U.S. DEPARTMENT OF ENERGY

SRS

Savannah River Site Overview

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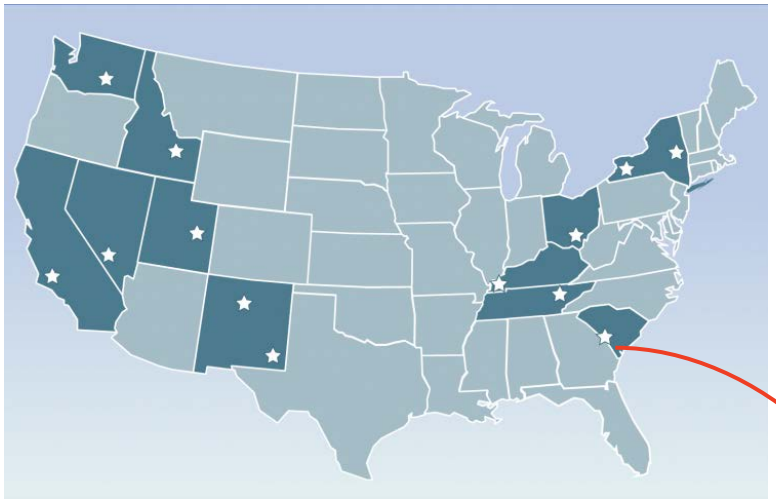
Savannah River Site by the Numbers



310
sq.-mi site (198k acres) near Aiken, SC

11,753
current employees
(federal agencies and contractors)

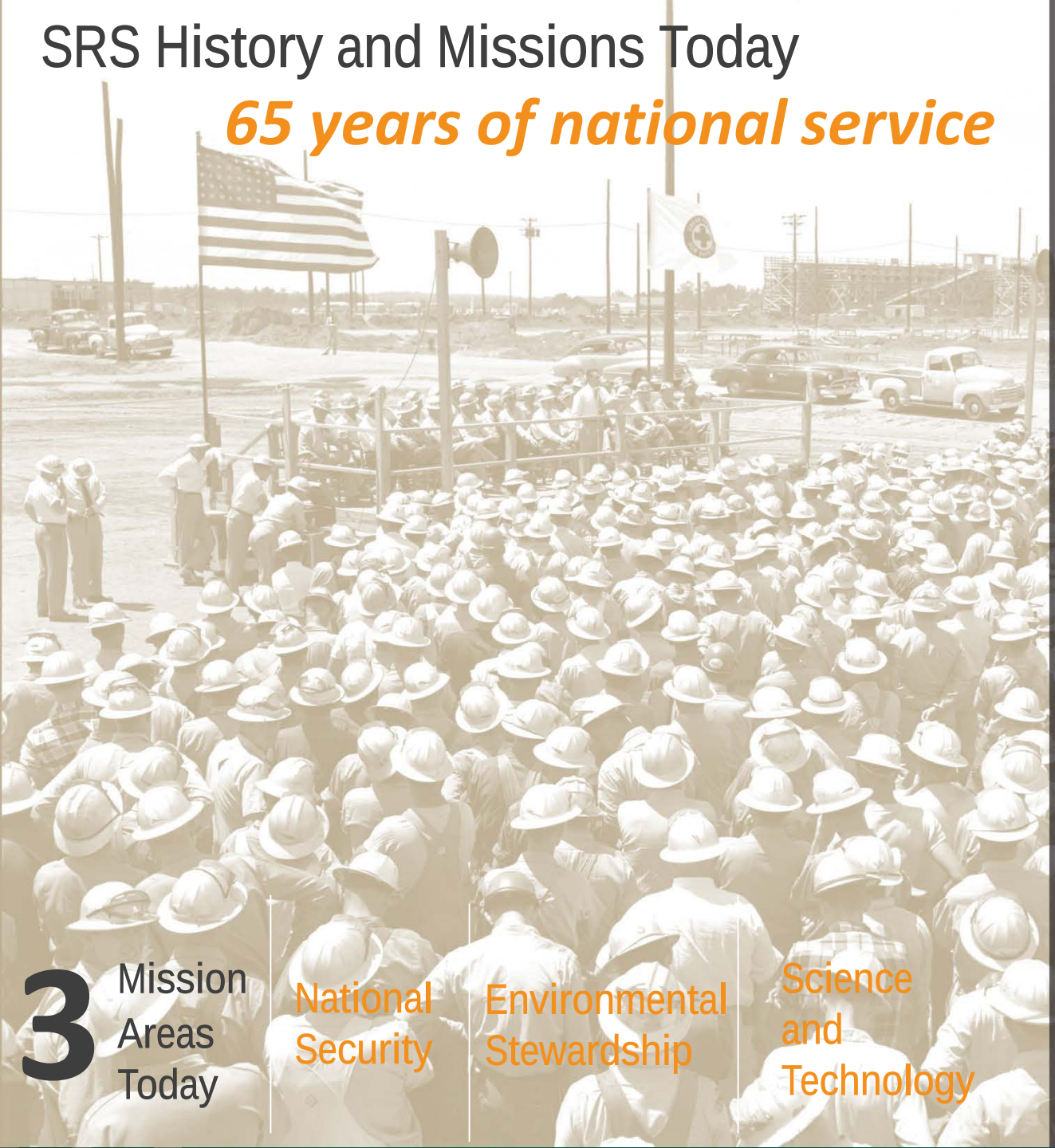
$1.9B
annual budget
(EM = $1.3B; NNSA = $637M)

$2.6B
annual regional economic impact across SC/GA area

$200M
spent annually in local procurements

SRS History and Missions Today

65 years of national service



1949: Russia tested its first atomic weapon.

1950: The Atomic Energy Commission asked Du Pont to undertake a new atomic project, which became SRS.

Six South Carolina towns were moved and 6,000 people relocated to build SRS.

Du Pont operated SRS for nearly 40 years.

The original facilities at SRS included:

- Five reactors
- Two chemical separations plants
- Heavy water extraction plant
- Nuclear fuel and target fabrication facility
- Waste management facilities

3 Mission Areas Today

National Security

Environmental Stewardship

Science and Technology

SRS Work Scope and Partners

60% EM
Environmental Management

- Management, stabilization and disposition of nuclear materials
- Management and disposition of solid, liquid and transuranic wastes
- Spent fuel management
- Environmental remediation and cleanup

35% NNSA
National Nuclear Security Administration

- Tritium operations and extraction
- Helium-3 recovery
- Nonproliferation support
- Uranium blending and shipping
- Foreign fuel receipts

5% Other

- Other federal agencies, DOE sites and minor entities
- Private industry

Who's at SRS?

Savannah River Nuclear Solutions
Management and Operations; Savannah River National Laboratory

Savannah River Remediation
Liquid Waste Operations

CB&I AREVA MOX Services
Mixed Oxide Fuel Fabrication Facility construction

Parsons
Salt Waste Processing Facility

Centerra
SRS Security

University of Georgia
Savannah River Ecology Laboratory

U.S. Forest Service–Savannah River
Federal entity

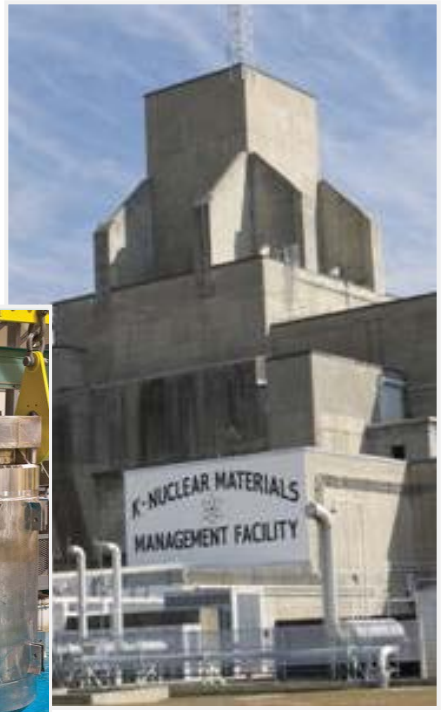
SRS Budget Profile

Funding ($K)	FY 2016 Enacted	FY 2017 Request	FY 2017 Omnibus	FY 2018 Request
Environmental Cleanup	117,590	152,504	129,129	159,978
Nuclear Material Management	296,062	311,062	319,851	323,482
Radioactive Liquid Tank Waste Stabilization and Disposition	783,520	822,638	773,200	787,758
Savannah River Community and Regulatory Support	11,249	11,249	11,249	11,249
Infrastructure Recapitalization (General Plant Projects)	0	16,547	0	0
Safeguards and Security	128,145	134,000	136,000	142,314
Cyber Security	0	0	0	22,810
Total Environmental Management	**1,336,566**	**1,448,000**	**1,369,429**	**1,447,591**

Nuclear Materials Storage and Disposition Missions at SRS

SRS addresses issues of national security and nonproliferation, including disposition of legacy nuclear material

DOE's only Category 1 facility, K-Area safely receives and stores enriched uranium and plutonium (Pu) materials awaiting disposition and initiated Pu downblending (alternative to MOX) in Fall 2016



In its Disassembly Basin, L-Area safely receives and stores Spent Nuclear Fuel (SNF) from former SRS reactors as well as foreign and domestic research reactors awaiting disposition

H-Canyon safely dispositions uranium (including fuel) and plutonium materials. Highly Enriched Uranium (HEU) is converted to Low Enriched Uranium for use in the Tennessee Valley Authority's commercial power reactors. H-Canyon is the only production-scale, shielded chemical separations facility in operation in the U.S. Atop H Canyon, HB-Line is used to make plutonium oxide, a non-weapons usable form of plutonium.

Environmental Stewardship: SRS Tank Waste Disposition

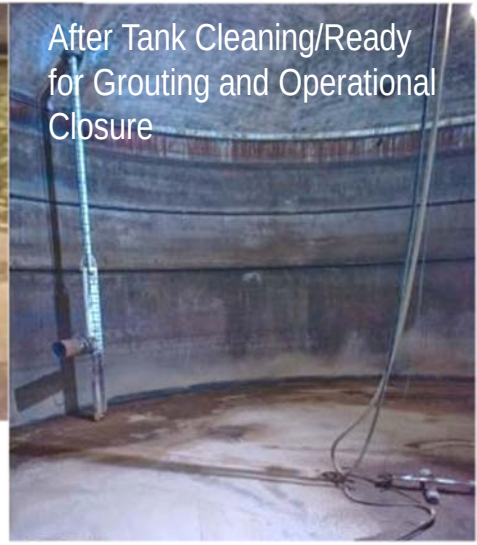

Salt Waste Processing Facility (SWPF)

- SWPF, one of EM's largest construction projects and a major cog in DOE's risk reduction work, was completed in Spring 2016, eight months ahead of schedule and $60 million under budget.
- The plant is 55% complete in the testing and commissioning phase and on schedule to begin radioactive operations in 2018.
- Once operational, SWPF will process the majority of the Site's salt waste inventory by treating highly radioactive salt solutions stored in SRS underground tanks. Removing salt waste, which fills over 90 percent of tank space in the SRS tank farms, is a major step toward emptying and closing the Site's remaining 43 high-level waste tanks.

- Tank sludge waste and the highly radioactive salt waste stream are sent to DWPF for immobilization in glass canisters. DWPF is the nation's only operating vitrification plant.
- Since operations began in March 1996, DWPF has poured over 4,100 canisters of glassified waste (nearly 16 million pounds of molten glass) and removed over 58 million curies from the liquid waste inventory stored at SRS.
- The lower-activity volume salt waste from tanks is mixed with grout at the nearby Saltstone for safe onsite disposal in vaults.


One of the two SRS tank farms


Before Tank Cleaning


After Tank Cleaning/Ready for Grouting and Operational Closure

At SRS, 35 million gallons of radioactive liquid waste from past nuclear material production is stored in 43 underground tanks at the Site. Eight tanks are now closed, the first ever closures in the DOE Complex. Closures are direct result of successful collaboration and integration with regulators—SCDHEC, EPA and NRC.

Environmental Stewardship: SRS Tank Waste Disposition

Tank closure consists of removing radioactive waste from each tank to the extent practical.

Cement-like grout is poured into the tank, which impedes waste migration. When the tank is fully grouted, tank top penetrations are sealed.

This process reduces risks to human health and the environment by minimizing the potential for groundwater contamination.

Savannah River National Laboratory

Science at Work at SRS. SRNL provides practical, cost-effective solutions for environmental cleanup, nuclear security and clean energy challenges, both nationally and internationally.

SRNL expertise includes environmental cleanup, nonproliferation, radioactive waste treatment, hydrogen storage technology, glass technology and sensors.

SRNL is the national laboratory for DOE's Environmental Management program.

The Lab works for SRS plus non-SRS federal agencies, including the FBI and Department of Homeland Security, and in partnerships with industry and academia.

SRNL-created technologies are licensed to private companies for manufacturing, providing taxpayers a second return on their investment.

Research and development activities in SRNL

Current Challenges and New Opportunities

Challenges

- Ability to maintain nuclear materials processing capabilities in need of substantial maintenance and upgrade
- Increasing Pension Liability
- Infrastructure Needs
- Aging Workforce and Recruitment of Next Generation Nuclear Workforce

Opportunities

- Restore aging Site infrastructure
- Fully employ capabilities to support DOE-wide nuclear materials disposition needs and reduce life-cycle costs of radioactive liquid waste storage at SRS
- Fully operate H-Canyon to process all DOE HEU & Aluminum-based SNF
- Further expand SRNL contributions to DOE missions
- Renew U.S. manufacturing capability by supporting the construction/lease of the Advanced Manufacturing Collaborative (Aiken, SC)

Key FY17 Priorities

- Complete eight planned shipments of Transuranic Waste, including surplus downblended plutonium, to the Waste Isolation Pilot Plant (Carlsbad, NM) for disposition
- Continue SWPF testing and commissioning activities to support December 2018 startup, a key commitment to the State of South Carolina
- Continue integration activities to incorporate SWPF operations into the Site's overall Liquid Waste System
- Continue infrastructure and maintenance activities at DWPF, with successful installation of new melter, to support resumption of radioactive operations by end of CY 2017
- Continue readiness activities on newly completed mega-vault Saltstone Disposal Unit 6 to support operational start in December 2018
- Receive and process Target Residue Material from Canada in H Canyon
- Continue Accelerated Risk Reduction activities in former Plutonium Fuel Form Facility
- Continue work on infrastructure upgrades in the H-Tank Farm (steam and air)
- Continue remediation activities in D Area Ash Project to meet regulatory commitments and milestones
- Begin acquisition activities for the SRS Management and Operating Contract and SRS Paramilitary Security Services Contract

Paramilitary Security Services Contract

Current Contract Summary:

- Title/Contract Number: DE-AC30-10CC60025
- Contractor/Size: Centerra, LLC / 684 FTE *(as of 06/30/17)*
- Contract Type: Cost Plus Award Fee
- Contract Term:
  - Base – 5 years (10/8/2009 to 10/07/2014)
  - Option #1 – 3 years (10/8/2014 to 10/7/2017)
  - Option #2 – 2 years (10/8/2017 to 10/7/2019)
- Contract Value (including options): $989M
- Previous Procurement Method: Request for Proposal under a Full and Open Competition

- Needed Award Date: July 10, 2019 (followed by a 90-day transition)