



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
ENVIRONMENTAL
MANAGEMENT

Enterprise SRS Initiatives Progress Updates

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Purpose

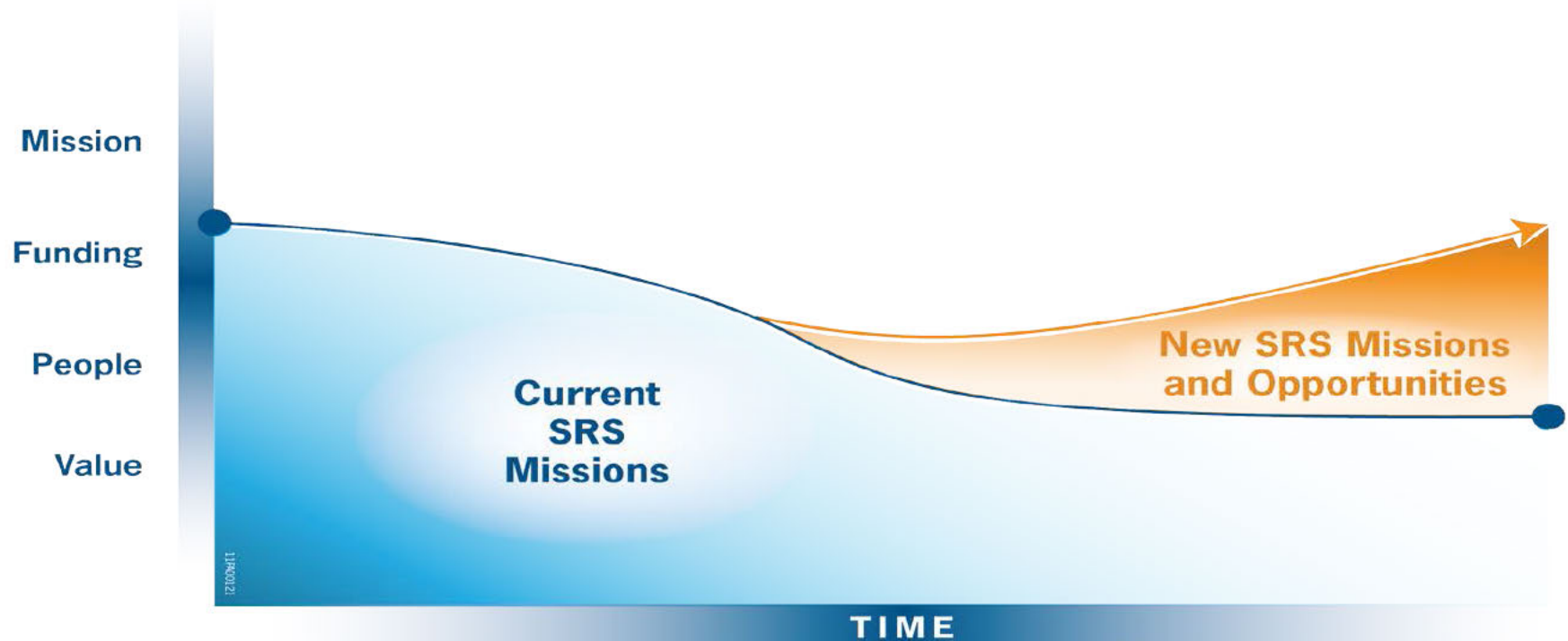
- Fulfill a Strategic & Legacy Management (S&LM) Committee Work Plan requirement to periodically provide Environmental Management (EM) performance updates.
- Provide a progress updates to Enterprise•SRS Initiatives

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Enterprise•SRS is the vision to provide innovative solutions to national challenges in the areas of National Security, Clean Energy and Environmental Stewardship while creating a sustainable future for SRS

Current Environmental Management (EM) and National Nuclear Security Administration (NNSA) missions as well as the Savannah River National Laboratory (SRNL) are critical components of **Enterprise•SRS**.

National Needs



Critical components of Enterprise•SRS

EM

Nuclear Materials
Disposition
PBS 11C

Spent Nuclear Fuel
Receipt & Storage
PBS 12

Solid Waste Disposition
PBS 13

Radioactive Liquid Waste
Stabilization & Disposition
PBS 14

Safeguards & Security
PBS 20

Soil, Water &
Facilities D&D
PBS 30

Savannah River National
Laboratory (SRNL)
Operations

NNSA

Tritium Supply

Surplus Plutonium
Disposition

Secure Global
Materials

- **Transforming legacy nuclear materials into valuable assets and stable waste forms.**
 - Unique processing capabilities including H Canyon, Defense Waste Processing Facility (DWPF) and Mixed Oxide Fuel Fabrication (MOX)
- **Developing highly innovative approaches to address national nuclear material challenges.**
 - Intellectual leadership and research & development (R&D) driven by the Savannah River National Laboratory (SRNL)
- **Securing materials to prevent unwanted global proliferation.**
- **Sustaining the nation's only tritium supply for our nuclear weapons deterrent.**
- **Providing economic impact to the region while reducing environmental risk.**

Grouping & Prioritization of Strategic Initiatives

Based on lessons learned from two years of Enterprise•SRS

“under our belt,” DOE and SRS contractors are sharpening collective efforts by grouping Strategic Initiatives into logical Focus Areas and then prioritizing actions.

- Focus Areas:
 - Surplus Nuclear Materials Management
 - Environmental Risk Reduction
 - Next Generation Tritium Supply
 - Global Monitoring & Securing of Nuclear Materials
 - Crosscutting
- Priorities:
 - Sponsorship / Funding
 - Ensuring and using available resources
 - Maximizing return on Investment
 - Improving probability of Success

Focus Area Grouping and Associated Initiatives

Focus Area	Initiatives
<i>Surplus Nuclear Materials Management</i>	<ul style="list-style-type: none">• Disposition of Highly Enriched Uranium• Recovery of "National Asset" Isotopes• Plutonium Oxide Preparation• Plutonium Disposition to Waste Isolation Pilot Plant (WIPP)• Domestic & Foreign Research Reactor Receipts• Advanced Safeguards Instrumentation Testing
<i>Environmental Risk Reduction</i>	<ul style="list-style-type: none">• Tank Closures• Actinide Removal Process (ARP) & Modular Caustic Side Solvent Extraction Unit (MCU) Life Extension• Enhanced Throughput• Saltstone Disposal Units & Salt Waste Processing Facility (SWPF)• SRNL R&D Cleanup Technologies - including In Situ Decommissioning of Reactors & Groundwater remediation

Focus Area Grouping and Associated Initiatives

Focus Area	Initiatives
<i>Next Generation Tritium Supply</i>	<ul style="list-style-type: none"> • Helium-3 Recovery • Tritium Supply
<i>Global Monitoring and Securing of Nuclear Materials</i>	<ul style="list-style-type: none"> • Disposition of Canadian Liquid Highly Enriched Uranium (HEU) • Americium-241 Recovery • Mobile Plutonium Facility • FBI Forensic Lab / SRNL • SRNL Partnering with Homeland Security / Chemical, biological, radiological, nuclear and explosive (CBRNE)Training • SRNL Applied Research / Wireless Technology • SRNL Applied Research / Radiation Mapping Technology

Focus Area Grouping and Associated Initiatives

Focus Area	Initiatives
<i>Crosscutting</i>	<ul style="list-style-type: none"> • Teaming with TEPCO (Japanese utility company) on Fukushima Cleanup • Partnering with NDA Sellafield (British nuclear decommissioning company) • Partnering with South Carolina National Guard for Military Training • Supporting U.S. Nonproliferation Efforts • Proposed Use of SRS Facilities to Disposition German Research Reactor Pebble Bed Fuel

- We are making progress executing current EM and NNSA missions in light of budget reductions.
- We have identified new opportunities within global business segments of Environmental Stewardship, National Security, and Clean Energy
 - We have secured sponsorship / funding for some of the identified opportunities and are working to gain additional support

Acronyms

ARP	Actinide Removal Process
D&D	Deactivation & Decommissioning
DWPF	Defense Waste Processing Facility
HEU	Highly Enriched Uranium
LLW	Low Level Waste
MCU	Modular Caustic Side Solvent Unit
MLLW	Mixed Low level Waste
Pu	Plutonium
SWPF	Salt Waste Processing Facility
TRU	Transuranic Waste
SNF	Spent Nuclear Fuel
WIPP	Waste Isolation Pilot Plant