



Scoping Summary for the Sixth Five-Year Remedy Review Report for Savannah River Site Operable Units with Operating Equipment (U)

SRNS-RP-2022-00489

Final

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1.0 BACKGROUND

The size of the Savannah River Site (SRS) Five-Year Remedy Review Reports has grown considerably since the first report was submitted to the U.S. Environmental Protection Agency (USEPA) and South Carolina Department of Health and Environmental Control (SCDHEC) in July 1997. These increases are primarily the result of increasing numbers of SRS remedial decisions requiring five-year remedy reviews, and new USEPA guidance and format requirements that are not easily implemented for a large National Priorities List site with numerous remedial decisions issued. In 2014, the Core Team (i.e., representatives from the United States Department of Energy [USDOE], SCDHEC, and USEPA) reached agreement during review and approval of the *Fourth Five-Year Remedy Review Report for the Savannah River Site (U)* (SRNS-RP-2012-00011, Revision 1.1, November 2013) to submit future SRS Five-Year Remedy Review Reports in a phased approach rather than combining all operable unit (OU) reviews into a single document.

Agreement was reached during the May 2014 Core Team scoping meeting to group the OUs by the following remedy types: 1) native soil cover and/or land use controls (LUCs); 2) groundwater; 3) engineered cover systems¹; 4) geosynthetic or stabilization/solidification (S/S) cover systems; and 5) operating equipment. These groupings were chosen to provide the opportunity to effectively identify and resolve issues for similar remedies simultaneously and efficiently implement optimization initiatives for similar projects. The phased approach for submittal of future reports began with the *Fifth Five-Year Remedy Report for Savannah River Site Operable Units with the Native Soil Covers and/or Land Use Controls (U)* (SRNS-RP-2014-00902, Revision 0, December 2014).

This scoping summary supports the development of the Sixth Five-Year Remedy Review Report cycle. In accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), remedy reviews are conducted every five years. Issuance dates for the Sixth Five-Year Remedy Review Reports will occur over a five-year period (2020-2024) as shown in Table 1. A complete list of OUs/decision documents that require review and their associated acronyms are provided in Table 2.

This scoping summary supports the development of the Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment. The implementation schedule for the Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment is provided in Figure 1.

2.0 PROBLEM WARRANTING ACTION

To remain in compliance with CERCLA and the NCP and to not exceed the five-year limit that is required between OU/decision document reviews, a phased approach with a schedule for annual submittal of the Sixth Five-Year Remedy Review Reports is needed. To maintain this schedule and obtain the final signature for the last report no later than January 21, 2024, the Revision 0 submittal of the Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment is due on or before December 21, 2022.

¹ Engineered cover systems were formerly known as compacted clay cover systems in earlier five-year remedy review documentation. See Table 3.

3.0 SCOPE OF THE PROBLEM

This scoping document addresses SRS OUs that have ongoing active remediation systems and are grouped under the Operating Equipment category.

A range of active remediation systems are used at SRS to address contaminants in soil and groundwater. Soil vapor extraction systems are used to remove volatile organic compounds (VOCs) from vadose zone source areas before the contaminants can migrate to the water table. The M-1 Air Stripper is employed to remove VOCs from groundwater in the source zone. Recirculation well systems remove VOCs from groundwater plumes. These pump and treat systems remove contaminant mass and exert hydraulic control over contaminated groundwater plumes. Thermal technologies (e.g., dynamic underground stripping and electrical resistance heating) have been employed in several areas to mobilize and remove dense non-aqueous phase liquid VOCs in the vadose zone and groundwater.

The Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment includes a review of the following OUs:

- A/M Area Groundwater²
- A-Area Burning/Rubble Pits (731-A/1A) and Rubble Pit (731-2A), Miscellaneous Chemical Basin (731-4A) and Metals Burning Pit (731-5A)
- A-Area Miscellaneous Rubble Pile (731-6A)
- C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning/Rubble Pit (NBN)
- D-Area Operable Unit
- F-Area Groundwater²
- H-Area Groundwater²
- M-Area Operable Unit
- M-Area Inactive Process Sewer Line (081-M)
- P-Area Burning/Rubble Pit (131-P)
- TNX Area

The list of OUs above is unchanged from the list of OUs evaluated in the Fifth Five-Year Remedy Review Report for SRS OUs with Operating Equipment.

The Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment will apply the *2016 Five Year Review Recommended Template* (OLEM 9200.0-89, January 2016). Comments received from the USEPA during the *Fifth Five Year Remedy Reviews for Savannah River Site Operable Units with Operating Equipment* (SRNS-RP-2017-00567, Revision 0, December 2017) recommended that the USDOE implement the 2016 template when preparing future five-year remedy review reports. The 2016 recommended template amends Appendix E of the *Comprehensive Five-Year Review Guidance*, OSWER Directive 9355.7-03B-P, June 2001. The 2016 recommended template also replaces the *2011 Updated Five Year Review Summary Form*

² Resource Conservation and Recover Act (RCRA) Corrective Action

(OSWER Directive 9200.2-105, December 2011) implemented for all SRS Fifth Five-Year Remedy Review Reports.

4.0 OBJECTIVE

The objective of the Five-Year Review team is to prepare an approvable Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment. The five-year report will document, at the appropriate level of detail that each remedy is, or is not, protective of human health and the environment in the short term and/or the long term. Evaluations are based on relevant document reviews, data reviews and analyses, and site inspections. The following USEPA reference information will be used during preparation of the reports:

- (1) *Comprehensive Five-Year Review Guidance*, EPA 540-R-01-007, Office of Emergency and Remedial Response, OSWER Directive 9355.7-03B-P, June 2001.
- (2) *Recommended Evaluation of Institutional Controls: Supplement to the “Comprehensive Five-Year Review Guidance”*, Office of Solid Waste and Environmental Control, OSWER Directive 9355.7-18, September 13, 2011.
- (3) *Five-Year Review Recommended Template*, Office of Solid Waste and Emergency Response, OLEM 9200.0-89, January 2016.

5.0 RESPONSE

USDOE will prepare the Sixth Five-Year Remedy Review Report for Operating Equipment consistent with the first phased five-year remedy review report submitted in December 2014 for OUs with native soil covers and/or LUCs. The following tasks will be performed as part of the five-year review to determine the protectiveness of remedies with operating equipment and functionality of the access controls:

- Review of OU-specific regulatory documentation including Records of Decision (RODs), Early Action RODs, Interim RODs, and Explanation of Significant Differences.
- Review data, as applicable, based on the ROD requirements, remedial action objectives (RAOs), and previous USDOE, USEPA, and SCDHEC decisions. Issues and recommendations that impact the protectiveness of the remedy will be documented in the Issues/Recommendations section.
- Inspection of the OUs and documented interviews with maintenance personnel. Consistent with the first phased five-year remedy review report, the Five-Year Review Site Inspection Checklist will be streamlined to only publish the checklist sections that are applicable to the OU.
- Review changes in standards and to-be-considered guidance with respect to the protectiveness of the remedies. Current regulatory standards include the following:
 - USEPA Regional Screening Levels for Non-Radiological Constituents (May 2022)
 - USEPA Preliminary Remediation Goals for Radionuclides (June 2021)
 - USEPA Maximum Contaminant Levels
- Update maps and figures as appropriate.

USEPA's Federal Facility CERCLA Five Year Reviews Enhancement Interagency National Workgroup recommended increased community involvement during the five-year remedy review process. The following community involvement activities will be applied to the remedy review reports as follows:

- A public notice will be published soon after the scoping meeting to inform the public that a remedy review will be conducted.
- A Fact Sheet for each remedy review report will be included when the three-Party signed reports are public noticed.

6.0 UNCERTAINTY

None

7.0 STRATEGY

- The USDOE will submit the Revision 0 Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment in December 2022. The format and level of detail for the report is consistent with the *Fifth Five-Year Remedy Report for Savannah River Site Operable Units with the Native Soil Covers and/or Land Use Controls (U)* (SRNS-RP-2014-00902).
 - Consistent with the *Sixth Five-Year Remedy Review for SRS OUs with Native Soil Covers and/or LUCs*, the USDOE will implement the *Five-Year Recommended Template* (OLEM 9200.0-89, January 2016) in the introductory section of the Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment. The following changes will be reflected in the Sixth Five-Year Remedy Review Report:
 - The Executive Summary will no longer contain the Five-Year Review Summary Form.
 - The tables from the 2016 recommended template guidance will be presented as individual tables as shown in Attachment 2. This information was previously presented in the Five-Year Summary Form.
 - The "Sitewide Protectiveness Statement" table is not included because the SRS has not achieved sitewide protectiveness.
 - No format changes are proposed for the individual OU appendices.
 - The USDOE, SCDHEC, and USEPA will approve and sign the *Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment*. The regulatory review/SRS revision period for each document is based on a 90/90-day review and revision cycle.
 - USDOE will prepare an Environmental Bulletin for issuance to the public prior to submittal of the Revision 0 Sixth Five-Year Remedy Review document. A draft Environmental Bulletin will be transmitted informally to USEPA and SCDHEC for review and input.
 - A draft Fact Sheet will be submitted with the Revision 0 Sixth Five-Year Remedy Review document for regulatory review and comment.
 - A record of Core Team key agreements for the Sixth Five-Year Remedy Review Report phased approach is provided in Table 3.
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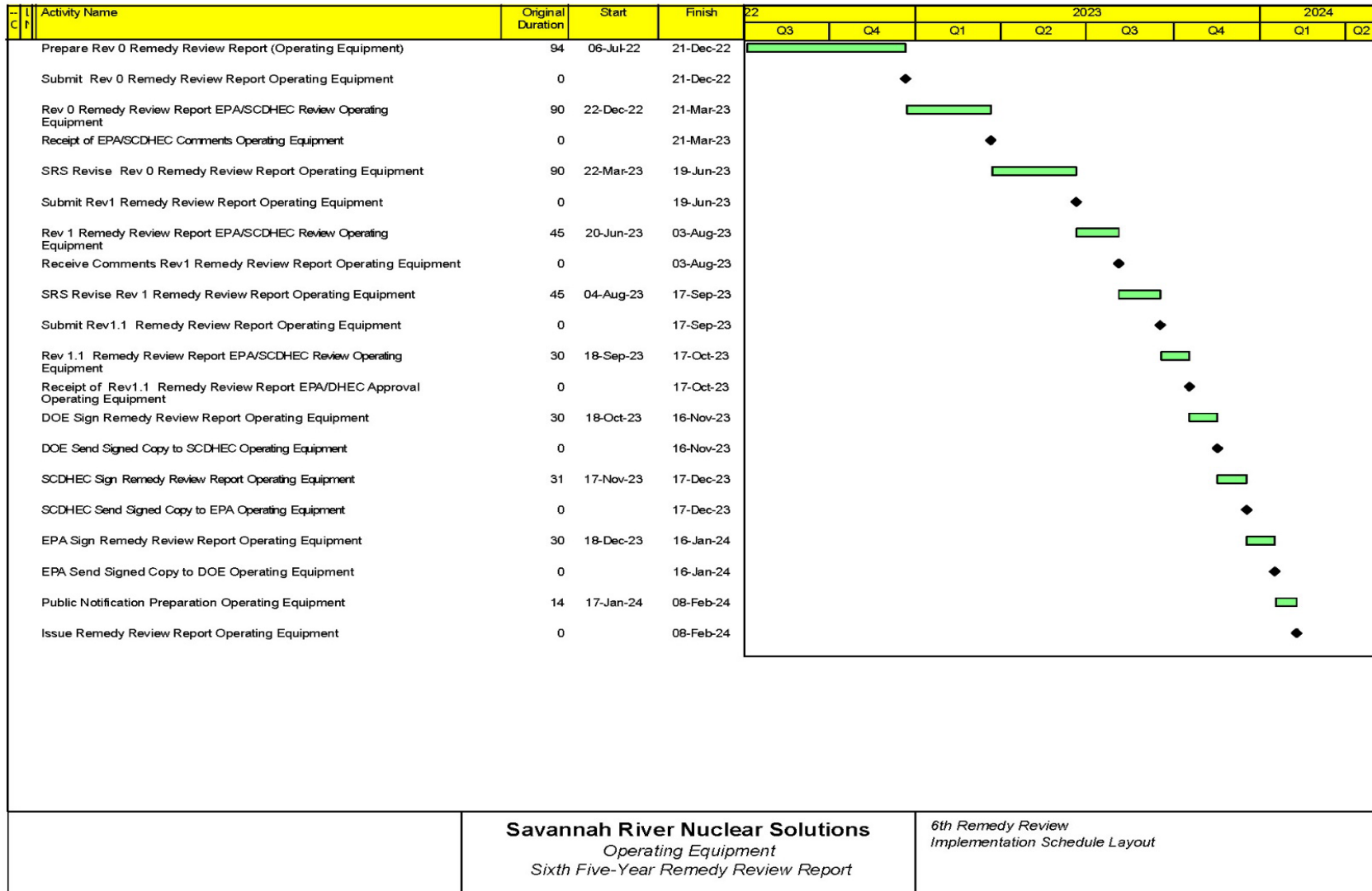


Figure 1. Sixth Five-Year Remedy Review Report for SRS OUs with Operating Equipment Implementation Schedule

Table 1. Sixth Five-Year Review Report Submittal Schedule (by Remedy)

Native Soil Cover and/or LUCs		Groundwater		Engineered Cover System		Geosynthetic or S/S Cover System		Operating Equipment	
<i>Rev. 0 Submittal Date</i>	<i>Issuance Year</i>	<i>Rev. 0 Submittal Date</i>	<i>Issuance Year</i>	<i>Rev. 0 Submittal Date</i>	<i>Issuance Year</i>	<i>Rev. 0 Submittal Date</i>	<i>Issuance Year</i>	<i>Rev. 0 Submittal Date</i>	<i>Issuance Year</i>
December 2018	2020	December 2019	2021	December 2020	2022	December 2021	2023	December 2022	2024
CAOU ^a		CAGW		CSBRP		BAOU		A/M GW	
C/K/L-Rx		CMP Pits		DBRP		CRSB		ABRP/MCB/MBP	
ECODS		DOSB		FBSB		DEXOU		AMRP	
FBRP		LASG		FHWMF ^d		ELLWF		CBRP	
Gunsite 012		RAOU ^c		HHWMF ^d		FRB		DAOU	
HEWB		RRSB		KBRP/KRP		FTF		FAGW	
KBPOP				Met Lab HWMF ^d		GSACU		HAGW	
LBPOP/PBPOP				MHWMF ^d		HTF ^a		MAOU	
PAR Pond				MWMF		KRSB		MIPSL	
RBPOP				SRL SB		LAOCB		PBRP	
SRWU						L&CRSB		TNX Area	
WADB ^b						OFASB			
						PAOU			
						PRSB			
						RBRP/RRP			
						TAOU			

Highlighted area identifies OUs evaluated for the sixth five-year remedy review reports due for submittal in 2022.

a OUs that were not previously evaluated in the five-year remedy review but are included in the sixth five-year review cycle.

b WADB was not evaluated in the sixth five-year remedy review cycle because the remedy implementation occurred during the development of the review document.

c R-Reactor Complex is discussed as part of the RAOU

d Groundwater remedies associated with these operable units are being evaluated in the Sixth Five-Year Remedy Review for SRS OUs with Operating Equipment.

Table 2. Five-Year Remedy Review Report Operable Units

#	Acronym	OPERABLE UNIT ^a	SEMS No. ^b
1	<i>ABRP/MCB/MBP</i>	<i>A-AREA BURNING/RUBBLE PITS (731-A/1A) AND RUBBLE PIT (731-2A), MISCELLANEOUS CHEMICAL BASIN (731-4A) AND METALS BURNING PIT (731-5A)</i>	28
2	<i>AMRP</i>	<i>A-AREA MISCELLANEOUS RUBBLE PILE (731-6A)</i>	30
3	<i>A/M GW</i>	<i>A/M AREA GROUNDWATER</i>	36 ^c
4	BAOU	B-AREA OPERABLE UNIT	48
5	CAOU	C-AREA OPERABLE UNIT	79
6	<i>CBRP</i>	<i>C-AREA BURNING/RUBBLE PIT (131-C) AND OLD C-AREA BURNING/RUBBLE PIT (NBN)</i>	31
7	CAGW	C-AREA GROUNDWATER	82
8	CRSB	C-AREA REACTOR SEEPAGE BASINS (904-66G AND 904-68G)	60
9	CKL-Rx	C-, K-, AND L-REACTOR COMPLEXES	79, 90, 91
10	CSBRP	CENTRAL SHOPS BURNING RUBBLE PITS (631-1G AND 631-3G)	50
11	CMP Pits	CHEMICALS, METALS, AND PESTICIDES PITS (080-170G, -080-171G, 080-180G, 080-181G, 080-182G, 080-183G, AND 080-190G)	24
12	DBRP	D-AREA BURNING/RUBBLE PITS (431-D AND 431-1D)	15
13	DEXOU	D-AREA EXPANDED OPERABLE UNIT [COMPRISED OF D-AREA ASH BASIN (488-D) AND D-AREA RUBBLE PIT (431-2D)]	67
14	DOSB	D-AREA OIL SEEPAGE BASIN (631-G)	27
15	<i>DAOU</i>	<i>D-AREA OPERABLE UNIT</i>	63
16	ELLWF	E-AREA LOW-LEVEL WASTE FACILITY (643-26E)	86
17	ECODS	EARLY CONSTRUCTION AND OPERATIONAL DISPOSAL SITE (ECODS) L-1, N-2, P-2, AND R-1A, R-1B, R-1C	22
18	FBRP	F-AREA BURNING/RUBBLE PITS (231-F, 231-1F, AND 231-2F)	14
19	<i>FAGW</i>	<i>F-AREA GROUNDWATER OPERABLE UNIT</i>	8 ^c
20	FHWMF	F-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (904-41G, 904-42G, AND 904-43G)	6 ^c
21	FRB	F-AREA RETENTION BASIN (281-3F)	23
22	FBSB	FORD BUILDING SEEPAGE BASIN (904-91G)	58
23	FTF	F-AREA TANK FARM	23
24	GSACU	GENERAL SEPARATIONS AREA CONSOLIDATION UNIT [Comprised Of Old Radioactive Waste Burial Ground (Including Solvent Tanks) (643-E), HP-52 Ponds, H-Area Retention Basin (281-3H) and Spill on 05/01/1956 of Unknown Amount of Retention Basin Pipe Leak (NBN), Warner's Pond (685-23G) and Spill On 03/08/1978 of Unknown Seepage Basin Pipe Leak in H-Area Seepage Basin (NBN) and Spill On 02/08/1978 of Unknown H-Area Process Sewer Line Cave-In (NBN)]	32
25	Gunsite 012	GUNSITE 012 (INCLUDING ECODS G-3)	78
26	<i>HAGW</i>	<i>H-AREA GROUNDWATER OU</i>	9 ^c
27	HHWMF	H-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (904-44G, 904-45G, 904-46G, AND 904-56G)	7 ^c
28	HEWB	HEAVY EQUIPMENT WASH BASIN (NBN) AND CENTRAL SHOPS BURNING/RUBBLE PIT (631-5G)	53

Table 2. Five-Year Remedy Review Report Operable Units (*continued/end*)

#	Acronym	OPERABLE UNIT ^a	SEMS No. ^b
29	HTF	H-AREA TANK FARM	89
30	KBPOP	K-AREA BINGHAM PUMP OUTAGE PIT (643-1G)	20
31	KBRP&KRP	K-AREA BURNING/RUBBLE PIT (131-K) AND RUBBLE PILE (631-20G)	40
32	KRSB	K-AREA REACTOR SEEPAGE BASIN (904-65G)	55
33	L&PBPOP	L & P BINGHAM PUMP OUTAGE PITS (643-2G, 643-3G, AND 643-4G)	26, 39
34	LAOCB	L-AREA OIL AND CHEMICAL BASIN (904-83G)	17
35	L&CRSB	L-AREA REACTOR SEEPAGE BASIN (904-64G) AND C-AREA REACTOR SEEPAGE BASIN (904-67G)	65, 60
36	LASG	L-AREA SOUTHERN GROUNDWATER	77
37	MHWMF	M-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (904-51G AND 904-112G)	1 ^c
38	MIPSL	M-AREA INACTIVE PROCESS SEWER LINE (081-M)	19
39	MAOU	M-AREA OPERABLE UNIT	92
40	Met Lab HWMF	METALLURGICAL LABORATORY HAZARDOUS WASTE MANAGEMENT FACILITY (904-110G)	2 ^c
41	MWMF	MIXED WASTE MANAGEMENT FACILITY (643-28E)	33 ^c
42	OFASB	OLD F-AREA SEEPAGE BASIN (904-49G)	16
43	PAR Pond	PAR POND UNIT LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL PORTION (MIDDLE AND LOWER SUBUNITS)	35
44	PBRP	P-AREA BURNING/RUBBLE PIT (131-P)	59
45	PAOU	P-AREA OPERABLE UNIT	94
46	PRSB	P-AREA REACTOR SEEPAGE BASINS (904-61G, 904-62G, AND 904-63G)	66
47	RBPOP	R-AREA BINGHAM PUMP OUTAGE PITS (643-8G, 643-9G AND 643-10G) AND R-AREA UNKNOWN PITS #1, #2, AND #3	38
48	RBRP/RRP	R-AREA BURNING/RUBBLE PITS (131-R AND 131-1R) AND RUBBLE PILE (631-25G)	43
49	RAOU ^d	R-AREA OPERABLE UNIT	95
50	RRSB	R-AREA REACTOR SEEPAGE BASINS (904-57G, 904-58G, 904-59G, 904-60G, 904-103G, AND 904-104G) AND 108-4R OVERFLOW BASIN	25
51	SRWU	SILVERTON ROAD WASTE UNIT (731-3A)	13
52	SRL SB	SRL SEEPAGE BASINS (904-53G1, 904-53G2, 904-54G, AND 904-55G)	47
53	TAOU	T-AREA OPERABLE UNIT	96
54	TNX Area	TNX AREA	21, 29
55	WADB	WETLAND AREA AT DUNBARTON BAY IN SUPPORT OF STEEL CREEK INTEGRATOR OPERABLE UNIT (NBN)	71

a OUs with approved or scheduled remedy decisions as of 2021 are shown. ***Bolded italics*** items indicate OUs discussed in this Five-Year Remedy Review Report.

b SEMS number is based on the latest approved version of the FFA Appendix C.

c RCRA unit with approved remedy decision document.

d R-Reactor Complex will be discussed as part of the RAOU.

Table 3. Record of Key Agreements

Date	Description of Agreement
May 12, 2014	<ul style="list-style-type: none"> Core Team agreed that a phased submittal of the Fifth Five-Year Remedy Review by remedy type was acceptable. USDOE will continue to coordinate with USEPA and SCDHEC to determine the number of annual submittals and schedule.
	<ul style="list-style-type: none"> Core Team agreed to streamline the Site Inspection Checklist to include only the checklist sections that are applicable to the OU, significantly reducing the number of published pages.
	<ul style="list-style-type: none"> USDOE will propose the document title (e.g., <i>Fifth Five-Year Remedy Review Report for Operable Units with Native Soil Covers and/or Land Use Controls</i>) for review by the Core Team during the Revision 0 review period. USEPA tracks five-year reviews by CERCLIS numbers so the document title was not as important for their administrative requirements.
	<ul style="list-style-type: none"> PAOU was more appropriately assigned to the Geosynthetic or S/S Cover System grouping based on feedback from the Core Team. The C/K/L/R-Rx OU was moved to the Native Soil Covers and/or LUCs grouping because only the LUC portion of the early action remedy has been implemented for the C-, K-, and L-Reactor Complexes. The R-Reactor Complex is discussed as part of the RAOU. USDOE will continue to evaluate the grouping of individual OUs to determine if additional adjustments are needed.
	<ul style="list-style-type: none"> USEPA and SCDHEC confirmed that their personnel will participate in five-year inspections for all OUs.
August 30, 2016	<ul style="list-style-type: none"> The group formerly known as “Compacted Clay Cover Systems” was renamed to “Engineered Cover Systems”.
	<ul style="list-style-type: none"> ELLWF from the “Engineered Cover System” group and TAOU from the “Operating Equipment” group were moved to the “Geosynthetic or Stabilization/Solidification Cover System” group.
August 28, 2018	<ul style="list-style-type: none"> Core Team agreed to the proposed implementation of the <i>Five-Year Review Recommended Template</i> (OLEM 9200.0-89, January 2016) in the introductory section of the <i>Sixth Five-Year Remedy Review Report for SRS OUs with Native Soil Covers and/or LUCs</i> as discussed in Section 7.0.

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Attachment 1. Outline for the Savannah River Site Summary of the Five-Year Remedy Review Reports

Section	Headings and Subheadings
I	INTRODUCTION Site Chronology Background Physical Characteristics Land and Resource Use History of Contamination
II	RESPONSE ACTION SUMMARY Initial Response Basis for Taking Action Response Actions Summary Status of Implementation Systems Operation and Maintenance
III	PROGRESS SINCE LAST REVIEW
IV	FIVE-YEAR REMEDY REVIEW PROCESS Community Notification and Involvement Data Review, Site Inspections, and Interviews
V	TECHNICAL ASSESSMENT Question A: Is the Remedy Functioning as Intended by the Decision Documents? Question B: Are the Exposure Assumptions, Toxicity Data, Cleanup Levels, and RAOs still Valid? Question C: Has Any Other Information Come to Light that could call into Question the Protectiveness of the Remedy?
VI	ISSUES AND RECOMMENDATIONS
VII	PROTECTIVENESS STATEMENT(S)
VIII	NEXT REVIEW
IX	OU-SPECIFIC FIVE-YEAR REMEDY REVIEW REPORTS
X	REFERENCES

Attachment 1 and Attachments 2-1 through 2-7 tables will be added to the Savannah River Site Summary section of the Sixth Five-Year Remedy Review Report for SRS OUs with Geosynthetic or Stabilization/Solidification Cover Systems. Example text is provided in Attachments 2-1 through 2-7.

Attachment 2-1. Example of Five-Year Review Summary Form³

SITE IDENTIFICATION		
Site Name: Savannah River Site		
EPA ID: SC1890008989		
Region: 4	State: SC	City/County: Aiken/Aiken
SITE STATUS		
NPL Status: Final		
Multiple OUs?: Yes	Has the Site achieved Construction Completion?: No	
REVIEW STATUS		
Lead Agency: Other Federal Agency If "Other Federal Agency" was selected above, enter Agency Name: U.S. Department of Energy		
Author Name (Federal or State Project Manager): N/A		
Author Affiliation: Savannah River Nuclear Solutions, LLC		
Review Period: July 15, 2022 – January 26, 2024 (Phase 5: SRS OUs with Operating Equipment)		
Date of Site Inspections: July 2022 - November 2022 (Phase 5: SRS OUs with Operating Equipment)		
Type of Review: Statutory		
Review Number: 6		
Triggering Action Date: January 21, 2019		
Due Date (Five Years after Triggering Action Date): January 21, 2024 (includes all 5 Phases)		

³ Same format as the Fifth SRS Five-Year Remedy Review Reports.

Attachment 2-2. Example of LUC Summary Table⁴

Operable Unit	Media, Engineered Controls, and Areas that do not support UU/UE based on current conditions	LUCs Needed	LUCs Called for in the Decision Documents	Impacted Parcel(s) ^a	LUC Objectives	Title of LUC Instrument Implemented and Date (or Planned)
A-Area Burning/Rubble Pits (731-A and 731-1A) and Rubble Pit (731-2A), Miscellaneous Chemical Basin (731-4A) and Metals Burning Pit (731-5A) OU	Surface Soils, Vadose Zone Soils, Groundwater	Yes	Yes	28	<ul style="list-style-type: none"> Restrict worker access and prevent unauthorized contact, removal or excavation of contaminated media (i.e., vadose zone soils) Prohibit the development and use of property for residential housing, elementary schools, childcare facilities, and playgrounds Maintain the integrity of any current or future remedial or monitoring systems such as soil vapor extraction (SVE) systems, soil cover, or groundwater wells Prevent access to or use of groundwater until cleanup levels are met (under the RCRA program) Prevent construction of inhabitable buildings without an evaluation of indoor air quality to address vapor intrusion 	WSRC 2007a

a The Impacted Parcel(s) identification is represented by the SEMS number.

Attachment 2-3. Example of Protectiveness Determinations/Statements from the Fifth Five-Year Remedy Review Report for SRS OUs with Operating Equipment (SRNS 2018)³

SEMS No.	Operable Unit	Protectiveness Determination	Protectiveness Statement
28	A-Area Burning/Rubble Pits (731-A and 731-1A) and Rubble pit (731-2A), Miscellaneous Chemical Basin (731-4A) and Metals Burning Pit (731-5A) (ABRP/MCB/MBP) OU	Protective	The remedy at the ABRP/MCB/MBP is protective of human health and the environment.

⁴ Template format recommended by OLEM 9200.0-89.

Attachment 2-4. Example of Status of Recommendations from the Fifth Five-Year Remedy Review Report for SRS OUs with Operating Equipment (SRNS 2018)⁵

SEMS #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
30	Soil RGs have likely been achieved and operation of the passive SVE system may no longer be needed for future protectiveness	In accordance with the <i>Sampling and Analysis Plan for the A-Area Miscellaneous Rubble Pile (731-6A) Operable Unit (U)</i> (SRNS 2015b) to determine if RGs have been achieved for TCE and PCE, additional characterization of the ash layer and vadose zone soils should be conducted. If the soil RGs have been met, the passive SVE system could be shutdown.	Complete	Additional characterization of ash layer and vadose zone soils were conducted in July 2018. After regulatory discussion and approval, the AMRP passive SVE system has been shutdown.	December 2020

⁵ Template format recommended by OLEM 9200.0-89.

Attachment 2-5. Example of Operable Units without Issues and Recommendations in the Sixth Five-Year Remedy Review Report⁶

OU(s) without Issues/Recommendations Identified in the Five-Year Review	
SEMS #:	8, 9, 21, 28, 29, 30, 31, 36, 59, 63, 92

Attachment 2-6. Example of Issues and Recommendations Identified in the Sixth Five-Year Remedy Review Report⁷

Issues and Recommendations Identified in the Five-Year Review				
M-Area Settling Basin Inactive Process Sewer Lines to manhole 1 (081-M) (MIPSL) OU SEMS #: 19	Issue Category: Other			
	Issue: The remediation system has been shut down. Only land use controls remain in place.			
	Recommendation: Move this remedy review to Phase 1 (Native Soil Covers and/or Land Use Controls [LUCs])			
Affect Current Protectiveness	Affect Future Protectiveness	Implementing Party	Oversight Party	Milestone Date
No	No	USDOE	USEPA/ SCDHEC	12/20/2023

⁶ Template format recommended by OLEM 9200.0-89.

⁷ Same format as Fifth Five-Year Remedy Review Reports.

Attachment 2-7. Example of Protectiveness Statement(s) for the Sixth Five-Year Review Report for SRS OUs with Operating Equipment⁴

PROTECTIVENESS STATEMENT(S)		
Operable Unit: A-Area Miscellaneous Rubble Pile (731-6A) (AMRP) OU, SEMS #30	Protectiveness Determination: Protective	Addendum Due Date (if applicable): N/A
Protectiveness Statement: The remedy at the AMRP is protective of human health and the environment.		

N/A – Not Applicable