



U.S. DEPARTMENT OF
ENERGY



Savannah River Site Presentation

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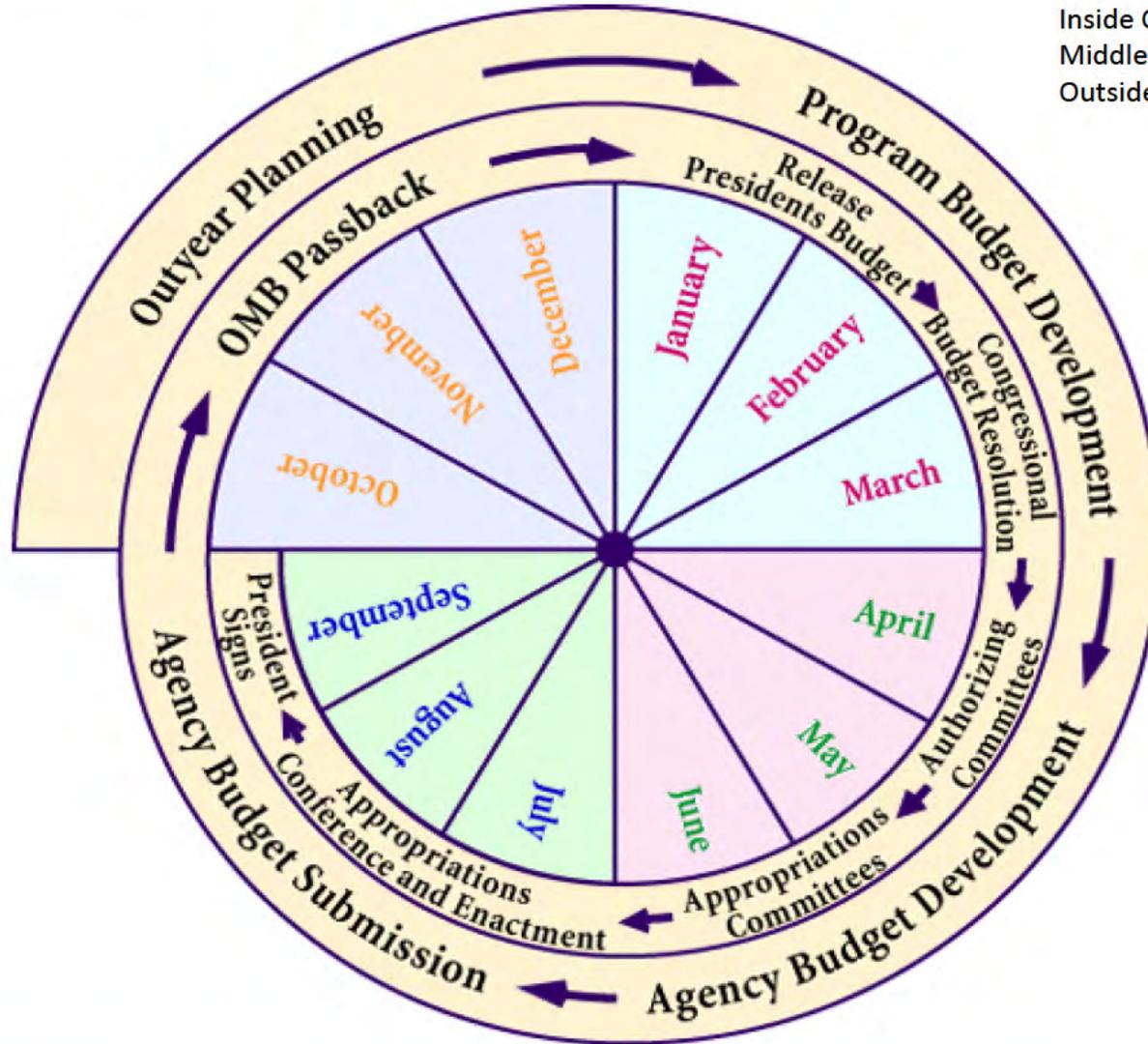
Citizens Advisory Board (CAB) – Budget Update/Integrated Priority List Discussion

June 15, 2020

Purpose

- **Provide an overview of the Federal Budget Planning Process**
- **Update on Fiscal Year 2020 Enacted Budget**
- **Update on Fiscal Year 2021 President's Budget Request (PBR)**
- **Update on Legacy Pension**
- **Discuss Fiscal Year 2022 Planning and the Integrated Priority List**
- **Request** input from the CAB for Fiscal Year 2022 priorities

Federal Budget Planning Process



Inside Circle= Current Fiscal Year (FY)
Middle Circle = FY 2021
Outside Circle= FY 2022

EM Budget Overview

DEPARTMENT OF ENERGY Funding by Organization FY2021

(Dollars in Thousands)

FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request	FY 2021 Request vs. FY 2020 Enacted	
			\$	%

Department of Energy Budget by Organization Under Secretary for Science

Science	6,585,000	7,000,000	5,837,806	-1,162,194	-16.60%
Environmental Management	7,175,129	7,455,200	6,065,672	-1,389,528	-16.64%
Legacy Management Programs	158,877	162,029	316,993	154,964	+95.64%
Office of Technology Transitions	8,505	14,080	12,639	-1,441	-10.23%

FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request	FY 2021 Request vs. FY 2020 Enacted	
			\$	%

Savannah River	1,551,014	1,629,924	1,702,870	\$72,946	+4.5%
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ENVIRONMENTAL MANAGEMENT FY 2021

Environmental Management	\$M
• Savannah River	1,703
• River Protection	1,258
• Richland/Hanford	655
• Portsmouth	491
• Oak Ridge	432
• Carlsbad/Waste Isolation Pilot Plant	390
• Idaho	271
• Program Direction	275
• Paducah	282
• Los Alamos	120
• West Valley Demonstration Project	92
• Lawrence Livermore National Laboratory	2
• Nevada	61
• Moab	48
• Technology Development	25
• Uranium Thorium Reimbursements	21
• Separation Process Research Unit (SPRU)	15
• Headquarters Operations	13
• Energy Technology Engineering Center	11
• Other Sites	5
• Sandia National Laboratory	5
• <i>Offset (Rescission of Prior Year Balances)</i>	<i>-109</i>
EM Total	6,066

SRS Budget Overview

		FY19 EM-SR Enacted	FY 20 PBR	FY 20 EM-SR Enacted	FY21 PBR
Dollars (k)					
SR-0011C	NM Stabilization & Disposition	332,947	342,958	360,558	317,355
SR-0013	Solid Waste	41,425	48,562	43,825	50,345
SR-0030	Soil and Water	73,612	62,618	65,508	53,829
SR-0041	S&M and Deactivation	28,390	26,324	26,324	23,264
SR-0042	Infrastructure & Land Mgt	13,086	10,151	10,151	10,329
19-D-701	SR Security System Replacement	10,000	0	4,525	0
18-D-402	EOC Replacement	1,259	6,792	6,792	0
20-D-402	AMC		50,000	25,000	25,000
SR-0014C	Liquid Tank Waste	696,869	797,706	820,106	970,332
SWPF	Salt Waste Processing Facility	130,000	20,988	21,200	0
SDU#7	Saltstone Disposal Unit 7	41,243	40,034	40,034	10,716
SDU#8/9	Saltstone Disposal Unit 8/9	7,577	51,750	20,000	65,500
SDU#10-12	Saltstone Disposal Unit 10-12		500	500	0
SR-0100	Community and Regulatory	11,249	4,749	11,249	4,989
SR-0020	Safeguards and Security	163,357	179,377	174,152	171,211
Total EM SRS		1,551,014	1,642,509	1,629,924	1,702,870
SWPF	SWPF Rescission		-15,562	0	
Total with Rescission			1,626,947	1,629,924	

Savannah River FY 2020 Execution – Liquid Waste Program

Fiscal Year 2020 Enacted
Savannah River Total
\$1,630M

Dollars (k)		FY 20 EM-SR Enacted
SR-0014C	Liquid Tank Waste	820,106
SWPF	Salt Waste Processing Facility	21,200
SDU#7	Saltstone Disposal Unit 7	40,034
SDU#8/9	Saltstone Disposal Unit 8/9	20,000
SDU#10-12	Saltstone Disposal Unit 10-12	500

Liquid Waste Program Total: 901,840

FY 2020 Highlights

Radioactive Liquid Tank Waste Stabilization and Disposition (PBS 14C)

- ➔ Complete hot commissioning and initiate radioactive waste operations of the Salt Waste Processing Facility.
- ➔ Modify spaces of additional 300 canisters for double stacking effort in Glass Waste Storage Building #1.
- Complete procurement of the 3H Evaporator spare pot.
- Complete preparation of Tank 26, initiate sludge removal and washing to support Sludge Batch.
- ➔ Produce 80-100 canisters of vitrified high-level waste.
- ➔ Receive and process 300,000 gallons of H Canyon waste.
- Complete Liquid Waste/Salt Waste Processing Facility integration, Defense Waste Processing Facility modifications, and continue Saltstone Facility modifications.
- Continue Tank salt dissolutions needed for salt batches to feed the Salt Waste Processing Facility.

Construction

- ➔ Complete SWPF CD-4 Project Closeout (05-D-405)
- Continue Saltstone Disposal Unit 7 cell construction and balance of plant. (17-D-402)
- Initiate Saltstone Disposal Units 8/9 cell construction and balance of plant. (18-D-402)
- Preparations of Saltstone Disposal Units 10-12 Project for CD 2/3 approval. (20-D-401)

Savannah River FY 2020 Execution – Balance of Site

Fiscal Year 2020 Enacted
Savannah River Total
\$1,630M

Dollars (k)		FY 20 EM-SR Enacted
SR-0011C	NM Stabilization & Disposition	360,558
SR-0013	Solid Waste	43,825
SR-0030	Soil and Water	65,508
SR-0041	S&M and Deactivation	26,324
SR-0042	Infrastructure & Land Mgt	10,151
19-D-701	SR Security System Replacement	4,525
18-D-402	EOC Replacement	6,792
20-D-402	Advanced Manufacturing Collaborative (AMC)	25,000
SR-0100	Community and Regulatory	11,249
SR-0020	Safeguards and Security	174,852

Balance of Site Total: 728,784

FY 2020 Highlights

Savannah River Risk Management Operations (PBS's 11C, 13, 30, 41, and 42)

- ➔ Operate H Canyon in a safe and secure manner at processing levels consistent with FY2019 production numbers
- ➔ Receive plutonium from foreign countries and provide safe storage for EM-owned spent nuclear fuel in L-Area Basin
 - Perform critical maintenance on facility perimeter intrusion system
 - Maintain Solid Waste management facilities to support site operation
- ➔ Operate and maintain soil and groundwater remedial systems
 - Revise the DNFSB 2012-1 Implementation Plan and complete all remaining DNFSB actions for 235-F Facility
- ➔ Acceleration of D-Area Power House Deactivation and Decommissioning activities.

Construction

- ➔ Complete Construction for ARGUS (H Area Subproject)
- Complete conceptual design for EOC

Savannah River Community and Regulatory (PBS 100)

- ➔ Provides payments in-Lieu-of-Taxes to Aiken, Allendale, and Barnwell counties
- ➔ Support to South Carolina Department of Health and Environmental Control for implementation of the SRS Federal Facility Agreement and an environmental surveillance and oversight program
- ➔ Provide support to the Site Specific Advisory Board

Savannah River Safeguards & Security (PBS 20)

- Supports security force and resources necessary to guard Special Nuclear Material in accordance with DOE policy.
- Ensures appropriate levels of protection for DOE-SR facilities against theft or diversion of Special Nuclear Materials.
- Protects government information and technology systems in support of DOE missions executed at the Site.

Savannah River FY 2021 Request – Liquid Waste Program

Fiscal Year 2021 President’s Budget Request Total for Savannah River \$1,703M

Dollars (k)		FY21 PBR
SR-0014C	Liquid Tank Waste	970,332
SWPF	Salt Waste Processing Facility	0
SDU#7	Saltstone Disposal Unit 7	10,716
SDU#8/9	Saltstone Disposal Unit 8/9	65,500
SDU#10-12	Saltstone Disposal Unit 10-12	0

Liquid Waste Program Total: 1,046,548

Radioactive Liquid Tank Waste Stabilization and Disposition (PBS 14C)

- ⇒ • Modify spaces of additional 300 canisters for double stacking effort in Glass Waste Storage Building #1.
- ⇒ • Operate Defense Waste Processing Facility to produce 200-220 canisters (dependent on salt processing) of vitrified high-level waste.
- Preparation of tanks for waste removal and sludge feed and preparation to support Defense Waste Processing Facility.
- ⇒ • Continue to operate Salt Waste Processing Facility at up to a 6 million gallon processing rate initiate transition to the use of next generation solvent (NGS) that will enable operations above 6 million gallon per year processing rate.

Construction

- ⇒ • The program to build Saltstone Disposal Units on schedule to dispose of the decontaminated salt solution produced by the Salt Waste Processing Facility and Tank Closure Cesium Removal units.
- A new design is being utilized for the Saltstone Disposal Units #6 through #12. This new design is a 375-foot diameter 43-foot tall cylindrical shape tank, which is 10 times larger than the previous five Saltstone Disposal Units and will hold 30,000,000 gallons of grouted decontaminated salt solution.
 - It takes approximately 4 years to construct a Saltstone Disposal Unit and 16 to 18 months to fill it. The program will require one Saltstone Disposal Unit about every 16 months to support Salt Waste Processing Facility and Tank Closure Cesium Removal at full capacity.
 - Currently SDU7/8/9 are in different stages of project completion. Adhering to the projected amount and timeline of funding is critical to ensure availability of completed Saltstone Disposal Units for efficient processing of waste and the construction schedule of the Saltstone Disposal Units.

Savannah River FY 2021 Request – Balance of Site

Fiscal Year 2021 President’s Budget Request Total for Savannah River \$1,703M

Dollars (k)		FY21 PBR
SR-0011C	NM Stabilization & Disposition	317,355
SR-0013	Solid Waste	50,345
SR-0030	Soil and Water	53,829
SR-0041	S&M and Deactivation	23,264
SR-0042	Infrastructure & Land Mgt	10,329
19-D-701	SR Security System Replacement	0
18-D-402	EOC Replacement	0
20-D-402	Advanced Manufacturing Collaborative (AMC)	25,000
SR-0100	Community and Regulatory	4,989
SR-0020	Safeguards and Security*	171,211

Balance of Site Total: 656,322

Savannah River Risk Management Operations (PBS’s 11C, 13, 30, 41, and 42)

- ➔ Nuclear Material Stabilization and Disposition Program will maintain a high state of readiness at the H-Canyon facility in FY 2021.
- ➔ Maintain safe and secure storage of special nuclear material and continue activities in K-area to down blend and package plutonium for disposal at the Waste Isolation Pilot Plant in Carlsbad, New Mexico
- ➔ Provide safe storage of spent nuclear fuel in L-Basin and support receipts of research reactor spent nuclear fuel.
- ➔ Soil and Water Remediation & Facility Deactivation and Decommissioning Program will continue to remediate Savannah River Site contaminated soils, groundwater, streams (and associated wetlands), and waste sites.
- General Site functions including land management activities to sustain natural resources and maintenance of Site’s roads, bridges, and dams, and all general site infrastructure projects.

Construction

- ➔ Emergency Operations Center and SR Security Replacement Center will be using carryover for FY 2021.
- ➔ The \$25,000,000 in Total Estimated Cost is requested for the Advanced Manufacturing Collaborative project to support design and construction of a modern research and development facility accessible by commercial industry and academia on the campus of USC-Aiken.

Savannah River Community and Regulatory Support

- ➔ Supports the Citizens Advisory Board, the States of South Carolina and Georgia for emergency management activities, South Carolina Department of Natural Resources for maintaining the Crackerneck Wildlife Management Area and Ecological Preserve, South Carolina Department of Health and Environmental Control and the Environmental Protection Agency oversight.

*Safeguards and Security funding managed as a single complex-wide congressional control. However funding is displayed for site completeness.

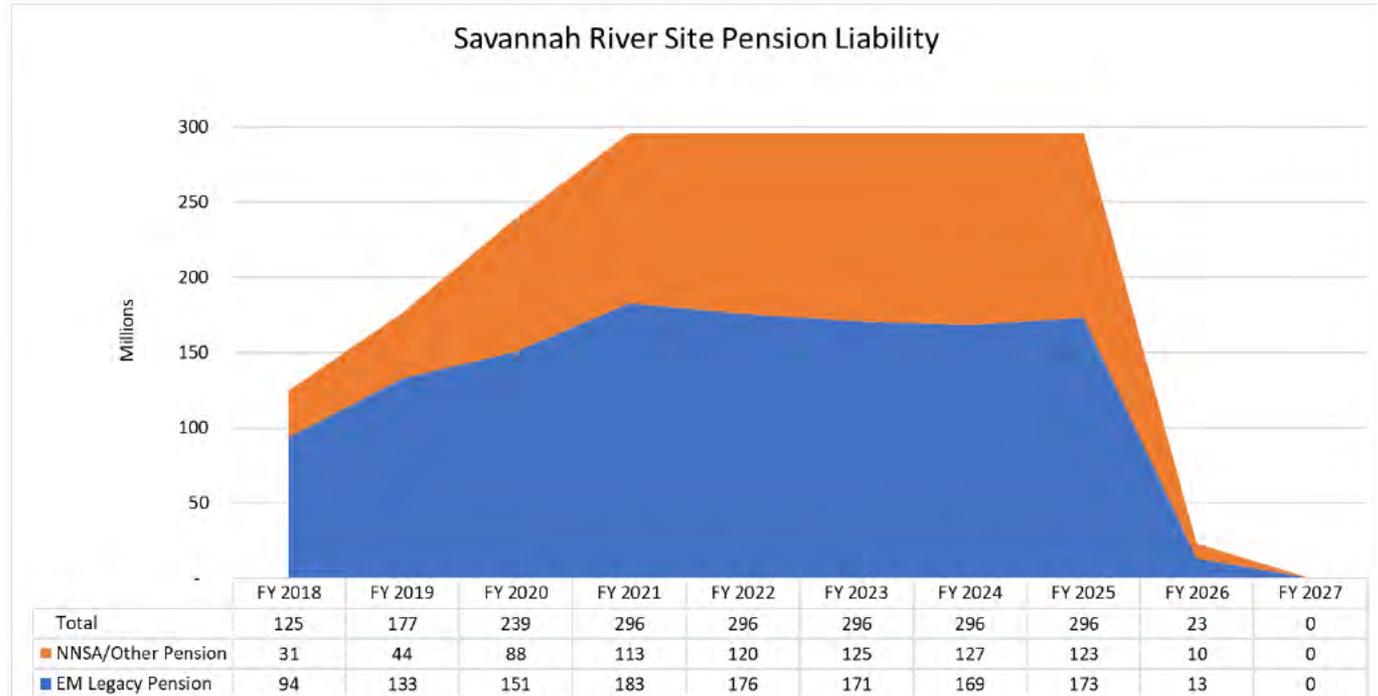
Safeguards & Security*

- Supports required security force and resources necessary to guard and safely maintain Special Nuclear Material in accordance with DOE policy.

SRS Legacy Pension – Level Funding

- The Multi-Employer Pension Plan was closed to new employees in 2008
- Flat Funding vs ERISA minimum allows pension liability to be fully funded 3 years earlier

Pension Contribution



The current site contribution ranges from \$125M in FY18 growing to \$296M in FY21.

Development of EM Integrated Priority List (IPL)

Per direction from the EM HQ, Sites are to:

- Provide an opportunity for stakeholders to provide input on the sites prioritized activities as part of budget development
 - This activity is referred to as the Integrated Priority List process
- Include stakeholders recommendations along with their own recommended course of action with the FY 2022 budget submittal to DOE Headquarters

Functional Areas of EM Mission: Program Baseline Summaries (PBS)

PBS 11C	Nuclear Materials Stabilization & Disposition (Includes Spent Nuclear Fuel Receipt/Storage)
PBS 13	Solid Waste Stabilization & Disposition
PBS 30	Soil & Water Remediation, Facility Deactivation & Decommissioning
PBS 41	Surveillance, Maintenance, and Deactivation (F-Area and 235 Risk Reduction)
PBS 42	Infrastructure and Land Management 18-D-402: Emergency Operations Center 19-D-701: SR Security System Replacement 20-D-402: Advanced Manufacturing Collaborative Facility (AMC)
PBS 14C	Radioactive Liquid Tank Waste Stabilization & Disposition 17-D-402: Saltstone Disposal Unit #7, SR (SR-0014C) 18-D-402: Saltstone Disposal Unit #8/9, SR (SR-0014C) 20-D-401: Saltstone Disposal Unit 10 11 12
PBS 20	Safeguards and Security
PBS 100	Community & Regulatory Support

Major Categories of the Integrated Priority List

All priorities (scopes) in each PBS are grouped into one of four categories:

- Support Minimum Safe Operations & Essential Site Services
- Operational Support
- Cleanup Activities to meet Compliance Milestones & Commitments
- Progress in other EM Mission Activities

Major Categories of the Integrated Priority List

1. Support Minimum Safe Operations & Essential Site Services

Activities necessary to maintain facilities or systems in a state of operational readiness, include Site Safeguards & Security

2. Operational Support

Activities necessary to meet contractual and legal commitments and obligations in support of Site Operations that are not included in Minimum Safe Operations, Compliance, and Making Progress categories. Primary focus includes:

- *Payment-in-lieu-of-taxes (PILT)*
- *Headquarters and Site direct contracts*
- *Community (CAB) and Regulatory (EPA and SCDHEC) support activities*
- *Site Infrastructure support activities.*

Major Categories of the Integrated Priority List

3. Cleanup Activities to meet Compliance Milestones & Commitments

– Activities necessary to comply with Federal & State Regulations:

- *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*
- *Resource Conservation and Recovery Act (RCRA)*
- *Federal Facility Act (FFA)*

– These regulations primarily focus on cleanup and monitoring activities associated with Solid Waste (PBS 13), Liquid Waste (PBS 14C) and Soil & Water Remediation (PBS 30).

4. Making Progress in other EM Mission Activities

– Primary focus in this category is mission activities associated with Nuclear Materials and Spent Nuclear Fuel stabilization and disposition (PBS 11C), Solid Waste Stabilization & Disposition (PBS-13), F-Area Surveillance, Maintenance, and Deactivation (PBS 41), Facility Deactivation & Decommission (PBS 30).

SRS EM PBS's & IPL Categories

PBS 11C

**Nuclear Materials
Stabilization
& Disposition**

- Min Safe
- Operational Support
- Making Progress

PBS 13

**Solid Waste
Stabilization
& Disposition**

- Min Safe
- Operational Support
- Regulatory Commitments
- Making Progress

PBS 30

**Soil & Water
Remediation,
Facilities D&D**

- Min Safe
- Operational Support
- Regulatory Commitments
- Making Progress

PBS 41

**Surveillance,
Maintenance,
and Deactivation**

- Min Safe
- Operational Support
- Making Progress

PBS 42

**Infrastructure and
Land Management**

- Operational Support

PBS 14C

**Radioactive
Liquid Tank Waste
Stabilization
& Disposition**

- Min Safe
- Operational Support
- Regulatory Commitments

PBS 100

**Community
& Regulatory
Support**

- Operational Support

PBS 20

**Safeguards &
Security**

- Min Safe
- Operational Support

DOE-SR requests input from the CAB for Fiscal Year 2022 priorities.

- Does the CAB want to maintain the same priorities from FY2021 for FY2022?
- **CAB's Previous Priorities:**
 - *Liquid Waste Program*
 - *Common and Program Infrastructure across entire SRS complex to be addressed down to PBS levels*
 - *Nuclear Materials*

CAB Input to Fiscal Year 2021 Budget



SAVANNAH RIVER SITE CITIZENS ADVISORY BOARD

P.O. Box A • Building 730-B • Room 1170 • Aiken, SC 29802

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Federal Coordinator

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May 14, 2019

Mr. Michael Budney, Site Manager
U.S. Department of Energy
Savannah River Operations Office
P. O. Box A
Aiken, South Carolina 29802

Dear Mr. Budney,

The Savannah River Site Citizens Advisory Board (SRS CAB) appreciates the opportunity to provide input to the site's prioritized activities for FY 2021. As in the past, the high-level liquid waste management program remains our highest priority. We ask that the budget request for FY 2021 reflect this priority and be at a level that guarantees compliance with all state and federal agreements.

The SRS CAB also places a high priority on the complete funding of Payment In-Lieu of Taxes (PILT) to Aiken County, Barnwell County and Allendale County.

In regard to all Environmental Management mission activities, recommended priorities are as follows:

1. Liquid Waste Program
2. Common and Program Infrastructure across entire SRS complex to be addressed down to PBS levels
3. Nuclear Materials

Thank you for the opportunity to submit our recommended priorities for the budget request for the Savannah River Site for FY 2021.

Sincerely,

Mr. Gil Allensworth, Chairperson
SRS Citizens Advisory Board

If you have questions or comments, please contact us at:

Phone: 803-952-7884 • Toll Free: 1-800-249-8455 • Fax: 803-952-9228
Email: srs citizens advisory board@srs.gov

For more information about the CAB, visit us at <http://cab.srs.gov>

Questions?