Savannah River Site radioactive waste operations and SRNL's other DOE customers," said Dr. Jeff Griffin, SRNL Associate Laboratory Director for Environmental Management.



SRNS awards \$6.3 million Recovery Act contract to Beech Island small business

SRNS has awarded Grade South, a small business in Beech Island, a contract for \$6.3 million to provide closure of the Savannah River Site's P Area Ash Basin (*background photo*) and a nearby outfall. The American Recovery and Reinvestment Act contract adds to the more than \$155 million in contracts SRNS has already directed to area businesses.

"SRS continues to direct procurement opportunities to local small businesses, a commitment that is putting Americans across the Central Savannah River Area to work," said Greg Ryan, SRNS procurement manager of the Recovery Act Portfolio. "The Recovery Act program at SRS has provided a real opportunity for smaller businesses to provide the Site with skills and expertise that are unique to small specialty contractors."

The ash basin is an unlined, earthen containment basin that received coal ash for 40 years, from 1951-1991, from the operation of a coal-fired powerhouse used to generate steam and electricity in P Area. Located to the north of the ash basin, the outfall received process line discharge originating from the P Reactor Disassembly

Basin, which water-cooled irradiated nuclear material targets and spent nuclear fuel while providing a radiological shield to workers at the facility.

Scott Stephens, Grade South president and chief executive officer, plans to put 24 union employees to work on the project in roles including laborers, a carpenter, a cement mason, operators and teamsters.

"The project will have different phases," Stephens explained. "It will vary the whole time, and as the project progresses, we will fill the staffing needs."

Stephens and his crew will place stockpiled material into the 25-acre basin by layers 10-12 feet deep, compact each layer, provide an earthen cap consisting of four inches of soil. When finished, the basin will be covered with sod and have a domed shape to facilitate runoff. Grade South will also remove contaminated soil from the 5-acre outfall and replace it with soil and sod. It, too, will have a domed shape.