

2009-2010 **SRNS Mid-year Review**













A message from the President

On behalf of SRNS and our parent companies, I congratulate our workforce on the progress achieved during the first six months of FY2010.

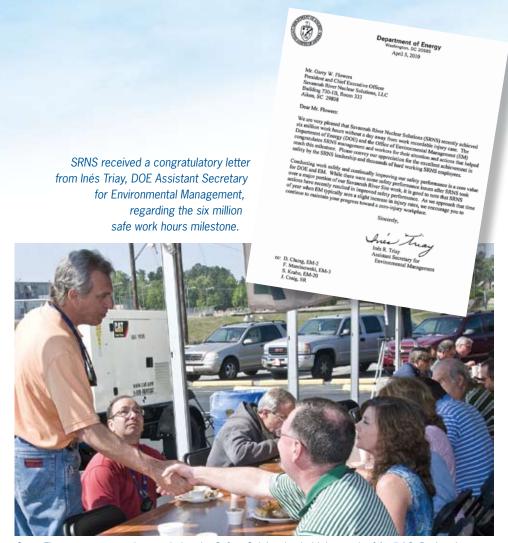
This mid-year review highlights our operational successes, the progress we've made under the American Reinvestment and Recovery Act and our support and involvement in the surrounding communities.

As in everything we do, safety is our primary concern.

By the end of March, our operations and subcontractor personnel had achieved more than six million safe hours without a lost workday injury.

I hope you find this mid-year review of our accomplishments to be enlightening and informative.

Garry Flowers
President and Chief Executive Officer
Savannah River Nuclear Solutions



Garry Flowers greets employees during the Safety Celebration held the week of April 12. During that week, SRNS management and employees celebrated over 7 million safe work hours. More than 8,000 employees were served barbecue during six assemblies over three days, in addition to the night shifts.

Safety

Safety Improvement Compensatory Actions and Measures, also known as SICAM, was put into place to add rigor and discipline to the total work process. The new safety improvement program sparked more than 3,000 management field observations. Approximately 7,000 employees completed hazardous awareness training and 11,100 work packages were reviewed.

SRNS received the Four and Six Million Safe Hours Awards from the National Safety Council in recognition of operations and service subcontractor employees working six million hours without a lost work day due to injury or illness.

The Management and Operations construction workforce earned an unprecedented $23\frac{1}{4}$ million hours without a lost time injury. The accomplishment stretches back 11 years. The safe hours streak continues to be a record for construction work anywhere in the DOE complex.

SRNS Operations and Construction received four Certificates of Safety Achievements from the S.C. Department of Labor for outstanding efforts in industrial safety and health and reductions in injury and illness incident rates in 2009.

Community

SRNS opened the 2010 Public Tour Program, making available 23 tours to 1,150 participants.

SRS employees donated an estimated 12,115 toys and \$16,000 during the Site's 19th Annual Toys for Tots Drive, which is the largest area toy contribution. Garry Flowers, along with representatives from Wackenhut Services Inc., Savannah River Remediation and Parsons presented the check to the Marine Corps representatives.

Approximately 2,000 individuals attended three banquets held in early October for SRS current and retired employees with 25 or more years at SRS. This annual tradition that began in the late 1970's, includes dinner and a key note address from senior management.

Garry Flowers issued the first SRNS Community Newsletter, which is now provided on a monthly basis to approximately 500 key stakeholders to keep them informed of SRNS activities.

SRNS and the Ruth Patrick Science and Education Center cosponsored the 18th Regional South Carolina Future City Competition, where middle school students are encouraged to consider careers in engineering by creating their own cities and developing a large tabletop model of the city.

Thirteen CSRA high school teams competed against nine other teams from South Carolina in the 20th annual Department of Energy Savannah River Regional Science Bowl at The University of South Carolina Aiken. Lakeside High School won the regional competition and an all expenses paid trip to Washington, D.C. to compete nationally.

SRNS was the signature sponsor of the North Augusta Chamber of Commerce Annual Meeting, and also one of the prime sponsors for the Augusta Metro Chamber of Commerce Annual meeting.

The Savannah River Regional Science and Engineering Fair competition was held March 13 at the University of South Carolina Aiken.

260 SRS volunteers worked at 14 different United Way-sponsored agencies in Aiken on Friday, March 26.

SRS engineers supported Introduce a Girl to Engineering Day. Approximately 70 girls from 23 middle schools in the CSRA interacted with SRS professionals who taught them about careers in engineering on Saturday, March 27.

During the "Celebrate Aiken 175 Years" walking tour held March 6, approximately 1,000 people toured the SRNS downtown office.



The National Day of Remembrance for past and present workers in America's nuclear weapons program was held on the front lawn of the SRS badge office. Approximately 300 past and present SRS workers attended the celebration, recognizing them for their contributions. Approximately 103,000 workers names scrolled continuously on a TV monitor throughout the ceremony. The ceremony was videostreamed live for the first time ever from onsite to the public.



SRS surpassed its Heart Walk fund goal of \$90,000 by collecting a total of \$104,000, which is 115 percent of goal. Additionally, Roger Eshelman presented a \$25,000 corporate check to the Heart Association.



A groundbreaking ceremony for the new Biomass Cogeneration Facility was held and attended by DOE Secretary Steven Chu, Rep. James Clyburn, Rep. Gresham Barrett and other members of the South Carolina and Georgia Congressional delegation. The new Biomass Cogeneration Facility is expected to be operational in December 2011.



In early November, Deputy Secretary of Energy Daniel Poneman visited SRS and was accompanied by Tom D'Agostino, NNSA Administrator, and Inés Triay, Assistant Secretary of EM, among others from DOE-Headquarters. On November 23, Mr. Poneman approved a memorandum combining the Plutonium Preparation Project and the Pit Dissassembly and Conversion into a single project in K Area.

Operations

Spent nuclear fuel from Chile arrived at the Charleston Weapons Station near Goose Creek, S.C., on March 19, on the way to its destination at the SRS L Basin. Although the shipment was unplanned for this fiscal year, SRNS accelerated the schedule to accept the fuel.

Tritium Programs extended its perfect record of on-time, high-quality reservoir shipments to the military—now over 52 consecutive years with no missed shipments.

Responsive Operations were conducted in the Tritium Extraction Facility by using cross-trained personnel from other facilities to cost effectively receive Cycle 9A target rods and prepare for extraction of tritium.

Construction was completed on the first of four General Plant Projects (GPPs) that will lengthen the service life of stripper system piping in a corrosive process environment in the HANM facility.

Tritium Programs implemented new security posture changes within the Tritium Facilities, achieving significant cost savings.

Construction was completed on a GPP that will enhance the Helium-3 byproduct decontamination process. This will reduce the cost of relocating Helium-3 processes into the HANM facility because packaging operations can be conducted in air hoods instead of glove boxes.

Nuclear Materials Storage Project (NMSP) transferred 81 containers of High Enriched Uranium Molybdenum alloy from K Area to H Area. The 13-month campaign to initially receive this material from Oak Ridge's Y-12 began in 2008. NMSP also shipped 17 containers of HEU-Molybdenum alloy from Los Alamos National Laboratory.

Consolidation activities for the placement of 446 additional 9975 plutonium packages under International Atomic Energy Agency safeguards were completed ahead of schedule by NMSP.

NMSP completed 23 Non Destructive Examinations and nine Destructive Examinations in the FY10 3013 Surveillance Campaign during the first six months of the fiscal year.

Since October, L Area received domestic and foreign research reactor fuel from nine different reactors. A total of 18 casks carrying 632 assemblies and two cores was received and unloaded and in most cases, bundled and stored.

H Canyon began processing large steel boxes of transuranic waste. Since October, seven large steel boxes were received and processed into a total of 42 standard large boxes, 24 standard waste boxes and one drum to assist in accelerating TRU waste disposition.



Construction of the Waste Solidification Building continued on schedule with the first major concrete placement for the building foundation completed in early March. Over 750 cubic yards of concrete were poured in approximately 15 hours. Scheduled to go online in 2013, WSB will process liquid waste streams from the Mixed Oxide Fuel and Fabrication Facility and Pit Disassembly and Conversion.

H Canyon accomplished significant improvements with the automation of low activity waste calculations, an effort that has been needed for many years. Automated computer calculations provide high quality verifications of calculations made by operators.

H Canyon successfully completed dissolution of 89 drums of HEU-Mo material, the first of four campaigns required to meet FY10 commitments to dissolve 600 kgs of unirradiated uranium.

H Canyon Outside Facilities are ahead of schedule in shipping low enriched uranium trailers to the Tennessee Valley Authority, with 13 of 20 shipped by the end of March.

HB Line received two shipments of the Hanford Low Assay Plutonium material, which was safely unloaded and stored with the coordinated efforts of personnel from Idaho National Laboratory.

HB Line processed 30 kgs of DE3013 plutonium from K Area.

Recently approved by DOE-SR, a Waste Incidental to Reprocessing Citation Determination was developed to enable the dispositioning of certain waste, previously considered high level waste, as low level waste.

SRNS completed a composite analysis of the risk resulting from disposal of radioactive waste, which was reviewed by DOE HQ and determined to be the model for compliance with DOE Order 435.1.

Analytical Laboratories' Environmental Bioassay Laboratory obtained a perfect score on Industrial Hygiene Proficiency Analytical Testing (IHPAT) for air asbestos and metals methods. Participation in quarterly IHPAT rounds is a requirement to maintain accreditation.

Analytical Laboratories' Environmental Bioassay Laboratory (EBL) installed alpha spectroscopy towers and an operating system, which will enable EBL to support increased bioassay sample scope.



Infrastructure Services coordinated transport of several steam generators across SRS to Barnwell. These generators, owned by Energy Solutions, arrived by barge at the SRS Boat Ramp March 12 and 19.

Pit Disassembly and Conversion (PDC) began work on the inner can design modifications for the Bagless Transfer System; issued the Vault Capacity Study and completed the first draft of the combined project Facility Design Description. In April, SRNS was directed to perform project integrator activities necessary to meet Critical Decision 1 requirements in consideration of combining the PDC and PuP projects.

Working closely with NNSA, URS, and the other members of the Integrated Project Team, the SRNS PDC Team completed the Design Transition planning effort, culminating in the Design Transition Plan. This included completing drafts of several key project documents including the Program Requirements Document, the Facility Design description and the Safety Design strategy. The team also completed development of an enhanced Risk Database development including the merging of all PuP and PDC risks into the database, and continued to support design of the Automated 3013 Canning system, Glovebox Manipulator and System Integration.



H Canyon began repackaging large steel boxes of transuranic waste to assist in accelerating disposition.

American Recovery and Reinvestment Act

The ARRA Project is approximately 30 percent complete.

SRNS restarted transuranic waste drum remediation in F Area. Non-compliant drums are shipped to F Canyon from E Area to remove any non-compliant articles prohibiting disposal at the Waste Isolation Pilot Plant.

Solid Waste Management made 50 shipments for a total of 347 cubic meters of transuranic waste sent to the Waste Isolation Pilot Plant for disposition.

SRNS completed the first F and H Area lead recycle shipment, with 51,600 pounds of lead sent to TOXCO for recycling.

Solid Waste Management completed depleted uranium oxide rail operations in F Area consisting of 9,133 drums.

Area Completion Projects received the signed Early Action Record of decision for the C ,K, L and R Reactor Complexes. The document, which is endorsed by SCDHEC, EPA and DOE, institutionalizes insitu decommissioning as the final end-state for these reactors.

ACP successfully installed six evaporators in the P Reactor Disassembly Basin, which will remove four million gallons of water from the basin.

ACP achieved "cold and dark" status at the Heavy Water Components Test Reactor. All electrical and mechanical systems were isolated to ensure the safety of D&D workers during deactivation.

Other progress by ACP includes hydroseeding the R Area Ash Basin; biohazard removal at the 293-F Stack and achieving "cold and dark" status in preparation for stack removal; grouting the R Reactor D&E

Canal; removing the 200ton gantry cranes atop P and R Reactors; and the final SVE well installation at M Area Operable Unit.

SRNS hosted an ARRA
Small Business Forum
attended by more than
600. The forum consisted
of a panel discussion
on how to be a part
of the recovery and
matchmaking sessions
to meet directly with

procurement representatives.



SRNS assisted DOE in hosting the New York Times and the CNBC News Team, both of whom conducted interviews and filmed ARRA employees and work in progress.

SRNS hosted a series of "Lunch and Learn" sessions in South Carolina and Georgia, where small businesses learn about bid opportunities on ARRA work.

"Road to Recovery" tour sessions were held in 37 South Carolina and Georgia communities.

SRNS hosted a "Meet and Greet" to introduce Batch Plant Contractor Representatives to local business leaders and suppliers.

SRNS placed ARRA signs in the Augusta and Columbia airports and billboards throughout the CSRA.

New Ellenton barricade modifications and the Road 2 to Road C acceleration lane were completed.

Savannah River National Laboratory

SRNL is a primary member of the Clemson University-led team selected by DOE to receive up to \$45 million for a wind energy test facility that will enhance the performance, durability, and reliability of utility-scale wind turbines. An additional \$53 million in matching funds was also received for the project, which will build and operate a large-scale wind turbine drive train testing facility at the Clemson University Restoration Institute research campus on the former Charleston Navy base.

SRNL was issued a patent for Microbial Based Chlorinated Ethene Destruction. The patent involves a mixed culture that demonstrates the ability to achieve dechlorination, even in the presence of high source concentrations of chlorinated ethenes.

SRNL met milestones and deliverables, as defined in the CRADA, with Exide Technologies for the development and commercialization of improvements to lead-acid batteries.

A SUNRISE Memorandum of Agreement was signed for future collaboration with SRNL and the SUNRISE consortium, regarding nuclear energy education.

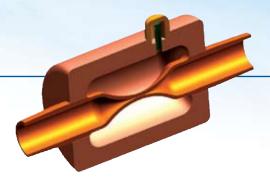
SRNL submitted a detailed Business Plan for SRNS and SRNL to expand its role to provide support to the Nuclear Regulatory Commission (NRC) in its oversight mission for the nuclear industry.

Two SRNL-led projects won 2009 DOE Pollution Prevention (P2) Best In Class program honors.

SRNL's Dr. George Wicks was chosen to receive the 2010 Governor's Award for Excellence in Scientific Research, sponsored by the Governor's Office and the S.C. Academy of Science.

The South Carolina Research Authority presented its Knowledge Economist Award to SRNL's Dr. Ted Motyka, along with former Director Dr. Susan Wood and Aiken Technical College's Dr. Susan Winsor for their contributions to knowledge-based economic development in South Carolina.

The Health Physics Instrument Calibration Laboratory (HPICL), in partnership with Global Testing Laboratories in Knoxville, TN, received formal notification from the Department of Homeland Security's Domestic Nuclear Detection Office (DNDO) that it has been accepted as an official testing laboratory for the Graduated Rad/Nuc Detector Evaluation and Reporting (GRaDER) program. GRaDER is a program where manufacturers of radiation monitoring, measurement, and identification instrumentation can have their



SRNL held an inaugural Technology Transfer Recognition Reception to honor those who have helped make SRNL technologies available for the marketplace and for research collaborations with industry partners and universities. Accomplishments recognized included seven patents awarded, five CRADAs, three technology licenses and one special award of national stature. The SRNL-developed Expanding Hollow Metal Rings (model pictured above) was one of the award-winning technologies at the event.



SRNS entered into a non-exclusive patent license agreement with specialty glass producer Mo-Sci Corporation for the manufacture and marketing of SRNL's Porous-Walled Hollow Glass Microspheres. Developed by George Wicks (from left), Kit Heung and Ray Schumacher, the microspheres have been successfully demonstrated for storing and releasing hydrogen, as well as drug delivery.

products tested against ANSI standards by approved laboratories. The SRNS HPICL is one of three DNDO-approved GRaDER testing laboratories in the U.S.

SRNL was selected by DOE-Nuclear Energy to provide technical leadership in implementing a systems engineering approach to activities under NE's Fuel Cycle Research and Development (FCR&D) Program. The FCR&D Program is charged with demonstrating the technologies necessary to allow commercial deployment of used nuclear fuel that is safe, economic, secure, and widely acceptable to Americans.

Business

The Department of Energy's Office of Engineering & Construction Management (OECM) awarded SRNS Earned Value Management System Certification, effective February 26, 2010.

The Business Process Modernization Project received Critical Decision 0 approval from DOE-Headquarters. Best and final bids were received for the new Enterprise System to modernize business systems; the Business and Technology Resource Group (BTRG) from Buffalo, N.Y., was awarded the contract.

Information Services met with the DOE EM Director, Office of Corporate Information and Services to present the SRNS Information Technology and Information Systems Strategic Initiatives. Initiatives included improvements on Site wireless and cell phone coverage, computer network security and capacity, GPS technology utilization and telephone infrastructure. SRNS designated \$15 million from the pension redistribution funding to support the highest priority initiatives.

Information Services issued an IT Strategic Plan and implemented these new technologies: instant messaging/presence; remote access using home computers; wireless extension of SRSNet to R Area; Blackberry text messaging; fixed unit rate billing; project management portals, dashboards and scorecards for the Office of the President; voice over IP (VoIP) for the Help Desk; intranet modernization (ShRINE to InSite); and SPAM Sentinel.

SRNS managers were featured in a series of video interviews to introduce them to employees.

Five members of Radiological Assistance Program (RAP) supported Speed Week 2010, which included the Daytona 500. RAP personnel monitored vehicles entering the facilities and conducted roving sweeps of all Daytona Speedway facilities. Approximately 200,000 fans attended the Daytona 500.

The SRNS Employee Engagement Plan was issued to all employees.

Awards

SRNS received the National Safety Council Occupational Excellence Achievement Awards for Operations and Construction. SRNS is the only company to win this award two years consecutively.

SRNS was awarded the 2009 Excellence in Diversity Award by the South Carolina Diversity Council, an affiliate of the state Chamber of Commerce. SRNS was one of ten nominees for this statewide award in the large business category.

SRNS received the South Carolina Manufacturers Alliance 2009 Plant Safety Award for excellent injury rate performance.

