May 2009

Strategic Plan
Savannah River Site
U.S. Department of Energy
Message from the Manager
Appendix I: Action List

VI. Plan Implementation Process

2. NNSA Nonproliferation Programs
1. NNSA Defense Programs

IV. Alignment with the National Nuclear Security Administration Program

6. Site Services and Infrastructure
5. Savannah River National Laboratory
3. Nuclear Material Disposition
2. Waste Disposition
1. Overall SRS EN Mission and Strategic Approach

III. Alignment with the Environmental Management Program

5. Management Excellence
4. Environmental Responsibility
3. Scientific Discovery and Innovation
2. Nuclear Security
1. Energy Security

II. Alignment with DOE Strategic Themes

5. Vision for SRS
4. Current SRS Missions
3. Site Description and Past Achievements
2. Alignment with the DOE Strategic Plan
1. SRS Strategic Plan Purposes and Assumptions

I. Introduction
The Savannah River Site (SRS) Vision

The national nuclear weapons complex.

Mission: and ensure the environmental cleanup of and technological innovation in support of that security of the United States' promote scientific advance the national, economic and energy Department of Energy Overarching Mission

1. SRS Strategic Plan Purposes and Assumptions

Introduction
SRNL will continue to support current EM and NNSA missions and will expand to complete commercial nuclear fuel fabrication, reprocessing, and conversion facilities. SRNL's missions will remain with EM until its missions are complete.

**Planing Assumptions**

- SRS will continue to support its designation as a National Environmental Research Park (NERP) and maintain its current unique core capabilities: cleanup expertise, safe and secure storage capability, nuclear material stabilization processes, large-scale facilities, and leadership in safety, security, and protection of people.
- SRS will maintain its current leadership role in safety, security, and protection of people.
- SRS will maintain its current physical boundary of 310 square miles.
- SRS is a national asset and will endure beyond current EM and NNSA missions.
- SRS will maintain its current infrastructure and support functions will be maintained and upgraded to support current and future missions.
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SRNL is the mission organization for R&D and Technology Development at the Savannah River Site. SRNL is responsible for technology development and commercialization of technologies for the DOE Office of Environmental Management and the Office of Environmental Restoration and Waste Management. SRNL is also responsible for developing and implementing the Strategic Plan, which addresses the SRNL mission and sets the foundation for the SRNL vision, goals, and strategies. The Strategic Plan is a comprehensive document that outlines the goals and objectives for SRNL's operations and performance.

2. Alignment with the DOE Strategic Plan

The DOE Strategic Plan is aligned with the mission of SRNL and its strategic goals. The Strategic Plan provides guidance for accomplishing the mission functions, in line with the DOE Strategic Plan. SRNL's strategic plan is correlated with the DOE Strategic Plan to ensure alignment and consistency in the mission areas.
3. Site Description and Past Achievements

Savannah River Site Strategic Plan
EM Mission

I. OVERALL SRS EM MISSION & STRATEGIC APPROACH

The SRS EM Mission is to support the Sandia Mission. Specifically included in the SRS Mission Statement is the following vision and the following mission components:

- Protect public health and the environment.
- Safely and efficiently clean up the legacy of our nation's nuclear weapons production.
- Support non-proliferation mission.
Facility

- Began construction of the nation's first mixed oxide fuel fabrication facility
- Achievement in 2004
- SRS Area Completion Strategy was recognized by EPA as a National Notable
- Site Tours for the public reinitiated
- Community involvement in 2007
- SRS Citizens Advisory Board received EPA award for Citizens Excellence in national laboratory
- Home of the Savannah River National Laboratory, the nation's newest national laboratory
- Provide tritium delivery to support the nation's weapons needs
- Of electricity to power every home in South Carolina for 11 years
- Successful conversion of highly enriched uranium to low-enriched uranium
- Successfully converted highly enriched uranium to low-enriched uranium
- Successfully converted highly enriched uranium to low-enriched uranium
- Terrorists threats, allowing for the disposal of Rocky Flats and Mound sites
- Consolidated surplus nuclear materials from other DOE sites to reduce
- Consolidated surplus nuclear materials from other DOE sites to reduce
- Schedule since inception of cleanup project in 2000
- Achievement of all regulatory compliance milestones or ahead of
- Waste to DOE's Waste Isolation Pilot Project in New Mexico
- Accomplished safe, efficient shipment of over 2,700 drums of transuranic
- Saved taxpayers over $240 million since 2000
- Development of innovative cleanup environmental strategies that have
- Completed the nation's first operational closures of radioactive liquid waste
- Waste produced
- (two tanks closed to date)
- Completed the nation's first operational closures of radioactive liquid waste
- With the nation's first operation closures of vitrified waste
- Construction and operation of only large scale radioactive waste
- Leads the DOE complex in maintaining "best in class" safety record

Unique Achievements at SRS Savannah River Site Strategic Plan May 2009
4. Current SRS Missions

Environmental Management Mission

- Treat and dispose of wastes
- Disposition, surpluses, nuclear materials, decommissioning
- Independent security and national energy
- Monitor, groundwater and contaminated media, cleanup and rehabilitation
- Expand capabilities of the Savannah River National Laboratory
- Make more of the site available for new missions
- Protect residual waste for long-term stewardship
- Ensure infrastructure needs are met
- Develop and maintain a facility for long-term stewardship
- Defense Programs
- Stroke the Savannah nuclear weapons program, and the nation's environmental legacy
- Safely and efficiently clean up the site
- Protect public health and the environment
- Establish and transform the site for the future

Defensive Program Mission

- Ensure safe, secure, and reliable delivery of our nation's strategic forces
- Develop strategic and non-strategic storage facilities and systems for the nation's nuclear weapons
- Convert nuclear weapons to commercial use
- Enhance national security through the development of weapons of mass destruction, proliferation, and return of WPNs
- Develop and operate facilities to convert weapons-grade uranium to fuel
- Establish, implement, and enforce national security
- Construct and operate the Plutonium Disassembly Facility
- Develop nuclear detection inspection and dual-use technologies and other nuclear materials sources

Nuclear Nonproliferation Mission

- Develop nuclear detection inspection and dual-use technologies and other nuclear materials sources
- Work with agencies worldwide to secure spent nuclear fuel and mixed oxide fuel
- Design, build, and operate facilities to convert nuclear weapons components to commercial use
- Proliferation of weapons of mass destruction, proliferation, and prevention of weapons of mass destruction, proliferation, and prevention of weapons of mass destruction
Safety and environmental risks to an acceptable level. Stewardship of natural resources and maintaining or restoring all health. A viable national asset. By focusing on protecting the environment and accommodating future missions and assure that the remaining assets will accommodate future missions and ensure that the remaining assets will accommodate future missions and ensure that the remaining assets.

Nuclear Security. SRS is designed as an enduring site capable for long-term use. Although SRS mission focus is in the area of defense and national security, it will ensure a diverse role in the future.

The Savannah River Site is recognized as a long-term energy national asset and recognized as a long-term energy national asset in the areas of national security, energy diversification, innovative technology and environmental independence, innovative technology and environmental independence, innovative technology and environmental independence, innovative technology and environmental independence, innovative technology and environmental independence, innovative technology and environmental independence.

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SRS Vision

SRS Vision for SRS
The new missions for excellence will develop and adopt the performance metrics that transition SRS to the nation's premier site for nuclear material management. These metrics also support energy security and nuclear security by providing a significant amount of nuclear material that is no longer needed. This action supports environmental responsibility and nuclear security.

In support of these missions, SRS will also pursue solutions to the formidable challenges with the NSWF Defense and National Nuclear Security Administration (NNSA) and other federal partners. SRS has a long history of working with these partners to establish and maintain effective programs for a national infrastructure. This foundation will enable SRS to accomplish the cost effectiveness, EM and NNSA strategic goals.

SRS strategic plan recognizes the need for strategic planning and execution to achieve the new vision. The process will be initiated in a way that retains and grows the skills necessary to sustain SRS operations. SRS management will strive to move forward, building on SRS past achievements.
Impacts to land, water, and air from energy production and use improve the quality of the environment by reducing greenhouse gas emissions and environmentally disruptive and increasing the reliability of the market to meet U.S. needs. Increase our energy options and reduce dependence on oil, thereby reducing vulnerability to

DOE Goal 1.2: Energy Diversity

The application of alternative energy resources positions SRS to help close the energy gap.

Promoting America's energy security through reliable, clean, and affordable energy

I. Energy Security

II. Alignment with DOE Strategic Themes

Sevenam River Site Strategic Plan
Establish site-wide carbon accounting estimates and utilize information applications

- Establish power solutions for various renewable and backup power equipment manufacturers and consumers to develop and test equipment working with utility companies
- Provide a unified user facility
- Continue to support SNL's efforts to form partnerships to develop South Carolina's offshore wind field
- Gas emissions order to reduce greenhouse gas emissions

More carbon-neutral state in

- Reduce the amount of municipal solid waste going into the Three Rivers Gasification Facility
- Develop mixed oxide (MOX) fuel capabilities by completing construction
- Increase fuel cycle length and apply technologies to national energy initiatives
- Enhance SNL's ability to participate and partner with others to develop self-sufficient and efficient to become energy

- Expand SMR development of hydrogen fuel cell technology
- Establish in another research park at SRS

- Resources in this effort
  - Increase the area biomass stream production demonstration project to a greater, site-wide application and continue to utilize the site's forest
  - Support technical development and demonstration the capability to grow

- Reduce energy consumption of SRS buildings and for employee travel
- Increase the use of electric, hybrid, and alternative fuel vehicles on-site

SRS Objectives

SRS Strategies

Seven Mile River Site Strategic Plan

May 2009
Defuse Waste Processing Facility

In other acts of terrorism, materials for use in weapons of mass destruction and prevent the construction of nuclear and radiological weapons of mass destruction and radiological.

DOE Goal 2: Nuclear Security

DOE Goal 2: Nuclear Security

DOE Goal 2: Nuclear Security

To the threats of the 21st Century, and support the infrastructure to be more responsive and sustainable, nuclear materials, if used will provide the management of nuclear materials and infrastructure to sustain the international anti-terrorism, nuclear weapons stockpile.

Surplus nuclear materials to commercial nuclear fuel.

The United States and Russia's operation at SRS on Page 16 shows the interaction of SRS Reactor to convert

Waste processing equipment to commercial nuclear fuel for commercial nuclear energy production.

The Waste Stabilization Building, which support from the SRS reactor, will be the SRS Reactor. This facility will

transform weapon-grade plutonium to commercial nuclear fuel for commercial nuclear energy production.

These facilities are being built at SRS to convert surplus weapons-grade plutonium to commercial nuclear fuel for commercial nuclear energy production.

Lesser Nuclear Security

Lesser Nuclear Security

In support of nuclear nonproliferation and to provide the pathway for ultimate disposition of nuclear materials.

Lesser Nuclear Security

Lesser Nuclear Security

In 1994, the Foreign Emergency Management System (FEMS) performed a study of the management and disposition options of nuclear materials. The FEMS

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In 1994, the Foreign Emergency Management System (FEMS) performed a study of the management and disposition options of nuclear materials.
monitors equipment
- Develop and deploy nuclear detection, inspection, and nuclear material sources
- Work with agencies worldwide to secure SFR and other

- Extract plutonium from irradiated rods
- Recycle plutonium from existing weapons

- Material and prepare for final disposition
- Process nuclear fuel reprocessing facility (WMPF)
- To stabilize non-reusable nuclear
- Utilize SRS waste vitrification facility, the Defense Waste

- Plutonium

- Build and operate MOX fuel reprocessing facility (MRF)
- For the MOX fuel reprocessing facility (MRF)
- To provide the fed stock
- Build and operate SRS plutonium preparation (PFP)
- Process excess highly enriched uranium (HEU) for
- Utilize existing fuel fabrication stabilization processes located at

- Minimize nuclear waste disposal
- Explore processes of SFR as an alternative energy source and to
- Heat from domestic and foreign research reactors
- Receive, store, and provide surveillance at SFRs for spent nuclear
- Safeguard the storage
- DOE complex at SRS and utilize advanced technologies to
disable, secure, and remove plutonium from other sites throughout the

- SRs Objectives
- Stabilize and secure non-reusable and store
energy and other L.5 needs.

Innovation and to create transformatonal solutions for
Integrate basic and applied research to accelerate
DOE Goal 3: Research Integration

primary.
capabilities and infrastructure required for L.5 scientific
scientists and engineers, and provide the opportunity
deliver the scientific return, from the next generation of
DOE Goal 3: Foundations of Science

Revolutionizing approaches to the nation's energy, national security, and environmental challenges.

Achieve the major scientific discoveries that will drive L.5 competitiveness, inspire America, and
DOE Goal 3: Scientific Breakthroughs

on its strengths in scientific discovery and innovation.
The decisions and strategies issued below will outline how this plan to address these challenges and capitalize
advancement and create new revenue.

Strategic
competitiveness.

national security missions, and may lead to new inventions which will enhance the nation's economic
program. Each of these programs will foster new discoveries in support of the country's energy, and
research and development and expansion of the laboratory Directed Research and Development (LDRD)
Energy research and development, and expansion of the Laboratory Directed Research and Development (LDRD)

enhance this and those efforts are focused on more comprehensive strategic discovery and

The Savannah River National Laboratory (SRNL) has a long

through innovations in science and technology

strengthening L.5's scientific discovery, economic competitiveness, and improving quality of life

3. Scientific Discovery and Innovation

Savannah River Site Strategic Plan
Techology development
Develop and sustain business and marketing systems for
Independent initiatives
Investigate involvement in National Energy
Expand and grow the role of SNL as EM's corporate national

Cooperative internships for college students
Attract, recruit and provide work study opportunities and
Upgrade and modernize aging SNL facilities
Expand SNL's workforce and system of
Implement regional initiatives that promote the availability

To enhance competitiveness
Proactively chart strategies from a more effective communicating
Modify the contracting procedures to remove barriers that
Expand support of the LDRD Program to the level of other

Technologies
Develop and demonstrate new hydrogen fuel cells
Developing economically viable alternative energy sources
SNL capabilities to address critical technical issues in
Physics strategic public-private partnerships that leverage
SNL Center for Alternative Energy Research and Development
Develop a business case justifying the establishment of an

SNL at SNS
Consolidate technical responsibilities from other NNSA sites to

SRS strategies

SRS Objectives

Seven Arrows River Site Strategic Plan
Environmental Resolution

Environmental Resolution

4. Environmental Responsibility

Providing a responsible resolution to the environmental legacy of nuclear weapons production

DOE Goal 4: Environmental cleanup

TRUPACK Shipment of Transuranic Waste

10-Waste Isolation Pilot Plant (WIPP)

DOE Goal 4.2: Manage the Legacy

Complete cleanup of the contaminated nuclear weapons complex and testing sites across the United States.

DOE Goal 4: Environmental cleanup

Managing the department’s post- Cold War environmental responsibilities and ensuring the future protection of human health and the environment.

The clean-up efforts will reduce the most serious risks associated with the cleanup. The work will be accomplished through effectively determining national challenges. The work will be done at sites continuing to be used for national asset protection or for future missions and contributions to assuring the site remains a valuable resource for future generations of commerce, industry, science, and education.

Over fifty years of nuclear weapons production

Seven Mile Site Strategic Plan
and PD CF, Liquid Radwaste Treatment
Systems by 2016
Construct the Waste Solidification Building to Process MRF
for excess nuclear materials
Continually review ongoing projects to identify opportunities
By 2022, complete disposition of 70,000 drums of heavy water
Stainless Steel Stripping-Cassie Spent Nuclear Fuel (MTHM) (plutonium-cadmium and transfer of the 20 MTHM of MTTHM) from the SnM plant to NNSA
By 2022, complete one-time processing of 1.8 MT of heavy metal
The Complex
Enriched Uranium (HEU) in solid form which exists throughout
By 2022, complete processing of 7.2 MT of excess HEU
By 2022, complete processing of 12 MT of excess NNSA
Disposal of 15,000 drums of depleted uranium oxide
Through funding under the 2009 Recovery Act
Achieve 40% EM RFG and Project Reduction by 2011
Processings into new storage facilities
By 2012, complete consolidation of NAA waste for treatment
HW when generated
HW when generated
Complete near-term disposition of the remaining Low-Activity Waste
Complete near-term disposition of the remaining Low-Activity Waste
Support H-Canyon and other OASPS operations by receiving and
Close remaining tanks by 2022
Close all non-completed radwaste tanks by 2022
To treat 6 million gallons of salt per year
Initiate Salt Waste Processing Facility (SWPF) operations in 2013
Continue interim salt processing
Continue interim salt processing
(DWF) to verify high activity radwaste tank waste
Continue to operate the Defense Waste Processing Facility
Continue to operate the Defense Waste Processing Facility
Storage tanks (2 tanks already closed)
TREAT and dispose of 37 million
SRS Objectives

Reduce risk by completing cleanup of 515 waste sites
Seek additional funding to allow cleanup of unaccepted
Maintain the Integrated Regulatory Strategy (i.e., the Site-3 Rate
Seek additional effort to maintain effective relationships
with regulators and stakeholders
Enhance NEPA status under Regulatory
Ensure all long-term stewardship
Incorporate into future planning
LT5 SRS activities under Regulatory
Plan, and include cost projections in budget formulations
Include LT5 requirements in the long range Comprehensive
planning, and determine LT5 mission responsibilities
Identify LT5 support requirements in all facility and utility

Value of the entire SRS
Document and consider the environmental and ecological
Ensure SRS is a National Environmental Research Partnership (NERP)
Continue support for SRS National
Environmental Research Partnership (NERP)

SRS Strategies

Savannah River Site Strategic Plan
SRS Objectives

1. Foster a corporate perspective and a teamwork culture through communication of a common vision

2. Champion the Human Performance Improvement initiative among SRS Federal employees and ensure the Safety Mission accomplishment and enhance the safety culture

3. Establish the wide-processes, procedures, and local communication channels to foster and maintain a culture of communication to foster and maintain a corporate perspective

4. Effectively communicate the SRS vision to the corporate perspective and the individual responsibilities and accountability to include effective line management oversight by both Federal leadership in integrated business management approach through SRS with clear roles and responsibilities at all organizational levels.

The focus and values established in the Management Excellence section apply to all organizations and individuals.

Challenges:

The process and resources are available so work will be successful accomplished in a safe, efficient, and cost-effective manner. Defining the best value to customers.

5. Management Excellence

Enabling the mission through sound management.
SRS Strategies

Continuous learning encourages the pursuit of personal excellence through professional development and promotes employee retention. Programs are designed to improve employee knowledge and skills and maintain comprehensive training and certification standards.

Recruit leadership programs that can establish effective workforce planning. SRS leadership and university partnerships can establish the workforce with the right skills and expertise for the right time. Develop diverse workforce capacity and ensure that DOE's workforce is capable of meeting the challenges of the 21st century by attracting, motivating, and retaining a highly skilled and diverse workforce to do the best job.

Ensure that DOE's workforce is capable of meeting the challenges of the 21st century by attracting, motivating, and retaining a highly skilled and diverse workforce to do the best job.

Establish and utilize an integrated, site-specific procurement system to support projects. Contractor documentation for functions such as safety and health is critical for accountability and ensuring efficiency and functionality among tenants, contractors, and federal agencies.

SRS Objectives

Savannah River Site Strategic Plan
SRS Strategies

- Develop and Implement transparent, unified financial and scope
- Intergrate contracts, performance baseline, and budgets to
- Improve solid financial and performance
- Implement efficient sustainability
- Establish performance improvement
- DOE Goal 5.4: Resources

SRS Objectives

- Provide the department for continuous business process improvement
- Implement a fully integrated resource management strategy that supports mission needs and
- Establish multi-year, holistic, and proactive
- DOE Goal 5.3: Infrastructure

Seven Mile Site Strategic Plan
EM Strategic Approach

In recognition of these facts, the SRS EM Program’s mission is to clean up and transform the site for the future.

The SRS EM Program supports SNL and works to strengthen the nation’s security and energy future.

1. EM is removing the high-risk, long-term challenges of tank waste and surplus nuclear materials that represent the Office of the Secretary’s greatest threat to safety and security, and the greatest cost to taxpayers.

2. In parallel, EM is accelerating the area completion strategy to complete cleanup for large areas of the Savannah River National Laboratory.

3. EM is developing and employing new technologies that improve performance and reduce cost, driving operational efficiencies, and striving for management excellence.

4. EM is the leader of SRS and supports all SRS programs to ensure work is performed effectively.

5. The EM Program supports SNL and works to strengthen the nation’s security and energy future.

These efforts are resolute the environmental legacy of weapons production at SNL, protecting public health and safety, and ensuring a vibrant economy.

Commercial power, and improve national security

- EHS is leading the complex with progress and innovation on tank waste disposal.
- Allow other sites to close facilities, enable reuse of materials for

The strategic approach described in the thought process that EM is employing to address its mission. The key elements of the strategic approach are listed below:

EM Strategic Approach

- Taxpayers work to reduce costs to provide a better value for making those missions work.
- Ensure the infrastructure for existing and new missions is transformed.
- Expand capability of the Savannah River National Laboratory.
- Performance reliability and responsibility as part of our mission we:

Key Elements of the SRS Mission:

- Support national security and our nation’s
- Dispose surplus nuclear materials
- Clean up contaminated facilities
- Treat and dispose of wastes
- energy independence

Support national security and our nation’s

- Dispose surplus nuclear materials
- Clean up contaminated facilities
- Treat and dispose of wastes
EM mission strategy, Open and transparent collaboration with regulators in the development of clean blue

Improvement, a three-tiered regulatory strategy to promote efficient and effective implementation of the

Approximately 40% by 2017

Environmental protection and cleanup will be accelerated and the EM footprint at SNF will be reduced by

EHP to clean contaminated groundwater, through funding from the 2009 Recovery Act.

Technologies to clean contaminated groundwater, and are coupled with development of innovative

Figure completion action plans for sites of contamination, and are coupled with development of innovative

This effort will reduce the cost of cleanup efforts at multiple locations, working together, these strategies help

reduce the cost of cleanup efforts at multiple locations, working together, these strategies help

These strategies are designed to reduce the cost of cleanup efforts at multiple locations, working together, these strategies help

or disposal.

Nuclear facilities of the DOE National Nuclear Facilities

SNF serves as a gateway for the consultation, treatment, and disposition of surplus nuclear

SNF, serves as a gateway for the consultation, treatment, and disposition of surplus nuclear

Temporarily use SNF facilities to store nuclear materials and enable de-inventory and shutdown of

SNF, serves as a gateway for the consultation, treatment, and disposition of surplus nuclear

Complete disposition of liquid radioactive legacy waste to reduce environmental risks and free resources for application to other SRS cleanup needs.

Complete disposition of solid radioactive legacy waste to reduce environmental risks and free resources for application to other SRS cleanup needs.

Utilize unique facilities and capabilities at SNF, enabling the Nuclear Materials Management Program to

Utilize unique facilities and capabilities at SNF, enabling the Nuclear Materials Management Program to

Combined disposal, nuclear facilities to secure nuclear materials and enable de-inventory and shutdown of

Combined disposal, nuclear facilities to secure nuclear materials and enable de-inventory and shutdown of

These efforts are closing the cycle (completing the nuclear fuel cycle) by realizing the legacy waste of

These efforts are closing the cycle (completing the nuclear fuel cycle) by realizing the legacy waste of

Environmental impacts are being reduced to remove waste from tanks and reduce the amount of

Environmental impacts are being reduced to remove waste from tanks and reduce the amount of

2 of the 5 tanks have been closed and several other tanks are empty and being prepared for closure.

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Operational full-scale waste treatment systems

Operational full-scale waste treatment systems

Critical results are those results that must be accomplished or put in place to enable the EM Program to deliver the

Critical results are those results that must be accomplished or put in place to enable the EM Program to deliver the
The SRS EM Program goal is to achieve support performance by safely and reliably delivering significant progress on the SRS mission, supporting the SRS vision and mission.

To this end, the SRS EM management approach stresses cost-effective performance and high-quality results, with a goal of continuous improvement. The result is cost-effective actions that deliver meaningful environmental and regulatory achievements. The result is cost-effective actions that deliver meaningful environmental and regulatory achievements.
This rapid treatment and processing of salt water will enable completion of liquid waste disposal by

2028. Volumes stored in the SRS tank farms will be reduced by approximately 5 million gallons per year, enabling rapid reduction in salt water volume. The nominal capacity of the SWPF is 6 million gallons per year, enabling rapid reduction in salt water volume. The saltwater for the SWPF is generated from the tank farm. During treatment of the waste, the saltwater for the SWPF is generated from the tank farms. The saltwater for the SWPF is generated from the tank farms. The saltwater for the SWPF is generated from the tank farms.

This will enable the cost effective conversion of the remaining combustible liquids from the tank farms to radactively treated salt water in SRS tanks. The radactively treated salt water will be transferred to DWP for disposal offsite. Thus far, over 2700 containers of radactively treated liquid waste have been produced. Design is nearing completion and they will be safely disposed in the future national repository.

37 million gallons of radioactively liquid waste are stored in large, above ground tanks at SRS. This weak operational efficiency to reduce lifecycle cost and schedule. Support nuclear materials disposition. Close high level waste tanks to meet regulatory commitments. Implement new technologies for tank cleaning. Construct basins in fault in Srs to contain Feasibly unstable.

Remove 99% of the radioactivity from high level waste for final disposal on-site and place nonmalignant operationally disposed retail. The high level waste strategy approach includes the following components. In meeting DOE commitments by removing waste from tanks, preventing tanks for disposal, and protecting the marine environment at SRS. SRS is implementing an integrated high level waste disposal strategy that is consistent with the high level waste strategy implemented for the primary reactor to human health and the environment. The major legacy of nuclear liquid waste.

Liquid Waste Strageties

- Enable transformation of the site for future missions
- Continuously improve efficiency to reduce schedule
- Reduce cost for stakeholders
- Resolve the primary source of risk to public health
- Resolve the primary source of risk to public health

Resolves by 2028 to reduce risk and meet regulatory requirements on underground storage tanks in which the waste now resides. Additional radactively liquid waste and does not additional emergency measures to prevent. Liquid Waste and Disposal tanks.

Liquid Waste and Disposal Mission

2. Waste Disposition
Potential future canyon missions

- Continue to integrate with Assistant Manager for Nuclear Materials Stabilization Project regarding current mission through 2022
- Maintain Tank 39 and receive 300,000 gallons per year of high-level waste from H-Canyon to support Plutonium Disposition Strategy
- Receive up to 17 MT of Plutonium discharges from H-Canyon into DWP sleeve batches to support National Health and Environmental Control (SCDHEC) and U.S. Environmental Protection Agency (EPA) and by working with the U.S. Nuclear Regulatory Commission (NRC), South Carolina Department of Section 316 of the revised W. Attain National Defense Authorization Act (NDAA) for Fiscal Year 2005 can meet and stakeholder approval for tank closure through implementation of State law and
- Can develop and deploy technologies for tank cleaning
- Receive sleeve mass
- Operate DWP efficiency
- Start up and operate SWP
- Recover tank space to support waste disposal
- Remove and treat waste through interim processes
- Support H-Canyon nuclear materials stabilization operations
- Operate the dry tanks
- Recover the fuel cycle and schedule for sleeve processing
- Process the waste and reclaim tank space

Liquid Waste Critical Results

Waste System Plan Revision 4, which was published in October 2007 and is now being implemented, was adopted by the Secretary of Energy as part of the Waste Disposition Strategy. This integrated strategy was developed by the Nuclear Waste Disposal Program to address the high-level waste repository. The integrated strategy for liquid waste is implemented in the Integrated Waste Disposal Strategy, enabling timely progress in meeting DOE's goal.

SR'S goal is to reliably complete liquid waste treatment facility.
Solid Waste Disposal Mission:

- Consolidation of sanitary waste generated at SRS to reduce risk to human health and the environment.
- Low-level (LLW), intermediate (ILW), and transuranic (TRU) mixed wastes. Tranquilization (TRU) hazardous (HW), mixed waste.
- Treat, store, transport, and dispose of.

Solid Waste Strategies:

- Consolidate footprint of the waste management facilities to reduce future operating costs.
- Avoid accretion of newly generated FES and NNSA waste to prevent creation of a new legacy waste.
- Complete disposition of remaining legacy waste by shipment for off-site disposal.

Solid Waste Critical Results:

- Treat and/or dispose of all newly generated SRS LLW, ILW, and HW to prevent future release.
- Disposal of approximately 75 cubic meters of remote-handled (RH) TRU waste.
- Shipment of legacy-concentrate-grade (CH) TRU waste to the Waste Isolation Pilot Plant (WIPP).

Solid Waste Management Facility:

- Reduce waste management storage capacity by consolidating all waste management activities within the E-AREAA solid waste management facility.
- Reduce waste management storage capacity by consolidating all waste management activities within the E-AREAA solid waste management facility.
- Meet or exceed RCRA and DOE manual 435-T minimum, multifaceted requirements with the one-year storage requirements specified in the resource inventory.
- Implement a comprehensive spill response program to minimize the risk of spills.
- Improve the footprint of the solid waste management facilities to reduce the scope of operational costs.
- Treat and/or dispose of all newly generated SRS LLW, ILW, and HW to prevent future release.
- Shipment of legacy-concentrate-grade (CH) TRU waste to the Waste Isolation Pilot Plant (WIPP).
- Meet or exceed RCRA and DOE manual 435-T minimum, multifaceted requirements with the one-year storage requirements specified in the resource inventory.
- Implement a comprehensive spill response program to minimize the risk of spills.
DOE has inventories of surplus nuclear materials at multiple sites that, if used, could reduce the need for new storage and processing facilities to multiple locations, and to avoid the cost of new sites and processing facilities at multiple locations, and to avoid the cost of new facilities to multiple locations from other DOE sites to avoid the cost of new DOE sites.

Use unique capabilities at SRS to consolidate surplus nuclear materials from other DOE sites in order to include their use at SRS.

Use unique capabilities at SRS to consolidate surplus nuclear materials from other DOE sites in order to include their use at SRS.

Nuclear Material Strategies

3. Nuclear Material Disposition

Future and other national priorities.

Transformation of the Savannah River Site for the

or disposal of these materials the necessary disposition

environment and to allow either beneficial reuse

excess nuclear material to improve our security

safety, security, and efficiency store and process

Savannah River Site Strategic Plan
4. Develop basis for increasing canister plutonium loading.

3. Continue affirmative plutonium and HEU mobilization and disposition processes.

2. Integrate EM and NNSS Nuclear Material Disposition capabilities to optimize strategic interception.

Nuclear Material Critical Results

Heavily Withered (500,000 gallons, 10,000-55-gallon drums)

Depleted Uranium Oxide (77,000 MT, 16,000-55-gallon drums)

Miscellaneous Nuclear Materials

- Sodium Nuclear Fuel (SNF)
- 10 MTM Aluminum-Cooled SNF and 20 MTM Stainless Steel/Refuelling Cylinders

The scope of nuclear material disposition includes the following items:

Other milestones to complete these plans:

- Work with NNSS to develop and implement comprehensive and long-term plans for the consolidation, safe storage, and disposal of surplus nuclear materials.
- Help to protect national security.
- Implement energy from fuel and domestic research reactors.
- Support nuclear material mobilization and homeland security by consolidating and storing materials.
- Ensure security is implemented at SRS to support the disposal of surplus materials.
- Develop new capabilities for disposal of surplus plutonium for the DOE complex.
- Process these materials for disposal or reprocessing off-site, and is committed to do so to meet its goals.
Section 502 of MCEP (May 2009) states the mission of the Area Completion Project:

**Area Completion Mission**

To make significant progress toward environmental recovery and to protect human health and the environment at the Site by:

- Decontaminating and remediating contaminated facilities and remediated areas of the Site
- Complying with applicable regulations and standards
- Coordinating with responsible parties and consultants
- Developing and implementing a comprehensive strategy for the Site
- Ensuring the protection of human health and the environment

The Area Completion Project will:

- Implement a comprehensive strategy for the Site
- Comply with applicable regulations and standards
- Coordinate with responsible parties and consultants
- Develop and implement specific activities to achieve the goals of the Project
- Ensure the protection of human health and the environment

The Area Completion Project is focused on:

- Area Completion
- Contaminated Facilities
- Groundwater
- Risk Management

The Area Completion Project will:

- Implement a comprehensive strategy for the Site
- Comply with applicable regulations and standards
- Coordinate with responsible parties and consultants
- Develop and implement specific activities to achieve the goals of the Project
- Ensure the protection of human health and the environment
Optimize remediation, post-remediation, early actions.

- Develop and deploy cost-effective cleaning technologies.
  - Reach agreement on federal and state and other hard-earned facilities’ and states’ key near-term cleanup and land use decisions.
  - Achieve area and state scope to reduce the spread of contamination.
  - Decontamination and decommissioning (Soil and groundwater).
- Make progress consistent with commitments by maintaining a steady pace of cleanup.

Continue cleanup performance:
- Maintain and improve community and citizens advisory board (CAB) involvement.
- Maintain internal interaction with regulators to achieve and state vision and to implement.

Maintain regulatory and stakeholder relationships to facilitate streamlining and innovation.

Area completion critical results:
- Maintain credibility for the strategy through a steady pace of cleanup.
- Implementing a site-wide integrated regulatory strategy by maintaining an effective relationship with the regulators and stakeholders.
- Achieving approval for sale, in-place closure of large, larger remedial responsibilities.
- Optimizing cleanup processes to promote cost efficiencies.
- Reaching consensus with regulators for cleanup decisions and future land use to enable large completion.

Seven Mile River Site Strategic Plan
Position SNL for transition into a financially distinct business unit

- Provide a robust foundation for growth
- Diversify SNL’s customer base and funding sources to reduce overhead costs for all users and to
  manageandleveragemaintenance issues, and support our nation’s energy independence
- Provide leadership for technologies to advance the nuclear fuel cycle, reduce spent fuel and nuclear
  waste management issues, and support our nation’s energy independence
- Provide key technologies for global nuclear non-proliferation and international safeguards
  - Enhance SNL capabilities as the Center of Excellence for Tritium R&D, supporting national and
    international initiatives in defense, science, and energy
- Expand and grow the role of SNL as an R&D, corporate national laboratory, including involvement in
  national energy independence initiatives

**SNL Strategies**

SNL strategies include the vision of achieving sustained economic growth, maintain a strong presence in the nuclear R&D marketplace, and leverage the unique capabilities and mission focus to support the development of technologies and solutions that address national security, defense, and energy needs.

- Provide technical leadership for future defense missions
- Support the safe and efficient cleanup of the Savannah Site
- Assist LUS’s Industry with global competitiveness
- In support of the Savannah Site, SNL serves DOE and the nation by helping to complete missions at SNL
- Develop SNL’s capabilities to provide technical expertise in defense and national security
- Utilize technical expertise to provide vital national and homeland security programs and provide key support for national security
- Environmental cleanup, hydrogen technology, and nuclear security
- To be the nation’s premier applied science laboratory in environmental management, national and homeland security, and energy

**SNL Vision**

5. Savannah River National Laboratory
Enhance the client base, sustain excellence in safe operations, reduce operating cost, and enhance the facility and infrastructure portfolio to meet laboratory needs for future growth •

Achievement of laboratory missions and position SNL as a financially distinct business unit •

Deliver effective, efficient, and responsive business systems and resources that enable the successful •

Secure additional sponsors, missions, and funding •

Deliver key technologies for nonproliferation and international safeguards •

Enhance title II applied research capabilities •

Deliver technological solutions for 

SNL Critical Results

Seven Mile Site Strategic Plan
4. Implement site-wide drought contingency plan
   - Use while supporting ETL's Transformational Energy Action Management (TEAM) Initiative
   - Reduce dependency on off-site fuel and become more self-sufficient, reducing costs and energy needs most beneficial to the site

2. Technical deficiencies of existing systems and facilities equipment are managed to avoid risk of outages and loss.
   - By defining operations and functions
   - Be able to transform infrastructure functions and operations to adjust to the changing needs of the site.

3. Identifying infrastructure management practices
   - Mission updates

The Site Services and Infrastructure Critical Results

- Balanced available funding based on ranked needs and technical challenges
- Maintain sustainable infrastructure management procedures
- Identify infrastructure gaps
- Define infrastructure needs and technical challenges
- Establishing effective management, providing support for additional or improved infrastructure needs outside the baseline
- Enable EM cleanup by maintaining and identifying key infrastructure functions important to meet ever-evolving requirements of the environment, workers, and critical needs.

To manage infrastructure growth and new missions
- Ensure the site's capacity will accommodate current and future mission needs.
- Capable and resources to meet mission needs.
extraction technology to the process, it became fully operational in early 2007. The second and newest process building – the Tritium Extraction Facility (TEF) – incorporates new technology to reduce both costs and environmental releases. The Tritium Manufacturing Facility (TMF) which served to consolidate Tritium processing and handling activities, will improve laboratory operations. The SRS Tritium Facilities consist of two primary process buildings, Tritium 75 and Tritium 30. The Tritium 75 reactor, receiving and shipping of reactors, receiving Tritium 30, refining, extraction, handling and movement of Tritium 30, and auxiliary Tritium 30 facilities. Tritium processing involves a number of key operations, including extraction of previously used Tritium.

The Savannah River Site's Tritium Facilities are designed and operated to supply and process Tritium to National Nuclear Security Administration's defense programs operation at SRS.

Ensuring safe, secure, and reliable delivery of Tritium to the Complex Transformation Strategies: Requirements and Practically Implementing Defense Programs Stewardship Tritium Services in a manner that meets Defense Programs Mission at SRS

1. NNDA Defense Programs

Inventions of energy materials and infrastructure suitable for nuclear weapons.

Tritium operations of the Savannah River Site's Tritium Facilities are designed and operated to supply and process Tritium to National Nuclear Security Administration's defense programs operation at SRS.

1. NNDA Missions Supported at SRS

I V. Alignment with the National Nuclear Security Administration Program

Savannah River Site Strategic Plan
The nuclear weapons stockpile, based on the most efficient use of SRS resources and the changing demands for new thum to support the mill, has been reduced. In addition, NNSA is currently evaluating the optimum mode of operations for TFPs and additional expenditures to improve its performance. Simulations of integrated TFPs are being conducted to refine and develop strategies for optimizing the TFPs and underlying a major revision of the TFP's. The TFPs is currently in the West End Unit 1/2 and the design of the TFPs is under development. The design of the TFPs is under development. The design of the TFPs is under development. The design of the TFPs is under development.

The TFP's management and support staff, as well as change control, maintenance support areas, and a miscellaneous room for gas analyses and radiation control activities.

The TFP's provides preliminary purification of the extracted gases. It is a single-pass facility, approximately 22 feet wide by 15 feet long and is built above ground. The TFP's houses the main control room, control room, and the TFP's are used to process the TFP's. The TFP's are used to process the TFP's. The TFP's are used to process the TFP's. The TFP's are used to process the TFP's.

(TBP) Titanium Production Building (TPB) and the Support Building (TSB).

Nuclear Extraction Facility (TEF) provides the means to extract thum from titanium-bearing material located above the TFP's. The TFP's is located at SRS, in Richland, the facility has been operated for over 30 years. The TFP's is used to process the TFP's. The TFP's is used to process the TFP's. The TFP's is used to process the TFP's. The TFP's is used to process the TFP's.

2007, the Department of Energy announced that the SRS is temporarily unable to extract thum from titanium-bearing material. The SRS is temporarily unable to extract thum from titanium-bearing material. The SRS is temporarily unable to extract thum from titanium-bearing material. The SRS is temporarily unable to extract thum from titanium-bearing material.

Reestablishment of Titanium Supply

Sevenman River Site Strategic Plan
Development of Gas Transfer systems.

As part of the complex Transformation Record of Decision, NNSA announced that SNR is the preferred site for the

**Future Defense Program Missions**

Future Defense Program Missions

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Future Defense Program Missions
Design and construction of the PPDF is managed through the Savannah River Site Office. Weapons, which were declared surplus through international treaties, were disposed at the DOE's Savannah River Site.

Plutonium Plutonium disposition is performed at the Savannah River Site.

Policy

National Policy

The goal of the Plutonium Plutonium disposition Program is to dispose of 34 MT of surplus, weapon-grade plutonium.

- Develop and implement a strategy to reduce the threat of nuclear weapons.
- Work with nations worldwide to secure spent fuel and other nuclear materials.
- Provide R&D and management support for the L.US nuclear nonproliferation agreement.
- Design, build, and operate facilities to convert nuclear weapons components to commercial nuclear power.
- Enhance national security.
- Proliferation, prevention, and reversal of proliferation.
- Detect, prevent, and enhance national security.
- Proliferation of weapons of mass destruction.
- National Security.
- Nuclear Proliferation.
- Nuclear Nonproliferation.

- Global Threat Reduction Initiative
- Cooperative Threat Reduction

2. NSAS Nuclear Nonproliferation Programs

Support

- Nuclear Nonproliferation Programs supported by the NSAS Office of the Executive and
- National Nuclear Security Administration
- Savannah River Site
Critical Results

- Forecast and research activities are currently being implemented and additional programs are being
- deployed.
- Critical Results

- How is the reprocessing of weapons-grade materials into UTU for use in energetic applications?
- How is the enrichment of HEU for use in nuclear reactors?
- How is the enrichment of HEU for use in the nuclear fuel cycle?
- How is the production of nuclear weapons?
- How is the production of nuclear weapons?
- How is the production of nuclear weapons?
Critical Results

Through several international programs, SRS is also helping to develop and deploy nuclear detection, inspection, and monitoring equipment worldwide. SRS assists in removal and disposition of excess or abandoned radioactive materials in other countries where they may not be appropriately safeguarded.

...
The SRS Strategic Plan is an integral part of a systematic process that includes development, approval, revision, and implementation of SRS plans with budget, construction, program execution, and program evaluation. The process includes customer input and stakeholder involvement.

V. Plan Implementation Process
To assure this implementation, each major Site organization, including tenant and contractor organizations, should develop and update annually implementation plans. The purpose of strategic implementation plans is to more specifically define, and assign responsibility for, the courses of action to accomplish the DOE goals through implementation of the objectives and strategies provided in the SRS Strategic Plan. These organizational plans should include performance measures which are tracked to monitor progress and success.

The organizational elements within each Site organization will utilize these strategic implementation plans and, as necessary, develop implementation plans to further specify how they will contribute to the accomplishment of assigned actions for which they have responsibility. The goals in the individual plan will cascade down to the individual work within each organization, providing a clear link as to how individual work assignments contribute to accomplishing the Site missions and vision in the DOE Strategic Plan.