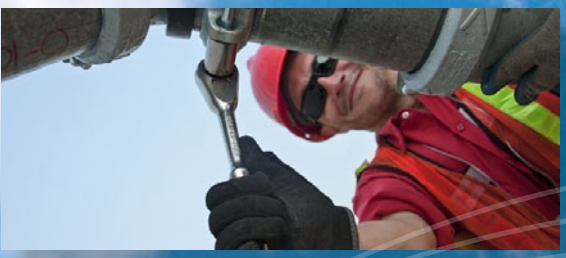
365

Savannah River Nuclear Solutions

365 more days of sustainable success



2011

SAVANNAH RIVER NUCLEAR SOLUTIONS

2011

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365 days of progress, commitment and service

Before coming to the Savannah River Site, I'd heard about the great work happening here. As the new President and CEO of Savannah River Nuclear Solutions, I'm now seeing this work first-hand. The Savannah River Nuclear Solutions 2011 Annual Report is our way of letting you see our accomplishments, too. And, there's a lot to see.

Dwayne Wilson
President and CEO

In 2011, we secured new business direction for H Canyon and HB Line operations, proving that we have the capability and flexibility to achieve operational excellence. Exceptional planning and project management allowed our company to grow by an astonishing 50 percent to meet the Department of Energy's American Recovery and Reinvestment Act objectives. Through our efforts, we accelerated disposition of 5,000 cubic meters of transuranic waste, reducing the Site's operational footprint by more than 75 percent. Last fall, we celebrated final closure of three Cold War-era reactors—within the expectations of Department of Energy and fully compliant with state and federal regulators.

Tritium Programs significantly increased production to meet the needs of the National Nuclear Security Administration and maintained its perfect record of on-time, high-quality reservoir shipments to the military. This is an exceptional achievement and our commitment to Tritium Programs is extremely high.

We continued efforts to revitalize and expand the Savannah River National Laboratory, with a $6.6 million reinvestment commitment from our company's Board of Directors. The laboratory continues to achieve world-recognized success as the provider of nuclear materials research and development and holds the distinction as the safest Department of Energy laboratory for the past eight years.

During the past year, numerous critical infrastructure upgrades were completed. This included construction oversight for a biomass plant making the Savannah River Site a DOE leader in biomass renewable energy operations. We are proud of that distinction. We also made added strides in continuous improvement initiatives, including a two-year Business Process Modernization Project which is delivering more than $50 million in business efficiencies.

In 2011, we launched a strategic plan to secure public and private partnerships that will be highly instrumental in creating new missions at the Site. In addition, Savannah River Nuclear Solutions made a huge economic impact—$1.423 billion—in our local communities *(please see the graphic on this page)*.

2012 looks to be an exciting year. We're going to press hard to achieve "world-class" safety performance, taking our enviable nuclear and industrial safety records to even better levels.

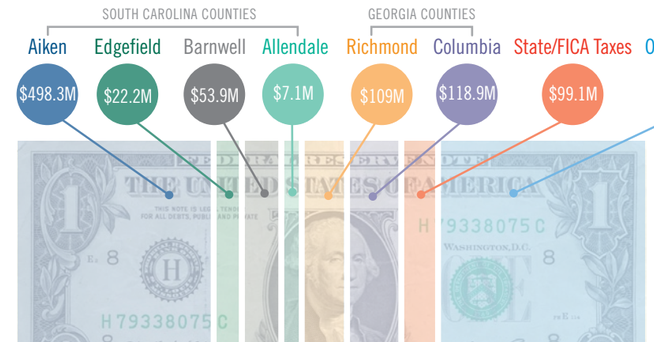
Our new business objectives—national security, clean energy and environmental stewardship—will capitalize on the Site's enterprise value. Our customers expect this, and our stakeholders support our efforts to increase the value and quality of the contributions we make to the nation. With our recent reorganization, we have the right leaders in place to meet these challenges and have organized our company to achieve the Department of Energy's strategic goals at the Savannah River Site.

Please join me in a look at the past 365 days and a glimpse of what's to come.
I think 2012 will be an exciting time for Savannah River Nuclear Solutions.
I hope you'll think so, too.

SRNS 2011 Economic Impact

$1.423 Billion

Includes Payroll • Medical and Dental Benefits • Procurement Commitments • Community Contributions • DOE Payment in Lieu of Taxes (Aiken, Barnwell, Allendale only)



SRNS Employees by County

Aiken (S.C.)	2,735
Edgefield (S.C.)	154
Barnwell (S.C.)	343
Allendale (S.C.)	35
Richmond (Ga.)	617
Columbia (Ga.)	797
Other	427

SRS Safety Program

Photos (top): "Safety Begins with Me" banners are erected at various barricades at SRS | (from left) A giant banner hangs from the Site cloverleaf | All SRS employees are represented in the campaign, such as this Wackenhut employee | (facing page) SRNS President and CEO Dwayne Wilson previewed the safety campaign at his all-managers meeting |

Achieving world-class **safety performance** is our primary goal. We have a history and tradition to build on, and we have a legacy from those who went before us to ensure that safety is our top priority. Safety is an essential part of the success of our company and a shared responsibility of every employee, subcontractor and visitor that we are responsible for.

In order to improve our already impressive safety record, Savannah River Nuclear Solutions (SRNS) began to implement a "Safety Call to Action" at the end of 2011. Our goals are to achieve greater employee participation and dedication to making the Savannah River Site (SRS) a world-class leader in safety.

Safety Begins with Me

"Safety Begins With Me," a new Site-wide safety program created by our company and introduced in January 2012, is about personal ownership of safety. Every employee in our company is expected to understand their personal accountability for our safety performance and take ownership for achieving world-class safety results. And, we are sharing our initiatives on safety proudly across the Site.

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?gl=CO&hl=es-419&v=xQHcfYk5t6k.

Banners now 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.

Green Cross

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.

Newest elements

"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.

In addition, the "Green Cross News" was launched in early March. This interactive electronic newsletter offers yet another vehicle to communicate safety messages to employees.

Safety awards

- SRNS received its tenth Department of Energy (DOE) Voluntary Protection Program Star of Excellence and Contractor Champions awards.
- The National Safety Council awarded SRNL the Safety Leadership Award, and presented SRNS with two "Occupational Excellence Achievement Awards" for the third consecutive year.
- SRNS was awarded Fluor Zero Incidents Two Star Status for achieving 9.3 million safe work hours and a 0.26 recordable incidence rate.
- SRNS Operations and Construction Workforce received the South Carolina Chamber of Commerce Commendation of Excellence Award, the South Carolina Manufacturers Alliance Plant Safety Award and the S.C. Department of Labor, Licensing and Regulation Safety Achievement Award.
- SRNL continued its performance as the safest DOE National Laboratory for the eighth consecutive year.

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.

Nuclear Materials Operations

Photos (top): SRNS Senior Vice President and SRNL Deputy Director Dave Eyler (right) leads the Blue Ribbon Commission on a tour of H Canyon | (from left) A cask is lowered into the L Receiving Basin as an operator monitors its progress | An LEU shipment on its way to TVA | Steel tanks are prepared for shipment to Japan following the Fukushima nuclear disaster | An Environmental Bioassay Laboratory analyst inspects samples from Japan |

Nuclear knowledge for the nation. It's an SRNS hallmark. Our Nuclear Materials Operations is central to some of the nation's highest priority work in environmental management and national security. H Canyon and HB Line are unique in the nation in their chemical separation capabilities, from repackaging transuranic (TRU) waste for shipment to the Waste Isolation Pilot Plant (WIPP) in New Mexico to blending down highly enriched (HEU) uranium to low enriched uranium (LEU) for use in Tennessee Valley Authority (TVA) power reactors. Our L Area Complex plays a key role in receiving domestic and foreign used nuclear fuel, making the world safer through this nonproliferation effort. The K Area Complex ensures safe, secure storage for the nation's nuclear materials.

H Area

SRNS completed the final shipment of LEU from SRS to TVA, exceeding the current contract to ship 301 metric tons of LEU for use in TVA's nuclear power reactors. In 335 safe shipments from SRS to TVA facilities, enough LEU has been delivered to power every home in the United States for 52 days demonstrating how the use of Cold War-era nuclear waste can further nonproliferation efforts while removing nuclear material from South Carolina. HEU was used and recovered at SRS in the nuclear weapons production process. Since 2003, SRS has "down blended" the HEU, removing more than 22 metric tons from the DOE nuclear weapons production stockpile.

HB Line, located atop H Canyon, declared readiness to repackage plutonium oxide to WIPP and demonstrated this new mission at the end of the year. Several studies were completed to show how HB Line could support an alternative to Pit Disassembly and Conversion (PDC) and how it could potentially provide one metric ton of plutonium oxide per year for the MOX Fuel Fabrication Facility. NNSA has funded H Area in fiscal year (FY) 2012 to prepare the plant and personnel to begin processing plutonium oxide as feed stock for the MOX Fuel Fabrication Facility in FY 2013.

L Area

Located in the L Area Complex, L Basin is the only SRS facility for the receipt and storage of foreign and domestic research reactor fuel. Last year, L Basin received 20 domestic research reactor fuel assemblies from Tennessee. Foreign research reactor shipments included assemblies from South Africa and Canada. SRNS engineers traveled to South Africa and Canada to perform fuel inspections prior to shipment to SRS. Upgrades were required to the crane used in L Basin in storage of these materials and portions of the basin were vacuumed to prepare for potential future storage as well.

K Area

The K Area Complex provides for the handling and interim storage of excess plutonium and other special nuclear materials (SNM) in a safe and environmentally sound manner. It is the only DOE facility that meets all current requirements for safe, secure storage of SNM. Plutonium, uranium and other materials from other DOE sites such as the Hanford Site, the Los Alamos National Laboratory (LANL), the Lawrence Livermore National Laboratory (LLNL) and Y-12 are being consolidated here.

Part of the work in K Area is to provide quality examinations of the nuclear materials containers used to transport materials to SRS. Last year, 12 extensive examinations were completed of containers that were packaged in Hanford and sent to K Area for storage. During the year, surplus nuclear material from Y-12, LLNL and LANL was also received and placed into storage, while material from Y-12 and LLNL was removed from storage and dispositioned in H Area through the canyon.

Analytical Laboratories

Since the mid-1950s, the Analytical Laboratories have provided a diverse array of scientific and technical services in support of Site missions. The labs perform analyses on a wide range of matrices, such as soil, water, gases, food, decommissioning debris, waste and process control samples. The laboratories maintain certifications and qualifications through a variety of governing bodies, which allow multiple applications of laboratory services. Over 100,000 samples are processed yearly, producing 300,000 determinations with an error-free rate averaging 99.99 percent.

In 2011, Analytical Laboratories launched an external website, extending its capabilities beyond the Site's reach and allowing prospective off-Site customers to explore its capabilities, accreditations and certifications. The website's address is http://www.srs.gov/general/programs/analytical_labs/index.html.

Fukushima response

In 2011, SRNS took part in a DOE-wide response to the Fukushima, Japan, nuclear disaster, which occurred in the wake of an earthquake and tsunami in March. SRNS supplied a radioactive liquid transport assembly, a high-tech, self-contained trailer housing a 1,000-gallon tank, pumps and a monitoring system. The trailer contains a liquid storage and sampling system that can test and transport contaminated liquids. In addition, five large steel storage tanks, formerly used as uncontaminated chemical feed tanks for the now decommissioned F Canyon, were sent to Japan. The SRNS Environmental Bioassay Laboratory also assisted in our efforts to aid Japan by analyzing soil and air filter samples for radiological contaminants and by providing expedited analytical support for iodine analyses on milk and vegetation samples.

National Nuclear Security Administration

Photos (top): A "topping-out" ceremony was held in 2011 for the WSB | (from left) Giant cranes safely lower an evaporator into the WSB | TRIM groundbreaking at the Tritium Facilities | An example of a tritium reservoir (unclassified) |

At SRS, the two largest National Nuclear Security Administration (NNSA) programs are focused on plutonium disposition and the tritium supply chain. Plans for converting weapons-grade plutonium into usable fuel for power reactors are being realized with the construction of the Waste Solidification Building (WSB) and the Mixed Oxide (MOX) Fuel Fabrication Facility, as well as plans for PDC capability. SRNS Tritium Programs (TP) continued their high quality performance in reservoir shipments, completed safely with no recordable injuries.

Waste Solidification Building

Plans for converting weapons-grade plutonium into usable fuel for power reactors are being realized with the construction of the MOX Fuel Fabrication Facility at SRS. This critical facility, along with the associated WSB and a pit disassembly and conversion capability, are essential to U.S. plans to consolidate and dispose of surplus U.S. weapon-grade plutonium.

Once operations commence, it is estimated that this surplus nuclear material could generate enough electricity to power all South Carolina households for 20 years, while reducing inventories of surplus weapon-grade nuclear material. Planned facilities will generate radioactive liquid waste streams that could not be treated or processed in the existing SRS waste treatment facilities without the WSB.

In 2011, significant progress was made and SRNS is 67 percent complete with the construction of the WSB that will treat approximately 150,000 gallons of TRU waste and approximately 600,000 gallons of low-level radioactive waste generated from MOX and PDC operations. WSB will convert these wastes into a cement form and resulting TRU waste will be packaged and sent to WIPP in New Mexico. Resulting low-level waste will be packaged and sent to government or commercial low-level waste disposal facilities.

Tritium Programs

SRS works together with seven NNSA partner sites in the U.S. Nuclear Security Enterprise to maintain a safe and reliable nuclear stockpile. SRNS personnel have a long history of outstanding performance in safe, secure, disciplined, and compliant operations, consistently delivering high-quality products to our customers on schedule, and last year was no exception.

SRNS TP continued to provide record on-time, high-quality reservoir shipments to the military, performing work safely, with no recordable injuries. TP exceeded 2011 function test requirements for gas transfer system surveillance, delivering vital data in support of the annual stockpile certification and the Tritium Extraction Facility (TEF) successfully completed extraction of the Watts Bar Cycle 9B Tritium-Producing Burnable Absorption Rods ahead of schedule and without incident.

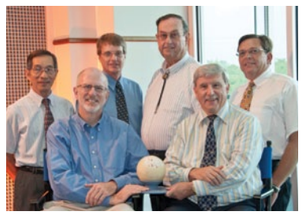
NNSA also broke ground on two new buildings at SRS that will relocate personnel and enable the next steps in a Tritium Responsive Infrastructure Modifications (TRIM) program. The 10-year TRIM program includes consolidation of existing processes and facilities, deployment of new technology and process equipment, and decontamination and decommissioning of older structures. Implementation of this effort will result in an overall lifecycle cost reduction and assurance of continued safe and secure national security tritium mission at SRS.

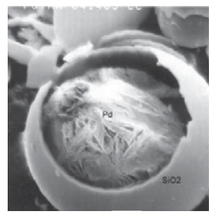
TP achieved on-time mechanical completion of three important general plant projects:

- The Process Stripper/Z-Bed Recovery Modifications project involved a major process outage to perform open-glove box maintenance in the H Area New Manufacturing (HANM) facility.
- The Helium-3 (He-3) Separation and Bottling project is relocating the He-3 recovery process from a 1966-vintage facility into the more modern HANM facility.
- The TEF/HANM Distributed Control Systems Tie-In Project joins the distributed control systems of these two facilities, a major step toward centralizing control of all Tritium operations in the HANM facility by FY 2013. This project complements a similar transition from the H Area Old Manufacturing Central Control Room to the HANM Central Control Room.

The latter two projects are also key milestones of the TRIM initiative. TP made great progress on this initiative in FY 2011, including obtaining a funding commitment for FY 2013-2017, as reflected in the budget submittal to the President.

Savannah River National Laboratory





Photos (top): SRNL Manager of National & Homeland Security Program Development Rudy Goetzman (left) talks with SRNS Executive Vice President and SRNL Director Dr. Terry Michalske at the ODR test area | (from left) The winning R&D 100 team included (from left, all SRNL unless indicated) Dr. Leung Heung, Dr. Bill Dynan (Georgia Health Sciences University), Dr. David Peeler, Dr. Ray Schumacher, Dr. George Wicks and Dr. Steve Serkiz, who won for their work on Porous Walled Hollow Glass Microspheres | The 50-L algae photobioreactor | Conceptual drawing of the Large Wind Turbine Drive Train Testing Facility |

As the vision for the future of SRS evolved in 2011, **Savannah River National Laboratory** (SRNL) became a primary focus with potential for expanding the Site's missions and opportunities. Our lab's innovation, capabilities and assets were center stage in identifying and creating new technologies to make our nation and world safer and more secure.

On-Dock Rail

The On-Dock Rail (ODR) Mobile Nuclear Radiation Detection System and ODR Straddle Portal Prototype (SPP) project was one of SRNL's major endeavors in 2011 and was funded by the Department of Homeland Security's Domestic Nuclear Detection Office. This system has the potential to increase the operational effectiveness of radiological and nuclear scanning of cargo containers unloaded from ships. SRNL completed dry runs and rehearsal testing, started test execution, completed all characterization tests and relocated the system to a U.S. port for further characterization testing with actual cargo traffic.

Wireless Tracking and Locating System

A wireless tracking and locating system in development with Boeing will provide greater operating coverage than traditional GPS and was one of only 12 technologies chosen by the U.S. government for display at a special technology expo sponsored by the Office of the Director of National Intelligence last year. The new tracking system has the potential to improve nation-wide capabilities for understanding the movement of nuclear material shipments, VIP tagging, corrections surveillance, search and rescue and special operations – each benefiting from vastly improved operations in traditional, hard-to-track environments.

Awards and accolades

With a research staff of more than 700 of some of the world's premiere scientists and technicians, SRNL enjoyed another year of impressive recognitions. An SRNL-led research team won a prestigious 2011 R&D 100 award in the annual competition conducted by R&D Magazine. The award recognizes the SRNL-invented Porous Walled Hollow Glass Microspheres as one of the 100 most technologically significant products of the past year. The microspheres have potential for use in targeted drug delivery, hydrogen storage and other applications. SRNL's partners in the winning technology include Toyota, the Georgia Health Sciences University and Mo-Sci Corporation, a specialty glass provider licensed by SRNL to manufacture and market the microspheres.

SRNL's Dr. Dan McCabe received the Secretary of Energy's Achievement Award as part of a U.S. team that responded to the Japanese earthquake and its aftermath. Dr. McCabe provided input on options for storage, treatment and disposal of contaminated water in the Fukushima reactor and surrounding facilities.

Also, an SRNL team won a collaboration award from the Council for Chemical Research for a 10+ year program that led to the successful startup of chemical processes to remove cesium, strontium and selected actinides from waste stored in the SRS high-level radioactive waste tanks. SRNL partnered with four other national labs, the University of South Carolina and several contractors.

Environmental Laboratory

Our national laboratory performs an important role as the Environmental Management (EM) Laboratory for DOE. In this role, SRNL serves as a portal to the broader scientific community, leveraging collaborations to bring the best capabilities to bear on EM issues.

Last year, SRNL led the development of an innovative Vacuum Salt Distillation (VSD) process, a safe, glovebox-friendly process which removes salts from plutonium oxide. VSD removes the corrosive salts, which can degrade key plutonium processing equipment, and creates much less waste than conventional salt removal methods.

SRNL also earned "New Product of the Year" honors from the Environmental Protection website for a technology that uses "green" chemistry to help microbes break down soil contaminants before they reach the groundwater.

Other examples of SRNL on its EM National Laboratory role include:

- Partnering to form the National Center for Radioecology, a network of universities and labs studying the movement of radionuclides in the environment
- Partnering with Clemson University on the Large Wind Turbine Drive Train Testing Facility, the world's largest of its type
- Achieving start-up of the 50-L algae photobioreactor, to support the industrial production of algae for biofuels
- Beginning an agreement with LLNL to collaborate on pre-conceptual design of a tritium processing facility for Laser Inertial Fusion Energy

American Recovery and Reinvestment Act

Photos (top): P Reactor | (from left) DOE Acting Assistant Secretary for Environmental Management David Huizenga addresses the attendees at the P and R Closure Celebration | R Reactor | Ongoing activities at C Reactor |

The closure of P and R Areas made possible through American Recovery and Reinvestment Act (ARRA) funding, was marked in September 2011 with a celebration in P Area, which was attended by federal, state and local dignitaries and SRNS employees. Five capital ARRA projects were completed ahead of schedule and under budget in 2011, including P and R ash basin remediation, P and R Reactor decommissioning and the Heavy Water Components Test Reactor (HWCTR) decommissioning. Solid Waste operations also continued throughout the year, with tons of waste shipped away from SRS to disposal sites. By the close of FY 2011, the total reduction in the SRS operational footprint was 73 percent.

P and R Closure

The decommissioning and closure of P and R Reactors and surrounding areas brought to an end many of the accelerated SRS ARRA projects. With the ARRA funding, SRS was able to compress the closure schedule of the reactors by five years, from FY 2016 to FY 2011. Built in the early 1950s, the two reactors were the first nuclear materials production reactors in the DOE Complex, producing plutonium and tritium for the nation's defense. R Reactor ceased operations in 1964, but P Reactor continued until 1988.

C Area Cleanup and Preservation

As other ARRA projects realized efficiencies, additional funding became available to accelerate cleanup in C Area, including its Disassembly Basin. To support the cleanup of the Disassembly Basin, a temporary building was constructed outside C Reactor to house 10 evaporators that will treat three million gallons of contaminated water. The existing sludge and scrap metal in the basin bottom will be buried under 18,000 cubic yards of grout, removing the potential for future leakage and making it safe for long-term storage and natural decay. Also in 2011, the first waste unit cleanup project in C Area involved the removal of the contaminated cask car railroad tracks, which were shipped to the E Area burial ground for disposition. New tracks were then installed, resembling the original configuration, as part of an effort to preserve C Area, a protected historical site. The only C Area waste unit remaining for cleanup is the buried, inactive process sewer lines, and remediation is planned through April 2012.

Heavy Water Components Test Reactor

The $25 million project for the deactivation and decommissioning (D&D) of HWCTR in 2011 marked a change in the SRS landscape. The 75-foot-tall rusty-orange dome of the Cold War-era test reactor was removed in February, with a 660-ton crane lifting the 174,000-pound dome that was cut into pieces and placed in the SRS E Area burial ground. Later in the year, the reactor vessel and heat exchangers were removed, and the below-grade portion of HWCTR was filled with grout. A concrete cover was placed over the reactor's footprint, marking the end of HWCTR's decommissioning. (Please see the photo on the next page.)

ARRA by the numbers

- Cumulative total of 228 square miles of footprint reduction to date
- 158 rail cars (15,380 tons) of waste from the Small Arms Training Area shipped to a commercial disposal facility
- 115 shipments of contact-handled TRU waste and 12 shipments of remote-handled TRU waste sent to WIPP for disposal
- 9,366 drums of depleted uranium oxide shipped out of South Carolina

Accelerated TRU waste remediation

- 755 drums and 110 boxes processed in F Canyon
- 82 large boxes repackaged in Cell 11 in E Area
- 87 boxes of various configurations processed in H Canyon
- All legacy waste (417 drums and 10 boxes) from E Area Pad 1 unearthed and removed

American Recovery and Reinvestment Act *(continued)*

Photos (top): A crane lifts the dome of the HWCTR | (from left) A TRUPACT-III container arrives at SRS and (next photo) leaves SRS with a waste shipment bound for WIPP | The E Area Low-Level Waste Facility Slit Trench stormwater runoff cover | Extension of the F Area underground barrier wall |

TRUPACT-III Shipping Container

Through the end of FY 2011, SRNS has repackaged and remediated approximately 3,400 cubic meters of TRU waste at SRS and disposed of 2,000 cubic meters through safe shipments to WIPP in New Mexico. Aiding in this effort, a new TRU waste shipping container, called TRUPACT-III, arrived in E Area in August. This Department of Transportation Type B cask allows the shipment of a single large volume container, the Standard Large Box 2 (SLB2), which is approximately 6 x 6 x 8 feet and holds a volume of 6.6 cubic meters of waste materials. Using the TRUPACT-III shipping system will allow for the disposition of 1,700 of the 5,000 cubic meters of legacy TRU waste planned under ARRA, which would have otherwise required additional time and resources for size reduction to fit into the smaller containers suitable for TRUPACT-II. By avoiding this, SRS significantly reduced physical and radiological worker exposure to highly contaminated TRU waste materials. This TRUPACT-III container is the first of six funded by ARRA to be used by SRS, and it carried the first of approximately 250 planned shipments. After completion of the legacy TRU waste project in FY 2013, the fleet will be made available to other DOE sites for their disposal programs.

E Area Low-Level Waste Slit Trench Disposal Unit Activities

In a $3.5 million ARRA project, a stormwater runoff cover was placed over the 625,000-square-foot area comprising E Area Low-Level Waste Facility Slit Trench Disposal Units 1-4. The cover was installed as an interim remedial action and will enhance the protection of human health and the environment. Typically, the slit trench disposal units are below-grade earthen units that are used to dispose of low-level radioactive waste, such as construction debris, concrete from reactor demolition and clean-up from jobs involving SRS legacy waste.

Also, a continuous improvement initiative for E Area disposal trench operations doubled the highest-ever daily disposal production rate and achieved more than 36,000 cubic yards of low-level waste placed in the facilities during FY 2011.

Additional Completed ARRA Projects

- D&D of PAR Pond facilities
- Small Arms Training Area D&D and remediation
- Advance Tactical Training Area infrastructure upgrades
- Detritiation of 1,650 cubic yards of D Area soil and concrete
- 1,140-foot extension of F Area underground barrier wall
- Injection of 75,000 gallons of silver chloride solution for groundwater remediation in an F Area outfall, Waste Oil Facility and D Area coal pile runoff basin

Infrastructure Services, Engineering, Information Technology

A Site of 310 square miles and thousands of employees presents daily challenges in the operation and maintenance of day-to-day services. Fire trucks and phones, air conditioning and computers—Infrastructure Services, Engineering and Information Technology provide the support needed to make SRS hum. Notable achievements this year included the addition of two new fire trucks, improvements in power reliability and upgrades in computer applications and cell phone connectivity.

Infrastructure

The SRS Fire Department upgraded its fleet in 2011 with two new fire trucks, replacing two older vehicles. In addition to its coverage responsibilities for the Site, the SRS Fire Department has mutual aid agreements with counties adjacent to SRS to offer emergency assistance when requested. The retired engines were donated to the Allendale, S.C., Fire Department through the SRS Community Reuse Organization.

Infrastructure Services managed the Site's Energy Management and Sustainability initiative, which enabled SRS to continue to be the DOE Complex leader in biomass renewable energy operations.

Improvements made to infrastructure included reliability improvements to the D Area Powerhouse, replacement of 90 aging HVAC units with energy efficient units, and habitability upgrades to the SRS Operations Center and Emergency Operations Center.

The Real Property Asset Management SmartPlan was completed as a model for the DOE Complex, using a cost-effective graded approach Sitewide to implement the associated DOE Order.

Engineering

Engineering completed the upgrade of the HB Line Documented Safety Analysis in accordance with Standard 3009. Engineering also provided supporting documents and analysis for an upgrade of the SRNL Documented Safety Analysis in accordance with Standard 3009, and developed and issued new standards, procedures and guidance for implementation of Nuclear Quality Assurance-NQA-1 2008.

SRNS installed the network for the SRS Workforce Restructuring Transition Center to allow searches to job resource websites and connectivity to the SRS network.

IT improvements

Instant messaging and online meeting capabilities were enabled for SRS computers. Lotus Notes e-mail availability and reliability were also improved, allowing scheduled and emergency maintenance to be performed without impacting users.

Cellular in-building repeaters were activated in A, B and C Area buildings to improve cellular signal, and an N Area building became the first at SRS to "go wireless."

Productivity improvements included Citrix Open Internet, local printing for employees accessing the SRS network from home and access to the Site network from personally-owned iPads and iPhones.

Photos (top): The D Area Powerhouse | (from left) Biomass Cogeneration Facility official opening ceremony | Two new fire engines for SRS | Cellular signal improvements in B Area |

Community and public involvement

Photos (top): Updating the sign for the 2011 United Way campaign, which netted $1.5 million in employee giving | (from left) SRNS Executive Vice President and Chief Operating Officer Fred Dohse at Children's Place in Aiken, S.C. | The SRS Transition Center | Habitat for Humanity ribbon cutting in Warrenville, S.C. | Boarding the bus for one of 30 SRS public tours |

SRNS plays a vital role in the local community. Numerous charitable and civic organizations flourish, thanks to SRNS' significant donations and enthusiastic employee volunteers. In addition, SRNS manages the SRS Tour Program, which welcomes hundreds of visitors each year through public and mission-related tours and visits from members of Congress, state legislators and local community leaders. SRNS also placed a top priority on assisting employees released from the SRS workforce through the SRNS-managed SRS Transition Center, which won the "2011 Innovation Award" from the National Association of Development Organizations Research Foundation.

Corporate Philanthropy

Since becoming the SRS management and operations contractor in 2008, SRNS has invested $3.8 million in local communities with funding to local colleges and schools, charity organizations and other deserving groups. A few of this year's contributions included a $30,000 donation to Children's Place to pay off a bus used to transport more than 100 children each day; the first payment of a three-year commitment of $50,000 per year to Paine College, Augusta State Hull College of Business and the CSRA Wounded Warrior Care Project for a total of $450,000; and a $10,000 donation to Augusta Technical College to buy high tech equipment for three new labs to educate future nuclear workers.

Parent Company Support

In addition to SRNS contributions to the community, our parent companies demonstrated their commitment to area education with significant donations in FY 2011. Fluor presented $1.5 million to the University of South Carolina to help establish the Center of Economic Excellence for the Hydrogen Economy to advance the science, technology and commercialization of clean, secure and renewable energy. Newport News Shipbuilding provided a computer-based welding program, with a $400,000 development and validation cost to four area technical colleges.

Habitat for Humanity

Nine crews of 400 SRNS employees worked long hours during 2011 to build the second SRNS-sponsored Habitat for Humanity house in Warrenville, S.C. SRNS donated $50,000 to the project, which paid for all of the building materials used to construct the three-bedroom, 1,100 square-foot home. The structure took 12 weeks to complete, a month ahead of schedule. The first SRNS-sponsored Habitat house was constructed in 2010 in Jackson, S.C.

SRS Tours and Visitors

During FY 2011, SRNS managed 30 public tours, 13 Congressional visits and 220 mission-related tours. Some visitors of note included:

- Blue Ribbon Commission
- Senate Select Committee
- U.S. Representatives Jeff Duncan, Trey Gowdy, Mick Mulvaney and Joe Wilson; S.C. and GA. Congressional staffers; and S.C. House Speaker Bobby Harrell
- DOE Deputy Secretary Daniel Poneman, Associate Deputy Secretary Melvin Williams, Under Secretary for Science Dr. Steven Koonin
- NNSA Administrator Thomas D'Agostino
- Delegations from Australia, South Africa and Japan
- Senior representatives from the Domestic Nuclear Detection Office, Customs & Border Protection and the Port of Virginia
- House Energy & Water Development Staff

Enterprise·SRS

Photos (top): Enterprise•SRS is now the new Site identity, as shown on this billboard | (from left) A team of DOE and SRNS employees was charged with creating the vision of Enterprise•SRS | Billboards with the message "SRS: And now, the future" started the Enterprise•SRS campaign | The cover of the SRS Strategic Plan, which was built upon the vision of Enterprise•SRS | (facing page) A pictorial depiction of the vision |

At the beginning of 2011, SRNS Executive Vice President and SRNL Director Dr. Terry Michalske led a team of technical and programmatic experts from DOE and SRNS to put the ideas and goals for the future of SRS into a cohesive framework. The resulting plan for "Enterprise•SRS" was released in the fall of 2011.

DOE-Savannah River Manager Dr. David Moody was a regular participant and strong advocate of the group, showing DOE's shared goal of making a robust, prosperous future for the Site.

Enterprise·SRS focuses efforts on developing future missions for the Site by broadening its impact in the areas of national security, clean energy and environmental stewardship.

The Enterprise·SRS core team worked closely with a broader set of DOE and SRNS leadership to determine specific objectives to achieve its goals, and committed to running SRS like a business—proactively seeking new mission opportunities for the Site.

The Enterprise·SRS plan states: "SRS is not a closure site. Work scope growth doesn't come through dramatic step change. It must be steady in nature. And it must begin now."

Three Areas of Potential Growth

The first step of making Enterprise·SRS a reality is to renew our commitment to value creation in three areas of potential growth: national security, clean energy and environmental stewardship.

Each of the three areas is a business or market segment where we are uniquely positioned and qualified to compete. In essence, we are approaching the future of SRS with improved and enhanced business discipline and structure.

Business objectives have been identified for each segment and are being merged with our baseline effort to create a more integrated managing process that is focused on sustainably growing the future of SRS.

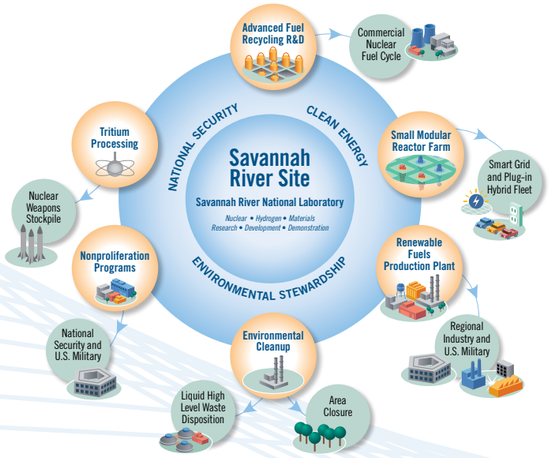
Enterprise·SRS will involve or affect every operating element of SRS and our success will be measured ultimately by increased mission impact.

Accountability rests with the SRS Mission Development Council (MDC), a committee of executives from DOE-SR, SRNS, SRNL and Savannah River Remediation. MDC members are responsible for establishing priorities, setting strategic direction and providing resources and funding for growth initiatives in each of the business segments. Direction and accountability for the 12 initiatives are co-managed by DOE-SR and contractor champions.

Communicating Enterprise·SRS

A communications plan is in place to involve crucial stakeholders, such as key legislators, community leaders and employees, to advocate for mission expansion initiatives. Strategies for conveying key messages include use of news releases, media events, trade publication, DOE and corporate publications and employee communications.

The Enterprise·SRS Vision



The 12 Enterprise·SRS Initiatives

- ¬ Establish Center for Applied Nuclear Materials Processing and Engineering Research
- ¬ Develop Solutions to Close and Better Secure the Nuclear Fuel Cycle
- ¬ Accelerate Deployment of Small Modular Reactors
- ¬ Deliver Disposition Paths for Nuclear Materials
- ¬ Leverage and Revitalize Site Assets (Facilities, People) to Solve National and Regional Issues
- ¬ Lead Research and Development of Transformational Waste Disposal Technologies
- ¬ Increase Helium-3 Supply to Aid Nuclear Nonproliferation
- ¬ Reduce Greenhouse Gas Emission via Clean Alternative Energy Projects
- ¬ Develop and Deploy Next Generation Cleanup Technologies
- ¬ Establish Advanced Center for Nuclear Forensics and Attribution

A look forward

SRNS announced in November 2011 a new organizational structure aimed at further improving the operational effectiveness and performance of the company, as well as bringing SRNS leadership and mission execution in line with the objectives of Enterprise·SRS.

(From left) Fred Dohse, Dwayne Wilson and Terry Michalske

(From left) Paul Hunt, Beth Bilson and Dennis Donati

(From left) Jim Hanna, Alice Doswell and Dave Eyler

The new vision leverages the government's investment in nuclear materials knowledge that exists at SRS to ensure that current and future missions for national security and environmental management are accomplished with excellence, and to build on a base of expertise to conduct innovative and novel nuclear research to assist in addressing the nation's energy challenges.

Currently operating at a high level of efficiency, SRNS will benefit in 2012 and in the future from improved business discipline and focused leadership. SRNS President and CEO Dwayne Wilson said in a letter to employees, "Our decision to reorganize the company is the logical next step in meeting and exceeding the expectations of our customers in DOE and other Federal agencies."

A nine-member SRNS Executive Team was formed, reporting to the Office of the President and focusing executive decision-making on setting priorities and allocating resources.

SRNL was reorganized to align the business and mission development assets of the National Laboratory more closely with Operations, and to improve the level of technical program direction and integration to achieve the growth and value creation objectives of Enterprise·SRS. The management of NNSA Programs and Projects remained unchanged, but with key contact roles and common support of NNSA programs closely aligned with SRNL.

Environmental Management Operations was reorganized to focus resources and management for EM facility operations, completion of ARRA projects and consolidation of waste management assets and resources.

Support Services centralizes all support functions for the management and operations mission, programs and projects, improving Site operating efficiency and performance through greater business optimization.

Corporate Services consolidated services required to execute the SRNS contract, including General Counsel, Internal Audit, Corporate Communications and Workforce Services, as well as the Contracting Officer and the Chief Financial Officer functions.

Environment, Safety, Security and Health was organized to provide program leadership, oversight and support functions for the areas of safety, environment, security, health and the execution of area completion projects.

In addition to SRNS President and CEO Dwayne Wilson, the SRNS Executive Team includes:

- Fred Dohse, Executive Vice President and Chief Operating Officer
- Terry Michalske, Executive Vice President and SRNL Director
- Dave Eyler, Senior Vice President and Deputy SRNL Director
- Dennis Donati, Senior Vice President, NNSA Operations and Programs
- Paul Hunt, Senior Vice President, EM Operations
- Beth Bilson, Senior Vice President, Support Services and Chief Business Officer
- Jim Hanna, Senior Vice President, Corporate Services
- Alice Doswell, Senior Vice President, Environment, Safety, Security and Health

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