6,018 Employees “Making the world safer.”

Savannah River Site
Aiken, S.C.
310 square-mile site
11,500 employees

MISSION AREAS

Environmental Stewardship
for soil, water and facilities

Nuclear Materials for National Security
for nuclear weapons deterrent

Securing Nuclear Materials
to prevent unwanted proliferation

Transforming Nuclear Materials
into assets and stable wasteforms

M&O Support Services

$2.2 billion SRNS Budget
SRNS Missions

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

National Nuclear Security Administration
- Tritium operations
- Nonproliferation support
- Foreign fuel receipts
- Surplus Pu Disposition
- Pu Modernization
- SRPPF Project
- Tritium Finishing Facility

Work for Others
- Service Level Agreements (SRMC and BSRA)
- Other DOE Programs

EM 29%
NNSA 65%
WFO 6%
SRNS Recent Key Accomplishments

- SRNS received its 4th consecutive Voluntary Protection Program (VPP) Star of Excellence since being awarded the SRS M&O contract in 2008.

The VPP Star of Excellence is the HIGHEST SAFETY HONOR a DOE contractor can receive.

- Awardees must have a recordable incident injury rate that is 75% better than the average of other U.S. businesses in the same industry.
- Award comes despite introducing nearly 5000 new employees since the last certification effort in 2017.

- SRNS has awarded $3.2 Billion in subcontracts to small businesses, committing nearly 80% of all procurement dollars.
- SRNS and its corporate parents have contributed more than $13 Million throughout the Central Savannah River Area through philanthropic contributions, education outreach investments, and community partnerships.
- SRNS is executing 60 ongoing small projects totaling over $451M.
- SRNS contract extended in FY22 for additional 4 years plus another 1 year option.
SRS 2021 Annual Environmental Report Highlights

**SRS maintained full environmental regulatory compliance for 2021 and did not receive any Notices of Violation for the year.**

- SRS received recognition as part of the DOE agency-wide Sustainability Awards under the Innovative Approach to Sustainability Category.
- SRS passed all external audits and inspections with no issues identified.
  - A third-party audit of the Environmental Management System performed in April of 2021 declared the program conformant to the ISO 14001:2015 Standard

Chemical and radiological results for 2021 confirm SRS operations remained protective of the environment and human health.

The SRS 2021 all pathway dose is 0.30 mrem which is significantly lower than the DOE dose limit of 100 mrem per year. If the DOE Dose Limit were the length of a football field, SRS would be at the 11-inch line.
H Area Challenges Resolved

March 2022
- During routine sampling, detected low pH liquid material in culvert upstream of outfall.
- Immediately installed temporary system to stop release.
- Conducted extensive investigation involving multiple facilities involving:
  - Investigatory excavations
  - Camera inspections
  - Flow testing
- Discovered a pathway from active processing systems at H Canyon through an abandoned process drain system.
- Corrected the legacy issue from failed plugs installed in 1980’s when system was deactivated.

July 2022
- Spill of contaminated water occurred from temporary tank system during routine pumping of sump.
- Contaminated water contained low activity level and was contained.
- Precautionary samples of nearby sample points were performed.
- No release to waters of the state.
Delivering on EM Commitments

- Received approval for Accelerated Basin De-inventory (ABD) mission, which results in a life cycle cost reduction of over $4 billion and represents a more than 20-year acceleration over the previous mission.
- Performed four dissolutions of High Flux Isotope Reactor core SNF batches and four dissolutions of Material Test Reactor SNF batches in H-Canyon.
- Continued preparation for the Fast Critical Assembly spent fuel dissolution campaign in H Canyon; electrolytic dissolver installation complete.
- 235-F transitioned to Cold and Dark status and transitioned to days-only operations in F Area.
- Shipped final TRUPACT-III; last of 239 SLB2 shipments to WIPP; 15 total shipments in FY22.
- Achieved over 4,000 Federal Facility Agreement milestones since 1993 (never missed an FFA milestone); 660 milestones were achieved in FY22.
- Demolished 15 facilities in D area, resulting in 30,000 square feet of footprint reduction and over 100,000 cubic feet of waste removed.
- Agreement reached with federal environmental regulators on final cleanup of 25-mile-long stream.
Plutonium Mission and K Area Accomplishments

FY22

- Accomplished 97 plutonium down blends (8 more than target) and moved 814 drums to staging area for shipment.
- Completed readiness activities and received Startup Authorization Authority approval to proceed with loading and shipping of TRUPACT-II containers from the Criticality Control Over Pack Pad (CCO), a significant milestone to ship directly to WIPP from K Area.
- Completed processing of nine Swiss Material 3013 containers, a first-of-a-kind effort that included mockups in the K Area Interim Surveillance (KIS) Mock-up Facility, mobilization of hut/HEPA filtration, and issuance of procedures.
- Prefabricated ECF-3 installed on finished pad in K Area.
- First long-lead procurement received for the Surplus Plutonium Disposition Project.
FY22 SRNS Workforce Profile

6,018 SRNS Headcount

1,194 onboarded in FY22 (4,300 since FY19) • 1,000 forecasted new hires

- FY22 SRNS Apprenticeships Registered: 209
- Active MOU Partners in Education: 21
- Participated in 38 Recruiting Events
- Partnered With Hiring Our Heroes to expand local veteran hiring
NNSA Capital Projects

Tritium Finishing Facility
- Replaces Cold-War era H Area Old Manufacturing facility

SR Plutonium Processing Facility
- Sister facility to UPF for plutonium
- Utilizes existing LANL (PF-4) flowsheet and equipment
- Optimized facility focused on one mission

Surplus Pu Disposition Project
- Expand capacity for plutonium downblending
- New 3-glovebox line in K Area

<table>
<thead>
<tr>
<th>All financial values in Millions</th>
<th>FY22</th>
<th>FY23</th>
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<tbody>
<tr>
<td>Tritium Finishing Facility</td>
<td>$27</td>
<td>$73.3</td>
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<tr>
<td>SR Plutonium Processing Facility</td>
<td>$475</td>
<td>$700-$1,200</td>
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<tr>
<td>Surplus Pu Disposition Project</td>
<td>$156</td>
<td>$71.7</td>
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<tr>
<td>TOTALS</td>
<td>$658</td>
<td>$845-$1,345</td>
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</tbody>
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**Surplus Pu Disposition Project Update**

**Expand SRS downblending capability**
- Three new gloveboxes
- Support systems including security and safety systems, electrical, piping, active confinement ventilation, fire protection systems, etc.
- HEPA/Electrical Building and ventilation stacks

**Dilute and Dispose Operations**
- Blend Pu oxide with adulterant
- Store and characterize
- Package and ship to WIPP in New Mexico for disposal

**SPD Capital Project Timeline**

**FY20**
- SPD CD-1 approved
- CD-3A Phase 1 (early site preparation) approved

**FY21**
- Acceleration study identifies opportunities
- CD-3A Phase 2 (long lead procurements) approved
- Area isolated with exterior access
- Early Site Prep (CD-3A Phase 1) complete

**FY22**
- 92 percent design complete
- CD-3A Phase 3 (Additional Early Site Prep) approved and construction started
- HEPA filter housing received

**FY23 – FY24**
- Final Design complete
- Backup diesel power generator received
- Glovebox installation begins
- Additional Early Site prep (CD-3A Phase 3) complete

**FY28**
- SPD project complete
- Dilute operations transition
The Tritium Finishing Facility (TFF) Project currently ahead of schedule and under budget.

Accelerated plans for site preparation to begin in FY23 and developed design improvements that allow for cost savings and an early start on construction.

Replaces 1950s vintage H-Area Old Manufacturing (HAOM) facility - oldest and largest Tritium process facility
- Assembly, final inspection, and packaging processes
Savannah River Plutonium Processing Facility Update

**SRPPF Project**
- Completed the integrated SRPPF project schedule to “CD-2/3 Package Approval” and submitted the Design Performance BCP on May 24, as planned.
- CD-2/3 scheduled for completion in 2025 (Design currently at 40 percent complete)
- Construction mobilizing in November D&R, Temp Ventilation, radio repeaters

**Plutonium Modernization**
- Development of a Pu Program Staffing Plan began in earnest during FY22 and identified the need to hire and train almost 2,000 employees between FY22 and post-2030, when steady-state production will be underway.
- The SRPPF University Engagement Plan was approved and issued. Thus far, 13 colleges and universities have signed on. This includes establishing contracts with eight Historically Black Colleges and Universities (HBCUs) to initiate workforce development programs.

**SRPPF Advantages**
- Repurposing a seismically-qualified structure
  - 400,000 square feet of Hazard Category-2 space
  - Interior walls of reinforced concrete for personnel shielding and durability for 50-year facility design life
- Supporting facilities, including office, assembly, and fabrication space
- Existing SRS services and infrastructure
- SRS world-class safety and security culture
- SRS experience, including
  - Plutonium processing
  - Meeting Department of Defense schedules and requirements
  - 24/7 operations
- SRNS’ experienced project and operations team and disciplined Conduct of Operations
Site Infrastructure Recapitalization

Examples

- Road refurbishments (Road 4)
- Roof replacements
- Habitability upgrades
- Spillway and intake rehabilitation
- Replacement of underground metallic piping systems
- IT network upgrades and aging application replacement
- Tornado shelters

Examples

- $1.4B needed annually for infrastructure improvements
- $644M spent on infrastructure improvements in FY17 - FY22
- $200M needed annually for infrastructure improvements

In current total deferred maintenance and repair needs