

SELF-ASSESSMENT

FY10

a year of success and opportunities

Savannah River Nuclear Solutions

Savannah River Nuclear Solutions is pleased to present this high-level self assessment of performance for fiscal year 2010.

This was another exciting and challenging period for our company as the management and operating contractor at SRS. We are proud of our many accomplishments, including the Voluntary Protection Program Star recertification, Earned Value Management System certification, continued tritium excellence, Recovery Act progress, preparation activities to process used nuclear fuel and our steps to grow the Savannah River National Laboratory.

We remain committed to building on these successes, learning from our mistakes and meeting the challenges ahead in 2011.

In FY2010, we achieved the best total recordable rate performance by operations and service subcontractors since 1985. We also reached 11 million safe hours. Construction employees celebrated 24 million safe hours without a lost workday and SRNL marked seven million safe hours. We've also made tremendous improvements in site operations and brought our information technology up to much of today's commercial standards. As part of our enhanced business systems, we began providing monthly self assessments through a scorecard reporting system that includes feedback from our customer. Additionally, Workforce Services strengthened our vision of the future workforce by establishing four mentoring circles, creating LEAP (Leaders Emerging Among Professionals) and enhancing talent development for employees.

While our FY2010 accomplishments were many, there were several areas requiring improvement. A Type B Investigation of the TRU puncture wound incident identified several contributing causes with lessons learned that are being applied across all of our programs. Additionally, we are making badly needed improvements to the Site's deteriorated infrastructure and placing more rigor on our continuous improvement efforts.

We are committed to meeting DOE's expectations for safely delivering high-quality products and services on time. We will continue to be good stewards of the taxpayers' dollars and we will continue to work hard to build a sustainable future for SRS. SRNS is committed to aggressively pursuing new missions for SRNL and the Site, and is working hard to be a long term partner in this community.

In 2011, we will nurture this Site's world-class safety reputation and bring best practices from our parent companies to SRS. We are committed to continually improving, employing the most current and proven business practices and creating value for our customers, our employees and this community.

We look forward to another challenging and rewarding year at SRS.



Garry Flowers
SRNS President and CEO



SRNS: Performance Highlights for 2010

American Reinvestment and Recovery Act (ARRA)

The ARRA Portfolio of projects at SRS contributed to EM goals of footprint reduction and disposition of legacy transuranic (TRU) waste, while supporting small business and providing jobs to surrounding areas. \$191 million in contracts was awarded, including over \$118 million to small businesses and \$58 million in local awards in the Central Savannah River Area (CSRA). The ARRA Portfolio maintained a 100 percent regulatory compliance record.

Accomplishments

- Completed and gained approval of a baseline adopting the DOE framework document and the EM corporate WBS structure
- Achieved 36 percent in EM footprint reduction (over 113 square miles)
- Deactivated and decommissioned seven industrial structures; remediated 10 soil units
- Completed 23-mile Lower Three Runs stream sampling
- Commenced Heavy Water Components Test Reactor decommissioning
- Completed safe demolition of the 185-3K cooling tower
- P and R Area: Completed P Reactor Disassembly Basin water evaporation (nearly 4 million gallons removed); started up batch plant for P and R area projects; placed more than 83,000 cubic yards of grout and concrete in P Reactor; completed installation of 21 P Area Operable Unit remediation wells; achieved mechanical completion of remediation at P and R Cask Car Rail Road Track Waste Units; and removed 200-ton gantry cranes from P and R Reactors.
- Completed 293-F stack height reduction
- Completed construction of M Area Operable Unit Soil Remediation Cells 1 and 2
- Completed 81 TRU waste shipments to WIPP and dispositioned 484 cubic meters (contact handled and remote handled) of TRU waste
- Started up and successfully conducted H Canyon TRU box remediation, completing 23 LSBs
- Prepared 11,000 metric tons of depleted uranium oxide for off-site shipment, and shipped over 98,000 lbs of recyclable lead off-site for reprocessing
- Filled and closed Slit Trenches 3 and 4



K Cooling Tower demolition

Infrastructure Services

Infrastructure Services managed the SRS Infrastructure program while safely providing utilities services to SRS including steam, electrical, process and domestic water, river water, and fire water. Also managed site maintenance, facilities, shops, transportation, rigging, roads, railroads, hazardous material transportation, fleet & fuel, outfalls and landlord services and M&O interface management.

Accomplishments

- Improved D Area Powerhouse reliability
- Provided Ameresco project support for the Biomass Cogeneration facility and the K/L Biomass heating plants
- Improved deteriorated infrastructure conditions with modernization projects for Steel Creek Dam, site fuel stations, N Area outfall remediation, obsolete fire alarm panels and back-up computing facility. Established SRNS Critical Infrastructure IPL.
- Implemented Site Real Property Asset Management Program
- Facilitated successful provision of \$140M of services and programs to nine SRS federal agencies and prime contractors by the SRNS Interface Management Organization

Savannah River National Laboratory

SRNL provided technology-based solutions for the nation's challenges of cleaning up environmental legacy and met key national and energy security objectives. SRNL provided applied technology through multidisciplinary programs of scientific research and applied engineering in a safe, secure and efficient environment.

Accomplishments

- Retained position as safest National Laboratory for sixth consecutive year with over 7 million manhours without a Lost Workday Case
- Established FBI Forensic Laboratory to perform traditional forensics on radiologically contaminated evidence
- Developed process flowsheets for disposition of legacy nuclear materials enabling inventory reductions at other DOE sites and universities; accelerating salt waste processing at SRS and Hanford; DWPF disposition of excess Np-237 and Pu-239 for significant cost avoidance and potentially increasing future Canyon Pu processing rates
- Completed Mobile Plutonium Facility for deployment to proliferant nations to safely prepare nuclear materials for shipment
- Completed second year for Center of Excellence for Hydrogen Storage and created reversible route to generate high capacity H₂ storage material (aluminum hydride) for applications spanning energy technology and synthetic chemistry
- Completed SRS Composite Analysis for radiological waste, which is being used by DOE-HQ as a model for the Complex
- Advanced Technology Demonstration Characterization Team received DNDO Award for characterization support of new radiation detectors
- Eight patents issued/allowed, four licenses, six CRADAs modified/extended, 48 invention disclosures, 114 nondisclosure agreements and 110 publication agreements



FBI Forensic Lab ribbon-cutting

Engineering

SRNS Engineering successfully delivered designs, analysis, technical evaluations and field support in the areas of nuclear and criticality safety; design, plant, transportation and geotechnical engineering; process control systems; sitewide procedure systems; and risk management.

Accomplishments

- Prepared and obtained approval of the H Canyon DSA DOE-STD-3009 upgrade
- Developed and implemented an SRNS integrated formal risk and opportunity management program, including the first issue of company risk and opportunity policies and procedures. Conducted a company-wide risk assessment.
- Completing the design for numerous ARRA projects including P and R Reactor D&D, P and R Disassembly Basin evaporators, SATA to ATTA and Solid Waste Slit Trench Design
- Self-discovered and addressed Arc Flash Hazard legacy issue with a potential non-conservative calculation technique by upgrading guidance documentation and reworking extensive facility system calculations to improve facility electrical safety
- Completed geotechnical investigations including the B Area Shop, Tritium Warehouse and Advanced Tactical Training Area projects
- Completed SRNS procedure standardization and implemented electronic procedure workflows to improve procedure management performance

SRNS: Performance Highlights for 2010 *(continued)*

Nuclear Materials Operations

Nuclear Materials Operations provided safe and secure receipt, disposition, packaging and storage of surplus nuclear materials from SRS and across the DOE Complex and supported the nation's nonproliferation initiatives by receiving and storing used fuel from domestic and foreign research reactors.

Accomplishments

- NMO's safety performance in FY10 was excellent with no DART-R and no DART-DAs
- NMO had the lowest ConOps event rate in the past seven years.
- H Canyon, L Area and F/H Lab completed preparation activities to process Used Nuclear Fuel (UNF), which will begin a nine-year campaign.
- H Canyon dissolved 624 kgs of High Enriched Uranium (HEU) metal which was blended down to 24 Low Enriched Uranium (LEU) trailers (about 20,700 kgs).
- L Area safely received domestic and foreign UNF including a Chilean shipment, the first UNF of non-U.S. origin shipped to the US.
- Four domestic sites and five foreign countries shipped 595 fuel assemblies for storage in L Basin.
- K Area verified Pu safe storage through the 3013 Surveillance Campaign.
- 18 Destructive Examinations and 34 Non Destructive Examinations were conducted.
- F Area Deactivation and Consolidation achieved a \$5.4M cost savings.
- F Area completed the 235-F Risk Reduction Mission Need Document Approval.
- HB Line dissolved 76.4 kgs of DE-3013 plutonium oxide and 7 drums of Low Assay Plutonium.
- K Area received surplus Pu and HEU including initial shipment of Pu from LANL, and other receipts from LLNL and Y12, in support of complex-wide deinventory efforts.
- Expansion of K Area's storage capability is under way with the construction of the Purification Area Vault.
- K Area began hot operations of the Californium Shuffler Project.
- Analytical Lab developed offsite business initiatives, new rapid bioassay method and a Conduct of Analytical Measurements Manual.
- DOE approved the NMO FY11-FY15 Basis of Estimate Baseline.
- L Area performed extensive upgrades to ship UNF to H Canyon including cask and railcar refurbishments, railroad upgrades and superstructure repairs.
- Completed successful disposition of legacy Aberdeen and Sandia Pulse Reactor weapons-usable highly enriched uranium material by down blending and shipping to TVA for conversion to commercial nuclear power fuel. Nonproliferation disposition of this material was a Presidential Directive integrating the Army and four DOE facilities.
- CI teams completed 29 projects with estimated savings of >135,000 manhours in cost efficiencies and cost avoidances. 25 percent of NMO employees received Lean training. NMO has a pipeline of 50+ projects estimated at >100,000 manhours moving into FY11.



H Canyon transuranic waste activities

NNSA Programs

SRNS NNSA Programs is comprised of Tritium Programs (TP) and Nuclear Nonproliferation Programs (NNP). TP executed NNSA's tritium missions by extracting new tritium from irradiated target rods, delivering Limited Life Component Exchange (LLCE) products and Gas Transfer System (GTS) Surveillance data and recovering helium-3. NNP supported the NNSA Surplus Plutonium Disposition Program with construction of the Waste Solidification Building, support of the Mixed Oxide Fuel Fabrication Facility construction and preliminary design of the Pit Disassembly and Conversion Project.

TP Accomplishments:

- Delivered all required LLCEs (44 different product types) on time and demonstrated flexibility by accommodating 67 customer schedule changes. TP's perfect record of on-time LLCE shipments was extended to over 52 consecutive years.
- Delivered all required GTS Surveillance data to the weapons Design Agencies. Backlog of function tests eliminated in FY09 was maintained at or near zero in FY10.
- Received and stored Cycle 9A and 9B target rods from Tennessee Valley Authority (TVA), extracted tritium from the Cycle 9A bundle one month early and transitioned to cost-effective "Responsive Operations" mode. TP also rebaselined the Responsive Operations schedule to reflect reduced irradiation rates at TVA and assumed the "Shipper of Record" role for the Tritium Readiness Campaign.
- Changed security postures to enable NNSA SRSO to return \$2.8M to NNSA Headquarters in FY10, saving \$4.5M annually in subsequent years
- Completed ahead of schedule and under budget the Automated Reservoir Management System modernization project, a four-year NNSA project
- Tritium Programs launched its CI training program in FY10. Eighty-seven employees received eight+ hours of CI training, 31 received over 80 hours, and 59 were trained in Corrective Action/Mistake Proofing. TP has 25 CI Agents and 7 Lean Specialists. Eleven CI projects were completed; 25 more are active. TP achieved a 44 percent reduction in number of rounds performed and improved efficiency in calibrating multiple transducers.

NNP Accomplishments:

- Accelerated the PDC Critical Decision (CD-1) submittal schedule by six months
- Completed the Mixed Oxide Fuel Feed Gap Study
- Supported NNSA in public meetings on the Surplus Plutonium Disposition Supplemental Environmental Impact Statement
- Completed the WSB building foundation, 23 of 24 first-level wall pours and 7 of 25 second-level wall pours; project is 44.9 percent complete.

Workforce Services

Workforce Services developed and implemented new employee policies and programs that strengthen our vision of the current and future workforce.

Accomplishments

- Won 2010 Palmetto Workforce Partnership Award
- Formed LEAP - Leaders Emerging Among Professionals
- Created a new recognition and rewards program for employees
- Established a new labor standards review process
- Enhanced talent development initiatives including Management Development Workshops, Mentoring Circles and the Leadership Development Forum



Waste Solidification Building

SRNS: Performance Highlights for 2010 (continued)

Environment, Safety, Health and Quality

ESH&Q increased its focus on worker safety with the continued use of SICAM and increased Behavior-Based Safety observations, with the results of record-breaking safety statistics. To share its safety knowledge with the rest of the Complex, SRNS assisted DOE in hosting the 2010 DOE Integrated Safety Management Workshop.

Accomplishments

- Achieved VPP Star of Excellence and Legacy of Stars status
- SRNS Operations achieved 11 million work hours without an injury resulting in lost time (10 million hours recognized by the National Safety Council).
- The Health Physics Instrument Calibration Facility was re-accredited by the National Voluntary Laboratory Accreditation Program.
- Achieved full compliance with the 6/2007 Amendment to 10CFR835, Occupational Radiation Protection
- Partnered with Aiken Technical College in hosting nation's largest class of radiological technicians

Information Services

Information Services (IS) provided highly available computer and network infrastructure, Help Desk, application development and maintenance, cyber security and document and records services. IS also enhanced SRS automation and collaboration tools.

Accomplishments

- Established project management portals, dashboards and scorecards
- Received DOE-EM's and NNSA's Authority to Operate for all classified and unclassified computer systems/networks scheduled for cyber security accreditation
- Completed necessary Business Process Modernization Program updates
- Participated in the DOE-HQ Green IT complex-wide initiative, increasing SRS data center energy efficiency by 31 percent
- Completed first phase of the Next Generation Network project; exceeded the commitment to upgrade 126 buildings
- Enabled home computer use for remote access, implemented Single Sign-on, modernized the Intranet from ShRINE to InSite, implemented Sametime Instant Messaging and Presence Awareness
- Expanded wireless capabilities in R Area to assist in SRS footprint reduction

Chief Financial Office

The Chief Financial Office provides relevant, timely, accurate and transparent financial information to managers and customers, including paying employees and vendors and ensuring adequate controls are implemented to safeguard all assets assigned to SRNS. Indirect Cost Transparency initiatives have reduced non-value added overhead scope and drive cost management through usage based billings.

Accomplishments

- Presented an Indirect Monthly report to DOE EM and NNSA and developed an Indirect Integrated Priority List
- Created and executed a corporate financial governance program including site wide financial management, and labor charging practices training and self assessment performance
- Completed 401K Recorder Keeper recompile, resulting in more than \$500,000 in annual savings; recompiled the Investment Consultant work associated with the Multiple Employer Pension Plan and the 401K Plan, resulting in over a \$600,000 reduction in Plan expenses over the next three years



Strategic Planning and Operations Planning

SRNS Strategic Planning worked with DOE-SR in creating plans for the future of SRS in response to national goals, and announced alliances with several companies to bring those plans closer to fruition.

Accomplishments:

- In partnership with DOE-SR, developed a new integrated strategic plan for DOE and SRS to encompass operations of all SR contractors
- Prepared first SRNS "Mission Development Plan," which analyzes critical national needs, SRNS strengths and core capabilities, and SRS physical assets.
- Prepared and presented the U.S. Energy Freedom Center concept to DOE, the public and stakeholders. Small Modular Reactor (SMR) Demonstration Complex and the BioEnergy Integration Center were also conceptualized. Held two public meetings and an "Energy Park Roundtable." Announced alliances to pursue SMR demos at SRS.
- Established a team from SRS and Sandia National Laboratory to assist DOE NE Fuel Cycle Technologies with strategic and program planning

Public Affairs

SRNS continues to enjoy extensive community and political support and approval. Our Public Affairs Division provides responsible corporate programs to develop and maintain stakeholder relationships, and to inform and educate the public, employees and media about our SRNS mission.

Accomplishments

- Contributed \$1 million in community giving
- Conducted 23 SRS public tours, 259 mission-related tours and 12 Congressional visits
- Worked with Habitat for Humanity to build their first home in Jackson, S.C. SRNS donated \$50,000 and 400 SRNS employees volunteered to build the house.
- Coordinated CSRA College Night, with 7,000 attendees meeting with 160 colleges, universities and professional societies. SRNS Education Outreach programs have reached 38,454 students and 682 teachers in FY10.
- Published three issues of Fred's Safety Dose, a timely safety update for employees
- Increased employee communications (InSite articles and video news programs such as Meet the Manager) and support for executive communications (SRNS Management News)
- Published monthly issues of the SRNS News, a publication for the community and SRNS stakeholders

Business Services

Business Services (BS) provided key services in support of mission accomplishment including critical procurement services, project controls, PEMP/PBI management and contractual support; also responsible for a major effort to modernize legacy business systems.

Accomplishments

- Received SRNS EVMS certification from OECM (PBI milestone)
- Business Process Modernization Project achieved System Design Stage Exit (PBI milestone).
- Received DOE-SR approval of FY11-15 SRNS Contract Performance Baseline
- SRNS Purchasing System review completed and found acceptable by the Procurement Evaluation and Re-Engineering Team. Documentation provided to DOE-SR for certification.



Questions about the SRNS FY2010 Self-Assessment? Contact Rick Sprague at richard.sprague@srs.gov.