

January 25, 2021

SRNS-J2000-2021-00058  
Track Number: 10693

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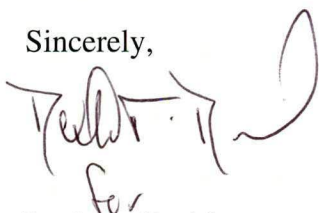
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**Proposed Plan for the Lower Three Runs Integrator Operable Unit (U) and United States Department of Energy Proposed Plan Fact Sheet for the Lower Three Runs Integrator Operable Unit**

Please make the above documents available to the general public for a minimum of 45 days for public comment beginning on January 27, 2021, after which they may be discarded.

Please acknowledge receipt of the document by email to [LeAnne.Barkley@srs.gov](mailto:LeAnne.Barkley@srs.gov). If you have any questions, please call me at (803) 725-5633 or e-mail me at above address.

Sincerely,



Le Anne Barkley  
EC & ACP Records  
730-4B, Room 135

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## **ADMINISTRATIVE RECORD FILE**

### **Proposed Plan for the Lower Three Runs Integrator Operable Unit (U) and United States Department of Energy Proposed Plan Fact Sheet for the Lower Three Runs Integrator Operable Unit**

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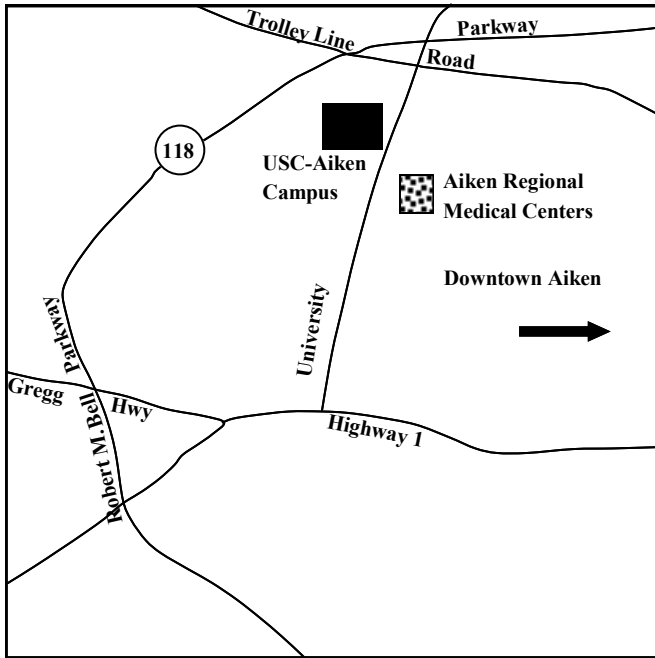
Please make the above document available to the general public for comment for Forty-Five days (45) starting on January 27, 2021 and ending on March 12, 2021

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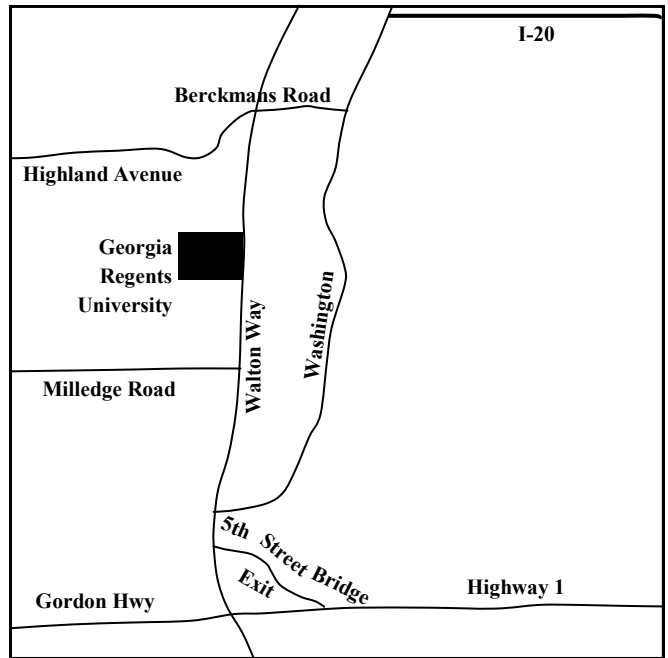
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Building 730-1B  
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1-803-952-9830  
[Angela.Benfield@srs.gov](mailto:Angela.Benfield@srs.gov)

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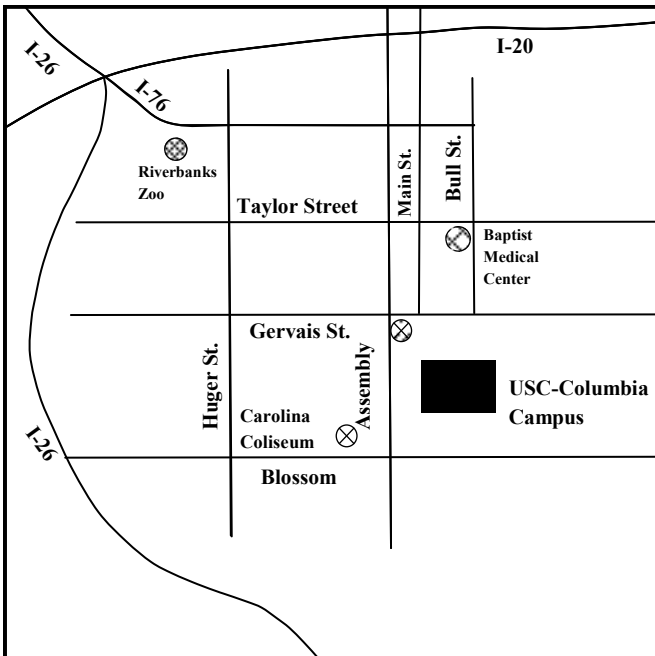
# INFORMATION REPOSITORIES



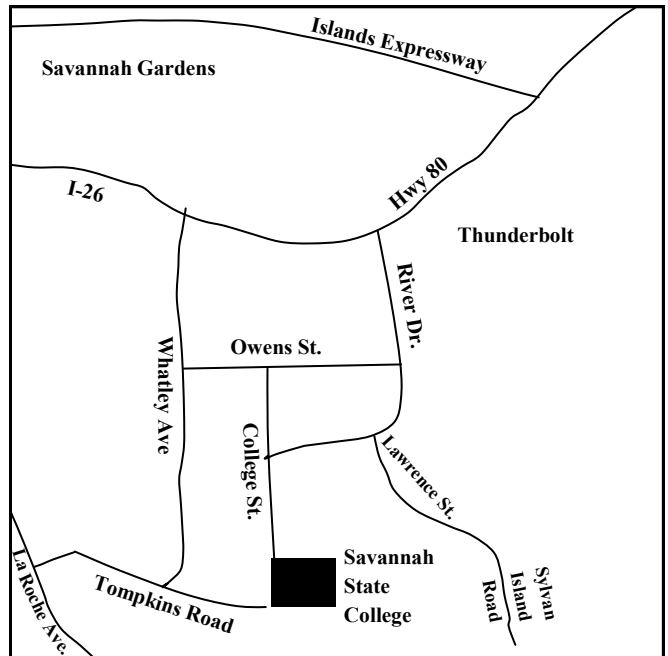
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Catalog Num	Date	Doc Number	Track #	Title	Author	Addressee	Doc Type	#of Pages
000221	07/17/91 12:00:00 AM	ESH-ERG-910599	10693	PAR POND DAM	D. E. GORDON	J. H. SCARBOROUGH	CORRESPONDENCE	1
000360	07/17/91 12:00:00 AM	ESH-ERG-910599	10693	PAR POND DAM (U)	D. E. GORDON	J. H. SCARBROUGH	CORRESPONDENCE	1
000496	09/30/92 12:00:00 AM	000496	10693	HG LEVELS IN PAR POND	P. D. FLEDDERMAN		SUPPORTING DOCUMENT	1
000497	08/22/91 12:00:00 AM	ESH-EMS-910119	10693	SPECIAL SAMPLING IN RESPONSE TO PAR POND DRAWDOWN	P. D. FLEDDERMAN		SUPPORTING DOCUMENT	11
000498	07/26/91 12:00:00 AM	SRL-ETS-910258	10693	PAR POND MEASUREMENTS OF CS-137 IN SEDIMENTS USING HIGH SENSITIVITY UNDERWATER GAMMA SPECTROMETRY	A. L. BONI		SUPPORTING DOCUMENT	17
000499	01/09/92 12:00:00 AM	WSRC-OS-92-8	10693	INDEPENDENT REVIEW OF YOUR DECEMBER 19, 1991 DOCUMENT "REASONABLE MAXIMUM RISK ESTIMATES FOR PAR POND"	W. WHICKER		SUPPORTING DOCUMENT	1
000500	07/21/91 12:00:00 AM	WSRC-OS-92-9	10693	HG CONCENTRATION IN FISH FROM PAR POND	G. L. MILLS & M. C. NEWMAN		SUPPORTING DOCUMENT	5
000501	11/15/92 12:00:00 AM	WSRC-RP-92-469	10693	SITE EVALUATION REPORT FOR PAR POND (U)	L. C. MARTIN		SITE EVALUATION	83
000503	11/22/91 12:00:00 AM	SRL-ETS-910396	10693	MEASUREMENTS OF CS-137 IN PAR POND SEDIMENT WITH UNDERWATER DETECTOR	A. L. BONI		SUPPORTING DOCUMENT	26
000505	01/17/92 12:00:00 AM	WSRC-RP-91-119	10693	RISK EVALUATION OF EXISTING DATA FOR PAR POND, (WSRC-RP-91-1197) DATED JANUARY 1992	ORNL		SUPPORTING DOCUMENT	134
000536	05/28/92 12:00:00 AM	000536	10693	USEPA COMMENTS O THE RISK EVALUATION OF EXISTING DATA FOR PAR POND SAVANNAH RIVER SITE, AIKEN, SOUTH CAROLINA	J. D. JOHNSTON	J. W. COOK	CORRESPONDENCE	4
000541	01/29/92 12:00:00 AM	ESH-ERG-910990	10693	PAR POND RISK ASSESSMENT AND SITE EVALUATION REPORT (U)	J. W. COOK	J.S. KUTZMAN/H.W. TRUESDALE	CORRESPONDENCE	2
000547	07/01/85 12:00:00 AM	DP-1697-11	10693	COMPREHENSIVE COOLING WATER STUDY ANNUAL REPORT: IVOLUME XI - ECOLOGY OF PAR POND	J. B. GLADDEN,ET AL		SUPPORTING DOCUMENT	317
000577	04/01/92 01:00:00 AM	000577	10693	SPECIAL ENVIRONMENTAL ANALYSIS FOR PAR POND AT THE SAVANNAH RIVER SITE	USDOE,ASST. SEC. FOR DEFENSE PROGRAMS		SUPPORTING DOCUMENT	26
000628	09/08/92 12:00:00 AM	ESH-ERG-920538	10693	EXTENSION REQUEST FOR SUBMITTAL OF REVISED RFI/RI WORK PLANS FOR TANK 16 AND F-AREA BURNING/RUBBLE PITS AND THE BASELINE RISK	J. W. COOK	J. D. JOHNSTON/L. R.	CORRESPONDENCE	1

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000689	06/02/92 12:00:00 AM	000689	10693	EFFECT OF PAR POND DRAWDOWN ON WOOD STORKS AND BALD EAGLES AND NOTIFICATION OF POTENTIAL INJURY TO NATURAL RESOURCES AT THE SAVANNAH	E. M. EUDALY	S. R. WRIGHT	CORRESPONDENCE	5
000712	10/01/92 12:00:00 AM	WSRC-RP-91-119 REV. 1	10693	BASELINE RISK ASSESSMENT USING EXISTING DATA FOR WSRC PAR POND (DRAFT FINAL)			BASELINE RISK ASSESSMENT	222
000748	05/29/92 12:00:00 AM	000748	10693	USEPA COMMENTS ON "RISK EVALUATION OF EXISTING DATA FOR PAR POND" (WSRC-RP-91-1197)	J. D. JOHNSTON	J. W. COOK	CORRESPONDENCE	6
001034	06/05/92 12:00:00 AM	001034	10693	THE PEOPLE SENTINEL LEGAL NOTICE FOR THE PAR POND REMOVAL ACTION	WSRC		COMMUNITY INVOLVEMENT	1
001035	06/09/92 12:00:00 AM	001035	10693	THE ALLENDALE COUNTY CITIZEN LEADER LEGAL NOTICE FOR THE PAR POND REMOVAL ACTION	WSRC		COMMUNITY INVOLVEMENT	1
001036	06/08/92 12:00:00 AM	001036	10693	AIKEN STANDARD LEGAL NOTICE FOR THE PAR POND REMOVAL ACTION	WSRC		COMMUNITY INVOLVEMENT	1
001037	06/05/92 12:00:00 AM	001037	10693	THE STATE LEGAL NOTICE FOR THE PAR POND REMOVAL ACTION	WSRC		COMMUNITY INVOLVEMENT	2
001038	09/30/92 12:00:00 AM	ESH-ERG-920589	10693	EXTENSION REQUEST FOR SUBMITTAL OF PAR POND BASELINE RISK ASSESSMENT (U)	J. W. COOK	J. D. JOHNSTON/L. R.	CORRESPONDENCE	1
001316	10/01/87 12:00:00 AM	DP-1739-7	10693	COMPREHENSIVE COOLING WATER STUDY, FINAL REPORT, VOLUME VII: ECOLOGY OF PAR POND	LOWER,N.W.		SUPPORTING DOCUMENT	230
001317	02/01/85 12:00:00 AM	DP-1698	10693	INFLUENCE OF P-AREA REACTOR OPERATION ON THE AQUATIC ECOLOGY OF PAR POND: A LITERATURE REVIEW	E. W. WILDE & L. J. TILLY		SUPPORTING DOCUMENT	128
001322	11/16/93 12:00:00 AM	WSRC-RP-92-117 REV. 0	10693	INTERIM ACTION PROPOSED PLAN FOR THE PAR POND UNIT (U)	WSRC		STATEMENT OF BASIS / PROPOSED PLAN	140
001332	12/01/92 12:00:00 AM	001332	10693	PAR POND DAM SEEPAGE INVESTIGATION RECOMMENDED REPAIR OPTIONS	BECHTEL CORPORATION		SUPPORTING DOCUMENT	93
001334	01/06/92 12:00:00 AM	WSRC-RP-91-114	10693	PAR POND ALTERNATIVES ANALYSIS REPORT	WSRC		SUPPORTING DOCUMENT	84
001363	12/03/93 12:00:00 AM	001363	10693	SCDHEC COMMENTS ON THE PAR POND INTERIM ACTION PROPOSED PLAN	M. P FIORI	L. SHAW	CORRESPONDENCE	1
001364	12/03/93 12:00:00 AM	001364	10693	USEPA COMMENTS PAR POND INTERIM ACTION PROPOSED PLAN	M. P FIORI	P. TOBIN	CORRESPONDENCE	1

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001466	04/05/94 12:00:00 AM	001466	10693	USEPA COMMENTS ON THE PAR POND PROPOSED PLAN REVISION.0 EPA REVIEW EXTENSION	J. L. CRANE	L. C. GOIDELL	CORRESPONDENCE	1
001480	03/23/94 01:00:00 AM	001480	10693	SCDHEC COMMENTS ON THE PAR POND UNIT, INTERIM ACTION PROPOSED PLAN (WSRC-RP-92-1170, REV. 0) DATED NOVEMBER 1993	H. L. MATHIS	J. W. COOK	CORRESPONDENCE	3
001516	04/05/94 12:00:00 AM	001516	10693	USEPA COMMENTS PAR POND PROPOSED PLAN REVISION.0 EPA REVIEW EXTENSION	J. L. CRANE	L. C. GOIDELL	CORRESPONDENCE	1
001533	01/01/92 12:00:00 AM	WSRC-TR-94-021	10693	1991 SUMMARY REPORT OF PAR POND RESEARCH, (WSRC-TR-94-0213) DATED JANUARY 1992	SAVANNAH RIVER ECOLOGY LAB		SUPPORTING DOCUMENT	42
001577	07/01/94 12:00:00 AM	001577	10693	SCDHEC APPROVAL TO EXPAND THE OPERATING RANGE OF THE PAR POND RESERVOIR	K. A. COLLINSWORTH	A. B. GOULD	CORRESPONDENCE	1
001588	06/20/94 12:00:00 AM	ESH-ERG-94-031	10693	PROPOSAL FOR SHUTDOWN AND DECOMMISSION OF THE REACTOR COOLING WATER DISTRIBUTION SYSTEM AND THE POTENTIAL IMPACT TO PAR POND, LOWER	J. W. COOK	J. L. CRANE/K. A. COLLINSWORT	CORRESPONDENCE	2
001611	08/05/94 12:00:00 AM	001611	10693	SCDHEC COMMENTS ON THE INTERIM ACTION PROPOSED PLAN FOR THE PAR POND UNIT (WSRC-RP-92-1170, REV.1) JUNE 21, 1994	K. A. COLLINSWORTH	T. M. TREGER	CORRESPONDENCE	2
001633	07/27/94 12:00:00 AM	001633	10693	USEPA APPROVAL OF THE PROPOSED CHANGE IN OPERATING LIMITS FOR THE PAR POND RESERVOIR	C. D. WALKER SMITH	A. B. GOULD	CORRESPONDENCE	1
001647	09/16/94 12:00:00 AM	001647	10693	DOE EXTENSION REQUEST FOR PAR POND SOURCE CONTROL OPERABLE UNIT RECORD OF DECISION	T. M. TREGER	J. L. CRANE/K. A. COLLINSWORT	CORRESPONDENCE	2
001692	06/13/94 12:00:00 AM	001692	10693	CHANGE IN OPERATING LIMITS FOR PAR POND RESERVOIR	A. B. GOULD	J. L. CRANE/K. A. COLLINSWORT	CORRESPONDENCE	1
001735	11/03/94 01:00:00 AM	001735	10693	USEPA COMMENTS ON AND CONDITIONAL APPROVAL OF THE INTERIM ACTION PROPOSED PLAN FOR THE PAR POND (WSRC-RP-92-1170, REV. 2)	C. D. WALKER-SMITH	T. M. TREGER	CORRESPONDENCE	4
001741	11/28/94 12:00:00 AM	001741	10693	USEPA APPROVAL OF THE PAR POND INTERIM ACTION PROPOSED PLAN (WSRC-RP-92-1170, REV. 2)	C. D. WALKER-SMITH	T. M. TREGER	CORRESPONDENCE	2
001759	10/06/94 12:00:00 AM	001759	10693	SCDHEC 30 DAY EXTENSION FOR THE PAR POND RECORD OF DECISION (TREGER TO CRANE AND COLLINSWORTH, 9/16/94)	K. A. COLLINSWORTH	T. M. TREGER	CORRESPONDENCE	1
001767	11/28/94 12:00:00 AM	001767	10693	SCDHEC APPROVAL OF THE INTERIM ACTION PROPOSED PLAN FOR THE PAR POND UNIT (WSRC-RP-92-1170, REV. 1, DATED 11/22/94)	K. A. COLLINSWORTH	T. M. TREGER	CORRESPONDENCE	1
001769	11/17/94 12:00:00 AM	001769	10693	SCDHEC CONDITIONAL APPROVAL OF THE INTERIM ACTION PROPOSED PLAN FOR PAR POND UNIT (WSRC-RP-92-1170, REV. 2, DATED 10/4/94)	K. A. COLLINSWORTH	T. M. TREGER	CORRESPONDENCE	5

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001770	11/30/94 12:00:00 AM	001770	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE GUNSITE 113 RECORD OF DECISION, GUNSITE 720	K. A. COLLINSWORTH	T. M. TREGER	CORRESPONDENCE	1
001781	11/17/94 12:00:00 AM	001781	10693	EXTENSION REQUESTS FOR THE GUNSITE 113 , GUNSITE 720, AND PAR POND RECORDS OF DECISION, FOR THE FINALIZATION OF THE DATA MANAGEMENT PLAN, AND	T. M. TREGER	J. L. CRANE/K. A. COLLINSWORT	CORRESPONDENCE	7
001789	12/22/94 12:00:00 AM	001789	10693	PAR POND PUBLIC MEETING (12/14/94)	C. D. WALKER-SMITH	A. DOSWELL	CORRESPONDENCE	2
001876	11/11/94 12:00:00 AM	001876	10693	TRANSCRIPT OF THE PAR POND PROPOSED PLAN PUBLIC MEETING	WSRC		COMMUNITY INVOLVEMENT	71
001895	12/06/94 12:00:00 AM	001895	10693	USEPA APPROVAL OF THE EXTENSION REQUESTS FOR THE R-AREA BINGHAM PUMP OUTAGE PIT, P-AREA BINGHAM PUMP OUTAGE PITS, TNX OPERABLE UNIT	C. WALKER-SMITH	T. M. TREGER	CORRESPONDENCE	2
002050	01/26/95 12:00:00 AM	WSRC-RP-93-154 REV. 0	10693	SIGNED INTERIM ACTION RECORD OF DECISION, REMEDIAL ALTERNATIVE SELECTION, PAR POND (WSRC-RP-93-1549, REV.0) DATED JANUARY 1995	WSRC		RECORD OF DECISION	53
002056	11/17/94 12:00:00 AM	WSRC-RP-92-117 REV. 1	10693	INTERIM ACTION PROPOSED PLAN FOR THE PAR POND UNIT (WSRC-RP-92-1170, REV.1) DATED NOVEMBER 1994	WSRC		STATEMENT OF BASIS / PROPOSED PLAN	37
002058	12/13/94 12:00:00 AM	WSRC-RP-93-154 REV. 0	10693	INTERIM ACTION RECORD OF DECISION, REMEDIAL ALTERNATIVE SELECTION, PAR POND (WSRC-RP-93-1549, REV.0) DATED DECEMBER 1994	WSRC		RECORD OF DECISION	32
002107	11/17/94 12:00:00 AM	ESH-ERG-94-063	10693	SUBMITTAL LETTER FOR THE INTERIM ACTION PROPOSED PLAN FOR THE PAR POND UNIT (WSRC-RP-932-1170, REV. 1, NOVEMBER 1994) AND	J. W. COOK	J. L. CRANE/K. A. COLLINSWORT	CORRESPONDENCE	2
002205	07/06/95 12:00:00 AM	002205	10693	SCDHEC COMMENTS ON REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN (REVISION 0) FOR THE PAR POND OPERABLE UNIT (WSRC-RP-95-0384) DATED MAY 15, 1995	K. A. COLLINSWORTH	C. V. ANDERSON	CORRESPONDENCE	2
002251	05/17/95 12:00:00 AM	ESH-ERG-95-019	10693	SUBMITTAL OF THE REMEDIAL DESIGN/REMEDIAL ACTION PLAN FOR THE PAR POND INTERIM ACTION (WSRC-RP-95-0384, REV. 0 MAY 15, 1995)	J. W. COOK	J.L. CRANE/ K.A. COLLINSWORT	CORRESPONDENCE	2
002266	05/15/95 12:00:00 AM	WSRC-RP-95-038 REV. 0	10693	REMEDIAL DESIGN/REMEDIAL ACTION PLAN FOR THE PAR POND INTERIM ACTION, (WSRC-RP-95-0384, REV.0) DATED MAY 1995	H. HICKEY		REMEDIAL DESIGN/REMEDIAL ACTION WORK	11
002406	12/15/94 12:00:00 AM	ESH-ERG-94-067	10693	SUBMITTAL OF THE DRAFT INTERIM ACTION RECORD OF DECISION FOR THE PAR POND UNIT (WSRC-RP-93-1549 REV 0 DECEMBER 13, 1994)	J. W. COOK	J. L. CRANE / K. A. COLLINSWORT	CORRESPONDENCE	1
002581	12/20/95 12:00:00 AM	DD-96-0034	10693	DOE NOTIFICATION OF THE CLOSE OF THE REGULATOR'S REVIEW/COMMENT PERIOD FOR THE PAR POND (685-G) REVISION.0 REMEDIAL DESIGN/REMEDIAL ACTION	B. T. HENNESSEY	J. L. CRANE	CORRESPONDENCE	2
002591	09/19/95 12:00:00 AM	ENVIRONMENTAL BULLETIN, VOLUME 6	10693	ENVIRONMENTAL BULLETIN FROM THE SAVANNAH RIVER SITE - VOLUME 6, NUMBER 14, DATED SEPTEMBER 19,1995	WSRC		COMMUNITY INVOLVEMENT	2

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Catalog Num	Date	Doc Number	Track #	Title	Author	Addressee	Doc Type	#of Pages
002606	09/15/92 12:00:00 AM	002606	10693	RESPONSE TO YOUR REQUEST TO THINK ABOUT THE CONSEQUENCES OF LEAVING PAR POND AT 181 FEET INDEFINITELY	W. WHICKER	A. DOSWELL	SUPPORTING DOCUMENT	2
002612	09/02/92 12:00:00 AM	002612	10693	AQUATIC AND TERRESTRIAL VEGETATION SURVEY OF PAR POND AND GARDEN PLOT STUDY: PRELIMINARY INFORMATION	F. W. WHICKER		SUPPORTING DOCUMENT	8
002619	09/01/92 12:00:00 AM	002619	10693	OFFSITE CESIUM CONCENTRATION (PAR POND)	D. M. HAMBY	L. SMITH	SUPPORTING DOCUMENT	1
002620	12/01/93 12:00:00 AM	002620	10693	SUPPLEMENT TWO TO PAR POND SPECIAL ENVIRONMENTAL ANALYSIS OBSERVED ENVIRONMENTAL IMPACTS	DEPARTMENT OF ENGERY		SUPPORTING DOCUMENT	31
002640	08/14/91 12:00:00 AM	SRL-ETS-910379	10693	PRELIMINARY ASSESSMENT OF RADIOLOGICAL IMPACT OF PAR POND DAM REPAIR (SRL-ETS-910379)	W. L. ARTER & W.H. CARLTON	J. L. KEYES	MEETING MINUTES	4
002641	09/30/94 12:00:00 AM	SRT-ETS-941219	10693	RESPONSE TO ITEM #8 OF US EPA TECHNICAL REVIEW COMMENTS FOR PAR POND INTERIM PROPOSED PLAN, SAVANNAH RIVER SUPERFUND SITE, AIKEN SC	K. CHEN.	J. GLADDEN	CORRESPONDENCE	8
002747	02/09/96 12:00:00 AM	002747	10693	USEPA COMMENTS THE PAR POND SITE REMEDIAL DESIGN/REMEDIAL ACTION PLAN (WSRC-RP-95-0384, REV. 0)	C. D. WALKER-SMITH	B. T. HENNESSEY	CORRESPONDENCE	1
002801	04/02/96 01:00:00 AM	DD-96-0152	10693	DOE SUBMITTAL OF THE REVISION.1 REMEDIAL DESIGN/REMEDIAL ACTION PLAN FOR THE PAR POND INTERIM ACTION (WSRC-RP-95-0384) AND RESPONSE TO	B. T. HENNESSEY	K. A. COLLINSWORT J. L. CRANE	CORRESPONDENCE	4
002810	03/22/96 01:00:00 AM	WSRC-RP-95-038- REV.1	10693	REMEDIAL DESIGN/REMEDIAL ACTION PLAN FOR THE PAR POND SOURCE CONTROL OPERABLE UNIT INTERIM ACTION (WSRC-RP-95-0384, REV.1) DATED MARCH 1996	WSRC		REMEDIAL DESIGN/REMEDIAL ACTION WORK	10
002951	06/03/96 12:00:00 AM	DD-96-0266	10693	DOE NOTIFICATION OF EXPIRATION OF THE 30-DAY REVIEW/APPROVAL PERIOD FOR THE REVISION. 1 REMEDIAL DESIGN/REMEDIAL ACTION PLAN FOR THE	B. T. HENNESSEY	J. L. CRANE	CORRESPONDENCE	2
003103	05/06/94 12:00:00 AM	003103	10693	USEPA COMMENTS ON REVISION.0 PROPOSED PLAN FOR AN INTERIM REMEDIAL ACTION PAR POND SAVANNAH RIVER SITE	J. L. CRANE	L. C. GOIDELL	CORRESPONDENCE	11
003227	04/26/96 12:00:00 AM	003227	10693	SCDHEC APPROVAL OF THE REMEDIAL DESIGN/REMEDIAL ACTION PLAN FOR THE PAR POND SOURCE CONTROL OPERABLE UNIT INTERIM ACTION,	K. A. COLLINSWORTH	B. T. HENNESSEY	CORRESPONDENCE	1
003232	08/15/96 12:00:00 AM	OD-96-0042	10693	START AND COMPLETION OF THE PAR POND INTERIM REMEDIAL ACTION (I.E. THE PAR POND REFILL)RE: LETTER, C. WALKER-SMITH TO B. HENNESSEY DATED	B. T. HENNESSEY	C. WALKER-SMITH	CORRESPONDENCE	2
003312	08/09/96 12:00:00 AM	003312	10693	USEPA APPROVAL OF THE REVISION.1 PAR POND REMEDIAL DESIGN/REMEDIAL ACTION (RD/RA) PLAN (WSRC-RP-95-0384)	C. D. WALKER-SMITH	B. T. HENNESSEY	CORRESPONDENCE	1
006903	06/16/20	OD-00-039	10693	DOE DISCUSSED THE U.S. FOREST SERVICE (USFS) AND DOE-SR HAVE IDENTIFIED THE POTENTIAL NEED TO USE WATER FROM PAR POND, LOCATED IN THE LOWER	B.T. HENNESSEY	K. B. FEELY / K. A. COLLINSWORT	CORRESPONDENCE	2

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Catalog Num	Date	Doc Number	Track #	Title	Author	Addressee	Doc Type	#of Pages
+008852	06/27/20	OD-02-281	10693	DOE SUBMITTAL OF THE CLEAN COPY FOR REMEDIAL INVESTIGATION WORK PLAN (RIWP) FOR THE FOURMILE BRANCH INTEGRATOR OPERABLE UNIT	B. T. HENNESSEY	K. B. FEELY / C. M. GORMAN	CORRESPONDENCE	2
✓008883	05/08/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (ERD-EN-2001-0061) DATED MAY 8, 2001	WSRC		SUPPORTING DOCUMENT	31
+011205	07/22/20	EB-04-251	10693	DOE SUBMITTAL OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT EARLY ACTION FACT SHEET, WSRC-RP-2004-4087 AND THE SCOPING	B. T. HENNESSEY	C. M. GORMAN, D. C. TAYLOR	CORRESPONDENCE	3
✓011207	05/12/20	ERD-EN-2001-006	10693	LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SCOPING SUMMARY (ERD-EN-2001-0061) DATED MAY 12, 2004 - CERCLIS NOS. 81, & 35	WSRC		SUPPORTING DOCUMENT	27
✓014111	05/01/96	ESH-EMS-960362	10693	EPD QUALITY CONTROL SUMMARY REPORT FOR THE PAR POND ECOLOGICAL RISK ASSESSMENT, PHASE II, ESH-EMS-960362, DATED MAY 1996	WSRC		SUPPORTING DOCUMENT	227
✓014113	12/01/95	ESH-EMS-950900	10693	EPD QUALITY CONTROL SUMMARY REPORT FOR THE PAR POND REFILL FISH, ESH-EMS-950900, DATED DECEMBER 1995	WSRC		SUPPORTING DOCUMENT	111
✓014388	03/14/20	SGP-07-153	10693	DOE SUBMITTAL ON THE REDLINE REVISION 1, PERIODIC REPORT 2, FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, 2006 (WSRC-RP-2006-4016), CERCLIS	BRIAN HENNESSEY	D.C. TAYLOR/D.L. SIRON	CORRESPONDENCE	31
✓014389	03/01/20	WSRC-RP-2006-4016 REV. 1 REDLINE	10693	PERIODIC REPORT 2, FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), (WSRC-RP-2006-4016, REVISION 1 REDLINE), CERCLIS NUMBER: 35, DATED	WSRC		SUPPORTING DOCUMENT	88
✓014547	05/08/20	EQMD-07-012	10693	DOE SUBMITTAL OF THE PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), (WSRC-RP-2006-4016, CERCLIS NUMBER: 35, REVISION 1,	A.B. GOULD	KEITH DYER	CORRESPONDENCE	1
015175	03/07/20	ACP-08-153	10693	DOE SUBMITTAL OF THE REMOVAL ACTION MEMORANDUM FOR THE LOWER THREE RUNS INTEGRATOR UNIT, CERCLIS NUMBER: 35	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
015176	12/01/20	WSRC-RP-2007-4043	10693	LOWER THREE RUNS IOU, EARLY ACTION FACT SHEET, WSRC-RP-2007-4043, DATED DECEMBER 2007	WSRC		SUPPORTING DOCUMENT	4
✓016093	05/27/20	ACP-09-183	10693	DOE SUBMITTAL OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (SRNS-RP-2009-00763, REVISION 0, DATED MAY 2009) AND	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓016094	05/01/20	SRNS-RP-2009-00763 REV. 0	10693	PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 0, DATED MAY 2009, CERCLIS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	206
✓016095	05/01/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), ERD-EN-2001-0061, DATED MAY 2009	SRNS		SUPPORTING DOCUMENT	12
✓016198	06/01/20	SGCP-SAP-2009-00003 REVISION DRAFT	10693	SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, REVISION DRAFT, CERCLIS	SRNS		SUPPORTING DOCUMENT	36

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✓016238	07/24/20	016238	10693	FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, EPA COMMENTS ON THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN,	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	7
✓016255	07/31/20	016255	10693	AND HEADWATERS, SGCP-SAP-2009-00003, REVISION EPA COMMENTS ON THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	4
✓016297	08/24/20	016297	10693	SRNS-RP-2009-00763, REVISION 0, DATED MAY 2009, SCDHEC COMMENTS ON THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	3
✓016389	10/22/20	ACP-10-105	10693	SRNS-RP-2009-00763, REVISION 0, CERCLIS NUMBER: DOE SUBMITTAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE LOWER THREE RUNS	BRIAN HENNESSEY	R.H. POPE/V. KEISLE	CORRESPONDENCE	2
✓016448	11/18/20	ACP-10-116	10693	INTEGRATOR OPERABLE UNIT PERIODIC REPORT # 3 (U), DOE SUBMITTAL OF THE CHANGE PAGES REDLINE	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	18
✓016449	10/01/20	SRNS-RP-2009-00	10693	REVISION 1 PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU), CERCLIS	SRNS		SUPPORTING DOCUMENT	31
✓016499	12/15/20	ACP-10-132	10693	CHANGE PAGES FOR THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	10
✓016538	12/21/20	016538	10693	SRNS-RP-2009-00763, REVISION 1 REDLINE, CERCLIS DOE SUBMITTAL OF THE FEDERAL FACILITY AGREEMENT ANNUAL REMOVAL ACTION REPORT FOR FISCAL YEAR 2009, INCLUDING: TABLE 1. FISCAL YEAR 2009	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	1
✓016559	12/15/20	016559	10693	EPA APPROVAL OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
✓016632	02/05/20	ACP-10-166	10693	CERCLIS NUMBER: 35, SRNS-RP-2009-00763, REDLINE SCDHEC APPROVAL OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓016633	10/01/20	SRNS-RP-2009-00	10693	DOE SUBMITTAL OF THE CLEAN COPY PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	SRNS		SUPPORTING DOCUMENT	203
✓016882	05/12/20	ACP-10-206	10693	SRNS-RP-2009-00763, REVISION 1, CERCLIS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 1 CLEAN COPY, CERCLIS NUMBER: 35, DATED	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓016941	04/27/20	EQMD-10-018	10693	DOE SUBMITTAL OF THE NOTIFICATION OF THE LOWER THREE RUNS (LTR) INTEGRATOR OPERABLE UNIT (IOU) THIRD (PHASE II) FIELD START, CERCLIS NUMBER: 35,	SHERRY L. SOUTHERN	SRS NATURAL RESOURCE TRUSTEES	CORRESPONDENCE	2
✓016943	04/27/20	EQMD-10-018	10693	DOE SUBMITTAL (TO THE SRS NATURAL RESOURCE TRUSTEES) OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	SHERRY L. SOUTHERN	SRS NATURAL RESOURCE TRUSTEES	CORRESPONDENCE	2
				DOE TRANSMITTAL (TO THE SRS NATURAL RESOURCE TRUSTEES) OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),				

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✓016986	06/29/20	ACP-10-228	10693	DOE SUBMITTAL OF THE REVISION 0 SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS (SGCP-SAP-2009-00003,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	21
✓016987	06/01/20	SGCP-SAP-2009-C REV. 0	10693	SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, CERCLIS NUMBER: 35, REVISION	SRNS		SUPPORTING DOCUMENT	60
✓017059	07/28/20	017059	10693	SCDHEC COMMENTS ON THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, (SGCP-SAP-2009-00003,	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	3
✓017131	07/29/20	EQMD-10-023	10693	DOE SUBMITTAL TO THE SRS NATURAL RESOURCE TRUSTEES OF THE PERIODIC REPORT 4 FOR THE STEEL CREEK INTEGRATOR OPERABLE UNIT (IOU) (U),	SHERRY SOUTHERN	SRS NATURAL RES. TURST.	CORRESPONDENCE	1
✓017160	09/29/20	017160	10693	EPA APPROVAL OF THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, CERCLIS	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	2
✓017193	10/28/20	ACP-11-109	10693	DOE SUBMITTAL OF THE REVISION 1 REDLINE SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	6
✓017194	10/01/20	SGCP-SAP-2009-C REV. 1 REDLINE	10693	REVISION 1 REDLINE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, DATED	SRNS		SUPPORTING DOCUMENT	60
✓017267	11/22/20	017267	10693	SCDHEC APPROVAL OF THE REVISION 1 REDLINE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS,	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
✓017334	12/20/20	ACP-11-130	10693	DOE SUBMITTAL OF THE CLEAN COPY SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓017335	10/01/20	SGCP-SAP-2009-C REV. 1	10693	CLEAN COPY OF THE SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003,	SRNS		SUPPORTING DOCUMENT	60
+018136	03/01/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT ERD-EN-2001-0061 CERCLIS NUMBER 35 MARCH 2012	SRNS		SUPPORTING DOCUMENT	21
+018143	03/05/20	018143	10693	SCDHEC COMMENTS ON THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	3
+018146	03/06/20	018146	10693	EPA COMMENTS ON THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS	R.H.POPE	B. T. HENNESSEY	CORRESPONDENCE	4
+018230	04/19/20	ACP-12-142	10693	DOE SUBMITTAL OF THE EXPLANATION OF SIGNIFICANT DIFFERENCE FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	B. T. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	2
+018231	04/01/20	SRNS-RP-2012-00 REVISION 0	10693	EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE SELECTION PAR POND UNIT	SRNS		SUPPORTING DOCUMENT	24

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+018313	05/14/20	018313	10693	SCDHEC COMMENTS ON THE EXPLANATION FOR SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	2
+018316	05/11/20	018316	10693	EPA COMMENTS ON THE EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	R. POPE	B. T. HENNESSEY	CORRESPONDENCE	2
+018351	06/14/20	ACP-12-160	10693	DOE SUBMITTAL OF THE EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	B. T. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	4
+018352	06/01/20	SRNS-RP-2012-00 REV 1 REDLINE	10693	EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE SELECTION PAR POND UNIT	SRNS		SUPPORTING DOCUMENT	24
+018391	07/10/20	018391	10693	SCDHEC APPROVAL OF THE EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
+018393	07/16/20	SRNS-J2000-2012 ERD-EN-2012-005	10693	LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL PORTION MIDDLE AND LOWER SUBUNITS REMOVAL ACTION REGULATORY WALK DOWNS	S. L. MCFALLS	D. LLOYD/G. OQUINN/C. BURKE	SUPPORTING DOCUMENT	5
+018395	07/16/20	018395	10693	EPA APPROVAL OF THE EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE INTERIM ACTION RECORD OF DECISION PAR POND UNIT LOWER THREE RUNS	R. H. POPE	B. T. HENNESSEY	CORRESPONDENCE	1
+018403	07/27/20	ACP-12-177	10693	DOE SUBMITTAL OF THE U.S. DEPARTMENT OF ENERGY SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF	BRIAN T. HENNESSEY	R.H.POPE/VAN KEISLER	CORRESPONDENCE	2
+018404	06/01/20	SRNS-RP-2012-00 REV. 1 CLEAN COPY	10693	EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE SELECTION PAR POND UNIT U	SRNS		SUPPORTING DOCUMENT	24
+018427	08/08/20	018427	10693	EPA SUBMITTAL TO THE SCDHEC OF THE DOE AND EPA SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE INTERIM ACTION RECORD OF DECISION	ROBERT H. POPE	VAN KEISLER	CORRESPONDENCE	1
+018440	08/17/20	018440	10693	SCDHEC SUBMITTAL OF THE SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES TO THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	V. KEISLER	B. HENNESSEY	CORRESPONDENCE	1
+018441	06/01/20	SRNS-RP-2012-00 REV 1	10693	THREE PARTY SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	SRNS		RECORD OF DECISION	24
+018485	09/21/20	ACP-12-194	10693	DOE SUBMITTAL OF THE THREE PARTY SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION	B. HENNESSEY	R. POPE/ V. KEISLER	CORRESPONDENCE	2
+018523	01/29/20	018523	10693	REVISED FINDING OF NO SIGNIFICANT IMPACT FOR THE NATURAL FLUCTUATION OF WATER LEVEL IN PAR POND AND REDUCED WATER FLOW IN STEEL CREEK BELOW L	J. M. ALLISON		SUPPORTING DOCUMENT	3
+019349	01/01/20	WSRC-MS-2001-0	10693	DEVELOPMENT OF A TOTAL MAXIMUM DAILY LOAD FOR MERCURY IN THE SAVANNAH RIVER BASIN	WILLIAM L. PAYNE		SUPPORTING DOCUMENT	17

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+019350	03/01/92	ARF-019350	10693	IAEA, 1992. EFFECTS OF IONIZING RADIATION ON PLANTS AND ANIMALS AT LEVELS IMPLIED BY CURRENT RADIATION PROTECTION STANDARDS TECHNICAL	INTERNATIONAL ATOMIC ENERGY AGENCY		SUPPORTING DOCUMENT	42
+019352	09/01/20	ARF-019352	10693	PALLER, M.H. AND J.W. LITTRELL, 2007. LONG-TERM CHANGES IN MERCURY CONCENTRATIONS IN FISH FROM THE MIDDLE SAVANNAH RIVER SCIENCE OF THE TOTAL	M.H. PALLER,J.W. LITTRELL		SUPPORTING DOCUMENT	
+019358	02/01/20	ARF-019358	10693	SUBMITTAL LETTER OF US DEPARTMENT OF ENERGY COMMENTS ON THE TOTAL MAXIMUM DAILY LOAD TMDL DEVELOPMENT FOR TOTAL MERCURY AND FISH	DEPARTMENT OF ENERGY WASHINGTON,DC	YVONNE MARTIN	SUPPORTING DOCUMENT	7
+019366	05/01/94	SREL-48 UC-66E	10693	MERCURY BIOACCUMULATION IN MOSQUITOFISH GAMBUSIA HOLBROOKI SAMPLE ON AND AROUND THE SAVANNAH RIVER SITE	M.C. NEWMAN,A. MESSIER		SUPPORTING DOCUMENT	63
+019563	02/28/20	019563	10693	TOTAL MAXIMUM DAILY LOAD TMDL FOR TOTAL MERCURY IN FISH TISSUE RESIDUE IN THE MIDDLE AND LOWER SAVANNAH RIVER WATERSHED	EPA		SUPPORTING DOCUMENT	83
+019564	12/08/20	019564	10693	US DEPARTMENT OF ENERGY COMMENTS ON THE TOTAL MAXIMUM DAILY LOAD TMDL DEVELOPMENT FOR TOTAL MERCURY AND FISH CONSUMPTION GUIDELINES IN THE	DOE		SUPPORTING DOCUMENT	
+019598	09/13/20	019598	10693	THE ENVIRONMENTAL BULLETIN FROM THE SAVANNAH RIVER SITE FOR THE NOTICE OF AVAILABILITY FOR THE EXPLANATION OF SIGNIFICANT DIFFERENCES ISSUED	SRNS		COMMUNITY INVOLVEMENT	2
+019896	02/09/20	019896	10693	THE ENVIRONMENTAL BULLETIN FROM THE SAVANNAH RIVER SITE REVISED FONSI FOR THE NATURAL FLUCTUATION OF WATER LEVEL IN PAR POND AND SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER 35	SRS		COMMUNITY INVOLVEMENT	2
+020418	10/30/20	ERD-EN-2001-006 FINAL	10693	ERD-EN-2001-0061 FINAL OCTOBER 2015	SRNS		CORRESPONDENCE	33
020529	01/31/20	ERD-EN-2001-006 FINAL	10693	ERD-EN-2001-0061 FINAL JANUARY 2016	SRNS		SUPPORTING DOCUMENT	154
+020686	04/21/20	IACD-16-132	10693	DOE SUBMITTAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN AND HEADWATERS - PAR POND	BRIAN T. HENNESSEY	ROBERT H. POPE SUSAN B. FULMER	CORRESPONDENCE	2
+020687	04/30/20	SRNS-RP-2016-00 REV 0	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS - PAR POND SGCP-SAP-2009-00003,	SRNS		SUPPORTING DOCUMENT	42
+020707	05/18/20	020707	10693	SCDHEC COMMENTS ON THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS -	SUSAN B. FULMER	BRIAN T. HENNESSEY	CORRESPONDENCE	2
+020755	06/03/20	020755	10693	EPA APPROVAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS - PAR POND	ROBERT H. POPE	BRIAN T.HENNESSEY	CORRESPONDENCE	1
+020786	08/04/20	IACD-16-157	10693	DOE SUBMITTAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS - PAR POND	BRIAN T. HENNESSEY	ROBERT H. POPE SUSAN B. FULMER	CORRESPONDENCE	4

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+020788	07/30/20	SRNS-RP-2016-0C REV 1	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS - PAR POND SGCP-SAP-2009-00003	SRNS		SUPPORTING DOCUMENT	42
+020800	07/30/20	ERD-EN-2001-006 FINAL	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER: 35 ERD-EN-2016-0061 JULY 2016 FINAL	SRNS		SUPPORTING DOCUMENT	38
+020827	09/02/20	020827	10693	SCDHEC APPROVAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STEAM, FLOODPLAIN, AND HEADWATERS -	SUSAN B FULMER	BRIAN T HENNESSEY		1
+021210	07/28/20	IACD-17-144	10693	DOE SUBMITTAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT NBN U	BRIAN T. HENNESSEY	ROBERT H. POPE SUSAN B. FULMER	CORRESPONDENCE	2
+021211	02/01/20	ERD-EN-2001-006 FINAL	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT ERD-EN-2001-0061 FEBRUARY 2017 FINAL CERCLIS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	38
+021212	06/01/20	SRNS-RP-2017-0C REV 0	10693	LOWER THREE RUNS INTERGRATOR OPERABLE UNIT DATA USABILITY REPORT DUR U CERCLIS NUMBER: 35 SRNS-RP-2017-00285 REVISION 0 JUNE 2017	SRNS		SUPPORTING DOCUMENT	106
+021213	06/01/20	SRNS-RP-2017-0C REV 0	10693	REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U CERCLIS NUMBER; 35	SRNS		SUPPORTING DOCUMENT	966
+021251	09/25/20	021251	10693	SCDHEC COMMENTS ON THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U, CERCLIS	SUSAN B FULMER	BRIAN T HENNESSEY	CORRESPONDENCE	
+021265	10/03/20	021265	10693	EPA COMMENTS ON THE REMEDIAL INVESTIGATION/BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS OPERABLE UNIT, CERCLIS NUMBER	JON RICHARDS	BRIAN T. HENNESSEY	CORRESPONDENCE	3
+021376	01/25/20	021376	10693	SCDHEC APPROVAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) CERCLIS	SUSAN B. FULMER	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021377	01/26/20	021377	10693	EPA APPROVAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER	JON RICHARDS	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021445	03/29/20	021445	10693	EPA APPROVAL OF THE EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, CERCLIS NUMBER	JON RICHARDS	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021454	03/15/20	IACD-18-141	10693	DOE SUBMITTAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY SRNS-RP-2018-00199 REVISION 0 AND SUBSEQUENT	BRIAN T. HENNESSEY	JON RICHARDS SUSAN B.	CORRESPONDENCE	2
+021461	03/19/20	021461	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY SRNS-RP-2018-00199 REVISION 0 AND SUBSEQUESNT	SUSAN B. FULMER	BRIAN T. HENNESSEY	CORRESPONDENCE	1

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+021687	06/19/20	IACD-18-158	10693	DOE SUBMITTAL: EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY	B. HENNESSEY	S. FULMER J. RICHARDS	CORRESPONDENCE	2
+021695	06/26/20	SRNS-OS-2018-0C	10693	(SRNS-RP-2018-00199, REVISION 0) FOR THE LOWER EPA APPROVAL OF THE EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35	J. Richards	B. Hennessey	CORRESPONDENCE	1
+021698	06/22/20	SRNS-OS-2018-0C	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 0) FOR THE LOWER SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (FEASIBILITY STUDY SCOPING) (ERD-EN-2001-0061, APRIL 2018 FINAL) SEMS	SRNS		SUPPORTING DOCUMENT	46
+021726	04/01/20	ERD-EN-2001-006	10693	FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 0 JULY 2018) SEMS NUMBER: 35	SRNS		FEASIBILITY STUDY	138
+021727	07/01/20	SRNS-RP-2018-0C REV 0	10693	SCDHEC COMMENTS ON THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 0, EPA COMMENTS FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, SRNS-RP-2018-00199, REVISION 0,	S. FULMER	B. HENNESSEY	CORRESPONDENCE	3
+021846	10/31/20	SRNS-OS-2018-0C	10693	DOE SUBMITTAL LETTER OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (U), SEMS NUMBER: 35, SRNS-RP-2018-00199, REVISION 0,	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	4
+021847	10/18/20	SRNS-OS-2018-0C	10693	DOE SUBMITTAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 1 REDLINE, JANUARY	B. HENNESSEY	J. RICHARDS, S. FULMER	CORRESPONDENCE	2
+021887	12/20/20	IACD-19-118	10693	FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 1, REDLINE, JANUARY 2019)	SRNS	J. RICHARDS, S. FULMER	CORRESPONDENCE	25
+021918	01/30/20	IACD-19-120	10693	DOE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT EPA APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U),	B. HENNESSEY	J. RICHARDS, S. FULMER	CORRESPONDENCE	25
+021919	01/01/20	SRNS-RP-2018-0C	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT EPA EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35	SRNS	DISTRIBUTION	SUPPORTING DOCUMENT	166
+021925	02/07/20	IACD-19-125	10693	DOE SUBMITTAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (U), SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 0,	B. HENNESSEY	J. RICHARDS, S. FULMER	CORRESPONDENCE	3
+021937	02/12/20	SRNS-OS-2019-0C	10693	EPA APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U),	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+021941	02/12/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT EPA EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+021954	03/01/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (U), SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 0,	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+021961	02/28/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (U), SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 1	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1

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022002	04/03/20	SRNS-OS-2019-0C	10693	EPA COMMENTS FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU)	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	7
022025	04/11/20	IACD-19-137	10693	(U), SEMS NUMBER: 35, [SRNS-RP-2018-00199], REVISION DOE SUBMITTAL OF THE SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
022026	03/01/20	ERD-EN-2019-000	10693	INTEGRATOR OPERABLE UNIT PROGRAM (PHASE II) SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE INTEGRATOR OPERABLE UNIT PROGRAM (PHASE II) (U), (ERD-EN-2019-0007, MARCH	SRNS		SUPPORTING DOCUMENT	72
022027	04/11/20	IACD-19-142	10693	DOE SUBMITTAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	3
022137	04/12/20	SRNS-OS-2019-0C	10693	(SRNS-RP-2018-00199, REDLINE REVISION 1.1) AND SCDHEC APPROVAL OF THE SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
022138	04/12/20	SRNS-OS-2019-0C	10693	INTEGRATOR OPERABLE UNIT PROGRAM (PHASE II) SCDHEC APPROVAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
022141	04/23/20	SRNS-OS-2019-0C	10693	(SRNS-RP-2018-00199, REDLINE REVISION 1.1) AND EPA APPROVAL FOR THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
022146	04/26/20	SRNS-OS-2019-0C	10693	(SRNS-RP-2018-00199, REDLINE REVISION 1.1) AND EPA CONCURRENCE OF SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE	J.RICHARDS	B.HENNESSEY	CORRESPONDENCE	1
022162	05/08/20	SRNS-OS-2019-0C	10693	INTEGRATOR OPERABLE UNIT PROGRAM [PHASE II] SCDHEC E-MAIL APPROVAL OF THE EXTENSION OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	S. FULME	B. HENNESSEY,J. RICHARDS	CORRESPONDENCE	2
022163	05/09/20	SRNS-OS-2019-0C	10693	FEASIBILITY STUDY (SRSN-RP-2018-00199, REVISION 1.1) EPA E-MAIL APPROVAL OF THE EXTENSION OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	J. RICHARDS	B. HENNESSEY,S. FULMER	CORRESPONDENCE	2
022165	05/07/20	IACD-19-150	10693	FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 1.1) DOE REQUEST TO SUSPEND / EXTEND THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT FEASIBILITY	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	4
022173	05/13/20	SRNS-OS-2019-0C	10693	STUDY (SRNS-RP-2018-00199, REVISION 1.1) SUBMITTAL EPA E-MAIL RESPONSE TO THE DOE E-MAIL REGARDING CLARIFICATION FOR DETERMINING THE SUBMITTAL DATE	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
022174	05/13/20	SRNS-OS-2019-0C	10693	FOR THE FEASABILITY STUDY FOR THE LOWER THREE SCDHEC E-MAIL RESPONSE TO THE DOE E-MAIL REGARDING CLARIFICATION FOR DETERMINING THE	H. CATHCART	B. HENNESSEY	CORRESPONDENCE	2
022175	05/13/20	IACD-19-153	10693	SUBMITTAL DATE FOR THE FEASABILITY STUDY FOR THE DOE E-MAIL REGARDING CLARIFICATION FOR DETERMINING THE SUBMITTAL DATE FOR THE	B. HENNESSEY	J. RICHARDS,R. POPE,S.FULME	CORRESPONDENCE	1
022237	06/27/20	IACD-19-167	10693	FEASABILITY STUDY FOR THE LOWER THREE RUNS DOE SUBMITTAL OF THE THIRD EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
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+022251	07/01/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE THIRD EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022257	07/11/20	SRNS-OS-2019-0C	10693	EPA APPROVAL FOR THE THIRD EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022379	10/21/20	IACD-20-105	10693	DOE SUBMITTAL LETTER FOR THE FOURTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	3
+022392	10/22/20	SRNS-OS-2019-0C	10693	EPA APPROVAL FOR THE FOURTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	J. RICHARDS	B. HENNESSEY	SUPPORTING DOCUMENT	1
+022396	10/23/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE FOURTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022579	02/04/20	IACD-20-130	10693	DOE SUBMITTAL FOR THE FIFTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
+022581	02/04/20	SRNS-OS-2020-0C	10693	EPA APPROVAL FOR THE FIFTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022585	02/06/20	SRNS-OS-2020-0C	10693	SCDHEC APPROVAL OF THE FIFTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022601	02/28/20	SRNS-OS-2020-0C	10693	EPA APPROVAL FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER 35, [SRNS-RP-2018-00199, REV 1.1,	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
022631	03/24/20	SRNS-OS-2020-0C	10693	SCDHEC APPROVAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 1.1,	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022673	04/22/20	IACD-19-138	10693	DOE SUBMITTAL FOR THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 0, APRIL 2020) SEMS	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	44
+022675	04/01/20	SRNS-RP-2019-0C	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) SRNS-RP-2019-00058	SRNS	B. HENNESSEY	SUPPORTING DOCUMENT	62
+022760	06/18/20	SRNS-OS-2020-0C	10693	EPA SUBMITTAL OF A THIRTY-DAY EXTENSION NOTIFICATION FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (SRNS-RP-2019-00058,	R. POPE	B. HENNESSEY	CORRESPONDENCE	1
+022772	06/18/20	SRNS-OS-2020-0C	10693	SCDHEC COMMENTS ON THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SEMS NUMBER: 35 (SRNS-RP-2019-00058, REVISION 0,	S. FULMER	B. HENNESSEY	CORRESPONDENCE	2
+022812	07/24/20	SRNS-OS-2020-0C	10693	EPA COMMENTS ON THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, [SRNS-RP-2019-00058], REVISION	R. POPE	B. HENNESSEY	CORRESPONDENCE	4

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+022892	09/22/20	IACD-20-181	10693	DOE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U)	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	14
+022893	09/01/20	SRNS-RP-2019-0C REV. 1 REDLINE	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1 REDLINE, SEPTEMBER 2020) SEMS NUMBER:	SRNS		STATEMENT OF BASIS / PROPOSED PLAN	62
+022953	10/22/20	SRNS-OS-2020-0C	10693	EPA SUBMITTAL OF AN EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS ON THE LOWER THREE RUNS (LTR) INTEGRATOR OPERABLE UNIT (IOU) PROPOSED	R. POPE	B. HENNESSEY,S. FULMER	CORRESPONDENCE	2
+022955	10/20/20	SRNS-OS-2020-0C	10693	SCDHEC APPROVAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SEMS NUMBER: 35 (SRNS-RP-2019-00058, REVISION 1	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022972	11/04/20	IACD-21-104	10693	DOE SUBMITTAL OF THE APPROVAL OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S 120-DAY	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	5
+022974	11/05/20	SRNS-OS-2020-0C	10693	EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE LOWER THREE RUNS	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022984	11/13/20	SRNS-OS-2020-0C	10693	INTEGRATOR OPERABLE UNIT REVISION 0 RECORD OF EPA COMMENTS ON THE PROPOSED PLAN FOR THE	R. POPE	B. HENNESSEY	CORRESPONDENCE	2
+023028	12/21/20	IACD-21-114	10693	LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER 35, [SRNS-RP-2019-00058], REVISION	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	16
+023029	12/01/20	SRNS-RP-2020-0C	10693	DOE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1.1 REDLINE, DECEMBER	SRNS		SUPPORTING DOCUMENT	5
+023030	12/01/20	SRNS-RP-2019-0C REV 1.1 REDLINE	10693	UNITED STATES DEPARTMENT OF ENERGY PROPOSED PLAN FACT SHEET FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (SRNS-RP-2020-00110,	SRNS		STATEMENT OF BASIS / PROPOSED PLAN	56
+023031	12/01/20	SRNS-RP-2019-0C REV 1.1	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1.1 REDLINE, DECEMBER 2020) SEMS NUMBER:	SRNS		STATEMENT OF BASIS / PROPOSED PLAN	56
+023039	12/22/20	SRNS-OS-2021-0C	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1.1, DECEMBER 2020) SEMS NUMBER: 35	R. POPE	B. HENNESSEY	CORRESPONDENCE	1
				EPA APPROVAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, [SRNS-RP-2019-00058], REVISION				

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003447	08/28/96 12:00:00 AM	WSRC-RP-96-801	10693	SITE EVALUATION REPORT FOR THE OLD R-AREA DISCHARGE CANAL	WSRC		SITE EVALUATION	30
003467	12/09/96 12:00:00 AM	OD-97-0017	10693	SUBMITTAL OF THE REMEDIAL SITE EVALUATION REPORT FOR THE OLD R-AREA DISCHARGE CANAL (WSRC-RP-96-801)	B. T. HENNESSEY	K. A. COLLINSWORT / J. L. CRANE	CORRESPONDENCE	2
+008852	06/27/20	OD-02-281	10693	DOE SUBMITTAL OF THE CLEAN COPY FOR REMEDIAL INVESTIGATION WORK PLAN (RIWP) FOR THE FOURMILE BRANCH INTEGRATOR OPERABLE UNIT	B. T. HENNESSEY	K. B. FEELY / C. M. GORMAN	CORRESPONDENCE	2
008883	05/08/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (ERD-EN-2001-0061) DATED MAY 8, 2001	WSRC		SUPPORTING DOCUMENT	31
+011205	07/22/20	EB-04-251	10693	DOE SUBMITTAL OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT EARLY ACTION FACT SHEET, WSRC-RP-2004-4087 AND THE SCOPING	B. T. HENNESSEY	C. M. GORMAN, D. C. TAYLOR	CORRESPONDENCE	3
011207	05/12/20	ERD-EN-2001-006	10693	LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SCOPING SUMMARY (ERD-EN-2001-0061) DATED MAY 12, 2004 - CERCLIS NOS. 81, & 35	WSRC		SUPPORTING DOCUMENT	27
014388	03/14/20	SGP-07-153	10693	DOE SUBMITTAL ON THE REDLINE REVISION 1, PERIODIC REPORT 2, FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, 2006 (WSRC-RP-2006-4016), CERCLIS	BRIAN HENNESSEY	D.C. TAYLOR/D.L. SIRON	CORRESPONDENCE	31
014389	03/01/20	WSRC-RP-2006-4016 REV. 1 REDLINE	10693	PERIODIC REPORT 2, FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), (WSRC-RP-2006-4016, REVISION 1 REDLINE), CERCLIS NUMBER: 35, DATED	WSRC		SUPPORTING DOCUMENT	88
014547	05/08/20	EQMD-07-012	10693	DOE SUBMITTAL OF THE PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), (WSRC-RP-2006-4016, CERCLIS NUMBER: 35, REVISION 1,	A.B. GOULD	KEITH DYER	CORRESPONDENCE	1
015175	03/07/20	ACP-08-153	10693	DOE SUBMITTAL OF THE REMOVAL ACTION MEMORANDUM FOR THE LOWER THREE RUNS INTEGRATOR UNIT, CERCLIS NUMBER: 35	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
015176	12/01/20	WSRC-RP-2007-4043	10693	LOWER THREE RUNS IOU, EARLY ACTION FACT SHEET, WSRC-RP-2007-4043, DATED DECEMBER 2007	WSRC		SUPPORTING DOCUMENT	4
016093	05/27/20	ACP-09-183	10693	DOE SUBMITTAL OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (SRNS-RP-2009-00763, REVISION 0, DATED MAY 2009) AND	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
016094	05/01/20	SRNS-RP-2009-00763 REV. 0	10693	PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 0, DATED MAY 2009, CERCLIS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	206
016095	05/01/20	ERD-EN-2001-0061	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), ERD-EN-2001-0061, DATED MAY 2009	SRNS		SUPPORTING DOCUMENT	12
016198	06/01/20	SGCP-SAP-2009-00003 REVISION DRAFT	10693	SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, REVISION DRAFT, CERCLIS	SRNS		SUPPORTING DOCUMENT	36

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✓016233	07/24/20	016233	10693	SCDHEC COMMENTS ON THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM,	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	2
✓016238	07/24/20	016238	10693	FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, EPA COMMENTS ON THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, REVISION	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	7
✓016255	07/31/20	016255	10693	EPA COMMENTS ON THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 0, DATED MAY 2009,	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	4
✓016297	08/24/20	016297	10693	SCDHEC COMMENTS ON THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 0, CERCLIS NUMBER:	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	3
✓016389	10/22/20	ACP-10-105	10693	DOE SUBMITTAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT PERIODIC REPORT # 3 (U),	BRIAN HENNESSEY	R.H. POPE/V. KEISLE	CORRESPONDENCE	2
✓016448	11/18/20	ACP-10-116	10693	DOE SUBMITTAL OF THE CHANGE PAGES REDLINE REVISION 1 PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU), CERCLIS	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	18
✓016449	10/01/20	SRNS-RP-2009-00	10693	CHANGE PAGES FOR THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 1 REDLINE, CERCLIS	SRNS		SUPPORTING DOCUMENT	31
✓016499	12/15/20	ACP-10-132	10693	DOE SUBMITTAL OF THE FEDERAL FACILITY AGREEMENT ANNUAL REMOVAL ACTION REPORT FOR FISCAL YEAR 2009, INCLUDING: TABLE 1. FISCAL YEAR 2009	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	10
✓016538	12/21/20	016538	10693	EPA APPROVAL OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), CERCLIS NUMBER: 35, SRNS-RP-2009-00763, REDLINE	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	1
✓016559	12/15/20	016559	10693	SCDHEC APPROVAL OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), CERCLIS NUMBER: 35, SRNS-RP-2009-00763, REDLINE	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
✓016632	02/05/20	ACP-10-166	10693	DOE SUBMITTAL OF THE CLEAN COPY PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 1, CERCLIS	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓016633	10/01/20	SRNS-RP-2009-00	10693	PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 1 CLEAN COPY, CERCLIS NUMBER: 35, DATED	SRNS		SUPPORTING DOCUMENT	203
✓016882	05/12/20	ACP-10-206	10693	DOE SUBMITTAL OF THE NOTIFICATION OF THE LOWER THREE RUNS (LTR) INTEGRATOR OPERABLE UNIT (IOU) THIRD (PHASE II) FIELD START, CERCLIS NUMBER: 35,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓016941	04/27/20	EQMD-10-018	10693	DOE SUBMITTAL (TO THE SRS NATURAL RESOURCE TRUSTEES) OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	SHERRY L. SOUTHERN	SRS NATURAL RESOURCE TRUSTEES	CORRESPONDENCE	2
✓016943	04/27/20	EQMD-10-018	10693	DOE TRANSMITTAL (TO THE SRS NATURAL RESOURCE TRUSTEES) OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	SHERRY L. SOUTHERN	SRS NATURAL RESOURCE TRUSTEES	CORRESPONDENCE	2

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✓016986	06/29/20	ACP-10-228	10693	DOE SUBMITTAL OF THE REVISION 0 SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS (SGCP-SAP-2009-00003,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	21
✓016987	06/01/20	SGCP-SAP-2009-C REV. 0	10693	SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, CERCLIS NUMBER: 35, REVISION	SRNS		SUPPORTING DOCUMENT	60
✓017059	07/28/20	017059	10693	SCDHEC COMMENTS ON THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, (SGCP-SAP-2009-00003,	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	3
✓017131	07/29/20	EQMD-10-023	10693	DOE SUBMITTAL TO THE SRS NATURAL RESOURCE TRUSTEES OF THE PERIODIC REPORT 4 FOR THE STEEL CREEK INTEGRATOR OPERABLE UNIT (IOU) (U),	SHERRY SOUTHERN	SRS NATURAL RES. TURST.	CORRESPONDENCE	1
✓017160	09/29/20	017160	10693	EPA APPROVAL OF THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, CERCLIS	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	2
✓017193	10/28/20	ACP-11-109	10693	DOE SUBMITTAL OF THE REVISION 1 REDLINE SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	6
✓017194	10/01/20	SGCP-SAP-2009-C REV. 1 REDLINE	10693	REVISION 1 REDLINE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, DATED	SRNS		SUPPORTING DOCUMENT	60
✓017267	11/22/20	017267	10693	SCDHEC APPROVAL OF THE REVISION 1 REDLINE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS,	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
✓017334	12/20/20	ACP-11-130	10693	DOE SUBMITTAL OF THE CLEAN COPY SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓017335	10/01/20	SGCP-SAP-2009-C REV. 1	10693	CLEAN COPY OF THE SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003,	SRNS		SUPPORTING DOCUMENT	60
+018136	03/01/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT ERD-EN-2001-0061 CERCLIS NUMBER 35 MARCH 2012	SRNS		SUPPORTING DOCUMENT	21
+018143	03/05/20	018143	10693	SCDHEC COMMENTS ON THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	3
+018146	03/06/20	018146	10693	EPA COMMENTS ON THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS	R.H.POPE	B. T. HENNESSEY	CORRESPONDENCE	4
+019349	01/01/20	WSRC-MS-2001-0	10693	DEVELOPMENT OF A TOTAL MAXIMUM DAILY LOAD FOR MERCURY IN THE SAVANNAH RIVER BASIN	WILLIAM L. PAYNE		SUPPORTING DOCUMENT	17
+019350	03/01/92	ARF-019350	10693	IAEA, 1992. EFFECTS OF IONIZING RADIATION ON PLANTS AND ANIMALS AT LEVELS IMPLIED BY CURRENT RADIATION PROTECTION STANDARDS TECHNICAL	INTERNATIONAL ATOMIC ENERGY AGENCY		SUPPORTING DOCUMENT	42

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+019352	09/01/20	ARF-019352	10693	PALLER, M.H. AND J.W. LITRELL, 2007. LONG-TERM CHANGES IN MERCURY CONCENTRATIONS IN FISH FROM THE MIDDLE SAVANNAH RIVER SCIENCE OF THE TOTAL SUBMITTAL LETTER OF US DEPARTMENT OF ENERGY COMMENTS ON THE TOTAL MAXIMUM DAILY LOAD TMDL DEVELOPMENT FOR TOTAL MERCURY AND FISH MERCURY BIOACCUMULATION IN MOSQUITOFISH GAMBUSIA HOLBROOKI SAMPLE ON AND AROUND THE SAVANNAH RIVER SITE	M.H. PALLER, J.W. LITRELL		SUPPORTING DOCUMENT	
+019358	02/01/20	ARF-019358	10693	US DEPARTMENT OF ENERGY COMMENTS ON THE TOTAL MAXIMUM DAILY LOAD TMDL DEVELOPMENT FOR TOTAL MERCURY AND FISH CONSUMPTION GUIDELINES IN THE SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER 35	DEPARTMENT OF ENERGY WASHINGTON, DC	YVONNE MARTIN	SUPPORTING DOCUMENT	7
+019366	05/01/94	SREL-48 UC-66E	10693	MERCURY BIOACCUMULATION IN MOSQUITOFISH GAMBUSIA HOLBROOKI SAMPLE ON AND AROUND THE SAVANNAH RIVER SITE	M.C. NEWMAN, A. MESSIER		SUPPORTING DOCUMENT	63
+019563	02/28/20	019563	10693	TOTAL MAXIMUM DAILY LOAD TMDL FOR TOTAL MERCURY IN FISH TISSUE RESIDUE IN THE MIDDLE AND LOWER SAVANNAH RIVER WATERSHED	EPA		SUPPORTING DOCUMENT	83
+019564	12/08/20	019564	10693	US DEPARTMENT OF ENERGY COMMENTS ON THE TOTAL MAXIMUM DAILY LOAD TMDL DEVELOPMENT FOR TOTAL MERCURY AND FISH CONSUMPTION GUIDELINES IN THE SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER 35	DOE		SUPPORTING DOCUMENT	
+020418	10/30/20	ERD-EN-2001-006 FINAL	10693	ERD-EN-2001-0061 FINAL OCTOBER 2015	SRNS		CORRESPONDENCE	33
020529	01/31/20	ERD-EN-2001-006 FINAL	10693	ERD-EN-2001-0061 FINAL JANUARY 2016	SRNS		SUPPORTING DOCUMENT	154
+020686	04/21/20	IACD-16-132	10693	DOE SUBMITTAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN AND HEADWATERS - PAR POND	BRIAN T. HENNESSEY	ROBERT H. POPE SUSAN B. FULMER	CORRESPONDENCE	2
+020687	04/30/20	SRNS-RP-2016-0C REV 0	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS - PAR POND SGCP-SAP-2009-00003,	SRNS		SUPPORTING DOCUMENT	42
+020707	05/18/20	020707	10693	SCDHEC COMMENTS ON THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS -	SUSAN B. FULMER	BRIAN T. HENNESSEY	CORRESPONDENCE	2
+020755	06/03/20	020755	10693	EPA APPROVAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS - PAR POND	ROBERT H. POPE	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+020786	08/04/20	IACD-16-157	10693	DOE SUBMITTAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS - PAR POND	BRIAN T. HENNESSEY	ROBERT H. POPE SUSAN B. FULMER	CORRESPONDENCE	4
+020787	07/30/20	SRNS-RP-2016-0C REDLINE REV 1	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS - PAR POND SGCP-SAP-2009-00003	SRNS		SUPPORTING DOCUMENT	42
+020788	07/30/20	SRNS-RP-2016-0C REV 1	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS - PAR POND SGCP-SAP-2009-00003	SRNS		SUPPORTING DOCUMENT	42
+020800	07/30/20	ERD-EN-2001-006 FINAL	10693	ERD-EN-2016-0061 JULY 2016 FINAL	SRNS		SUPPORTING DOCUMENT	38

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+020827	09/02/20	020827	10693	SCDHEC APPROVAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STEAM, FLOODPLAIN, AND HEADWATERS -	SUSAN B FULMER	BRIAN T HENNESSEY		1
+021210	07/28/20	IACD-17-144	10693	DOE SUBMITTAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT NBN U	BRIAN T. HENNESSEY	ROBERT H. POPE SUSAN B. FULMER	CORRESPONDENCE	2
+021211	02/01/20	ERD-EN-2001-006 FINAL	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT ERD-EN-2001-0061 FEBRUARY 2017 FINAL CERCLIS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	38
+021212	06/01/20	SRNS-RP-2017-00 REV 0	10693	LOWER THREE RUNS INTERGRATOR OPERABLE UNIT DATA USABILITY REPORT DUR U CERCLIS NUMBER: 35 SRNS-RP-2017-00285 REVISION 0 JUNE 2017	SRNS		SUPPORTING DOCUMENT	106
+021213	06/01/20	SRNS-RP-2017-00 REV 0	10693	REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U CERCLIS NUMBER; 35	SRNS		SUPPORTING DOCUMENT	966
+021251	09/25/20	021251	10693	SCDHEC COMMENTS ON THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U, CERCLIS	SUSAN B FULMER	BRIAN T HENNESSEY	CORRESPONDENCE	
+021265	10/03/20	021265	10693	EPA COMMENTS ON THE REMEDIAL INVESTIGATION/BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS OPERABLE UNIT, CERCLIS NUMBER	JON RICHARDS	BRIAN T. HENNESSEY	CORRESPONDENCE	3
+021376	01/25/20	021376	10693	SCDHEC APPROVAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) CERCLIS	SUSAN B. FULMER	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021377	01/26/20	021377	10693	EPA APPROVAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER	JON RICHARDS	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021445	03/29/20	021445	10693	EPA APPROVAL OF THE EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, CERCLIS NUMBER	JON RICHARDS	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021454	03/15/20	IACD-18-141	10693	DOE SUBMITTAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY SRNS-RP-2018-00199 REVISION 0 AND SUBSEQUENT	BRIAN T. HENNESSEY	JON RICHARDS SUSAN B. HENNESSEY	CORRESPONDENCE	2
+021461	03/19/20	021461	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY SRNS-RP-2018-00199 REVISION 0 AND SUBSEQUESNT	SUSAN B. FULMER	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021687	06/19/20	IACD-18-158	10693	DOE SUBMITTAL: EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 0) FOR THE LOWER	B. HENNESSEY	S. FULMER J. RICHARDS	CORRESPONDENCE	2
+021695	06/26/20	SRNS-OS-2018-00	10693	EPA APPROVAL OF THE EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35	J. Richards	B. Hennessey	CORRESPONDENCE	1
+021698	06/22/20	SRNS-OS-2018-00	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 0) FOR THE LOWER	S. Fulmer	B. Hennessey	CORRESPONDENCE	1

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+021726	04/01/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (FEASIBILITY STUDY SCOPING) (ERD-EN-2001-0061, APRIL 2018 FINAL) SEMS	SRNS		SUPPORTING DOCUMENT	46
+021727	07/01/20	SRNS-RP-2018-0C REV 0	10693	FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 0 JULY 2018) SEMS NUMBER: 35	SRNS		FEASIBILITY STUDY	138
+021846	10/31/20	SRNS-OS-2018-0C	10693	SCDHEC COMMENTS ON THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 0,	S. FULMER	B. HENNESSEY	CORRESPONDENCE	3
+021847	10/18/20	SRNS-OS-2018-0C	10693	EPA COMMENTS FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, SRNS-RP-2018-00199, REVISION 0,	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	4
+021887	12/20/20	IACD-19-118	10693	DOE SUBMITTAL LETTER OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U)	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
+021918	01/30/20	IACD-19-120	10693	DOE SUBMITTAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 1 REDLINE, JANUARY	B. HENNESSEY	J. RICHARDS S. FULMER	CORRESPONDENCE	25
+021919	01/01/20	SRNS-RP-2018-0C	10693	FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 1, REDLINE, JANUARY 2019)	SRNS	DISTRIBUTION	SUPPORTING DOCUMENT	166
+021925	02/07/20	IACD-19-125	10693	DOE SUBMITTAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	3
+021937	02/12/20	SRNS-OS-2019-0C	10693	EPA APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U),	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+021941	02/12/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+021954	03/01/20	SRNS-OS-2019-0C	10693	EPA EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+021961	02/28/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 1	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022002	04/03/20	SRNS-OS-2019-0C	10693	EPA COMMENTS FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, [SRNS-RP-2018-00199], REVISION	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	7
+022025	04/11/20	IACD-19-137	10693	DOE SUBMITTAL OF THE SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE INTEGRATOR OPERABLE UNIT PROGRAM (PHASE II)	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
+022026	03/01/20	ERD-EN-2019-000	10693	SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE INTEGRATOR OPERABLE UNIT PROGRAM (PHASE II) (U), (ERD-EN-2019-0007, MARCH	SRNS		SUPPORTING DOCUMENT	72

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+022027	04/11/20	IACD-19-142	10693	DOE SUBMITTAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REDLINE REVISION 1.1) AND	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	3
+022137	04/12/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE INTEGRATOR OPERABLE UNIT PROGRAM (PHASE II)	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022138	04/12/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REDLINE REVISION 1.1) AND	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022141	04/23/20	SRNS-OS-2019-0C	10693	EPA APPROVAL FOR THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REDLINE REVISION 1.1) AND	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022146	04/26/20	SRNS-OS-2019-0C	10693	EPA CONCURRENCE OF SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE INTEGRATOR OPERABLE UNIT PROGRAM [PHASE II]	J.RICHARDS	B.HENNESSEY	CORRESPONDENCE	1
+022162	05/08/20	SRNS-OS-2019-0C	10693	SCDHEC E-MAIL APPROVAL OF THE EXTENSION OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 1.1)	S. FULME	B. HENNESSEY,J. RICHARDS	CORRESPONDENCE	2
+022163	05/09/20	SRNS-OS-2019-0C	10693	EPA E-MAIL APPROVAL OF THE EXTENSION OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 1.1)	J. RICHARDS	B. HENNESSEY,S. FULMER	CORRESPONDENCE	2
+022165	05/07/20	IACD-19-150	10693	DOE REQUEST TO SUSPEND / EXTEND THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 1.1) SUBMITTAL	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	4
+022173	05/13/20	SRNS-OS-2019-0C	10693	EPA E-MAIL RESPONSE TO THE DOE E-MAIL REGARDING CLARIFICATION FOR DETERMINING THE SUBMITTAL DATE FOR THE FEASABILITY STUDY FOR THE LOWER THREE	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022174	05/13/20	SRNS-OS-2019-0C	10693	SCDHEC E-MAIL RESPONSE TO THE DOE E-MAIL REGARDING CLARIFICATION FOR DETERMINING THE SUBMITTAL DATE FOR THE FEASABILITY STUDY FOR THE	H. CATHCART	B. HENNESSEY	CORRESPONDENCE	2
+022175	05/13/20	IACD-19-153	10693	DOE E-MAIL REGARDING CLARIFICATION FOR DETERMINING THE SUBMITTAL DATE FOR THE FEASABILITY STUDY FOR THE LOWER THREE RUNS	B. HENNESSEY	J. RICHARDS,R. POPE,S.FULME	CORRESPONDENCE	1
+022237	06/27/20	IACD-19-167	10693	DOE SUBMITTAL OF THE THIRD EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
+022251	07/01/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE THIRD EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022257	07/11/20	SRNS-OS-2019-0C	10693	EPA APPROVAL FOR THE THIRD EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022379	10/21/20	IACD-20-105	10693	DOE SUBMITTAL LETTER FOR THE FOURTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	3

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+022392	10/22/20	SRNS-OS-2019-0C	10693	EPA APPROVAL FOR THE FOURTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	J. RICHARDS	B. HENNESSEY	SUPPORTING DOCUMENT	1
+022396	10/23/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE FOURTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022579	02/04/20	IACD-20-130	10693	DOE SUBMITTAL FOR THE FIFTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
+022581	02/04/20	SRNS-OS-2020-0C	10693	EPA APPROVAL FOR THE FIFTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022585	02/06/20	SRNS-OS-2020-0C	10693	SCDHEC APPROVAL OF THE FIFTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022601	02/28/20	SRNS-OS-2020-0C	10693	EPA APPROVAL FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER 35, [SRNS-RP-2018-00199, REV 1.1,	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
022631	03/24/20	SRNS-OS-2020-0C	10693	SCDHEC APPROVAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 1.1,	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022673	04/22/20	IACD-19-138	10693	DOE SUBMITTAL FOR THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 0, APRIL 2020) SEMS	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	44
+022675	04/01/20	SRNS-RP-2019-0C	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) SRNS-RP-2019-00058	SRNS		SUPPORTING DOCUMENT	62
+022760	06/18/20	SRNS-OS-2020-0C	10693	EPA SUBMITTAL OF A THIRTY-DAY EXTENSION NOTIFICATION FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (SRNS-RP-2019-00058,	R. POPE	B. HENNESSEY	CORRESPONDENCE	1
+022772	06/18/20	SRNS-OS-2020-0C	10693	SCDHEC COMMENTS ON THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SEMS NUMBER: 35 (SRNS-RP-2019-00058, REVISION 0,	S. FULMER	B. HENNESSEY	CORRESPONDENCE	2
+022812	07/24/20	SRNS-OS-2020-0C	10693	EPA COMMENTS ON THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, [SRNS-RP-2019-00058], REVISION	R. POPE	B. HENNESSEY	CORRESPONDENCE	4
+022892	09/22/20	IACD-20-181	10693	DOE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1 REDLINE, SEPTEMBER	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	14
+022893	09/01/20	SRNS-RP-2019-0C REV. 1 REDLINE	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1 REDLINE, SEPTEMBER 2020) SEMS NUMBER:	SRNS		STATEMENT OF BASIS / PROPOSED PLAN	62
+022953	10/22/20	SRNS-OS-2020-0C	10693	EPA SUBMITTAL OF AN EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS ON THE LOWER THREE RUNS (LTR) INTEGRATOR OPERABLE UNIT (IOU) PROPOSED	R. POPE	B. HENNESSEY,S. FULMER	CORRESPONDENCE	2

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+022955	10/20/20	SRNS-OS-2020-00	10693	SCDHEC APPROVAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SEMS NUMBER: 35 (SRNS-RP-2019-00058, REVISION 1	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022972	11/04/20	IACD-21-104	10693	DOE SUBMITTAL OF THE APPROVAL OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S 120-DAY EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	5
+022974	11/05/20	SRNS-OS-2020-00	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT REVISION 0 RECORD OF	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022984	11/13/20	SRNS-OS-2020-00	10693	EPA COMMENTS ON THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER 35, [SRNS-RP-2019-00058], REVISION	R. POPE	B. HENNESSEY	CORRESPONDENCE	2
+023028	12/21/20	IACD-21-114	10693	DOE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1.1 REDLINE, DECEMBER	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	16
+023029	12/01/20	SRNS-RP-2020-00	10693	UNITED STATES DEPARTMENT OF ENERGY PROPOSED PLAN FACT SHEET FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (SRNS-RP-2020-00110,	SRNS		SUPPORTING DOCUMENT	5
+023030	12/01/20	SRNS-RP-2019-00	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1.1 REDLINE, DECEMBER 2020) SEMS NUMBER:	SRNS		STATEMENT OF BASIS / PROPOSED PLAN	56
+023031	12/01/20	SRNS-RP-2019-00	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1.1, DECEMBER 2020) SEMS NUMBER: 35	SRNS		STATEMENT OF BASIS / PROPOSED PLAN	56
+023039	12/22/20	SRNS-OS-2021-00	10693	EPA APPROVAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, [SRNS-RP-2019-00058], REVISION	R. POPE	B. HENNESSEY	CORRESPONDENCE	1

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002916	05/15/96 12:00:00 AM	DD-96-0037	10693	DOE INTEGRATOR OPERABLE UNIT EVALUATION PROPOSAL	B. T. HENNESSEY	K. A COLLINSWORT / J. L. CRANE	CORRESPONDENCE	37
004109	08/07/97 12:00:00 AM	OD-97-0398	10693	EXTENSION REQUEST FOR THE SUBMITTAL OF THE INTEGRATOR OPERABLE UNIT REPORTS AND PROTOCOL CHANGE IN THE PREPARATION AND NAME OF	B. T. HENNESSEY	K. A COLLINSWORT / J. L. CRANE	CORRESPONDENCE	4
004171	08/28/97 12:00:00 AM	004171	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE INTEGRATOR OPERABLE UNIT REPORTS AND PROTOCOL CHANGE IN THE	K. A. COLLINSWORTH	B. T. HENNESSEY	CORRESPONDENCE	1
004306	10/07/97 12:00:00 AM	OD-97-0463	10693	EXTENSION REQUEST FOR THE INTEGRATOR OPERABLE UNIT 3/30/98 SUBMITTAL AND CHANGE IN THE TITLE OF ALL IOU DOCUMENTS FROM REPORTS TO WORK PLANS	B. T. HENNESSEY	J. L. CRANE / K. A. COLLINSWORT	CORRESPONDENCE	3
004898	04/11/96 12:00:00 AM	004898	10693	FEDERAL FACILITY AGREEMENT (FFA) MODIFICATION FORM TO INCORPORATE THE MILESTONES FOR SUBMISSION OF A REVISION.0 INTEGRATOR OPERABLE	J. L. CRANE / K. A. COLLINSWORTH	B. T. HENNESSEY	CORRESPONDENCE	3
005161	08/10/98 12:00:00 AM	005161	10693	USEPA COMMENTS ON THE PROPOSED FEDERAL FACILITY AGREEMENT FFA IMPLEMENTATION PLAN MODIFICATION FOR INTEGRATOR OPERABLE UNIT	J.L. CRANE	B. T. HENNESSEY	CORRESPONDENCE	3
005339	09/30/98 12:00:00 AM	OD-98-466	10693	DOE SUBMITTAL OF THE RCRA FACILITY INVESTIGATION/REMEDIAL INVESTIGATION (RFI/RI) WORK PLANS FOR THE FOURMILE BRANCH INTEGRATOR	B.T. HENNESSEY	J. L. CRANE / K. A. COLLINSWORT	CORRESPONDENCE	3
005341	09/01/98 12:00:00 AM	WSRC-RP-97-449 REV.0	10693	INTEGRATOR OPERABLE UNIT WORK PLAN FOR LOWER THREE RUNS	WSRC		RFI/RI WORK PLAN	747
005347	09/30/98 12:00:00 AM	OD-98-460	10693	DOE SUBMITTAL OF THE REVISED INTEGRATOR OPERABLE UNIT WORK PLAN STRATEGY	B.T. HENNESSEY	J. L. CRANE / K. A. COLLINSWORT	CORRESPONDENCE	10
005348	09/01/98 12:00:00 AM	WSRC-RP-98-4151 REV.0	10693	(WSRC-RP-98-4155), RESULTING FROM THE AUGUST INTEGRATOR OPERABLE UNIT WORK PLAN STRATEGY	WSRC		SUPPORTING DOCUMENT	43
005483	11/25/98 12:00:00 AM	005483	10693	USEPA AND SCDHEC DO NOT AGREE WITH DOE'S PROPOSED SCHEDULE FOR THE INTEGRATOR OPERABLE UNIT WORK PLAN STRATEGY	C.B. WARREN	C.V. ANDERSON	CORRESPONDENCE	3
005510	12/11/98 12:00:00 AM	005510	10693	USEPA REQUESTS COPIES OF DOCUMENTS & CORRESPONDENCE RELATED TO INTEGRATOR OPERABLE UNITS (IOUS); EPA PROVIDES FURTHER	J. L. CRANE	B.T. HENNESSEY	CORRESPONDENCE	2
005513	08/28/98 12:00:00 AM	005513	10693	USEPA CONCURS WITH THE JUST CAUSE (EXTENSION REQUEST) FOR DELAYING THE SUBMISSION OF THE NEXT TWO REV.0 INTEGRATOR OPERABLE UNIT (IOU)	J.L. CRANE	B.T. HENNESSEY	CORRESPONDENCE	2
005524	12/18/98 12:00:00 AM	OD-99-015	10693	DOE RESPONSE TO LETTERS CONCERNING THE INTEGRATOR OPERABLE UNIT (IOU) PROGRAM	C.V. ANDERSON	C.B. WARREN / J.K. LINDLER	CORRESPONDENCE	2
005713	02/24/99 12:00:00 AM	OD-99-207	10693	DOE SUBMITTAL OF THE INTEGRATOR OPERABLE UNIT (IOU) PATH FORWARD PACKAGE (REF: WSRC-RP-98-4155, SEPTEMBER 30, 1998)	C.V. ANDERSON	C.B. WARREN / J.K. LINDLER	CORRESPONDENCE	2

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005714	02/01/99 12:00:00 AM	WSRC-RP-99-402	10693	INTEGRATOR OPERABLE UNIT STRATEGY	WSRC		SUPPORTING DOCUMENT	36
005778	02/25/99 12:00:00 AM	005778	10693	RESPONSE TO LETTERS AND MEETING CONCERNING THE INTEGRATOR OPERABLE UNIT WORK PLAN	B. T. HAYS	P. RAACK	CORRESPONDENCE	3
005800	03/31/99 01:00:00 AM	005800	10693	STRATEGY (WSRC-RP-98-4155, SEPTEMBER 1998), DATED NOTICE OF FAILURE - INTEGRATOR OPERABLE UNIT (IOU) WORK PLAN AND FIELD START MILESTONES	C. B. WARREN/J. K. LINDLER	C. V. ANDERSON	CORRESPONDENCE	6
005884	10/01/97 12:00:00 AM	WSRC-TR-97-306	10693	DATA SUMMARY REPORT FOR THE INTEGRATOR OPERABLE UNIT FISH	WSRC		SUPPORTING DOCUMENT	200
006113	05/27/99	006113	10693	IOU DESIGN TEAM MEETING #2 PACKAGE	R. BEUL		SUPPORTING DOCUMENT	50
006120	05/12/99	006120	10693	INTEGRATOR OPERABLE UNIT DESIGN TEAM MEETING #1 PACKAGE	WSRC		SUPPORTING DOCUMENT	89
006172	07/21/99	OD-99-303	10693	DOE EXTENSION REQUEST FOR THE SAVANNAH RIVER, FOURMILE BRANCH, PEN RANCH, UPPER THREE RUNS, AND SAVANNAH RIVER FLOODPLAIN SWAMP	B. T. HENNESSEY	J. L. CRANE / K. A. COLLINSWORTH	CORRESPONDENCE	4
006178	07/07/99	006178	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SAVANNAH RIVER, FOURMILE BRANCH, PEN BRANCH, UPPER THREE RUNS, AND SAVANNAH RIVER	K. A. COLLINSWORTH	B. T. HENNESSEY	CORRESPONDENCE	1
006205	07/14/99	006205	10693	USEPA APPROVES THE EXTENSION REQUEST FOR THE SAVANNAH RIVER, FOURMILE BRANCH, PEN BRANCH, UPPER THREE RUNS, AND SAVANNAH RIVER FLOOD	J. L. CRANE	B. T. HENNESSEY	CORRESPONDENCE	2
007659	04/25/20	WSRC-RP-2001-4	10693	SCOPING SUMMARY FOR LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SCOPING SUMMARY (WSRC-RP-2001-4006) DATED APRIL 25, 2001	WSRC		SUPPORTING DOCUMENT	45
007872	06/28/20	OD-01-269	10693	DOE SUBMITTAL OF THE REMEDIAL INVESTIGATION WORK PLAN (RIWP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (OU), WSRC-RP-2001-4061,	T. JOHNSON, JR.	K. B. FEELY / C. M. GORMAN	CORRESPONDENCE	2
007873	06/01/20	WSRC-RP-2001-4	10693	REMEDIAL INVESTIGATION WORK PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (WSRC-RP-2001-4061, REV.0) (VOLUME I) DATED JUNE	WSRC		RFI/RI WORK PLAN	534
007874	06/01/20	WSRC-RP-2001-4	10693	REMEDIAL INVESTIGATION WORK PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), (WSRC-RP-2001-4061, REV.0) (VOLUME II) DATED JUNE	WSRC		RFI/RI WORK PLAN	503
007940	08/16/20	OD-01-307	10693	CITIZENS ADVISORY BOARD RECOMMENDATION 113, STAKEHOLDER REVIEW OF INTEGRATOR OPERABLE UNIT PLANS, STUDIES, AND REPORTS	C. V. ANDERSON	J. MACKEY/M. REICHMANIS	CORRESPONDENCE	2
008160	10/17/20	008160	10693	USEPA COMMENTS ON THE REMEDIAL INVESTIGATION WORK PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), VOLUMES I & II, WSRC-RP-2001-4061,	J. BARKSDALE, JR.	B. T. HENNESSEY	CORRESPONDENCE	10

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008202	10/29/20	008202	10693	SCDHEC COMMENTS ON THE REMEDIAL INVESTIGATION WORK PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), VOLUMES 1 & 2, WSRC-RP-2001-4061,	C. M. GORMAN	B. T. HENNESSEY	CORRESPONDENCE	11
+008439	01/25/20	OD-01-172	10693	DOE SUBMITTAL OF THE REMEDIAL INVESTIGATION WORK PLAN (RIWP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (OU), WSRC-RP-2001-4061,	B. T. HENNESSEY	K. B. FEELY / C. M. GORMAN	CORRESPONDENCE	44
+008503	01/01/20	WSRC-RP-2001-4061-REDLINE, REV.1	10693	REMEDIAL INVESTIGATION WORK PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) VOLUME 1 (WSRC-RP-2001-4061, REV. 1, FINAL REDLINE) DATED	WSRC		RFI/RI WORK PLAN	117
+008515	02/19/20	008515	10693	EPA COMMENTS ON THE REMEDIAL INVESTIGATION WORK PLAN (RIWP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), WSRC-RP-2001-4064,	JIM BARKSDALE, JR.	B. T. HENNESSEY	CORRESPONDENCE	2
+008523	02/25/20	008523	10693	SCDHEC COMMENTS ON THE REMEDIAL INVESTIGATION WORK PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (WSRC-RP-2001-4061) FINAL REDLINE	C. M. GORMAN	B. T. HENNESSEY	CORRESPONDENCE	4
+008575	03/13/20	008575	10693	EPA CONDITIONAL APPROVAL OF THE REMEDIAL INVESTIGATION WORK PLAN (RIWP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U)	JIM BARKSDALE, JR.	B. T. HENNESSEY	CORRESPONDENCE	1
+008584	03/08/20	OD-02-211	10693	DOE SUBMITTAL OF THE REMEDIAL INVESTIGATION WORK PLAN (RIWP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (OU), (WSRC-RP-2001-4061,	B. T. HENNESSEY	K. B. FEELY / C. M. GORMAN	CORRESPONDENCE	2
+008585	03/01/20	WSRC-RP-2001-4061-REV.1.1, REDLINE	10693	REMEDIAL INVESTIGATION WORK PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (WSRC-RP-2001-4061, FINAL REDLINE, REV. 1.1) DATED	WSRC		RFI/RI WORK PLAN	35
+008590	03/21/20	008590	10693	SCDHEC APPROVAL OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, REMEDIAL INVESTIGATION WORK PLAN, REV.1.1	C. M. GORMAN	B. T. HENNESSEY	CORRESPONDENCE	1
008731	03/28/20	OD-02-217	10693	DOE SUBMITTAL OF THE NOTIFICATION OF MONITORING FIELD START FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	B. T. HENNESSEY	K. B. FEELY / C. M. GORMAN	CORRESPONDENCE	2
+008852	06/27/20	OD-02-281	10693	DOE SUBMITTAL OF THE CLEAN COPY FOR REMEDIAL INVESTIGATION WORK PLAN (RIWP) FOR THE FOURMILE BRANCH INTEGRATOR OPERABLE UNIT	B. T. HENNESSEY	K. B. FEELY / C. M. GORMAN	CORRESPONDENCE	2
008883	05/08/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (ERD-EN-2001-0061) DATED MAY 8, 2001	WSRC		SUPPORTING DOCUMENT	31
+008885	03/01/20	WSRC-RP-2001-4061-REV.1.1, CLEAN COPY	10693	REMEDIAL INVESTIGATION WORK PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (WSRC-RP-2001-4061, REV.1.1, CLEAN COPY) DATED	WSRC		RFI/RI WORK PLAN	1004
009055	09/14/99	009055	10693	E-MAIL MESSAGE CONCERNING THE IOU DESIGN TEAM MEETING #5 PACKAGE	RONALD BEUL		CORRESPONDENCE	9
+009585	04/14/20	OD-03-201	10693	DOE SUBMITTAL OF THE REVISED IMPLEMENTATION SCHEDULES FOR FOURMILE BRANCH, STEEL CREEK, UPPER THREE RUNS, PEN BRANCH AND LOWER THREE	B. T. HENNESSEY	K. B. FEELY / C. M. GORMAN	CORRESPONDENCE	7

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+009608	04/21/20	009608	10693	EPA APPROVAL OF THE REVISED IMPLEMENTATION SCHEDULES FOR FOURMILE BRANCH, STEEL CREEK, UPPER THREE RUNS, PEN BRANCH, AND LOWER THREE	DAWN TAYLOR	B. T. HENNESSEY	CORRESPONDENCE	1
009992	08/28/20	009992	10693	ENVIRONMENTAL BULLETIN FROM THE SAVANNAH RIVER WSRC SITE, VOLUME 14, NUMBER 22, AUGUST 28, 2003			COMMUNITY INVOLVEMENT	2
+011118	06/29/20	EB-04-273	10693	DOE SUBMITTAL OF THE REV.0 PERIODIC REPORT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, WSRC-RP-2003-4151, REV.0, JUNE 2004 AND THE	B. T. HENNESSEY	C. M. GORMAN,D. C. TAYLOR	CORRESPONDENCE	28
011148	06/01/20	WSRC-RP-2003-4-REV.0	10693	PERIODIC REPORT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT - CERCLIS NO. 81 - WSRC-RP-2003-4151, REV.0, DATED JUNE 2004	WSRC		SUPPORTING DOCUMENT	440
+011205	07/22/20	EB-04-251	10693	DOE SUBMITTAL OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT EARLY ACTION FACT SHEET, WSRC-RP-2004-4087 AND THE SCOPING	B. T. HENNESSEY	C. M. GORMAN,D. C. TAYLOR	CORRESPONDENCE	3
011206	07/06/20	WSRC-RP-2004-4	10693	LOWER THREE RUNS INTEGRATOR OPERABLE UNIT EARLY ACTION FACT SHEET (WSRC-RP-2004-4087) DATED JULY 6, 2004	WSRC		SUPPORTING DOCUMENT	4
011207	05/12/20	ERD-EN-2001-006	10693	LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SCOPING SUMMARY (ERD-EN-2001-0061) DATED MAY 12, 2004 - CERCLIS NOS. 81, & 35	WSRC		SUPPORTING DOCUMENT	27
+011339	08/23/20	011339	10693	EPA COMMENTS ON THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, WSRC-RP-2004-4087, JULY 2004	ROBERT H. POPE	B. T. HENNESSEY	CORRESPONDENCE	2
+011370	08/30/20	011370	10693	SCDHEC COMMENTS ON THE LOWER THREE RUNS IOU EARLY ACTION FACT SHEET, WSRC-RP-2004-4087, REV.0, DATED JULY 2004	C. M. GORMAN	B. T. HENNESSEY	CORRESPONDENCE	3
+011466	09/20/20	EB-04-328	10693	DOE SUBMITTAL OF THE CLEAN COPY OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT EARLY ACTION FACT SHEET, (WSRC-RP-2004-4087, SEPTEMBER	B. T. HENNESSEY	C. M. GORMAN,D. C. TAYLOR	CORRESPONDENCE	6
+011467	09/20/20	WSRC-RP-2004-4-CLEAN COPY	10693	LOWER THREE RUNS IOU EARLY ACTION FACT SHEET (WSRC-RP-2004-4087, CLEAN COPY) DATED SEPTEMBER 20, 2004	WSRC		SUPPORTING DOCUMENT	4
+011480	09/28/20	011480	10693	SCDHEC COMMENTS ON THE PERIODIC REPORT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT - CERCLIS NO. 81, WSRC-RP-2003-4151, REV.0, DATED	C. M. GORMAN	B. T. HENNESSEY	CORRESPONDENCE	8
011498	09/22/20	011498	10693	NEWSPAPER ADVERTISEMENT - (THE STATE) - DISPLAY AD ON THE EARLY ACTION FACT SHEET FOR LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	WSRC		COMMUNITY INVOLVEMENT	2
011559	09/22/20	011559	10693	NEWSPAPER ADVERTISEMENT - (AUGUSTA CHRONICLE) - WSRC DISPLAY AD ON THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT - SEPTEMBER 22, 2004			COMMUNITY INVOLVEMENT	1
011566	09/24/20	011566	10693	ENVIRONMENTAL BULLETIN FROM THE SAVANNAH RIVER WSRC SITE - VOLUME 15, NUMBER 21 - ON THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT - SEPTEMBER 24,			COMMUNITY INVOLVEMENT	2

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➔011586	10/14/20	011586	10693	EPA COMMENTS ON THE PERIODIC REPORT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT - CERCLIS NO. 81, WSRC-RP-2003-4151, REV.0, JUNE 2004	ROBERT H. POPE	B. T. HENNESSEY	CORRESPONDENCE	2
☑011887	12/13/20	SGP-05-135	10693	DOE SUBMITTAL OF THE REDLINE CHANGE PAGES REV.1 PERIODIC REPORT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, (WSRC-RP-2003-4151,	B. T. HENNESSEY	C. M. GORMAN,D. C. TAYLOR	CORRESPONDENCE	31
☑011888	12/01/20	WSRC-RP-2003-4151, REDLINE, REV.1 PAGE CHANGES	10693	PERIODIC REPORT 1 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (WSRC-RP-2003-4151, REDLINE, REV.1 PAGE CHANGES) DATED DECEMBER	WSRC		SUPPORTING DOCUMENT	50
☑012007	01/10/20	012007	10693	SCDHEC APPROVAL OF THE PERIODIC REPORT 1 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, WSRC-RP-2003-4151, REV.1, DATED DECEMBER 2004	CHARLES M. GORMAN	B. T. HENNESSEY	CORRESPONDENCE	1
☑012146	02/10/20	012146	10693	EPA APPROVAL OF THE PERIODIC REPORT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT - CERCLIS NO. 81 - WSRC-RP-2003-4151, REV.1	ROBERT H. POPE	B. T. HENNESSEY	CORRESPONDENCE	1
☑012164	02/23/20	SGP-05-171	10693	DOE LETTER ON THE NOTIFICATION OF THE PHASE II REMEDIAL INVESTIGATION (RI) FIELD START FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	B. T. HENNESSEY	C. M. GORMAN,D. C. TAYLOR	CORRESPONDENCE	2
☑012290	11/09/20	SGC-05-116	10693	DOE SUBMITTAL OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT REMOVAL ACTION MEMORANDUM AND EARLY ACTION FACT SHEET	B. T. HENNESSEY	C. M. GORMAN,D. C. TAYLOR	CORRESPONDENCE	6
☑012857	12/20/20	SGP-06-138	10693	DOE SUBMITTAL OF THE NEW IMPLEMENTATION SCHEDULES FOR THE FOURMILE BRANCH, LOWER THREE RUNS, PEN BRANCH, SAVANNAH RIVER AND	Brian Hennessey	D.C. TAYLOR / C. M. GORMAN	CORRESPONDENCE	14
☑013087	01/24/20	OSS-06-0035	10693	DOE SUBMITTAL OF THE DEPARTMENT OF ENERGY (DOE) APPLICATION FOR ENCROACHMENTS PERMIT, JANUARY 24, 2006	L. E. Snyder		CORRESPONDENCE	37
☑013089	01/24/20	OSS-06-34	10693	DOE SUBMITTAL OF THE DEPARTMENT OF ENERGY (DOE) APPLICATION FOR ENCROACHMENT PERMIT, JANUARY 24, 2006	L. E. Snyder		CORRESPONDENCE	29
☑013091	01/26/20	013091	10693	SCDHEC APPROVAL FOR THE NEW IMPLEMENTATION SCHEDULE FOR INTEGRATOR OPERABLE UNITS (DOE LETTER DATED DECEMBER 20, 2005).	Charles M. Gorman	B. T. HENNESSEY	CORRESPONDENCE	1
☑013362	04/11/20	013362	10693	EPA APPROVAL OF THE NEW IMPLEMENTATION SCHEDULES FOR FOUR MILE BRANCH, LOWER THREE RUNS, PEN BRANCH, SAVANNAH RIVER, AND FLOOD	Robert Pope	B. T. HENNESSEY	CORRESPONDENCE	1
☑013537	05/30/20	SGP-06-224	10693	DOE SUBMITTAL ON THE REVISION 0, PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, DATED MAY 2006 (WSRC-RP-2006-4016), CERCLIS	B. T. Hennessey	D. C. Taylor / C. M. Gorman	CORRESPONDENCE	2
☑013538	05/01/20	WSRC-RP-2006-4151, REV. 0	10693	PERIODIC REPORT 2, FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), DATED MAY 2006	WSRC		SUPPORTING DOCUMENT	308
☑013764	08/21/20	013764	10693	SCDHEC COMMENTS ON THE PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), WSRC-RP-2006-4016, CERCLIS NUMBER: 35, REVISION	Charles M. Gorman	B. T. HENNESSEY	CORRESPONDENCE	5

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013936	10/31/20	013936	10693	EPA COMMENTS ON THE PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (OU)	Robert H. Pope	B. T. HENNESSEY	CORRESPONDENCE	8
014053	12/18/20	SGP-07-121	10693	(U), WSRC-RP-2006-4016, DATED MAY 2006, SAVANNAH DOE SUBMITTAL OF THE 30 DAY EXTENSION NOTIFICATION FOR THE REDLINE REVISION 1, PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR	Brian T. Hennessey	D. C. Taylor/D. L. Siron	CORRESPONDENCE	1
014227	01/17/20	SGP-07-130	10693	DOE SUBMITTAL OF THE EXTENSION REQUEST FOR THE REDLINE REVISION 1, PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, 2006	Brian Hennessey	D.C. Taylor/D.L. Siron	CORRESPONDENCE	2
014250	01/25/20	014250	10693	EPA APPROVAL ON THE EXTENSION REQUEST FOR SUBMITTAL OF THE REVISION 1 PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	Robert H. Pope	B. T. HENNESSEY	CORRESPONDENCE	2
014267	01/26/20	014267	10693	SCDHEC COMMENTS ON THE EXTENSION REQUEST FOR SUBMITTAL OF THE REVISION 1, PERIODIC REPORT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	Donald L. Siron	B. T. HENNESSEY	CORRECTIVE MEASURES	1
014348	02/09/20	014348	10693	SCDHEC COMMENTS ON THE ENVIRONMENTAL INDICATOR STATUS, SAVANNAH RIVER SITE (SRS)/RCRA, SC 890 008 989, AIKEN, COUNTY. (PERIODIC REPORT 2	Crystal D. Rippy	Mary A. Flora	CORRESPONDENCE	2
014388	03/14/20	SGP-07-153	10693	DOE SUBMITTAL ON THE REDLINE REVISION 1, PERIODIC REPORT 2, FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, 2006 (WSRC-RP-2006-4016), CERCLIS	BRIAN HENNESSEY	D.C. TAYLOR/D.L. SIRON	CORRESPONDENCE	31
014389	03/01/20	WSRC-RP-2006-4016 REV. 1 REDLINE	10693	PERIODIC REPORT 2, FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), (WSRC-RP-2006-4016, REVISION 1 REDLINE), CERCLIS NUMBER: 35, DATED	WSRC		SUPPORTING DOCUMENT	88
014393	03/12/20	SGP-07-144	10693	DOE SUBMITTAL ON THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT EARLY ACTION, (WSRC-RP-2006-4016, REVISION 0-A), DATED MAY 2006	BRIAN HENNESSEY	C. D. RIPPY	CORRESPONDENCE	4
014417	04/06/20	014417	10693	SCDHEC APPROVAL ON THE PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, CERCLIS NUMBER: 35, WSRC-RP-2006-4016, REVISION 1	DONALD L. SIRON	B. T. HENNESSEY	CORRESPONDENCE	1
014423	04/12/20	014423	10693	EPA APPROVAL ON THE PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU), REVISION 1, REDLINE, CERCLIS NUMBER 35,	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	1
014463	05/01/20	SGP-07-171	10693	DOE SUBMITTAL OF THE CLEAN COPY REVISION 1, PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, (WSRC-RP-2006-4016),	B. T. HENNESSEY	R.H. POPE/D.L. SIRON	CORRESPONDENCE	2
014464	03/01/20	WSRC-RP-2006-4016 CLEAN COPY REVISION 1	10693	PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), WSRC-RP-2006-4016, REVISION 1 CLEAN COPY, CERCLIS NUMBER: 35, DATED	WSRC		SUPPORTING DOCUMENT	322
014529	05/03/20	SGP-07-172	10693	DOE SUBMITTAL OF THE NOTIFICATION OF FIELD START FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU), CERCLIS NUMBER: 35, (WSRC-RP-2006-4016,	B. T. HENNESSEY	R. H. POPE / D. L. SIRON	CORRESPONDENCE	1
014547	05/08/20	EQMD-07-012	10693	DOE SUBMITTAL OF THE PERIODIC REPORT 2 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), (WSRC-RP-2006-4016, CERCLIS NUMBER: 35, REVISION 1,	A.B. GOULD	KEITH DYER	CORRESPONDENCE	1

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✓014581	04/27/20	014581	10693	SCDHEC COMMENTS ON THE LETTER OF MARCH 12, 2007 FROM B. T. HENNESSEY (WSRC) TO C. D. RIPPY (SCDHEC)	RODNEY WINGARD	B. T. HENNESSEY	CORRESPONDENCE	1
✓014597	05/24/20	ACP-07-188	10693	TO ADDRESS ENVIRONMENTAL INDICATOR STATUS FOR DOE SUBMITTAL ON THE NOTIFICATION OF EARLY ACTION COMPLETION FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, (WSRC-RP-2006-4016,	BRIAN HENNESSEY	RODNEY W. WINGARD	CORRESPONDENCE	2
015175	03/07/20	ACP-08-153	10693	DOE SUBMITTAL OF THE REMOVAL ACTION MEMORANDUM FOR THE LOWER THREE RUNS INTEGRATOR UNIT, CERCLIS NUMBER: 35	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
015176	12/01/20	WSRC-RP-2007-4	10693	LOWER THREE RUNS IOU, EARLY ACTION FACT SHEET, WSRC-RP-2007-4043, DATED DECEMBER 2007	WSRC		SUPPORTING DOCUMENT	4
✓015782	12/05/20	015782	10693	DOE MEMO: LOWER THREE RUNS TRESPASSING LETTER TO PROPERTY OWNERS	JEFFREY M. ALLISON	SRS	CORRESPONDENCE	6
✓016093	05/27/20	ACP-09-183	10693	DOE SUBMITTAL OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (SRNS-RP-2009-00763, REVISION 0, DATED MAY 2009) AND	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓016094	05/01/20	SRNS-RP-2009-00 REV. 0	10693	PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 0, DATED MAY 2009, CERCLIS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	206
✓016095	05/01/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), ERD-EN-2001-0061, DATED MAY 2009	SRNS		SUPPORTING DOCUMENT	12
✓016198	06/01/20	SGCP-SAP-2009-C REVISION DRAFT	10693	SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, REVISION DRAFT, CERCLIS	SRNS		SUPPORTING DOCUMENT	36
✓016233	07/24/20	016233	10693	SCDHEC COMMENTS ON THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003,	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	2
✓016238	07/24/20	016238	10693	EPA COMMENTS ON THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, REVISION	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	7
✓016255	07/31/20	016255	10693	EPA COMMENTS ON THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 0, DATED MAY 2009,	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	4
✓016297	08/24/20	016297	10693	SCDHEC COMMENTS ON THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 0, CERCLIS NUMBER:	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	3
✓016389	10/22/20	ACP-10-105	10693	DOE SUBMITTAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT PERIODIC REPORT # 3 (U),	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓016448	11/18/20	ACP-10-116	10693	DOE SUBMITTAL OF THE CHANGE PAGES REDLINE REVISION 1 PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU), CERCLIS	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	18

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✓016449	10/01/20	SRNS-RP-2009-00 REV. 1 REDLINE	10693	CHANGE PAGES FOR THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	SRNS		SUPPORTING DOCUMENT	31
✓016499	12/15/20	ACP-10-132	10693	DOE SUBMITTAL OF THE FEDERAL FACILITY AGREEMENT ANNUAL REMOVAL ACTION REPORT FOR FISCAL YEAR 2009, INCLUDING: TABLE 1. FISCAL YEAR 2009	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	10
✓016538	12/21/20	016538	10693	EPA APPROVAL OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), CERCLIS NUMBER: 35, SRNS-RP-2009-00763, REDLINE	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	1
✓016559	12/15/20	016559	10693	SCDHEC APPROVAL OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), CERCLIS NUMBER: 35, SRNS-RP-2009-00763, REDLINE	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
✓016632	02/05/20	ACP-10-166	10693	DOE SUBMITTAL OF THE CLEAN COPY PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 1, CERCLIS	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓016633	10/01/20	SRNS-RP-2009-00 REV. 1 CLEAN COPY	10693	PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SRNS-RP-2009-00763, REVISION 1 CLEAN COPY, CERCLIS NUMBER: 35, DATED	SRNS		SUPPORTING DOCUMENT	203
✓016882	05/12/20	ACP-10-206	10693	DOE SUBMITTAL OF THE NOTIFICATION OF THE LOWER THREE RUNS (LTR) INTEGRATOR OPERABLE UNIT (IOU) THIRD (PHASE II) FIELD START, CERCLIS NUMBER: 35,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✓016941	04/27/20	EQMD-10-018	10693	DOE SUBMITTAL (TO THE SRS NATURAL RESOURCE TRUSTEES) OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	SHERRY L. SOUTHERN	SRS NATURAL RESOURCE TRUSTEES	CORRESPONDENCE	2
✓016943	04/27/20	EQMD-10-018	10693	DOE TRANSMITTAL (TO THE SRS NATURAL RESOURCE TRUSTEES) OF THE PERIODIC REPORT 3 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U),	SHERRY L. SOUTHERN	SRS NATURAL RESOURCE TRUSTEES	CORRESPONDENCE	2
✓016986	06/29/20	ACP-10-228	10693	DOE SUBMITTAL OF THE REVISION 0 SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS (SGCP-SAP-2009-00003,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	21
✓016987	06/01/20	SGCP-SAP-2009-( REV. 0	10693	SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, CERCLIS NUMBER: 35, REVISION	SRNS		SUPPORTING DOCUMENT	60
✓016993	04/17/20	ACP-2010-00010, REV, 0	10693	E-MAIL: FIELD OVERSIGHT TRIP REPORT EXCERPT FROM 4/12/2006 IN PREPARATION FOR THE LOWER THREE RUNS NETMEETING, ACP-2010-00010, REVISION 0	JOSEPH PRICE	R. H. POPE	CORRESPONDENCE	26
✓017059	07/28/20	017059	10693	SCDHEC COMMENTS ON THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, (SGCP-SAP-2009-00003,	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	3
✓017131	07/29/20	EQMD-10-023	10693	DOE SUBMITTAL TO THE SRS NATURAL RESOURCE TRUSTEES OF THE PERIODIC REPORT 4 FOR THE STEEL CREEK INTEGRATOR OPERABLE UNIT (IOU) (U),	SHERRY SOUTHERN	SRS NATURAL RES. TURST.	CORRESPONDENCE	1
✓017160	09/29/20	017160	10693	EPA APPROVAL OF THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, CERCLIS	ROBERT POPE	B. T. HENNESSEY	CORRESPONDENCE	2

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✔017193	10/28/20	ACP-11-109	10693	DOE SUBMITTAL OF THE REVISION 1 REDLINE SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	6
✔017194	10/01/20	SGCP-SAP-2009-C REV. 1 REDLINE	10693	REVISION 1 REDLINE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003, DATED	SRNS		SUPPORTING DOCUMENT	60
✔017267	11/22/20	017267	10693	SCDHEC APPROVAL OF THE REVISION 1 REDLINE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS,	VAN KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
✔017334	12/20/20	ACP-11-130	10693	DOE SUBMITTAL OF THE CLEAN COPY SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS,	BRIAN HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	2
✔017335	10/01/20	SGCP-SAP-2009-C REV. 1	10693	CLEAN COPY OF THE SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS, SGCP-SAP-2009-00003,	SRNS		SUPPORTING DOCUMENT	60
✚017889	08/01/20	SRNS-RP-2011-01 REV 0	10693	WILD FIRE ALONG SRS WATER BODIES AND WASTE SITES EVALUATION SRNS-RP-2011-01323, REVISION 0, DATED AUGUST 2011	SRNS		SITE EVALUATION	10
✚017890	08/18/20	SRNS-RP-2011-01 REV A	10693	WILD FIRE ALONG SRS WATER BODIES AND WASTE SITES EVALUATION (U), COMMERCIAL TYPE 2 CALCULATION, SRNS-RP-2011-01323, REVISION A, DATED	D. MARTINSON		SUPPORTING DOCUMENT	27
✚017962	10/19/20	SRNS-RP-2011-01 REV 1	10693	WILD FIRES ALONG SRS WATER BODIES AND WASTE SITES EVALUATION (U) SRNS-RP-2011-01323, REV. 1 DATED OCTOBER 2011	SRNS		SITE EVALUATION	10
✚017963	10/19/20	SRNS-RP-2011-01 REV B	10693	WILD FIRE ALONG SRS WATER BODIES AND WASTE SITES EVALUATION, COMMERCIAL TYPE 2 CALCULATION, SRNS-RP-2011-01317, REV. B DATED OCTOBER 2011	D. MARTINSON		SUPPORTING DOCUMENT	29
✚018056	01/09/20	ACP-12-121	10693	DOE SUBMITTAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	B. T. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	2
✚018068	01/11/20	018068	10693	SCDHEC APPROVAL ON THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
✚018110	02/17/20	ACP-12-129	10693	DOE SUBMITTAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS	B. T. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	2
✚018111	02/01/20	SRNS-RP-2012-00 REV 0	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS (SGCP-SAP-2009-00003, REVISION 1)	SRNS		SUPPORTING DOCUMENT	60
✚018135	03/02/20	ACP-12-132	10693	DOE SUBMITTAL OF THE PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SRNS-RP-2011-01535 REVISION 0 MARCH 2012 AND THE	B. T. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	2
✚018136	03/01/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT ERD-EN-2001-0061 CERCLIS NUMBER 35 MARCH 2012	SRNS		SUPPORTING DOCUMENT	21

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†-018137	03/01/20	SRNS-RP-2011-01 REV 0	10693	PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SRNS-RP-2011-01535	SRNS		SUPPORTING DOCUMENT	248
†-018143	03/05/20	018143	10693	REVISION 0 CERCLIS NUMBER 35 MARCH 2012 SCDHEC COMMENTS ON THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	3
†-018146	03/06/20	018146	10693	EPA COMMENTS ON THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS	R.H.POPE	B. T. HENNESSEY	CORRESPONDENCE	4
†-018147	03/16/20	ACP-12-138	10693	DOE SUBMITTAL OF THE REMOVAL SITE EVALUATION REPORT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL PORTION MIDDLE AND LOWER	B. T. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	6
†-018148	03/01/20	SRNS-RP-2012-00 REV 0	10693	REMOVAL SITE EVALUATION REPORT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL PORTION MIDDLE AND LOWER SUBUNITS	SRNS		SUPPORTING DOCUMENT	36
†-018150	03/01/20	SRNS-RP-2012-00 REV 0	10693	FLOODPLAIN AND WETLAND ASSESSMENT FOR THE REMOVAL ACTION AT THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION MIDDLE	SRNS		SUPPORTING DOCUMENT	22
†-018160	03/29/20	018160	10693	SCDHEC COMMENTS ON THE REMOVAL SITE EVALUATION REPORT RSER FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	2
†-018168	03/30/20	018168	10693	NEWSPAPER ADVERTISEMENT AIKEN STANDARD ON THE FLOODPLAIN AND WETLAND ASSESSMENT ISSUED FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	SRNS		COMMUNITY INVOLVEMENT	1
†-018169	04/04/20	018169	10693	NEWSPAPER ADVERTISEMENT THE PEOPLE SENTINEL ON THE FLOODPLAIN AND WETLAND ASSESSMENT	SRNS		COMMUNITY INVOLVEMENT	2
†-018170	04/03/20	018170	10693	NEWSPAPER ADVERTISEMENT THE STATE ON THE FLOODPLAIN AND WETLAND ASSESSMENT ISSUED FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT	SRNS		COMMUNITY INVOLVEMENT	2
†-018173	04/13/20	ACP-12-143	10693	DOE SUBMITTAL OF THE CLEAN COPY OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND	B. T. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	15
†-018174	03/01/20	SRNS-RP-2012-00 REV 1 REDLINE	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS SGCP-SAP-2009-00003 REVISION 1	SRNS		SUPPORTING DOCUMENT	66
†-018175	03/01/20	SRNS-RP-2012-00 REV 1	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS SGCP-SAP-2009-00003 REVISION 1	SRNS		SUPPORTING DOCUMENT	64
†-018214	04/10/20	018214	10693	EPA COMMENTS ON THE REMOVAL SITE EVALUATION REPORT RSER FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION AND	R.H. POPE	B. T. HENNESSEY	CORRESPONDENCE	2
†-018216	04/17/20	018216	10693	PUBLIC COMMENTS ON THE FLOODPLAIN AND WETLAND ASSESSMENT FOR LOWER THREE RUNS LTR CERCLIS NUMBER 35	R. SOCHA	B. T. HENNESSEY	CORRESPONDENCE	4

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+018230	04/19/20	ACP-12-142	10693	DOE SUBMITTAL OF THE EXPLANATION OF SIGNIFICANT DIFFERENCE FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	B. T. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	2
+018231	04/01/20	SRNS-RP-2012-00 REVISION 0	10693	EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE SELECTION PAR POND UNIT	SRNS		SUPPORTING DOCUMENT	24
+018241	04/01/20	ERD-EN-2012-002 REV 0	10693	FLOODPLAIN STATEMENT OF FINDINGS FOR THE REMOVAL SITE EVALUATION REPORT RSER FOR THE LTR IOU TAIL PORTION MIDDLE AND LOWER SUBUNITS REV 0	SRNS		SUPPORTING DOCUMENT	4
+018279	04/01/20	ERD-EN-2012-002	10693	PUBLIC COMMENT RESPONSES TO THE FLOODPLAIN AND WETLAND ASSESSMENT FPWA FOR THE REMOVAL ACTION AT THE LOWER THREE RUNS LTR INTEGRATOR	V. OSTEEN	P. SAUERBORN	SUPPORTING DOCUMENT	4
+018285	04/26/20	018285	10693	SCDHEC APPROVAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
+018299	05/09/20	ACP-12-150	10693	DOE SUBMITTAL OF THE ACTION MEMORANDUM FOR THE TIME CRITICAL REMOVAL ACTION FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL	B. T. HENNESSEY	R. H. POPE/V. KEISLER	CORRESPONDENCE	4
+018300	04/01/20	SRNS-RP-2012-00 REV 1	10693	REMOVAL SITE EVALUATION REPORT RSER FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION MIDDLE AND LOWER SUBUNITS	SRNS		SUPPORTING DOCUMENT	38
+018303	04/28/20	018303	10693	NEWSPAPER ADVERTISEMENT AIKEN STANDARD ON THE NOTICE OF AVAILABILITY FLOODPLAIN STATEMENT OF FINDINGS ISSUED FOR THE LOWER THREE RUNS	SRNS		COMMUNITY INVOLVEMENT	1
+018305	05/02/20	018305	10693	NEWSPAPER ADVERTISEMENT THE PEOPLE SENTINEL ON THE NOTICE OF AVAILABILITY FLOODPLAIN STATEMENT OF FINDINGS ISSUED FOR THE LOWER	SRNS		COMMUNITY INVOLVEMENT	2
+018307	04/26/20	018307	10693	NEWSPAPER ADVERTISEMENT THE STATE ON THE NOTICE OF AVAILABILITY FLOODPLAIN STATEMENT OF FINDINGS ISSUED FOR THE LOWER THREE RUNS	SRNS		COMMUNITY INVOLVEMENT	2
+018308	04/26/20	018308	10693	NEWSPAPER ADVERTISEMENT THE STATE ON THE NOTICE OF AVAILABILITY FLOODPLAIN STATEMENT OF FINDINGS ISSUED FOR THE LOWER THREE RUNS	SRNS		COMMUNITY INVOLVEMENT	2
+018313	05/14/20	018313	10693	SCDHEC COMMENTS ON THE EXPLANATION FOR SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	2
+018316	05/11/20	018316	10693	EPA COMMENTS ON THE EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	R. POPE	B. T. HENNESSEY	CORRESPONDENCE	2
+018317	05/11/20	018317	10693	EPA APPROVAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADQUARTERS	R. POPE	B. T. HENNESSEY	CORRESPONDENCE	1
+018318	05/16/20	018318	10693	NEWSPAPER ADVERTISEMENT THE PEOPLE SENTINEL ON THE ACTION MEMORANDUM ISSUED FOR THE TIME CRITICAL REMOVAL ACTION FOR THE LOWER THREE	SRNS		COMMUNITY INVOLVEMENT	2

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+018319	05/16/20	018319	10693	NEWSPAPER ADVERTISEMENT AIKEN STANDARD ON THE ACTION MEMORANDUM ISSUED FOR THE TIME CRITICAL REMOVAL ACTION FOR THE LOWER THREE RUNS	SRNS		COMMUNITY INVOLVEMENT	1
+018326	05/16/20	018326	10693	NEWSPAPER ADVERTISEMENT THE STATE ON THE ACTION MEMORANDUM ISSUED FOR THE TIME CRITICAL REMOVAL ACTION FOR THE LOWER THREE RUNS	SRNS		COMMUNITY INVOLVEMENT	2
+018330	05/30/20	018330	10693	SCDHEC COMMENTS ON THE PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER 35 SRNS-RP-2011-01535 REVISION 0	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	6
+018351	06/14/20	ACP-12-160	10693	DOE SUBMITTAL OF THE EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	B. T. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	4
+018352	06/01/20	SRNS-RP-2012-00 REV 1 REDLINE	10693	EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE SELECTION PAR POND UNIT	SRNS		SUPPORTING DOCUMENT	24
+018387	06/27/20	018387	10693	EPA CONDITIONAL APPROVAL OF THE PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER 35 SRNS-RP-2011-01535	R. H. POPE	B. T. HENNESSEY	CORRESPONDENCE	1
+018391	07/10/20	018391	10693	SCDHEC APPROVAL OF THE EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL	V. KEISLER	B. T. HENNESSEY	CORRESPONDENCE	1
+018393	07/16/20	SRNS-J2000-2012 ERD-EN-2012-005	10693	LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL PORTION MIDDLE AND LOWER SUBUNITS REMOVAL ACTION REGULATORY WALK DOWNS	S. L. MCFALLS	D. LLOYD/G. OQUINN/C. BURKE	SUPPORTING DOCUMENT	5
+018395	07/16/20	018395	10693	EPA APPROVAL OF THE EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE INTERIM ACTION RECORD OF DECISION PAR POND UNIT LOWER THREE RUNS	R. H. POPE	B. T. HENNESSEY	CORRESPONDENCE	1
+018403	07/27/20	ACP-12-177	10693	DOE SUBMITTAL OF THE U.S. DEPARTMENT OF ENERGY SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF	BRIAN T. HENNESSEY	R.H.POPE/VAN KEISLER	CORRESPONDENCE	2
+018404	06/01/20	SRNS-RP-2012-00 REV. 1 CLEAN COPY	10693	EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE SELECTION PAR POND UNIT U	SRNS		SUPPORTING DOCUMENT	24
+018427	08/08/20	018427	10693	EPA SUBMITTAL TO THE SCDHEC OF THE DOE AND EPA SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE INTERIM ACTION RECORD OF DECISION	ROBERT H. POPE	VAN KEISLER	CORRESPONDENCE	1
+018438	08/24/20	ACP-12-187	10693	DOE SUBMITTAL OF THE REDLINE PAGES TO THE PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SRNS-RP-2011-01535	B. HENNESSEY	R. POPE/V. KEISLER	CORRESPONDENCE	18
+018439	08/01/20	SRNS-RP-2011-01 REV 1 REDLINE	10693	REDLINE PAGES TO THE PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SRNS-RP-2011-01535 REVISION 1 AUGUST 2012	SRNS		SUPPORTING DOCUMENT	69
+018440	08/17/20	018440	10693	SCDHEC SUBMITTAL OF THE SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES TO THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	V. KEISLER	B. HENNESSEY	CORRESPONDENCE	1

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+018441	06/01/20	SRNS-RP-2012-00 REV 1	10693	THREE PARTY SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION REMEDIAL ALTERNATIVE	SRNS		RECORD OF DECISION	24
+018443	08/29/20	ACP-12-188	10693	DOE SUBMITTAL OF THE COMPLETION OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL PORTION MIDDLE AND LOWER SUBUNITS CERCLIS	BRIAN T. HENNESSEY	R.H. POPE/V. KEISLER	CORRESPONDENCE	9
+018485	09/21/20	ACP-12-194	10693	DOE SUBMITTAL OF THE THREE PARTY SIGNED EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 0 INTERIM ACTION RECORD OF DECISION	B. HENNESSEY	R. POPE/ V. KEISLER	CORRESPONDENCE	2
+018493	09/20/20	018493	10693	SCDHEC CONDITIONAL APPROVAL OF REDLINE PAGES TO THE PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT IOU CERCLIS	V. KEISLER	B. HENNESSEY	CORRESPONDENCE	1
+018536	10/17/20	ACP-13-101	10693	DOE SUBMITTAL OF THE CLEAN COPY OF THE PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SRNS-RP-2011-01535 REVISION 1	BRIAN T. HENNESSEY	ROBERT H. POPE/VAN KEISLER	CORRESPONDENCE	2
+018537	08/01/20	SRNS-RP-2011-01 REV 1 CLEAN COPY	10693	PERIODIC REPORT 4 FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U CERCLIS NUMBER 35 SRNS-RP-2011-01535 REVISION 1 AUGUST 2012	SRNS		SUPPORTING DOCUMENT	252
+018697	02/21/20	ACP-13-136	10693	DOE SUBMITTAL OF THE EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN (EALUCIP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL	BRIAN T. HENNESSEY	ROBERT H. POPE VAN KEISLER	CORRESPONDENCE	2
+018698	02/01/20	SRNS-RP-2013-00 REV. 0	10693	EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN (EALUCIP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL PORTION (MIDDLE	SRNS		SUPPORTING DOCUMENT	62
+018763	03/28/20	ACP-13-143	10693	DOE SUBMITTAL OF THE NOTIFICATION OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT PHASE III FIELD START CERCLIS NUMBER 35	BRIAN T. HENNESSEY	VAN KEISLER ROBERT H. POPE	CORRESPONDENCE	2
+018772	03/28/20	ACP-13-153	10693	DOE SUBMITTAL OF THE REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION MIDDLE AND LOWER SUBUNITS	BRIAN T. HENNESSEY	ROBERT H. POPE VAN KEISLER	CORRESPONDENCE	2
+018773	03/01/20	SRNS-RP-2013-00 REV 0	10693	REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION MIDDLE AND LOWER SUBUNITS U CERCLIS	SRNS		SUPPORTING DOCUMENT	103
+019004	05/17/20	019004	10693	SCDHEC SUBMITTAL OF THE THREE PARTY SIGNED SECOND EXPLANATION OF SIGNIFICANT DIFFERENCES ESD FOR THE REVISION 1 TNX AREA OPERABLE UNIT	VAN KEISLER	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+019010	05/17/20	019010	10693	SCDHEC COMMENTS ON THE EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN EALUCIP FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL	VAN KEISLER	BRIAN T. HENNESSEY	CORRESPONDENCE	2
+019015	05/22/20	019015	10693	SCDHEC COMMENTS ON THE REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION MIDDLE AND LOWER	VAN KEISLER	BRIAN T. HENNESSEY	CORRESPONDENCE	2
+019035	06/04/20	019035	10693	EPA COMMENTS ON THE EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN EALUCIP FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL	ROBERT H. POPE	BRIAN T. HENNESSEY	CORRESPONDENCE	3

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†-019069	07/11/20	019069	10693	EPA COMMENTS ON THE REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION MIDDLE AND LOWER SUBUNITS	ROBERT H. POPE	BRIAN T. HENNESSEY	CORRESPONDENCE	3
†-019095	08/01/20	ACP-13-185	10693	DOE SUBMITTAL OF THE EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN (EALUCIP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL	BRIAN T. HENNESSEY	ROBERT H. POPE VAN KEISLER	CORRESPONDENCE	11
†-019096	08/01/20	SRNS-RP-2013-00 REV 1 REDLINE	10693	EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN (EALUCIP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL PORTION (MIDDLE	SRNS		SUPPORTING DOCUMENT	62
†-019108	08/22/20	019108	10693	EPA APPROVAL OF THE EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN EALUCIP FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL	ROBERT H. POPE	BRIAN T. HENNESSEY	CORRESPONDENCE	1
†-019111	08/26/20	019111	10693	SCDHEC APPROVAL OF THE EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN (EALUCIP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL	VAN KEISLER	BRIAN T. HENNESSEY	CORRESPONDENCE	1
†-019133	09/25/20	ACP-13-195	10693	DOE SUBMITTAL OF THE CLEAN COPY OF THE EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN (EALUCIP) FOR THE LOWER THREE RUNS INTEGRATOR	BRIAN T. HENNESSEY	ROBERT H. POPE VAN KEISLER	CORRESPONDENCE	2
†-019134	08/01/20	SRNS-RP-2013-00 REV 1	10693	EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN (EALUCIP) FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT TAIL PORTION MIDDLE	SRNS		SUPPORTING DOCUMENT	62
†-019230	12/03/20	ACP-14-101	10693	DOE SUBMITTAL OF THE REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION MIDDLE AND LOWER SUBUNITS	BRIAN T. HENNESSEY	ROBERT H. POPE VAN KEISLER	CORRESPONDENCE	7
†-019231	10/01/20	SRNS-RP-2013-00 REVISION 1 REDLINE	10693	REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION MIDDLE AND LOWER SUBUNITS U CERCLIS	SRNS		SUPPORTING DOCUMENT	94
†-019275	12/23/20	019275	10693	SCDHEC APPROVAL OF THE REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS (LTR) INTEGRATOR OPERABLE UNIT (IOU) TAIL PORTION (MIDDLE AND	VAN KEISLER	BRIAN T. HENNESSEY	CORRESPONDENCE	1
†-019276	12/24/20	019276	10693	EPA APPROVAL OF THE REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS (LTR) INTEGRATOR OPERABLE UNIT (IOU) TAIL PORTION (MIDDLE AND LOWER	ROBERT H. POPE	BRIAN T. HENNESSEY	CORRESPONDENCE	1
†-019306	01/22/20	ACP-14-121	10693	DOE SUBMITTAL OF THE CLEAN COPY OF THE REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS LTR INTEGRATOR OPERABLE UNIT IOU TAIL PORTION MIDDLE	BRIAN T.HENNESSEY	ROBERT H. POPE VAN KEISLER	CORRESPONDENCE	2
†-019307	10/01/20	SRNS-RP-2013-00 REV 1	10693	REMOVAL ACTION REPORT FOR THE LOWER THREE RUNS (LTR) INTEGRATOR OPERABLE UNIT (IOU) TAIL PORTION (MIDDLE AND LOWER SUBUNITS) (U) CERCLIS	SRNS		SUPPORTING DOCUMENT	94
†-019349	01/01/20	WSRC-MS-2001-0	10693	DEVELOPMENT OF A TOTAL MAXIMUM DAILY LOAD FOR MERCURY IN THE SAVANNAH RIVER BASIN	WILLIAM L. PAYNE		SUPPORTING DOCUMENT	17
†-019350	03/01/92	ARF-019350	10693	IAEA, 1992. EFFECTS OF IONIZING RADIATION ON PLANTS AND ANIMALS AT LEVELS IMPLIED BY CURRENT RADIATION PROTECTION STANDARDS TECHNICAL	INTERNATIONAL ATOMIC ENERGY AGENCY		SUPPORTING DOCUMENT	42

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+019352	09/01/20	ARF-019352	10693	PALLER, M.H. AND J.W. LITTRELL, 2007. LONG-TERM CHANGES IN MERCURY CONCENTRATIONS IN FISH FROM THE MIDDLE SAVANNAH RIVER SCIENCE OF THE TOTAL	M.H. PALLER, J.W. LITTRELL		SUPPORTING DOCUMENT	
+019358	02/01/20	ARF-019358	10693	SUBMITTAL LETTER OF US DEPARTMENT OF ENERGY COMMENTS ON THE TOTAL MAXIMUM DAILY LOAD TMDL DEVELOPMENT FOR TOTAL MERCURY AND FISH	DEPARTMENT OF ENERGY WASHINGTON, DC	YVONNE MARTIN	SUPPORTING DOCUMENT	7
+019366	05/01/94	SREL-48 UC-66E	10693	MERCURY BIOACCUMULATION IN MOSQUITOFISH GAMBUSIA HOLBROOKI SAMPLE ON AND AROUND THE SAVANNAH RIVER SITE	M.C. NEWMAN, A. MESSIER		SUPPORTING DOCUMENT	63
+019563	02/28/20	019563	10693	TOTAL MAXIMUM DAILY LOAD TMDL FOR TOTAL MERCURY IN FISH TISSUE RESIDUE IN THE MIDDLE AND LOWER SAVANNAH RIVER WATERSHED	EPA		SUPPORTING DOCUMENT	83
+019564	12/08/20	019564	10693	US DEPARTMENT OF ENERGY COMMENTS ON THE TOTAL MAXIMUM DAILY LOAD TMDL DEVELOPMENT FOR TOTAL MERCURY AND FISH CONSUMPTION GUIDELINES IN THE	DOE		SUPPORTING DOCUMENT	
+019592	03/30/20	019592	10693	THE ENVIRONMENTAL BULLETIN FROM THE SAVANNAH RIVER SITE FOR THE FLOODPLAIN AND WELANT ASSESSMENT ISSUED FOR THE LOWER THREE RUNS	SRNS		COMMUNITY INVOLVEMENT	2
+019593	04/26/20	019593	10693	THE ENVIRONMENTAL BULLETIN FROM THE SAVANNAH RIVER SITE FOR THE FLOODPLAIN STATEMENT OF FINDINGS ISSUED FOR THE LOWER THREE RUNS	SRNS		COMMUNITY INVOLVEMENT	2
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+019598	09/13/20	019598	10693	THE ENVIRONMENTAL BULLETIN FROM THE SAVANNAH RIVER SITE FOR THE NOTICE OF AVAILABILITY FOR THE EXPLANATION OF SIGNIFICANT DIFFERENCES ISSUED	SRNS		COMMUNITY INVOLVEMENT	2
+019842	09/30/20	019842	10693	EPA APPROVAL OF THE CLEAN COPY OF THE EARLY ACTION LAND USE CONTROL IMPLEMENTATION PLAN EALUCIP FOR THE LOWER THREE RUNS INTEGRATOR	ARTHUR COLLINS	BRIAN T. HENNESSEY	CORRESPONDENCE	2
+020087	10/30/20	SRNS-RP-2010-01 FINAL	10693	FIELD SUMMARY REPORT FOR THE CHARACTERIZATION OF LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS SRNS-RP-2010-01379 FINAL OCTOBER 2010	SRNS		SUPPORTING DOCUMENT	1492
+020402	02/01/20	WSRC-RP-2004-4	10693	FIELD SUMMARY REPORT FOR THE LOWER THREE RUNS IOU	WSRC		SUPPORTING DOCUMENT	255
+020418	10/30/20	ERD-EN-2001-006 FINAL	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER 35 ERD-EN-2001-0061 FINAL OCTOBER 2015	SRNS		CORRESPONDENCE	33
020529	01/31/20	ERD-EN-2001-006 FINAL	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER 35 ERD-EN-2001-0061 FINAL JANUARY 2016	SRNS		SUPPORTING DOCUMENT	154
+020686	04/21/20	IACD-16-132	10693	DOE SUBMITTAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN AND HEADWATERS - PAR POND	BRIAN T. HENNESSEY	ROBERT H. POPE SUSAN B. FULMER	CORRESPONDENCE	2

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+020687	04/30/20	SRNS-RP-2016-0C REV 0	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS - PAR POND SGCP-SAP-2009-00003,	SRNS		SUPPORTING DOCUMENT	42
+020707	05/18/20	020707	10693	SCDHEC COMMENTS ON THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS -	SUSAN B. FULMER	BRIAN T. HENNESSEY	CORRESPONDENCE	2
+020755	06/03/20	020755	10693	EPA APPROVAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM, FLOODPLAIN, AND HEADWATERS - PAR POND	ROBERT H. POPE	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+020786	08/04/20	IACD-16-157	10693	DOE SUBMITTAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS - PAR POND	BRIAN T. HENNESSEY	ROBERT H. POPE SUSAN B. FULMER	CORRESPONDENCE	4
+020787	07/30/20	SRNS-RP-2016-0C REDLINE REV 1	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS - PAR POND SGCP-SAP-2009-00003	SRNS		SUPPORTING DOCUMENT	42
+020788	07/30/20	SRNS-RP-2016-0C REV 1	10693	ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN SAP FOR THE LOWER THREE RUNS STREAM FLOODPLAIN AND HEADWATERS - PAR POND SGCP-SAP-2009-00003	SRNS		SUPPORTING DOCUMENT	42
+020800	07/30/20	ERD-EN-2001-006 FINAL	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER: 35 ERD-EN-2016-0061 JULY 2016 FINAL	SRNS		SUPPORTING DOCUMENT	38
+020827	09/02/20	020827	10693	SCDHEC APPROVAL OF THE ADDENDUM TO THE SAMPLING AND ANALYSIS PLAN (SAP) FOR THE LOWER THREE RUNS STEAM, FLOODPLAIN, AND HEADWATERS -	SUSAN B FULMER	BRIAN T HENNESSEY		1
+021210	07/28/20	IACD-17-144	10693	DOE SUBMITTAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT NBN U	BRIAN T. HENNESSEY	ROBERT H. POPE SUSAN B. FULMER	CORRESPONDENCE	2
+021211	02/01/20	ERD-EN-2001-006 FINAL	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT ERD-EN-2001-0061 FEBRUARY 2017 FINAL CERCLIS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	38
+021212	06/01/20	SRNS-RP-2017-0C REV 0	10693	LOWER THREE RUNS INTERGRATOR OPERABLE UNIT DATA USABILITY REPORT DUR U CERCLIS NUMBER: 35 SRNS-RP-2017-00285 REVISION 0 JUNE 2017	SRNS		SUPPORTING DOCUMENT	106
+021213	06/01/20	SRNS-RP-2017-0C REV 0	10693	REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U CERCLIS NUMBER; 35	SRNS		SUPPORTING DOCUMENT	966
+021251	09/25/20	021251	10693	SCDHEC COMMENTS ON THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U, CERCLIS	SUSAN B FULMER	BRIAN T HENNESSEY	CORRESPONDENCE	
+021265	10/03/20	021265	10693	EPA COMMENTS ON THE REMEDIAL INVESTIGATION/BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS OPERABLE UNIT, CERCLIS NUMBER	JON RICHARDS	BRIAN T. HENNESSEY	CORRESPONDENCE	3
+021306	11/28/20	IACD-18-110	10693	DOE SUBMITTAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE	BRIAN T. HENNESSEY	JON RICHARDS SUSAN B.	CORRESPONDENCE	2

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+021377	01/26/20	021377	10693	EPA APPROVAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT CERCLIS NUMBER	JON RICHARDS	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021434	12/28/20	IACD-18-116	10693	DOE SUBMITTAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U	BRIAN T. HENNESSEY	JON RICHARDS SUSAN B.	CORRESPONDENCE	34
+021445	03/29/20	021445	10693	EPA APPROVAL OF THE EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, CERCLIS NUMBER	JON RICHARDS	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021454	03/15/20	IACD-18-141	10693	DOE SUBMITTAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY	BRIAN T. HENNESSEY	JON RICHARDS SUSAN B.	CORRESPONDENCE	2
+021459	03/21/20	IACD-18-135	10693	SRNS-RP-2018-00199 REVISION 0 AND SUBSEQUENT DOE SUBMITTAL OF THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U	BRIAN T. HENNESSEY	JON RICHARDS SUSAN B.	CORRESPONDENCE	2
+021460	12/01/20	SRNS-RP-2017-00 REV 1	10693	REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U CERCLIS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	990
+021461	03/19/20	021461	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY	SUSAN B. FULMER	BRIAN T. HENNESSEY	CORRESPONDENCE	1
+021479	12/01/20	SRNS-RP-2017-00 REDLINE REV 1	10693	SRNS-RP-2018-00199 REVISION 0 AND SUBSEQUESNT REDMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT U CERCLIS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	1002
+021484	04/19/20	ARF-021484	10693	EMAIL: POPE TO DISTRIBUTION, RE: REVISED LOWER THREE RUNS INTEGRATOR OPERABLE UNIT FEASIBILITY STUDY SCOPING SUMMARY (DRAFT) APRIL 19, 2018	R. POPE	J. BURCH	CORRESPONDENCE	4
+021687	06/19/20	IACD-18-158	10693	DOE SUBMITTAL: EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 0) FOR THE LOWER	B. HENNESSEY	S. FULMER J. RICHARDS	CORRESPONDENCE	2
+021695	06/26/20	SRNS-OS-2018-00	10693	EPA APPROVAL OF THE EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35	J. Richards	B. Hennessey	CORRESPONDENCE	1
+021698	06/22/20	SRNS-OS-2018-00	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 0) FOR THE LOWER	S. Fulmer	B. Hennessey	CORRESPONDENCE	1
+021725	08/02/20	IACD-18-169	10693	DOE SUBMITTAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 0, JULY 2018) AND THE SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (FEASIBILITY STUDY SCOPING) (ERD-EN-2001-0061, APRIL 2018 FINAL) SEMS	B HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
+021726	04/01/20	ERD-EN-2001-006	10693	FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 0 JULY 2018) SEMS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	46
+021727	07/01/20	SRNS-RP-2018-00 REV 0	10693	FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 0 JULY 2018) SEMS NUMBER: 35	SRNS		FEASIBILITY STUDY	138

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†021846	10/31/20	SRNS-OS-2018-0C	10693	SCDHEC COMMENTS ON THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 0,	S. FULMER	B. HENNESSEY	CORRESPONDENCE	3
†021847	10/18/20	SRNS-OS-2018-0C	10693	EPA COMMENTS FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, SRNS-RP-2018-00199, REVISION 0,	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	4
†021886	12/18/20	IACD-19-113	10693	SUBMITTAL LETTER FOR THE REMEDIAL INVESTIGATION / BASELINE RISK ASSESSMENT FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U)	B. HENNESSEY	SRS	CORRESPONDENCE	3
†021887	12/20/20	IACD-19-118	10693	DOE SUBMITTAL LETTER OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U)	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
†021918	01/30/20	IACD-19-120	10693	DOE SUBMITTAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 1 REDLINE, JANUARY	B. HENNESSEY	J. RICHARDS S. FULMER	CORRESPONDENCE	25
†021919	01/01/20	SRNS-RP-2018-0C	10693	FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 1, REDLINE, JANUARY 2019)	SRNS	DISTRIBUTION	SUPPORTING DOCUMENT	166
†021925	02/07/20	IACD-19-125	10693	DOE SUBMITTAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	3
†021937	02/12/20	SRNS-OS-2019-0C	10693	EPA APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U),	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
†021941	02/12/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
†021954	03/01/20	SRNS-OS-2019-0C	10693	EPA EXTENSION REQUEST FOR THE FEASIBILITY STUDY SUBMITTAL FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
†021961	02/28/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 1	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
†022002	04/03/20	SRNS-OS-2019-0C	10693	EPA COMMENTS FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, [SRNS-RP-2018-00199], REVISION	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	7
†022025	04/11/20	IACD-19-137	10693	DOE SUBMITTAL OF THE SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE INTEGRATOR OPERABLE UNIT PROGRAM (PHASE II)	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
†022026	03/01/20	ERD-EN-2019-000	10693	SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE INTEGRATOR OPERABLE UNIT PROGRAM (PHASE II) (U), (ERD-EN-2019-0007, MARCH	SRNS		SUPPORTING DOCUMENT	72
†022027	04/11/20	IACD-19-142	10693	DOE SUBMITTAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REDLINE REVISION 1.1) AND	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	3

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+022137	04/12/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE INTEGRATOR OPERABLE UNIT PROGRAM (PHASE II)	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022138	04/12/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REDLINE REVISION 1.1) AND EPA APPROVAL FOR THE THIRTY-DAY EXTENSION NOTIFICATION FOR THE FEASIBILITY STUDY (SRNS-RP-2018-00199, REDLINE REVISION 1.1) AND EPA CONCURRENT OF SCOPING SUMMARY FOR OPTIMIZATION OF THE SAVANNAH RIVER SITE INTEGRATOR OPERABLE UNIT PROGRAM [PHASE II]	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022141	04/23/20	SRNS-OS-2019-0C	10693	SCDHEC E-MAIL APPROVAL OF THE EXTENSION OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 1.1)	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022146	04/26/20	SRNS-OS-2019-0C	10693	EPA E-MAIL APPROVAL OF THE EXTENSION OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 1.1) SUBMITTAL	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022162	05/08/20	SRNS-OS-2019-0C	10693	DOE REQUEST TO SUSPEND / EXTEND THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 1.1)	S. FULME	B. HENNESSEY, J. RICHARDS	CORRESPONDENCE	2
+022163	05/09/20	SRNS-OS-2019-0C	10693	EPA E-MAIL APPROVAL OF THE EXTENSION OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT FEASIBILITY STUDY (SRNS-RP-2018-00199, REVISION 1.1)	J. RICHARDS	B. HENNESSEY, S. FULMER	CORRESPONDENCE	2
+022165	05/07/20	IACD-19-150	10693	DOE SUBMITTAL FOR DETERMINING THE SUBMITTAL DATE FOR THE FEASABILITY STUDY FOR THE LOWER THREE	B. HENNESSEY	J. RICHARDS, S. FULMER	CORRESPONDENCE	4
+022173	05/13/20	SRNS-OS-2019-0C	10693	SCDHEC E-MAIL RESPONSE TO THE DOE E-MAIL REGARDING CLARIFICATION FOR DETERMINING THE SUBMITTAL DATE FOR THE FEASABILITY STUDY FOR THE LOWER THREE	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022174	05/13/20	SRNS-OS-2019-0C	10693	SCDHEC E-MAIL RESPONSE TO THE DOE E-MAIL REGARDING CLARIFICATION FOR DETERMINING THE SUBMITTAL DATE FOR THE FEASABILITY STUDY FOR THE LOWER THREE	H. CATHCART	B. HENNESSEY	CORRESPONDENCE	2
+022175	05/13/20	IACD-19-153	10693	DOE E-MAIL REGARDING CLARIFICATION FOR DETERMINING THE SUBMITTAL DATE FOR THE FEASABILITY STUDY FOR THE LOWER THREE RUNS	B. HENNESSEY	J. RICHARDS, R. POPE, S. FULME	CORRESPONDENCE	1
+022205	03/11/20	ER-IDS-019-040	10693	LOWER THREE RUNS INTEGRATED OPERABLE UNIT FOR FOUR PUBLIC ROAD CROSSING BETWEEN PATTERSON MILL ROAD AND SAVANNAH RIVER FIELD INSPECTION	SRNS		SUPPORTING DOCUMENT	8
+022237	06/27/20	IACD-19-167	10693	DOE SUBMITTAL OF THE THIRD EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS, S. FULMER	CORRESPONDENCE	2
+022251	07/01/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE THIRD EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022257	07/11/20	SRNS-OS-2019-0C	10693	EPA APPROVAL FOR THE THIRD EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022379	10/21/20	IACD-20-105	10693	DOE SUBMITTAL LETTER FOR THE FOURTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS, S. FULMER	CORRESPONDENCE	3

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+022392	10/22/20	SRNS-OS-2019-0C	10693	EPA APPROVAL FOR THE FOURTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	J. RICHARDS	B. HENNESSEY	SUPPORTING DOCUMENT	1
+022396	10/23/20	SRNS-OS-2019-0C	10693	SCDHEC APPROVAL OF THE FOURTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022579	02/04/20	IACD-20-130	10693	DOE SUBMITTAL FOR THE FIFTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	2
+022581	02/04/20	SRNS-OS-2020-0C	10693	EPA APPROVAL FOR THE FIFTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
+022585	02/06/20	SRNS-OS-2020-0C	10693	SCDHEC APPROVAL OF THE FIFTH EXTENSION REQUEST FOR THE SUBMITTAL OF THE PROPOSED PLAN (SRNS-RP-2019-00058, REVISION 0) AND SUBSEQUENT	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022599	02/26/20	IACD-20-132	10693	DOE SUBMITTAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 1.1, FEBRUARY 2020)	B. HENNESSEY	J RICHARDS,S. FULMER	CORRESPONDENCE	15
+022600	02/01/20	SRNS-RP-2018-0C	10693	FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2018-00199, REVISION 1.1, FEBRUARY 2020) SEMS NUMBER: 35	SRNS		SUPPORTING DOCUMENT	164
+022601	02/28/20	SRNS-OS-2020-0C	10693	EPA APPROVAL FOR THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER 35, [SRNS-RP-2018-00199, REV 1.1,	J. RICHARDS	B. HENNESSEY	CORRESPONDENCE	1
022631	03/24/20	SRNS-OS-2020-0C	10693	SCDHEC APPROVAL OF THE FEASIBILITY STUDY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT, SEMS NUMBER: 35 (SRNS-RP-2018-00199, REVISION 1.1,	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022673	04/22/20	IACD-19-138	10693	DOE SUBMITTAL FOR THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 0, APRIL 2020) SEMS	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	44
+022674	04/01/20	SRNS-RP-2020-0C	10693	DRAFT UNITED STATES DEPARTMENT OF ENERGY PROPOSED PLAN FACT SHEET FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT SEMS NUMBER: 35;	SRNS		SUPPORTING DOCUMENT	6
+022675	04/01/20	SRNS-RP-2019-0C	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) SRNS-RP-2019-00058	SRNS		SUPPORTING DOCUMENT	62
+022676	04/01/20	ERD-EN-2001-006	10693	SCOPING SUMMARY FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (PROPOSED PLAN SCOPING) ERD-EN-2001-0061	SRNS		SUPPORTING DOCUMENT	36
+022760	06/18/20	SRNS-OS-2020-0C	10693	EPA SUBMITTAL OF A THIRTY-DAY EXTENSION NOTIFICATION FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (SRNS-RP-2019-00058,	R. POPE	B. HENNESSEY	CORRESPONDENCE	1
+022772	06/18/20	SRNS-OS-2020-0C	10693	SCDHEC COMMENTS ON THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SEMS NUMBER: 35 (SRNS-RP-2019-00058, REVISION 0,	S. FULMER	B. HENNESSEY	CORRESPONDENCE	2

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+022812	07/24/20	SRNS-OS-2020-0C	10693	EPA COMMENTS ON THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU)	R. POPE	B. HENNESSEY	CORRESPONDENCE	4
+022892	09/22/20	IACD-20-181	10693	(U), SEMS NUMBER: 35, [SRNS-RP-2019-00058], REVISION DOE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U)	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	14
+022893	09/01/20	SRNS-RP-2019-0C	10693	(SRNS-RP-2019-00058, REVISION 1 REDLINE, SEPTEMBER PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1 REDLINE, SEPTEMBER 2020) SEMS NUMBER:	SRNS		STATEMENT OF BASIS / PROPOSED PLAN	62
+022953	10/22/20	SRNS-OS-2020-0C	10693	EPA SUBMITTAL OF AN EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS ON THE LOWER THREE RUNS (LTR) INTEGRATOR OPERABLE UNIT (IOU) PROPOSED	R. POPE	B. HENNESSEY,S. FULMER	CORRESPONDENCE	2
+022955	10/20/20	SRNS-OS-2020-0C	10693	SCDHEC APPROVAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U), SEMS NUMBER: 35 (SRNS-RP-2019-00058, REVISION 1	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022972	11/04/20	IACD-21-104	10693	DOE SUBMITTAL OF THE APPROVAL OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S 120-DAY EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	5
+022974	11/05/20	SRNS-OS-2020-0C	10693	SCDHEC APPROVAL OF THE EXTENSION REQUEST FOR THE SUBMITTAL OF THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT REVISION 0 RECORD OF	S. FULMER	B. HENNESSEY	CORRESPONDENCE	1
+022984	11/13/20	SRNS-OS-2020-0C	10693	EPA COMMENTS ON THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER 35, [SRNS-RP-2019-00058], REVISION	R. POPE	B. HENNESSEY	CORRESPONDENCE	2
+023028	12/21/20	IACD-21-114	10693	DOE SUBMITTAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1.1 REDLINE, DECEMBER	B. HENNESSEY	J. RICHARDS,S. FULMER	CORRESPONDENCE	16
+023029	12/01/20	SRNS-RP-2020-0C	10693	UNITED STATES DEPARTMENT OF ENERGY PROPOSED PLAN FACT SHEET FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (SRNS-RP-2020-00110,	SRNS		SUPPORTING DOCUMENT	5
+023030	12/01/20	SRNS-RP-2019-0C	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1.1 REDLINE, DECEMBER 2020) SEMS NUMBER:	SRNS		STATEMENT OF BASIS / PROPOSED PLAN	56
+023031	12/01/20	SRNS-RP-2019-0C	10693	PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (U) (SRNS-RP-2019-00058, REVISION 1.1, DECEMBER 2020) SEMS NUMBER: 35	SRNS		STATEMENT OF BASIS / PROPOSED PLAN	56
+023039	12/22/20	SRNS-OS-2021-0C	10693	EPA APPROVAL OF THE PROPOSED PLAN FOR THE LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) (U), SEMS NUMBER: 35, [SRNS-RP-2019-00058], REVISION	R. POPE	B. HENNESSEY	CORRESPONDENCE	1



# **Proposed Plan for the Lower Three Runs Integrator Operable Unit (U)**

**SEMS Number: 35**

**SRNS-RP-2019-00058**

**Revision 1.1**

**December 2020**

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## LIST OF ABBREVIATIONS AND ACRONYMS

~	approximate, approximately
ac	acre
ARF	Administrative Record File
ARAR	Applicable or Relevant and Appropriate Requirement
BMP	Best Management Practices
BRA	Baseline Risk Assessment
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
EA	Exposure Area
EALUCIP	Early Action Land Use Control Implementation Plan
EPC	Exposure Point Concentration
ERA	Ecological Risk Assessment
ESD	Explanation of Significant Difference
FFA	Federal Facility Agreement
ft	feet
FS	Feasibility Study
ha	hectare
HHRA	Human Health Risk Assessment
IOU	Integrator Operable Unit
IROD	Interim Record of Decision
K	thousand (\$)
km	kilometer
LLC	Limited Liability Company
LUCs	Land Use Controls
LUCIP	Land Use Control Implementation Plan
LTR	Lower Three Runs
m	meter
M	million (\$)
mg/kg	milligram per kilogram
MNR	Monitored Natural Recovery
msl	mean sea level
NCP	National Contingency Plan
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
O&M	Operations & Maintenance
OU	Operable Unit
pCi/g	picocurie per gram
PP	Proposed Plan
PRG	Preliminary Remedial Goal
PTSM	Principal Threat Source Material
RAO	Remedial Action Objective
RCOC	Refined Constituent of Concern
RCRA	Resource Conservation and Recovery Act
RG	Remedial Goal
RI	Remedial Investigation
ROD	Record of Decision
RSL	regional screening level
RWS	River Water System

**LIST OF ABBREVIATIONS AND ACRONYMS** *(Continued/End)*

SCDHEC	South Carolina Department of Health and Environmental Control
SEMS	Superfund Enterprise Management System
SRARP	Savannah River Archaeological Research Program
SRNS	Savannah River Nuclear Solutions, LLC
SRS	Savannah River Site
TBC	To Be Considered
TCR	Total Cumulative Risk
USDOE	United States Department of Energy
USC	United States Code
USEPA	United States Environmental Protection Agency
WSRC	Washington Savannah River Company, LLC

## I. INTRODUCTION AND BACKGROUND

### Introduction

This Proposed Plan (PP) is being issued by the United States Department of Energy (USDOE), which functions as the lead agency for Savannah River Site (SRS) remedial activities, with concurrence by the United States Environmental Protection Agency (USEPA) and the South Carolina Department of Health and Environmental Control (SCDHEC). The purpose of this PP is to describe the preferred remedial alternative(s) for the Lower Three Runs (LTR) Integrator Operable Unit (IOU) (LTR IOU), and to provide for public involvement in the decision-making process.

SRS occupies approximately (~) 802.9 square kilometers (310 square miles) of land adjacent to the Savannah River, principally in Aiken and Barnwell counties of South Carolina. SRS is located ~40.2-kilometers (km [25-miles {mi}]) southeast of Augusta, Georgia, and 32.2-km (20-mi) south of Aiken, South Carolina.

SRS is owned by the USDOE. Management and operating services are provided by Savannah River Nuclear Solutions (SRNS). SRS has historically produced tritium, plutonium, and other special nuclear materials for national defense. Chemical and radioactive wastes are byproducts of nuclear material production processes. Hazardous substances, as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), are currently present in the environment at SRS.

The LTR IOU is located in Barnwell and Allendale Counties, South Carolina. The LTR IOU consists of

an Upper subunit, Middle subunit, and Lower subunit (Figure 1). Early remedial actions have already been completed for the Middle and Lower subunits; therefore, the Upper subunit is the focus of this PP.

For the Upper subunit, the LTR IOU is segregated into the following nine individual exposure areas (EAs) for evaluation purposes (Figure 2):

- EA1: Pond A – Including R-Area Discharge Canal
- EA2: Canal from Pond A to Pond B
- EA3: Pond B – Including canal to Pond C
- EA4: Canal from Pond B to North Arm of PAR Pond
- EA5: Joyce Branch (Old Discharge Canal)
- EA6: PAR Pond
- EA7: Canal from P-Area to Ponds 4 and 5 – Including Pond 2
- EA8: Ponds 4 and 5 – Including canal from Ponds 4 and 5 to Pond C
- EA9: Pond C

A remedial action is needed in the Upper subunit of the LTR IOU due to the presence of cesium-137 (Cs-137) and cobalt-60 (Co-60) in sediment/soil, and the presence of mercury and Cs-137 in fish tissue at levels that may pose a threat to human health and the environment. Due to the complexity of the Upper subunit, multiple remedies are needed to address the nature and extent of contamination within the LTR IOU system. The preferred remedial alternative identified for specific EAs are as follows:

- For EA1, the Excavation, Treatment and Disposal of Principal Threat Source Material (PTSM) Sediment/Soil remedial alternative to address Cs-137 contamination above the PTSM threshold (i.e., risk  $\geq 1E-03$ ) in a sediment location.

- For EA3, Maintain Water in Ponds remedial alternative to address Cs-137 contamination above the PTSM threshold in sediment located at depth beneath the surface water in Pond B.
- For EA6, Maintain Water in Ponds remedial alternative due to elevated levels of Cs-137 contamination in the sediment beneath PAR Pond and acts as the final barrier for contaminant migration in the Upper Subunit.

In addition to the EA specific actions, the preferred remedial alternative for all nine EAs within the Upper subunit of the LTR IOU (i.e., EA1 thru EA9) is Land Use Controls (LUCs) with Monitored Natural Recovery (MNR) which is effective in reducing exposure of contaminated media to human receptors and will achieve the remedial action objectives (RAOs). The SRS Land Use Control Assurance Plan (WSRC 1999) ensures that LUCs will be maintained for as long as necessary to keep the selected remedy fully protective of human health and the environment.

As part of the selected remedy, the future land use for the Upper subunit of the LTR IOU will be non-residential. The IOU onsite worker was selected as the most likely receptor for exposure to contaminated sediment/soil in the Upper subunit. The hypothetical recreational fisherman was chosen as the most likely receptor for the ingestion of contaminated fish tissue.

The LTR IOU Record of Decision (ROD) will document the remedial actions for the entire LTR IOU including the remedial alternative(s) selected for the Upper subunit and the previous remedial decision selected for the Middle and Lower subunits as documented in an Explanation of Significant

Differences (ESD) issued in 2012 (SRNS 2012b). The 2012 ESD documents the selection of LUCs as the final remedy for the Middle and Lower subunits following completion of a non-time critical removal action for contaminated soil/sediment. The non-time critical removal actions are detailed in the *Removal Action Report for the Lower Three Runs (LTR) Integrator Operable Unit (IOU) Tail Portion (Middle and Lower Subunits)* (SRNS 2013a), and the Action Memorandum for the Time Critical Removal Action for the Lower Three Runs Integrator Operable Unit Tail Portion (Middle and Lower Subunits), and the Removal Site Evaluation Report for the Lower Three Runs Integrator Operable Unit Tail Portion (Middle and Lower Subunits) (SRNS 2012a). An Early Action Land Use Control Implementation Plan (EALUCIP) is in place for the Middle and Lower subunits that describes the LUCs selected in the ESD and how the controls are implemented and maintained (SRNS 2013b). The remedial action implemented for the Middle and Lower subunits is protective of human health and the environment, and LUCs will be documented in the final ROD for the LTR IOU as the final remedial action for the Middle and Lower subunits.

### SRS Compliance History

SRS manages certain waste materials that are regulated under the Resource Conservation and Recovery Act (RCRA), a comprehensive law requiring responsible management of hazardous waste. On December 21, 1989, SRS was included on the National Priorities List. The inclusion created a need to integrate the established RCRA Facility Investigation program with CERCLA requirements to provide for a focused environmental program. In accordance with Section 120 of CERCLA 42 U.S.C. §

9620, USDOE has negotiated a Federal Facility Agreement (FFA) (FFA 1993) with the USEPA and SCDHEC to coordinate remedial activities at SRS into one comprehensive strategy which fulfills these dual regulatory requirements. Appendix C of the SRS FFA lists the LTR IOU as a CERCLA unit.

CERCLA requires the public to be given an opportunity to review and comment on the proposed remedial alternative(s). Public participation requirements are listed in Sections 113 and 117 of CERCLA 42 U.S.C. § 9613 and 9617. These requirements include establishment of an Administrative Record File (ARF) that documents the investigation and selection of remedial alternatives and allows for review and comment by the public regarding those alternatives (See Section II). The ARF must be established at or near the facility at issue. The SRS FFA Community Involvement Plan (WSRC 2011) is designed to facilitate public involvement in the decision-making process for permitting, closure, and the selection of remedial alternatives. Section 117(a) of CERCLA, as amended, requires the notice of any proposed remedial action and provides the public an opportunity to participate in the selection of the remedial action. Because the LTR IOU is not a RCRA 3004(u) Solid Waste Management Unit, a RCRA permit modification is not required.

The final remedial decision for the Upper subunit will be made only after the public comment period has ended and all the comments have been received and considered. Selection of the remedial alternative(s) that will satisfy the FFA requirements will be made by USDOE, in consultation with USEPA and SCDHEC. It is important to note that the final action may be different from the preferred alternative(s) discussed in this plan depending on new information or public

comments. The alternative(s) chosen will be protective of human health and the environment and comply with all federal and state laws.

## II. COMMUNITY PARTICIPATION

The FFA ARF, which contains the information pertaining to the selection of the response action, is available at the following locations:

U.S. Department of Energy  
Public Reading Room  
Gregg-Graniteville Library  
University of South Carolina Aiken Campus  
471 University Parkway  
Aiken, South Carolina 29803  
(803) 641-3504

Thomas Cooper Library  
Government Information and Maps Department  
University of South Carolina  
1322 Green Street  
Columbia, South Carolina 29208  
(803) 777-4841

Hard copies of the PP are available at the following locations:

Reese Library  
Government Information Department  
Augusta University  
2500 Walton Way  
Augusta, Georgia 30904  
(706) 737-1744

Asa H. Gordon Library  
Savannah State University  
2200 Tompkins Road  
Savannah, Georgia 31404  
(912) 358-4324

The public will be notified of the public comment period through mailings of the SRS Environmental Bulletin, a newsletter sent to citizens in South Carolina and Georgia, and through notices in the *Aiken Standard*, *The Augusta Chronicle*, *The People-Sentinel*, and *The State* newspapers.

USDOE will provide an opportunity for a public meeting during the public comment period if significant interest is expressed. The public will be notified of the date, time, and location. At the meetings, the proposed action will be discussed, and questions about the action will be answered.

To request a public meeting during the public comment period, to obtain more information concerning this document, or to submit written comments, contact the following:

Angie Benfield  
Savannah River Nuclear Solutions, LLC  
Savannah River Site  
Building 730-1B  
Aiken, South Carolina 29808  
(803) 952-9830  
[Angela.Benfield@srs.gov](mailto:Angela.Benfield@srs.gov)

Following the public comment period, a ROD will be signed. The ROD will detail the remedial alternative(s) chosen for the LTR IOU and include responses to oral and written comments received during the public comment period in the Responsiveness Summary.

### III. OPERABLE UNIT BACKGROUND

The LTR watershed is located in the southeastern portion of SRS. LTR is a large blackwater stream containing ponds and tributary systems that are waters of the state classified as freshwater. The stream originates in the northeast portion of SRS and follows a southerly direction for ~40 kilometers (km [24.5 miles {mi}]), discharging into the Savannah River.

The LTR IOU is delineated into Upper, Middle, and Lower subunits (Figure 1). The Upper subunit of the LTR IOU is the focus of this PP.

The Upper subunit is located upgradient of the PAR Pond Dam and includes PAR Pond and the pre-cooler ponds and canal system (Figure 2). The Middle and Lower subunits are located below the PAR Pond Dam. The Lower subunit includes and bounds the LTR stream system by a narrow buffer of USDOE property, an area referred to as the “tail portion” of the LTR IOU. The remedial action for the Middle and Lower subunits was previously addressed and documented in the Removal Action Report (SRNS 2013a), the Action Memorandum (SRNS 2012a), and the *Explanation of Significant Differences (ESD) for the Revision 0 Interim Action Record of Decision Remedial Alternative Selection: PAR Pond Unit (U); Lower Three Runs Integrator Operable Unit Tail Portion (Middle and Lower Subunits) (U)* (SRNS 2012b). As documented in the ESD, no additional data collection, risk assessment, or response evaluation is necessary for the Middle and Lower subunits, and the remedial action of LUCs will be documented as the final action in the LTR IOU ROD for the Middle and Lower subunits.

The LTR stream system received effluent discharges from reactor operations in both R Area and P Area. R-Reactor began operations in 1953 and was followed by P-Reactor in 1954. Both received cooling water from the Savannah River via the river water distribution system. R-Reactor discharged reactor effluent directly into Joyce Branch, while P-Reactor discharged reactor effluent directly into Steel Creek. In 1958, PAR Pond and a series of pre-cooler ponds and a canal system were constructed to address the cooling water requirements of both R- and P-Reactors. Effluent from R-Reactor was routed to the R-Area Discharge Canal and pre-cooler Pond B where it discharged into what was identified as the north arm

of PAR Pond (Figure 2). This effluent pathway was used for R-Reactor discharge from 1961 until the reactor was shut down in 1964. Since the shutdown of R-Reactor, R-Area Discharge Canal and Pond B have remained essentially undisturbed.

PAR Pond also served as a heat exchange/cooling reservoir for P-Reactor until 1988. Heated water was released through a series of man-made canals and smaller impoundments into the pre-cooler Pond C and released into PAR Pond (Figure 2). Effluent discharges from P-Reactor ceased in 1987. As with the R-Area Discharge Canal, the associated canal system and pre-cooler ponds have remained essentially undisturbed since the termination of P-Reactor discharges to PAR Pond.

Liquid releases before and after the construction of PAR Pond and the pre-cooler ponds and canal system included process leaks, reactor disassembly basin purges, and thermal discharges contaminated primarily with Cs-137, but also tritium, metallic contaminants, and other radiological contaminants in much smaller quantities. Past characterization efforts have shown that Cs-137 is the major contaminant in the LTR IOU (Figure 3).

During an inspection of the PAR Pond Dam in March 1991, a small surface depression was noted on the downstream face which necessitated a detailed structural investigation and initiated a precautionary drawdown of the reservoir. From June through September 1991, the level of PAR Pond was lowered from 60- to 54-meters (m [200 to 181-feet [ft]) mean sea level (msl) to reduce the risk and consequences of an unlikely event of dam failure. A CERCLA interim ROD (IROD) for PAR Pond was issued in 1995 to address potential exposure to the contaminated

sediment/soil that was exposed following water level drawdown of the PAR Pond reservoir during repair of the dam (WSRC 1995). The objective of the interim remedy was to prevent exposure of contaminated shoreline sediments until a National Environmental Policy Act (NEPA) evaluation could be conducted. The resulting NEPA ROD from that evaluation noted that natural fluctuation of PAR Pond water elevations would remain between 195-ft and 200-ft msl without operation of the River Water System (RWS), although it also noted the RWS availability in critical drought conditions. A 2009 revised Finding of No Significant Impact reduced the base flow requirements below PAR Pond dam to 5 cubic feet/second which supports a balanced biological community in the downstream reaches of LTR. The effectiveness of the 1995 IROD remedy is evaluated in the Fifth Five-Year Remedy Review Report (SRNS 2015). The next Five-Year Remedy Review Report for the PAR Pond IROD is scheduled for issuance in 2020.

In 2009/2010, extensive sampling of the Upper subunit was undertaken to augment previously collected data to support the risk evaluation. In 2016, it was determined that additional sampling was needed to address data gaps in surface water and sediment in PAR Pond. The sampling was performed as outlined in approved Sampling and Analysis Plans (SRNS 2010, SRNS 2016) and included sampling of sediment/soil, surface water, and fish. The sampling included the canals, pre-cooler ponds, PAR Pond, and the Lower Three Runs stream system below PAR Pond dam. Stream channel/floodplain sediment and floodplain/wetland soil (i.e., sediment/soil) are combined as a single medium and referred to as “sediment/soil.” The results of the characterization activities and human health and ecological risk

evaluations are documented in the 2017 Remedial Investigation/Baseline Risk Assessment (RI/BRA) (SRNS 2017).

The comparative analysis of remedial alternatives evaluated for the Upper subunit is documented in the 2020 Feasibility Study (FS) for the LTR IOU (SRNS 2020). The CERCLA remedial action recommended in this PP for the Upper Subunit is based on the findings of the 2017 RI/BRA and 2020 FS.

The Upper subunit of the LTR IOU is used as a research site and is part of the National Environmental Research Park. The primary entities that conduct research within the Upper subunit are the Savannah River Ecology Laboratory and the Savannah River National Laboratory. Emphasis in recent years has primarily been on aspects of radioecology in the Pond A, Pond B, and PAR Pond systems.

#### **IV. SCOPE AND ROLE OF OPERABLE UNIT OR RESPONSE ACTION**

Due to the complexity and size of multiple waste units located in different areas of the SRS, the site is divided into watersheds for the purpose of managing a comprehensive cleanup strategy. The SRS is segregated into six watersheds: Upper Three Runs, Lower Three Runs, Fourmile Branch, Steel Creek, Pen Branch, and the Savannah River and Floodplain Swamp. In addition, the SRS also identifies six IOUs which are the surface water bodies and associated wetlands that correspond to the six respective watersheds. Waste units within a watershed may be evaluated and remediated individually or grouped with other waste units and evaluated as part of a larger Area Operable Unit (OU). Upon disposition of all the waste units within a watershed, a final comprehensive ROD

for the corresponding IOU (i.e., surface water and associated wetlands) will be pursued with additional public involvement. The LTR IOU is located within the LTR watershed (Figure 1).

The Upper subunit of the LTR IOU is segregated into the following nine individual EAs for evaluation purposes (Figure 2).

#### **EA1: Pond A – Including R-Area Discharge Canal**

EA1 includes Pond A and the R-Area Discharge Canal. Pond A is ~2.6 hectare (ha [6.4 acre {ac}]) and the canal from R-Reactor to Pond A is ~645-m (2,116.1-ft) long. The canal is ~3.0-m (9.8-ft) across the base of the canal. Pond A received water from the R-Area Discharge Canal and subsequently discharged to Pond B via a canal (EA2). Prior to construction of PAR Pond and the canal system, the effluent flowed into LTR via Joyce Branch (EA5). Water levels in Pond A fluctuate from year to year. Storm water runoff and groundwater provide a constant shallow water level in the R-Area Discharge Canal. Cs-137 and Co-60 are present in sediment/soil in EA1 at levels that exceed 1E-06 risk to an onsite worker. EA1 also contains one sample location where Cs-137 levels are above the PTSM threshold (Figure 3).

#### **EA2: Canal from Pond A to Pond B**

EA2 includes the canal from Pond A to Pond B. The canal is ~2,837-m (9,307-ft) long and ~3.0-m (9.8-ft) across at the base of the canal. The canal received water from Pond A (EA1) which flowed to and discharged into Pond B (EA3). Water levels in the canal fluctuate from year to year based on precipitation amounts. Cs-137 is present in sediment/soil in EA2 at levels that exceed 1E-06 risk to an onsite worker (Figure 3).

### **EA3: Pond B – Including Canal to Pond C**

EA3 includes Pond B and the spillway outlet structure connecting Pond B to Pond C (EA9). Pond B is ~82.1 ha (202.8 ac) and the canal from Pond B to Pond C is ~547-m (1,794.6-ft) long and ~3.0-m (9.8-ft) across the base of the canal. Pond B received water from Pond A (EA1) and generally maintains its water level from year to year. Cs-137 is present in sediment/soil in EA3 at levels that exceed 1E-06 risk to an onsite worker. EA3 also contains two locations where Cs-137 levels are above the PTSM threshold, submerged below several feet of water (Figure 3).

In addition, Cs-137 and mercury are present in fish tissue that exceed the risk-based screening levels for the recreational fisherman.

### **EA4: Canal from Pond B to North Arm of PAR Pond**

EA4 includes the canal from Pond B (EA3) to the North Arm of PAR Pond (EA6). The canal is ~2,305-m (7,562.3-ft) long and is ~3.0-m (9.8-ft) across the base of the canal. The canal received water from Pond B which flowed to, and discharged into, the North Arm of PAR Pond. Water levels within the canal fluctuate from year to year based on precipitation amounts. Cs-137 is present in sediment/soil in EA4 at levels that exceed 1E-06 risk to an onsite worker (Figure 3).

### **EA5: Joyce Branch (Old Discharge Canal)**

EA5 includes the remnant of the natural stream (Joyce Branch) that flows into Pond C (EA9) and was initially used to convey reactor discharge water from R-Reactor directly to the LTR stream system prior to the construction of the canal system to Pond B. Joyce Branch is ~2,533-m (8,310.3-ft) long and is ~3.0-m

(9.8-ft) across the base of the stream bed. The stream runs through a densely vegetated, deep valley flowing southeast away from EA1 and has no developed access points to its banks prior to emptying into a marshy area of Pond C. Water levels in Joyce Branch fluctuate throughout the year and certain areas may become dry during instances of low rainfall. Cs-137 and Co-60 are present in sediment/soil in EA5 at levels that exceed 1E-06 risk to an onsite worker. EA5 also contains two locations where Cs-137 levels are above the PTSM threshold (Figure 3).

### **EA6: PAR Pond**

PAR Pond is a ~1,068-ha (2,640-ac) cooling water reservoir that historically received thermal discharges from R-Reactor and P-Reactor. Water levels in PAR Pond naturally fluctuate between 59- to 60- m (195- to 200-ft) msl. Cs-137 and Co-60 are present in sediment/soil in EA6 at levels that exceed 1E-06 risk to an onsite worker. In addition, Cs-137 and mercury are present in fish tissue that exceed the risk-based screening levels for the recreational fisherman.

### **EA7: Canal from P-Area to Ponds 4 and 5 – Including Pond 2**

EA7 includes the canal from P-Area to Pond 2 and the canal to Ponds 4 and 5. Pond 2 received water from the canal leading from P-Area and discharged into a canal that emptied into Ponds 4 and 5. Pond 2 is ~7.9 ha (19.6 ac) and the canal leading from P-Area to Pond 2 is ~3,582-m (11,751.9-ft) long. The canal from the Pond 2 to Ponds 4 and 5 is ~2,081-m (6,827.4-ft) long. The canals are ~3.0-m (9.8-ft) across the base. Water levels fluctuate from year to year in Pond 2 and the canal system based on precipitation amounts. Cs-137 and Co-60 are present in sediment/soil in EA7

at levels that exceed  $1E-06$  risk to an onsite worker (Figure 3).

**EA8: Ponds 4 and 5 – Including Canal from Ponds 4 and 5 to Pond C**

EA8 includes Ponds 4 and 5 and the canal from Pond 5 to Pond C (EA9). Pond 4 received water from the canal leading from Pond 2 (EA7) and subsequently discharged to Pond 5. Pond 5 discharged to Pond C via a canal. Pond 4 is ~14.3 ha (35.3 ac). Pond 5 is ~4.0 ha (9.9 ac) and received water from Pond 4 and subsequently discharged to the canal from Pond 4 to Pond C is ~1,887-m (6,190.9-ft) long. The canal is ~3.0-m (9.8-ft) across the base of the canal. Water levels fluctuate from year to year in Pond 4, Pond 5, and the canal based on the amount of precipitation. Cs-137 is present in sediment/soil in EA8 at levels that exceed  $1E-06$  risk to an onsite worker (Figure 3).

**EA9: Pond C**

Pond C is a ~53.5 ha (132.4 ac) pre-cooler pond that received water from P-Reactor and R-Reactor. Pond C is hydraulically connected to PAR Pond (EA6) through a reverse riser conveyance at the Pond C dam that allows water to flow from Pond C into PAR Pond. The riser uses hydraulic pressure to stabilize water elevation between the two ponds. Pond C maintains its water level from year to year. Cs-137 and Co-60 are present in sediment/soil in EA9 at levels that exceed  $1E-06$  risk to an onsite worker (Figure 3). In addition, Cs-137 and mercury are present in fish tissue that exceed the risk-based screening levels for the recreational fisherman.

**V. SUMMARY OF SITE RISKS**

This section identifies the basis for taking action and identifies the contaminants and exposure pathways that need to be addressed by the remedial actions. Additional information pertaining to the risk assessment can be found in the RI/BRA (SRNS 2017).

**Summary of Human Health Risk Assessment**

The human health risk assessment evaluates the potential for adverse effects associated with exposure to constituents present at the LTR IOU. The assessment for each subunit estimates the risk potential in the absence of any remedial action and provides a basis for determining whether or not a remedial action is necessary. A streamlined approach that considered both standardized and site-specific receptor scenarios/exposure assumptions was used for this evaluation. The receptors evaluated for the HHRA included a future industrial worker, onsite worker, and recreational fisherman. As a point of comparison, a HHRA for the hypothetical future resident was also evaluated in the RI/BRA as a point of comparison (SRNS 2017).

For the entire Upper subunit of the LTR IOU, the IOU onsite worker was selected as the most likely receptor for exposure to contaminated sediment/soil. The primary pathway of concern is external exposure to radionuclides in the contaminated sediment/soil. Surface water was determined to not be a media of concern and did not pose an unacceptable risk to the IOU onsite worker. The IOU onsite worker is based on an SRS wetland researcher scenario and is also protective of an adolescent trespasser. The risk for the onsite worker conservatively assumes no shielding of radionuclides from water coverage. The IOU onsite worker scenario is applicable to the entire Upper

subunit. Because it is known that some contaminants could bioaccumulate in fish and fish are a mobile medium, the hypothetical recreational fisherman was chosen as the most likely receptor for the ingestion of contaminated fish tissue. The pathway of concern is contaminated sediment/soil to benthic/aquatic organisms to fish and ultimately to the recreational fisherman. Surface water was determined to not be a media of concern and did not pose an unacceptable risk to the receptors evaluated. The recreational fisherman scenario was determined to only be viable for EAs that can sustain populations of consumable fish specifically EA3, EA6, and EA9.

#### **EA1: Pond A – Including R-Area Discharge Canal**

As documented in the RI/BRA (SRNS 2017), Cs-137 and Co-60 were identified as human health refined constituents of concern (RCOCs) in sediment/soil for the IOU onsite worker receptor. RCOCs are contaminants that are considered for remedial action. Concentrations in EA1 pose a Total Cumulative Risk (TCR) of  $8.2E-04$  to the IOU onsite worker (decay corrected to  $6.4E-04$  to account for radioactive decay from the time the sample was collected). The risk to the IOU onsite worker from Cs-137 (Exposure Point Concentration [EPC] = 148 pCi/g) is  $8.2E-04$  (decay corrected to  $6.4E-04$ ). The risk to the IOU onsite worker from Co-60 (EPC = 0.144 pCi/g) is  $1.7E-06$  (decay corrected to  $<1E-06$ ).

Using maximum concentrations [max] and maximum activity concentrations of detected constituents, the only constituent that exceeds the PTSM threshold (i.e., risk  $\geq 1E-03$ ) in EA1 is Cs-137 (max = 685.8 pCi/g) at one location. The single submerged location (Figure 3) had five separate samples above the PTSM

threshold for the IOU onsite worker and was taken into consideration for the remedial alternative evaluation.

#### **EA2: Canal from Pond A to Pond B**

As documented in the RI/BRA (SRNS 2017), Cs-137 was identified as a human health RCOC in sediment/soil for the IOU onsite worker receptor. Cs-137 in sediment/soil (EPC = 48.8 pCi/g) poses a  $2.7E-04$  risk to the IOU onsite worker (decay corrected to  $2.3E-04$ ).

Results of the PTSM evaluation for EA2 indicated no PTSM RCOCs were present.

#### **EA3: Pond B – Including Canal to Pond C**

As documented in the RI/BRA (SRNS 2017), Cs-137 was identified as a human health RCOC in sediment/soil for the IOU onsite worker receptor. Cs-137 in sediment/soil (EPC = 98.3 pCi/g) poses a  $5.5E-04$  risk to the IOU onsite worker (decay corrected to  $3.3E-04$ ).

Cs-137 and mercury were identified as human health RCOCs in fish tissue for the recreational fisherman receptor. Cs-137 in fish tissue (max = 113 pCi/g) exceeded the USEPA preliminary remedial goal (PRG) of 0.054 pCi/g (USEPA 2018a). Mercury (max = 1.83 mg/kg) exceeded the USEPA regional screening level (RSL) of 0.154 mg/kg for the recreational fisherman (USEPA 2018b).

Two locations (Figure 3) had sample results above the PTSM threshold (i.e., risk  $\geq 1E-03$ ) for the IOU onsite worker and were conservatively taken into consideration for the remedial alternative evaluation. Based on an evaluation of the exposure area in its entirety (decay corrected risk =  $3.3E-04$ ) and the

subsequent refinement/uncertainty evaluation, there were no PTSM RCOCs identified for EA3.

**EA4: Canal from Pond B to North Arm of PAR Pond**

Based on the RI/BRA (SRNS 2017), Cs-137 was identified as a human health RCOC in sediment/soil for the IOU onsite worker receptor. Cs-137 in sediment/soil (EPC = 18.3 pCi/g) poses a 1.0E-04 risk to the IOU onsite worker (decay corrected to 8.8E-05).

Results of the PTSM evaluation for EA4 indicated no PTSM RCOCs were present.

**EA5: Joyce Branch (Old Discharge Canal)**

Cs-137 and Co-60 were identified as human health RCOCs in sediment/soil for the IOU onsite worker receptor in the RI/BRA (SRNS 2017). Concentrations pose a TCR of 1.3E-03 to the IOU onsite worker (decay corrected to 9.4E-04). The risk to the IOU onsite worker from Cs-137 (EPC = 228 pCi/g) is 1.3E-03 (decay corrected to 9.4E-04). The risk to the IOU onsite worker from Co-60 (EPC = 0.76 pCi/g) is 9.1E-06 (decay corrected to 1.7E-06).

Two locations (Figure 3) had sample results above the PTSM threshold (i.e., risk  $\geq$  1E-03) for the IOU onsite worker and were conservatively taken into consideration for the remedial alternative evaluation. Based on an evaluation of the exposure area in its entirety (decay corrected risk = 3.3E-04) and the subsequent refinement/uncertainty evaluation, there were no PTSM RCOCs identified for EA3.

**EA6: PAR Pond**

The RI/BRA identified Cs-137 and Co-60 as human health RCOCs in sediment/soil for the IOU onsite worker receptor (SRNS 2017). Concentrations pose a

TCR of 5.0E-05 to the IOU onsite worker (decay corrected to 2.9E-05). The risk to the IOU onsite worker from Cs-137 (EPC = 8.82 pCi/g) is 4.9E-05 (decay corrected to 2.9E-05). The risk to the IOU onsite worker from Co-60 (EPC = 0.097 pCi/g) is 1.2E-06 (decay corrected to <1E-06).

Cs-137 and mercury were identified as human health RCOCs in fish tissue for the recreational fisherman receptor. Cs-137 (max = 18.4 pCi/g; PRG = 0.054 pCi/g) and mercury (max = 3.18 mg/kg; RSL = 0.154 mg/kg) in fish tissue exceed risk-based screening levels for the recreational fisherman.

Results of the PTSM evaluation for EA6 indicated no PTSM RCOCs were present.

**EA7: Canal from P-Area to Ponds 4 and 5 – Including Pond 2**

Cs-137 and Co-60 were identified as human health RCOCs in sediment/soil for the IOU onsite worker receptor as documented in the RI/BRA (SRNS 2017). Concentrations pose a TCR of 7.8E-04 to the IOU onsite worker (decay corrected = 4.5E-04). Risk to the onsite worker from Cs-137 (EPC = 139 pCi/g) is 7.7E-04 (decay corrected to 4.5E-04). Risk to the onsite worker to Co-60 (EPC = 0.802 pCi/g) is 9.6E-06 (decay corrected to 1.0E-06).

Results of the PTSM evaluation for EA7 indicated no PTSM RCOCs were present.

**EA8: Ponds 4 and 5 – Including Canal from Ponds 4 and 5 to Pond C**

The RI/BRA identified Cs-137 as a human health RCOC in sediment/soil for the IOU onsite worker receptor (SRNS 2017). Cs-137 in sediment/soil (EPC = 50.3 pCi/g) poses a 2.8E-04 risk to the IOU onsite worker (decay corrected to 1.9E-04).

Results of the PTSM evaluation for EA8 indicated no PTSM RCOCs were present.

#### **EA9: Pond C**

Cs-137 and Co-60 were identified as human health RCOCs in sediment/soil for the IOU onsite worker receptor as documented in the RI/BRA (SRNS 2017). Concentrations pose a TCR of 1.2E-04 to the IOU onsite worker (decay corrected = 6.7E-05). Risk to the onsite worker from Cs-137 (EPC = 20.9 pCi/g) is 1.2E-04 (decay corrected to 6.7E-05). Risk to the onsite worker from Co-60 (EPC = 0.114 pCi/g) is 1.4E-06 (decay corrected to <1E-06).

Cs-137 and mercury were identified as human health RCOCs in fish tissue for the recreational fisherman receptor. Cs-137 (max = 42.5 pCi/g; PRG = 0.054 pCi/g) and mercury (max = 0.214 mg/kg; RSL = 0.154 mg/kg) in fish tissue exceed risk-based screening levels for the recreational fisherman.

Results of the PTSM evaluation for EA9 indicated no PTSM RCOCs were present.

#### **Summary of Ecological Risk Assessment**

The habitats within the LTR IOU support both terrestrial and aquatic/semi-aquatic receptors. A conservative screening-level effects evaluation used literature-based ecological threshold levels to assess (i.e., screen) sediment/soil and surface water data from potentially contaminated exposure areas for these receptors. The thresholds were derived from several published sources and were used in a tiered approach to evaluate No- and Low-Adverse Effect Levels. The screening-level ecological effects evaluation concluded that more information was needed for some constituents to more thoroughly assess the risk

potential to wildlife receptors. Trophic-level modeling used site-specific data to address the uncertainty associated with relying strictly on literature-based toxicity values and exposure assumptions. More specifically, aluminum, iron, cyanide, lead, manganese, mercury, dichlorodiphenyldichloroethane (DDD), dichlorodiphenyldichloroethylene (DDE) and dichlorodiphenyltrichloroethane (DDT) were identified as constituents of potential concern.

Risks posed by these contaminants to mammalian and avian receptors (river otter, raccoon, belted kingfisher, and blue heron) that represent the ecological niches of concern were assessed using contaminant exposure models that estimated contaminant intake resulting from ingestion of food, water, and sediment/ soil and compared these intakes with literature-based toxicity reference values. The results of the of the ecological risk assessment (ERA) showed that no ecological refined constituents of concern (RCOCs) were identified for any EA within the LTR IOU. Although fish in certain areas of the LTR IOU are contaminated with mercury and Cs-137, no problems warranting action were identified from an ecological risk perspective.

No ecological RCOCs were identified for either the sediment/soil or surface water medium.

#### **Summary of Contaminant Fate and Transport Analysis**

Fate and transport of contaminants from source units was previously evaluated in the individual OU assessments. With respect to the IOU, remedial alternatives were considered that would mitigate transport of soil/sediments downstream and prevent harm to receptors and the public. The alternative

evaluation included the use of best management practices (BMPs) to reduce sediment/soil migration during the implementation stage that may cause disturbance of contaminated media.

### Conclusion

Surface water sampling was conducted as part of the RI and metals and radionuclides were detected in surface water. Several metals including mercury exceeded the SCDHEC ambient water quality criteria, while the highest detected concentration of Cs-137 in surface water was below the surface water maximum contaminant level. Based on the conceptual site model considerations of the high affinity of Cs-137 for sediment/soil and low solubility in water, it was determined that Cs-137 contamination is predominantly located in sediment/soil, as is mercury; therefore, surface water was determined to not be a media of concern and is not being directly addressed with the proposed remedial action. Instead, actions are proposed to address the sediment/soil as the “source” of the contamination (excavation/dredging, LUCs to reduce the chance of direct contact for humans and terrestrial ecological organisms by keeping the sediment/soil covered by water, restricting access, posting signs, restricting fishing on USDOE property, and MNR).

As determined in the RI/BRA (SRNS 2017), Cs-137 was identified as a human health RCOC in sediment/soil for all nine EAs for the IOU onsite worker. Co-60 was identified as a human health RCOC in EA5, EA6, EA7 and EA9. In addition, Cs-137 and mercury were identified as human health RCOCs in fish tissue for the recreational fisherman in EA3, EA6, and EA9.

Because Co-60 was collocated with Cs-137, any remedial action selected for Cs-137 in sediment/soil will also address the Co-60 contamination. The presence of mercury is the result of atmospheric deposition (i.e., regional issue/problem) and from the use of the elevated levels of mercury in Savannah River water as part of the river water distribution system for reactor cooling. Therefore, mercury was introduced into the LTR system not as a result of site operations but rather a combination of atmospheric deposition and the use of Savannah River water.

No PTSM RCOCs are identified for any EA within the LTR IOU. This determination is based on an evaluation of each exposure area as a whole and the associated decay-corrected risks that are  $<1E-03$ , not individual sample results. However, EA1, EA3, and EA5 had specific locations where Cs-137 levels were above the PTSM threshold (i.e.,  $\text{risk} \geq 1E-03$ ) and were taken into consideration for the remedial alternative evaluation. No ecological RCOCs were identified for either the sediment/soil or surface water medium.

Actual or threatened releases of hazardous substances from this waste unit, if not addressed by the Preferred Alternative(s) or one of the other active measures considered, may present a current or potential threat to public health, welfare, or the environment.

## VI. REMEDIAL ACTION OBJECTIVES

RAOs are media- or OU-specific objectives for protecting human health and the environment. RAOs usually specify potential receptors and exposure pathways, and are identified during project scoping once the conceptual site model is understood. RAOs describe what the remediation must accomplish and are used as a framework for developing remedial

alternatives. The RAOs are based on the nature and extent of contamination, threatened resources, and the potential for human and environmental exposure.

The future land use of the LTR IOU is anticipated to be non-residential and primarily used for environmental/ecological research with USDOE maintaining control of the land. The following RAOs have been identified for the LTR IOU to support the future land use.

- Protect IOU onsite workers from exposure to Cs-137 and Co-60 in sediment/soil that exceed 1E-06 risk threshold or background levels. The primary exposure route of concern is the external radiation pathway.
- Protect the recreational fisherman from exposure to Cs-137 and mercury in fish tissue. The primary route of exposure is the ingestion of fish pathway.

### Preliminary Remedial Goals

Preliminary remedial goals (PRGs), referred to as remedial goal options in the RI/FS, serve to provide a range of cleanup goals for each constituent of concern and are typically identified along with the RAOs. These cleanup goals are either concentration levels that correspond to a specific risk or hazard or are based on Applicable, or Relevant and Appropriate Requirements (ARARs). Following public comment and approval of the PP, the PRGs for the selected remedy are documented as final cleanup goals or remedial goals (RGs) in the ROD.

The FS for the LTR IOU (SRNS 2020) developed risk-based PRGs for the IOU onsite worker for sediment/soil media and recreational fisherman for fish tissue media developed to correspond to a risk of 1E-06 for carcinogens (i.e., Cs-137 and Co-60) and a

hazard quotient of 1 for noncarcinogens (i.e., mercury). The PRGs for the sediment/soil and fish tissue media are shown in Table 1. The risk-based PRGs were obtained using the calculator function available at the USEPA PRG website (USEPA 2018a) for the radiological constituents and the USEPA RSL website (USEPA 2018b) for mercury.

The most likely PRGs also consider a comparison to background levels. The SRS soil background (two times [2x] the 95th percentile concentration) is identified as the most likely PRG for Cs-137 in sediment/soil media for the onsite worker since this is the generally accepted concentration for “typical” anthropogenic fallout, and has been accepted as the RG for other SRS projects, specifically the *SRS Wetland Area at Dunbarton Bay In Support of Steel Creek Integrator Operable Unit* (SRNS 2013c).

### Applicable or Relevant and Appropriate Requirements

ARARs are cleanup standards, standards of control and other substantive requirements, criteria or limitations promulgated under federal, state, or local environmental laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site. Section 121(d) of CERCLA, as amended by the Superfund Amendments Reauthorization Act, requires that remedial actions comply with requirements and standards set forth under federal and state environmental laws.

Three categories of ARARs are identified to clarify how to identify and comply with environmental requirements. They include action-specific, location-specific, and chemical-specific requirements:

- Action-specific ARARs control or restrict the design, performance, and other aspects of implementation of specific remedial activities;
- Location-specific ARARs reflect the physiographic and environmental characteristics of the unit or the immediate area, and may restrict or preclude remedial actions depending on the location or the characteristics of the unit;
- Chemical-specific ARARs are media-specific concentration limits promulgated under federal or state law.

Proposed ARARs are presented in the LTR IOU FS for the preferred alternative(s) (SRNS 2020). Final ARARs for the selected alternative(s) will be documented in the ROD for the LTR IOU.

## VII. SUMMARY OF REMEDIAL ALTERNATIVES

The range of alternatives includes options that 1) reduce the contaminant volume and need for long-term management; or 2) limit future exposure to contaminated media. As required by the National Contingency Plan (NCP), the No Action alternative is provided as a baseline for comparison.

Seven alternatives (Alternatives A-1 through A-7) were evaluated in the FS for the LTR IOU (SRNS 2020). Alternative A-4 Broadcast of Amendments to Limit Bioavailability and Alternative A-7 Excavation and Disposal of All Contaminated Sediment/Soil were not retained for the detailed analysis in the FS. Five alternatives were retained for the comparative analysis and are summarized below. A summary of the

### *Alternative A-1 – No Action*

Alternative A-1 is required by the NCP to serve as a baseline for comparison with other remedial alternatives. The No Action alternative is considered for the entire Upper subunit of the LTR IOU. Under this alternative, no effort would be made to control access, limit exposure, or reduce toxicity, mobility, or volume of constituents of concern at the LTR IOU. This alternative would leave the Upper subunit in its current condition with no additional controls. The RAOs would not be achieved through the implementation of this alternative. No costs are associated with this alternative. This alternative does not include a five-year remedy review.

### *Alternative A-2 – Land Use Controls with Monitored Natural Recovery*

Alternative A-2 involves the use of LUCs to limit access to the entire Upper subunit of the LTR IOU and MNR to monitor decay of Cs-137 at all nine EAs.

LUCs include engineering controls (i.e., signs, gates) and institutional controls (i.e., deed restrictions, worker protective programs) to limit inadvertent human exposure by restricting and controlling access to contaminated areas. LUCs would be implemented at each EA by posting warning and “No Trespassing” signs at access points. “No Unauthorized Fishing” signs will be posted at access points that approach viable surface water bodies (Ponds B, C, and PAR) that maintain fishable fish populations. Compliance with the Site Use Program and other associated procedures will be ensured, and deed restrictions will be in place in the event the property is ever transferred from federal ownership.

MNR was identified to address the long-term monitoring component of LUCs. MNR is a remedy that uses ongoing, naturally-occurring processes to contain, destroy, or reduce the bioavailability or toxicity of contaminants in sediment/soil (USEPA 2005). The Upper subunit of the LTR IOU is conducive to the MNR remedy because natural recovery processes of radiological decay and continued sediment/soil deposition will reduce bioavailability. In addition, the anticipated land use for the LTR IOU is compatible with natural recovery.

Long-term (290 years) monitoring, a component of the MNR remedy, includes consideration of sampling methods such as remote sensing (remote gamma surveys) and ground truthing (sediment/soil sampling or collection of field measurements) to measure and document the decay of Cs-137 in the Upper subunit of the LTR IOU. MNR also includes consideration of biological sampling and passive sampling techniques to assess bioavailability of Cs-137 and mercury. As technology advances, new innovative sampling techniques will be employed. The MNR remedy would include a single comprehensive monitoring plan for all nine EAs that would be subject to USEPA and SCDHEC review and approval. Monitoring data would be presented in the five-year remedy reviews and would be used to document the effectiveness of a remedial action or evaluate the need for further actions. The need for continued monitoring would be re-evaluated after Cs-137 concentrations in the Upper subunit decay below the PTSM threshold.

Alternative A-2, LUCs with MNR is an appropriate remedy to be considered for the entire Upper subunit of the LTR IOU (EA1 thru EA9).

Alternative A-2, LUCs with MNR may be implemented in combination with other alternatives that target PTSM or maintain water levels to reduce exposure and mitigate sediment/soil migration as discussed in Alternatives A-3 through A-6. LUCs and MNR would be effective in achieving RAOs for the Upper subunit of the LTR IOU. This alternative includes five-year remedy reviews. The Operations & Maintenance (O&M) costs associated with the five-year remedy review are only included in Alternative A-2.

*Summary of Costs*

Entire Upper Subunit (EA1 thru EA9)

Capital Cost	\$696,168
O&M Cost	\$16,624,973
Total Present-Worth Cost	\$17,321,141

***Alternative A-3 – In Situ Capping on PTSM Sediment/Soil (Including Consideration of a Hybrid Cap)***

Alternative A-3 consists of placing a defined barrier (cap) over the identified subaqueous (or floodplain sediment/soil) PTSM sediment/soil identified at EA1, EA3 and EA5. Caps are generally constructed of sand and/or gravel; however, a more complex cap design could include the addition of an amendment. The cap would be designed to reduce risk through the following primary functions:

- Physical isolation of the Cs-137 contaminated sediment/soil, sufficient to reduce exposure due to direct contact and to reduce the ability of burrowing organisms to move contaminants to the surface;
- Stabilization of contaminated sediment/soil and erosion protection of sediment/soil and cap, sufficient to reduce resuspension and transport; and/or

- Sequestration of Cs-137 through the use of an amendment added to the cap material to reduce bioavailability.

In-situ capping can quickly reduce exposure to contaminants and requires minimal worker exposure to contaminated sediment/soil during placement. A cap often provides a clean substrate for recolonization by bottom-dwelling or riparian organisms. Resuspension of contaminated sediment/soil is minimal during cap placement. Erosion protection for in-situ caps in shallow water bodies or floodplain/wetland environments may require the use of a stone armor, essentially a layer of rubble used to provide a barrier of protection.

Cap placement in shallow water would be placed from the shore using conventional equipment such as a clamshell or front-end loader. During placement, BMPs (e.g. silt curtains) will be implemented to reduce sediment/soil migration. Placement of an in-situ cap in deeper water will require a bathymetric survey prior to installation to determine slope and cap material dispersion during placement. A barge with a surface release mechanism such as a tremie or bottom placement using conventional equipment such as clamshells would be required to place the in-situ cap in deeper water.

The performance objective of the in-situ cap is to provide sufficient physical isolation and stabilization of the Cs-137 contaminated sediment/soil until concentrations are reduced below the PTSM thresholds, which would require long-term monitoring. Inspections and maintenance activities would be implemented to ensure that there is no erosion or other physical disturbance of the cap. Prior to implementation, this alternative would require

sampling to define the extent of PTSM in the identified EAs and a cap design that considers the unique site characteristics at each location. The cap design would consider the use of an amendment to reduce bioavailability. Amended caps have the potential to reduce the thickness of traditional caps and improve the resistance to erosional events and advective transport of Cs-137. Implementation of this alternative would involve significant mobilization and demobilization of heavy equipment and materials, clearing of vegetation, radiological controls, and a post-installation verification to ensure the placement and thickness of the cap. This alternative would be combined with Alternative A-2 LUCs with MNR to achieve the RAOs. This alternative includes five-year remedy reviews. The O&M costs associated with the five-year remedy reviews are included in Alternative A-2.

*Summary of Costs*

<u>EA1</u>	
Capital	\$325,311
O&M Cost	\$91,256
Total Present-Worth Cost	\$416,566

<u>EA3</u>	
Capital	\$2,536,207
O&M Cost	\$92,500
Total Present-Worth Cost	\$2,678,707

<u>EA5</u>	
Capital	\$662,690
O&M Cost	\$142,500
Total Present-Worth Cost	\$805,190

***Alternative A-5 – Excavation, Treatment and Disposal of PTSM Sediment/Soil***

Alternative A-5 involves the excavation, treatment and disposal of known PTSM sediment/soil to reduce exposure, mobility, and toxicity of the most highly

contaminated media, and lower the overall risk within the associated EAs. This alternative is only applicable to EA1, EA3, and EA5 that contain localized areas of sediment/soil above the PTSM threshold. Implementation of this alternative would involve the excavation of PTSM in shallow water bodies/floodplain sediment/soil and dredging of PTSM sediment/soil from deeper ponds (EA3). Migration of suspended contaminated sediment/soil that would result from subaqueous excavation/dredging will be controlled by implementing BMPs (e.g., silt curtains) as appropriate. Excavation of shallow PTSM sediment/soil would require the use of standard commercial equipment (i.e., mini-excavator, skidsteer, dump truck) which would require special access control provisions for the remote floodplain conditions. PTSM sediment/soil located in deep water would require the use of a barge and dredging equipment. Significant mobilization would be required to transport and launch the barge as there is currently no significant infrastructure to support large vessels. Sediment/soil would be placed into large disposal bags or containers, dewatered and treated with a drying agent before being transported to an approved waste disposal facility (e.g., E-Area Low Level Waste Facility [LLWF]). The E-Area LLWF is operated by the USDOE under the authority of the Atomic Energy Act and in accordance with USDOE Order 435.1, *Radioactive Waste Management*. The E-Area LLWF has CERCLA Off site Rule Acceptability issued by the USEPA Region 4 RCRA Division. A post-excavation sampling survey to ensure the effectiveness of the remedy, would be required.

This action includes sampling to define the extent of PTSM in the unit, mobilization and demobilization of

heavy equipment and materials, the scanning and clearing of vegetation, dewatering, installation of sediment/soil control features, sediment/soil excavation, treatment and disposal, and a post excavation sampling survey. This alternative would be combined with Alternative A-2 LUCs with MNR to achieve the RAOs. This remedy requires five-year remedy reviews. The O&M costs associated with the five-year remedy reviews are included in Alternative A-2.

*Summary of Costs*

<u>EA1</u>	
Capital	\$485,986
O&M Cost	\$0
Total Present-Worth Cost	\$485,986

<u>EA3</u>	
Capital	\$1,990,626
O&M Cost	\$0
Total Present-Worth Cost	\$1,990,626

<u>EA5</u>	
Capital	\$795,537
O&M Cost	\$0
Total Present-Worth Cost	\$795,537

***Alternative A-6 – Maintain Water in Ponds***

Alternative A-6 consists of maintaining dam structures to sustain water levels. This alternative minimizes access and breaks a direct contact pathway that limits exposure to submerged, contaminated sediment/soil within the pond. This alternative addresses contamination in sediment and is not intended to address surface water as it is not identified in the RI/FS as a media of concern. This action is only applicable to EA3, EA6, and EA9 that contain infrastructure to retain water and have historically maintained consistent water levels. The dams will retain water to act as a shield to submerged contamination and

prevent exposure to receptors. These physical structures also act as sedimentation barriers to prevent contaminant mobilization and harm to receptors and the public. Inspections and maintenance of the water retaining structures would be required.

The dam structure for Pond B (EA3) was constructed in 1960 as a simple earthen dam with a sand toe drain system, with no spillway discharge system or monitoring devices. O&M of the dam currently includes routine inspections and repairs as needed.

The dam structure for PAR Pond (EA6) was constructed in 1958. O&M maintenance of the dam currently includes routine inspections and repairs as needed.

The dam and reverse riser (bubble-up) structure for Pond C (EA9) were completed in the early 1960's. The reverse riser structure allows water to flow from Pond C into PAR Pond. The riser uses hydraulic pressure to stabilize water elevation between the two ponds. O&M of the dam currently includes routine inspections and repairs as needed.

Alternative A-6 includes the monitoring of dam structures and water levels, annual inspections, and periodic maintenance of physical attributes that make water retention viable. Should future conditions warrant, the capability to provide additional water to PAR Pond currently exists through other site services and is expected to continue. Inspection and maintenance activities will be re-evaluated after Cs-137 concentrations in Pond B drop below PTSM levels. Also, if an inspection or maintenance activity identifies structural inadequacies with the dams, the appropriate regulatory path will be pursued. Alternative A-6 provides additional protection of

human health and the environment through shielding and would be combined with Alternative A-2 LUCs with MNR to achieve the RAOs. This remedy requires five-year remedy reviews. The O&M costs associated with the five-year remedy reviews are included in Alternative A-2.

#### *Summary of Costs*

<u>EA3</u>	
Capital	\$18,500
O&M Cost	\$2,064,116
Total Present-Worth Cost	\$2,082,616

<u>EA6</u>	
Capital	\$18,500
O&M Cost	\$2,817,422
Total Present-Worth Cost	\$2,835,922

<u>EA9</u>	
Capital	\$18,500
O&M Cost	\$572,676
Total Present-Worth Cost	\$591,176

### **VIII. EVALUATION OF ALTERNATIVES**

This section summarizes the results of the evaluation of the remedial alternatives in the LTR IOU FS (SRNS 2020).

The NCP (40 Code of Federal Regulations [CFR] 300.430(e)(9) requires that potential remedial alternatives undergo detailed analysis using relevant evaluation criteria that will be used to select a final remedy. USEPA has established nine evaluation criteria to address the statutory requirements under CERCLA. The criteria fall into categories of threshold criteria, primary balancing criteria, and modifying criteria. The nine evaluation criteria are detailed in Table 2.

### **Comparative Analysis of Alternatives**

The potential remedial alternatives have been evaluated against the threshold and primary balancing criteria. Modifying criteria (i.e. state or support agency acceptance and community acceptance) will be evaluated after the public comment period on the PP. Provided below is a summary of the comparison of the alternatives against the CERCLA evaluation criteria. Key advantages and disadvantages for each alternative relative to one another and in relation to the two threshold criteria and five primary balancing criteria are discussed below.

#### **Overall Protection of Human Health and the Environment**

Alternative A-1 would not be protective of human health or the environment. All other alternatives (A-2, A-3, A-5, and A-6) are protective of human health and the environment.

Alternative A-2, in the absence of conjunction with other remedial actions does not break all exposure pathways; however, rigorous enforcement of the controls would prevent human exposure to all contaminated sediment/soil and fish. Contaminated sediment/soil would be left in place, but exposure pathways would be mitigated for human exposure but still be bioavailable for eco-receptors. MNR would ensure that any unexpected changes to the system that would allow for human exposure to contaminated sediment/soil or fish would be identified and mitigated.

Alternative A-3 would install an integrated soil amendment/physical capping system over PTSM level contaminated sediment/soil. This will reduce the bioavailability of Cs-137 for fish and subsequently

human receptors who may eat the fish. Alternative A-3 is only protective for PTSM contaminated sediment/soil and would need to be implemented with Alternative A-2 to achieve overall protection of human health and the environment.

Alternative A-5 prescribes excavation, treatment and disposal of sediment/soil that exceed PTSM levels. This alternative will remove the most highly contaminated sediment/soil (i.e.,  $\geq 1E-03$  risk) but will not provide protection of remaining contaminants (i.e.,  $\geq 1E-06$  risk). Therefore, Alternative A-5 would need to be implemented with Alternative A-2 to achieve overall protection of human health and the environment.

Alternative A-6 consists of maintaining dam structures to sustain water levels. This alternative minimizes access and limits exposure to submerged, contaminated sediment/soil. This alternative also prevents the transport of contaminated sediment downstream of the dam structures. This alternative is not meant to address surface water but breaks the direct contact pathway to the contaminated sediments. The alternative addresses contamination in sediment and is not intended to address surface water as it is not identified in the RI/FS as a media of concern. Alternative A-6 provides an additional layer of protection when implemented with Alternative A-2.

#### **Compliance with ARARs**

There are no ARARs associated with Alternatives A-1 or A-2. Alternatives A-3, A-5, and A-6 are expected to comply with the identified ARARs as shown in the comparative analysis evaluation in Table 3.

### Short-Term Effectiveness

Short-term effectiveness addresses the time needed to implement the remedy and any adverse impacts that may be posed to workers, the community, and the environment during construction and operation of the remedy.

Short-term effectiveness considers the risks the remedial alternative poses to workers, the community (i.e., public) and whether the alternative will disturb, mitigate, increase or cause injury to a natural resource. Alternative A-1 will not implement an action so there is no risk to remedial workers or residents and no disturbance to a natural resource. Alternative A-2 will consist of administrative controls, signs, and long-term monitoring. These activities are minimally invasive and will result in minimal exposure to workers during installation and monitoring, and no injury to a natural resource. Alternative A-3 consists of applying a cap of sand and soil amendments and is expected have minimal risk to workers and create minimal disturbance. Alternative A-5 has the highest potential for worker exposure during dewatering, staging, and transportation of excavated sediment soil. Alternative A-6 consists of maintaining the existing dams with no risk identified for workers, the community, or environment

### Long-Term Effectiveness and Permanence

Alternative A-1 is a no action alternative that does not provide long-term effectiveness or permanence.

Alternative A-2 will break the exposure pathway and provide long-term effectiveness provided LUCs remain in place until the contaminated sediment/soil reaches RGs. The MNR component of the remedy will

identify any unexpected long-term changes in the system to ensure continued long-term effectiveness.

Alternatives A-3 and A-6 provide additional barriers to exposure but do not shorten the time-frame for reaching RGs. Alternative A-5 will permanently remove sediment/soil with the highest concentrations of contamination and thereby effectively shorten the time-frame for the radioactive decay mechanism to reach RGs. However, the reduction in time to meet RGs is relatively small.

### Reduction of Toxicity, Mobility, or Volume through Treatment

Alternatives A-1, A-2, and A-6 do not include treatment as a component of the remedy. Alternatives A-3 and A-5 include treatment of the contaminants in sediment/soil as a component of the remedy. For Alternative A-3, a reduction of mobility is accomplished via the addition of in situ amendments to the hybrid cap over the PTSM sediment/soil. This would be effective to sequester the sediment/soil to reduce mobility until it decays to a level below the PTSM threshold. For Alternative A-5, the excavated sediment/soil will be treated with a drying agent to reduce contaminant mobility during transportation and disposal.

### Implementability

The implementability of alternatives is determined by factors such as the ease of access to the unit, availability of materials and equipment, ability to construct and operate, available technology, and ability to obtain the necessary permits and approvals. All of the alternatives with the exception of Alternative A-1 No Action are implementable. Alternative A-1 No Action does not require

implementation. Alternative A-2 will consist of administrative controls, signage, and long-term monitoring. Alternative A-6 consists of maintaining the existing dams which is currently ongoing. Therefore, Alternatives A-2 and A-6 are highly implementable.

Alternative A-3 will require mobilization of heavy equipment and installation of a sand/soil amendment type cap system over contaminated sediment/soil. Alternative A-5 will require mobilization of heavy equipment, excavation of sediment/soil, treatment of sediment/soil via the application of a drying agent, transport, and disposal of contaminated sediment/soil. The relative difficulty of implementation of these alternatives varies depending on the site-specific conditions. In order of least to most difficult are EA1, EA5, and EA3.

### Cost

A total present worth cost for each alternative was calculated for each applicable EA and presented in Table 3. The cost estimates include capital and annual O&M costs. Capital costs include direct costs, such as construction, equipment, materials, labor, mobilization, pilot studies, disposal fees, etc., as well as indirect costs such as engineering, health and safety, project management, overhead, contingency, etc. Capital costs were derived from SRS experience, review of cost studies performed for similar technologies at other sites, consultation from vendors, volume estimates based on RI data, etc. O&M direct costs primarily consist of labor for inspections, labor and material for maintenance, costs associated with monitoring, sampled and analyzed, and costs of periodic (every 5 years) reviews. Indirect O&M costs also include project management, health and safety,

overhead and contingency. O&M costs were primarily derived from experience at SRS and recent maintenance costs from the SRS site infrastructure (SI) organization. A present worth analysis is performed for both capital and O&M costs. The level of detail is representative of an order of magnitude estimate with an assumed accuracy of +50%/-30%.

Cost associated with Alternative A-2 is identified for the Upper subunit of the LTR IOU in its entirety. The total estimated cost of Alternative A-2 for the Upper subunit which includes all nine exposure areas (EA1 thru EA9) is ~\$17 million (M). The cost of this alternative is in addition to any additional remedy selected for any individual EA.

Costs associated with Alternatives A-3, A-5, and A-6 are provided by individual EAs on Table 3. In general, costs associated with Alternatives A-3, A-5, and A-6 are in the same range at a specific EA, but vary widely between EAs. Estimated costs of these alternatives range from ~\$500 thousands (K) to \$2.5M depending on the EA.

### IX. PREFERRED ALTERNATIVE

Due to the complexity of the Upper subunit, multiple remedies are needed to address the nature and extent of contamination within the LTR IOU system. Alternative A-2 LUCs with MNR will be used in combination with other alternatives that target PTSM or maintain water levels to reduce exposure and mitigate sediment/soil migration where appropriate. For this reason, preferred alternatives will vary between the EAs. The preferred alternatives for the Upper Subunit of the LTR IOU are as follows:

- Alternative A-2 LUCs with MNR is the preferred alternative for all nine EAs (EA1 thru EA9);
- In addition to Alternative A-2 LUCs with MNR, Alternative A-5 Excavation, Treatment and Disposal of PTSM Sediment/Soil is the preferred alternative for the single PTSM location in EA1 (Pond A – Including R Discharge Canal); and
- In addition to Alternative A-2 LUCs with MNR, Alternative A-6 Maintain Water in Ponds is the preferred alternative for EA3 (Pond B) and EA6 (PAR Pond).

Each of these alternatives is discussed below.

#### **Alternative A-2 – LUCs with MNR**

Alternative A-2 is the preferred alternative for the entire Upper subunit (all nine EAs) and was selected because the remedy is effective in reducing exposure of contaminated media to human receptors for the entire Upper subunit and will achieve the RAOs.

LUCs with MNR for the Upper subunit of the LTR IOU includes the following:

- **Administrative/Worker Access Controls:** Includes SRS administrative controls and land use restrictions for onsite workers as implemented under the Site Use/Site Clearance Program and other controls that are in place to ensure worker safety including work controls/work packages that includes worker training, and health and safety requirements and pre-work briefings.
- **Engineering controls (signs, gates):** SRS access controls that limit and inform SRS workers and inadvertent trespassers as described in the 2013 RCRA Permit Renewal Application, Volume I, Section F.1, which describes the security procedures

and equipment, 24-hour surveillance system, artificial or natural barriers, control entry systems, and warning signs in place at the SRS boundary.

Warning signs posted at each EA at access points: Signage includes Warning signs, and Soil Contamination Area signs, and LUC sign notifications placed at access points to the LTR IOU. No Unauthorized Fishing signs will be posted at access points that approach viable surface water bodies (Ponds B, C, and PAR) that maintain fishable fish populations.

For EA5 – Joyce Branch, PTSM is present in two locations (Figure 3). EA5 is located interior to the site ~7.2 km (4.5 mi) from the SRS boundary, remotely located from site operations, and is not accessible to the public (i.e., trespassers). Therefore, a remedial action to excavate or cover the two remote PTSM locations in addition to LUCs with MNR is not warranted. Instead, more robust LUCs will be applied at EA5 in the form of additional signage at access roads and utility corridors in addition to the installation of barrier gates across roads leading to the two PTSM locations. Additional signage would also be installed along the bank near the PTSM locations.

- **MNR:** Includes sampling methods such as remote sensing (remote aerial gamma surveys) and ground truthing (sediment/soil sampling or collection of field measurements) to measure and document the decay of Cs-137 in the Upper subunit of the LTR IOU. MNR allows for technological advancements that could help in the collection and evaluation of data in future sampling events. MNR also includes consideration of biological sampling and passive sampling techniques to assess bioavailability of Cs-137 and mercury. The MNR remedy includes

a single comprehensive monitoring plan to be developed for all nine EAs.

Monitoring data would be presented in the five-year remedy reviews and would be used to document the protectiveness of the action or evaluate the need for further actions.

The need for continued monitoring would be re-evaluated after Cs-137 concentrations in the Upper subunit decay below the PTSM threshold (~50 years).

#### **Alternative A-5 – Excavation, Treatment and Disposal of PTSM Sediment/ Soil**

For EA1 (Pond A Including R Discharge Canal), the preferred alternative is Alternative A-5 Excavation, Treatment and Disposal of PTSM Sediment/Soil in addition to Alternative A-2 LUCs with MNR. Alternative A-5 will remove sediment/soil from one location within EA1 that exceeds the PTSM threshold for Cs-137 and thereby will effectively shorten the time-frame for radioactive decay to reach RGs from 290 years to 225 years in EA1.

Alternative A-5 applies a treatment technology with the use of a drying agent for the excavated sediment/soil to reduce contaminant mobility and allow for safe transport and disposal. Therefore, Alternative A-5 provides a reduction of toxicity, mobility, or volume through treatment.

#### **Alternative A-6 – Maintain Water in Ponds**

For EA3 (Pond B) and EA6 (PAR Pond), the preferred alternative is Alternative A-6 Maintain Water in Ponds in addition to Alternative A-2 LUCs with MNR. This alternative was evaluated for EA3, EA6, and EA9 through the timeframe that allows Cs-137

concentrations to decay below the PTSM threshold (~50 years). The PTSM decay threshold is based on two discrete sediment/soil sample locations within EA3 only. EA6 and EA9 have no PTSM sediment/soil locations. This remedy is protective of human health and the environment to minimize access and to break a direct contact pathway to submerged, contaminated sediment within the ponds. This remedy includes maintenance of the dam structures so that water retention is viable and allows for natural fluctuations of water levels. In addition, the presence of the PAR Pond Dam and maintenance of the dam structures controls sediment movement downstream of the Upper subunit. Pond C (EA9) is hydrologically connected to PAR Pond (EA6) and maintains an equivalent level with PAR Pond. Therefore, the water in Pond C will be maintained through implementation of Alternative A-6 at PAR Pond (EA6). This alternative includes:

- Annual inspections and periodic maintenance of the physical attributes (i.e., dams, weirs, control gates, etc.) that make water retention viable.

Alternative A-6 provides shielding to human receptors by allowing water to remain over the contaminated sediments but does not reduce the time to reach RGs.

#### **Preferred Alternatives (A-2, A-5, and A-6)**

The preferred remedy for the Upper subunit of the LTR IOU leaves hazardous substances in place that pose a potential future risk and will require land use restrictions. As negotiated with USEPA, and in accordance with USEPA - Region 4 Policy (*Assuring Land Use Controls at Federal Facilities*, April 21, 1998), SRS has developed a Land Use Control Assurance Plan (WSRC 1999) to ensure that land use restrictions are maintained and periodically verified.

The unit-specific Land Use Control Implementation Plan (LUCIP) for the Upper subunit of the LTR IOU will be referenced in the ROD and will provide the details and specific measures required for the LUCs selected as part of this preferred remedy. The approved LUCIP will establish implementation, monitoring, maintenance, reporting, and enforcement requirements for the unit. LUCIP modification will only occur through appropriate CERCLA documentation and require approval by USEPA and SCDHEC required for any modification or termination of the LUCs.

Based on the information currently available, the lead agency believes that Alternative A-2 LUCs with MNR for the entire Upper subunit (EA1 thru EA9), in addition to Alternative A-5 Excavation, Treatment and Disposal of PTSM Sediment/Soil for EA1, and Alternative A-6 Maintain Water in Ponds for both EA3 and EA6 provide the best balance of tradeoffs among the alternatives with respect to the evaluation criteria (Table 3). The USDOE expects the Preferred Alternatives to satisfy the statutory requirements in CERCLA Section 121(b) to: 1) be protective of human health and the environment, 2) comply with ARARs, 3) be cost-effective, 4) utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable, and 5) satisfy the preference for treatment as a principal element.

A detailed cost estimate, representative of an order of magnitude estimate with an assumed accuracy in the range of +50/-30%, for the preferred alternative is provided in Appendix A.

## X. POST-ROD SCHEDULE

Key milestones include the following:

Deliverable	Submittal Date
Submit Revision 0 ROD	December 7, 2020
Issuance of ROD	August 20, 2021
Submit Revision 0, Remedial Action Implementation Plan	October 29, 2021
Submit Revision 0, LUCIP	October 29, 2021
Remedial Action Start	November 18, 2022
Submit Revision 0, Post-Construction Report/Remedial Action Completion Report	August 20, 2024

### Five-Year Remedy Reviews

Because hazardous substances will remain at the site above levels that allow for unlimited exposure and unrestricted use, the USDOE will review the remedial action no less than every five years per CERCLA Section 121(c) and the NCP at 40 CFR 300.430(f)(4)(ii) until the levels of COCs allow for unrestricted use and unlimited exposure of soil/sediment. If results of the five-year reviews reveal that remedy integrity is compromised and protection of human health and the environment is insufficient, then additional remedial actions will be evaluated by the USDOE, USEPA and SCDHEC.

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## XII. GLOSSARY

**Administrative Record File:** A file that is maintained and contains all information used to make a decision on the selection of a response action under the Comprehensive Environmental Response, Compensation and Liability Act. This file is to be available for public review, and a copy is to be established at or near the Site, usually at one of the information repositories. Also a duplicate file is held in a central location, such as a regional or state office.

**ARARs:** Applicable or Relevant and Appropriate Requirements. Refers to the federal and state requirements that a selected remedy will attain. These requirements may vary from site to site. Refer to 40 CFR 300.5 Definitions, "Applicable requirements" and "Relevant and appropriate requirements" for more detail.

**Baseline Risk Assessment:** Analysis of the potential adverse health effects (current or future) caused by hazardous substance release from a site in the absence of any actions to control or mitigate these releases.

**Characterization:** The compilation of all available data about the waste units to determine the rate and extent of contaminant migration resulting from the waste site, and the concentration of any contaminants that may be present.

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 1980:** A federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act.

**Corrective Action:** A USEPA requirement to conduct remedial procedures under RCRA 3004(u) at a facility when there has been a release of hazardous waste or constituents into the environment. Corrective action may be required beyond the facility boundary and can be required regardless of when the waste was placed at the facility.

**Exposure:** Contact of an organism with a chemical or physical agent. Exposure is quantified as the amount of the agent available at the exchange boundaries of the organism (e.g., skin, lungs, digestive tract, etc.) and available for absorption.

**Exposure Point Concentration (EPC):** Risk and hazard calculations are based on the RME (reasonable maximum exposure) exposure point concentrations, which is defined as the lesser of the maximum detected concentration and the 95% upper confidence level (UCL) of the mean concentration. The 95% UCL is a statistically derived number based on the sampling data for each exposure area.

**Federal Facility Agreement (FFA):** The legally binding agreement between regulatory agencies (USEPA and SCDHEC) and regulated entities (USDOE) that sets the standards and schedules for the comprehensive remediation of the SRS.

**Land Use Controls:** Legal and/or administrative mechanisms as well as physical installations that modify or guide human behavior at operable units where residual contamination remains in place. Institutional controls and engineering controls are types of land use controls.

**Media:** Pathways through which contaminants are transferred. Five media to which a release of contaminants may occur are groundwater, soil, surface water, sediments, and air.

**Monitored Natural Recovery (MNR):** Remedy that uses an ongoing, naturally occurring process to contain, destroy, or reduce the bioavailability or toxicity of contaminants in sediment/soil.

**National Priorities List:** USEPA's formal list of the nation's most serious uncontrolled or abandoned waste sites, identified for possible long-term remedial response, as established by CERCLA.

**Operable Unit (OU):** A discrete action taken as one part of an overall site cleanup. The term is also used in USEPA guidance documents to refer to distinct geographic areas or media-specific units within a site. A number of operable units can be used in the course of a cleanup.

**Operation and Maintenance (O&M):** Activities conducted at a site after a response action occurs to ensure that the cleanup and/or systems are functioning properly.

**Overall Protection of Human Health and the Environment:** The assessment against this criterion describes how the alternative, as a whole, achieves and maintains protection of human health and the environment.

**Proposed Plan:** A legal document that provides a brief analysis of remedial alternatives under consideration for the site/operable unit and proposes the preferred alternative. It actively solicits public review and comment on all alternatives under consideration.

**Principal Threat Source Material (PTSM):** The NCP establishes an expectation that the remedial action use treatment to address the principal threats posed by a site wherever practicable (40 CFR §300.430(a)(1)(iii)(A)). Identifying principal threat wastes combines concepts of both hazard and risk. In general, principal threat wastes are those source materials considered to be highly toxic or highly mobile which generally cannot be contained in a reliable manner or would present a significant risk to human health or the environment should exposure occur. Conversely, non-principal threat wastes are those source materials that generally can be reliably contained and that would present only a low risk in the event of exposure. No threshold level of toxicity/risk has been established to equate to principal threat. However, USEPA guidance does state that treatment alternatives for source materials should generally be evaluated where the combined toxicity and mobility pose a potential risk of 1E-03 or greater. At the Savannah River Site (SRS), source material is preliminarily considered to be PTSM if the cumulative risk is greater than 1E-03 for carcinogens and/or if the hazard index (HI) is greater than 10 for noncarcinogens.

**Reasonable Maximum Exposure (RME):** This is the value that the average concentration will fall below 95 percent of the time.

**Record of Decision (ROD):** A legal document that explains to the public which alternative will be used at a site/operable unit. The ROD is based on information and technical analysis generated during the remedial investigation/ feasibility study and consideration of public comments and community concerns.

**Resource Conservation and Recovery Act (RCRA),**

**1976:** A Federal law that established a regulatory system to track hazardous substances from their generation to disposal. The law requires safe and secure procedures to be used in treating, transporting, storing, and disposing of hazardous substances. RCRA is designed to prevent the creation of new, uncontrolled hazardous waste sites.

**Responsiveness Summary:** A summary of oral and/or written comments received during the proposed plan comment period and includes responses to those comments. The responsiveness summary is a key part of the ROD, highlighting community concerns.

**Superfund:** The common name used for CERCLA; also referred to as the Trust Fund. The Superfund program was established to help fund cleanup of hazardous waste sites. It also allows for legal action to force those responsible for the sites to clean them up.

**Target Risk Range:** USEPA guidance for carcinogenic risk due to exposure to a known or suspected carcinogen between one excess cancer in an exposed population of ten thousand ( $1.0 \times 10^{-4}$ ) and one excess cancer in an exposed population of one million ( $1.0 \times 10^{-6}$ ). Risks within this range require risk management evaluation of remedial action alternatives to determine if risks can be reduced below one excess cancer in one million ( $1.0 \times 10^{-6}$ ). Risks greater than  $1.0 \times 10^{-4}$  indicate that remedial action is generally warranted.

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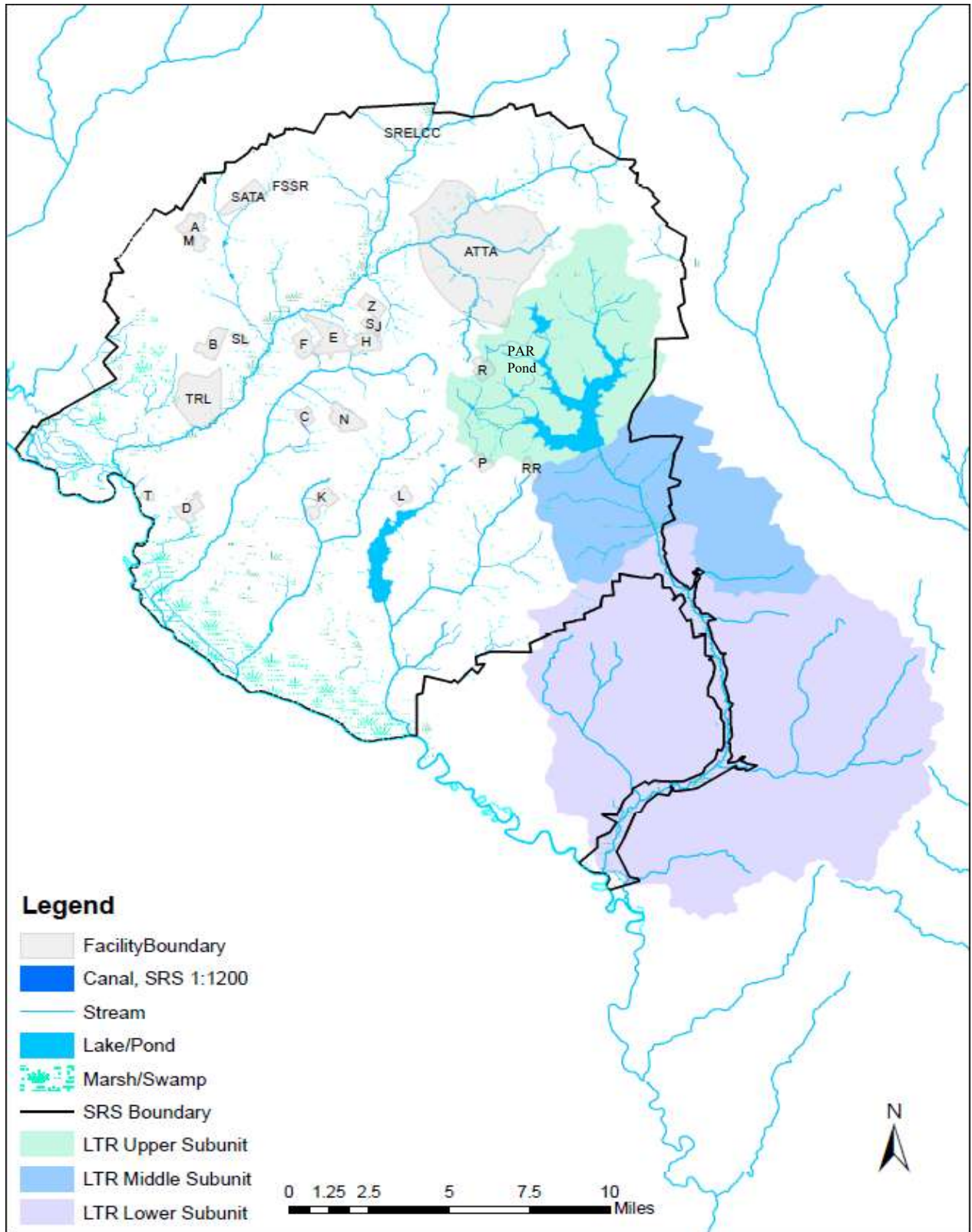


Figure 1. Location of the LTR IOU within the Savannah River Site

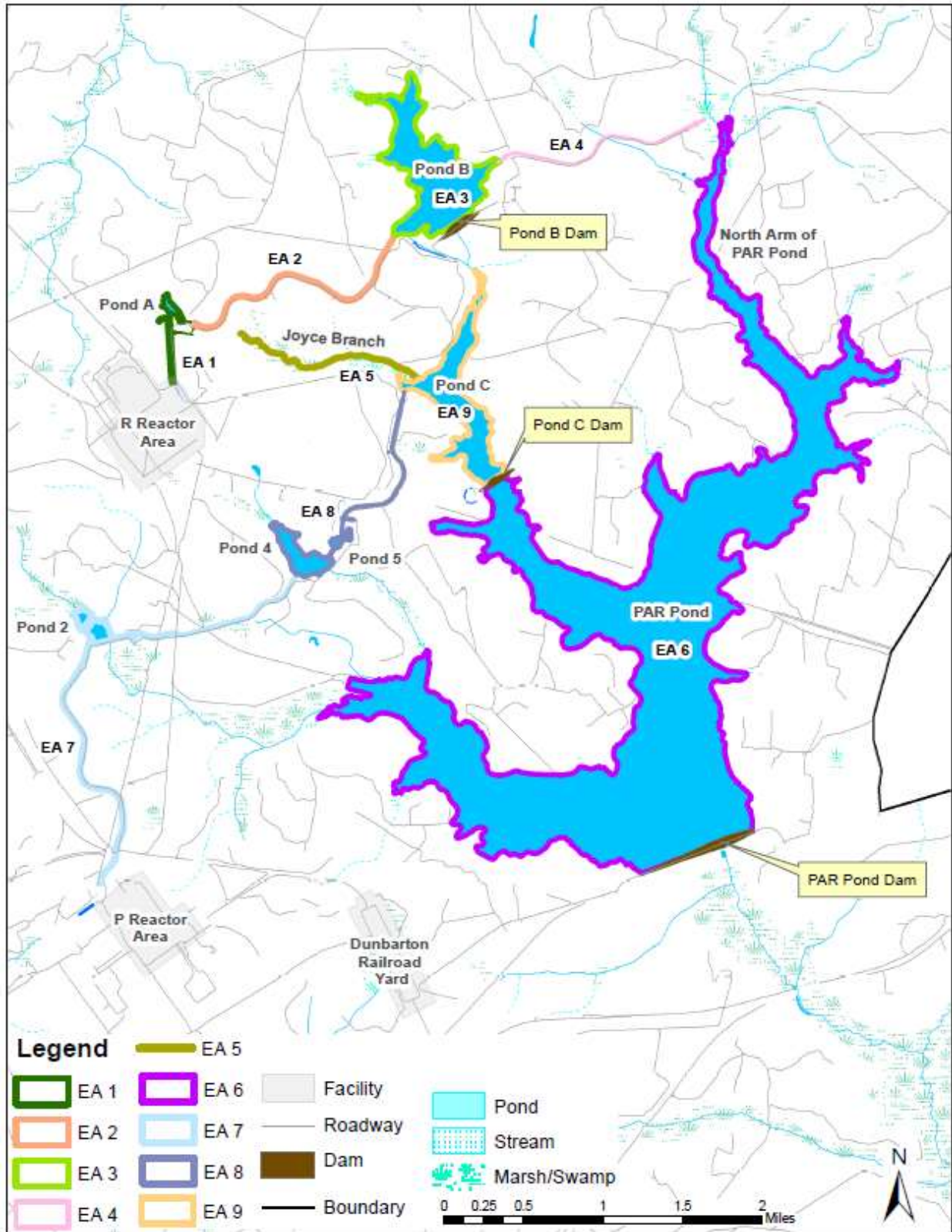


Figure 2. Layout of the Upper Subunit of the LTR IOU

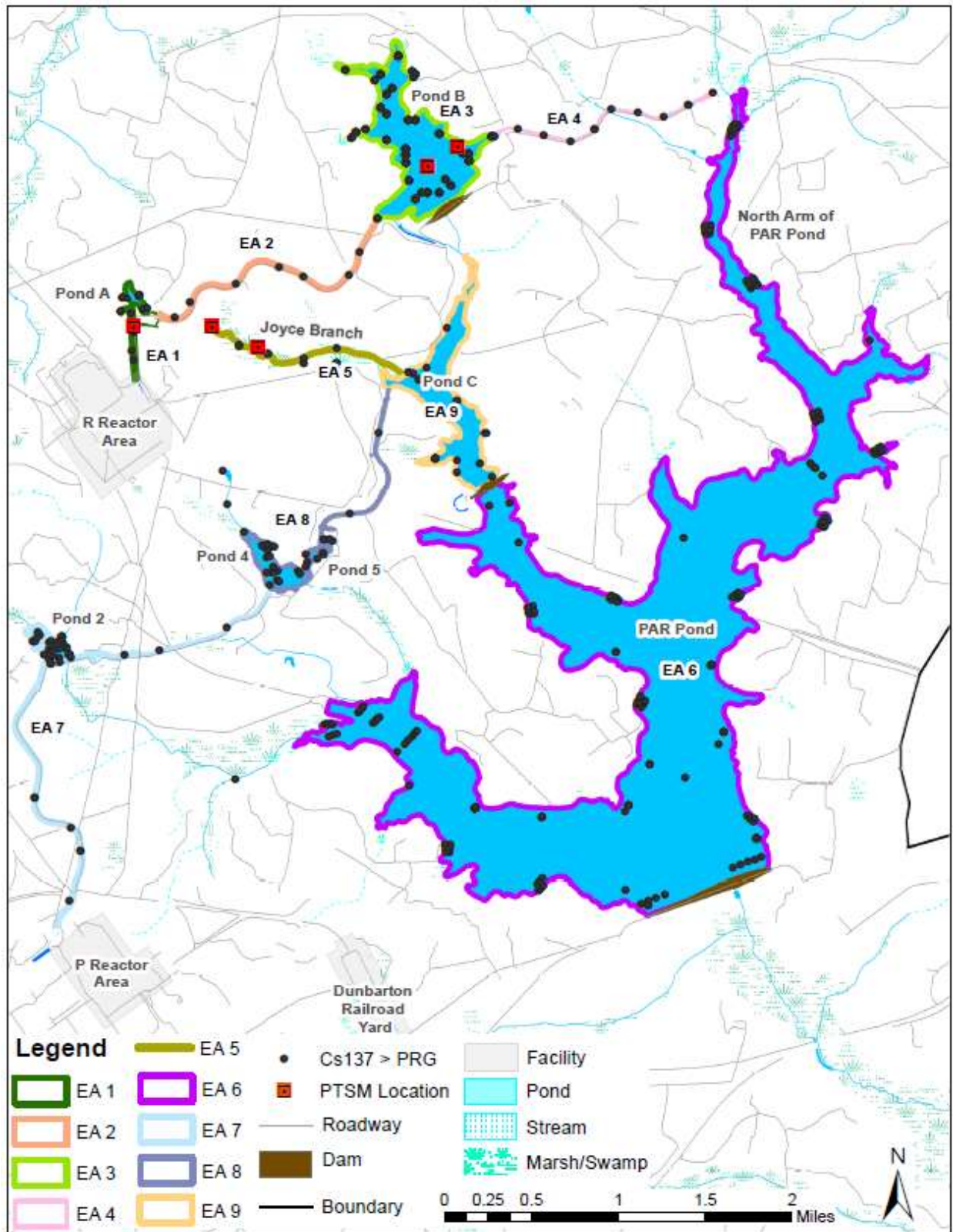


Figure 3. Location of Samples with Levels above the PRG and PTSM Threshold for Cs-137

**Table 1. Summary of the PRGs for the Upper Subunit of the LTR IOU**

Media	RCOC	Units	IOU Onsite Worker PRG <sup>1</sup>	Recreational Fisherman PRG <sup>1</sup>	SRS BKGRD 95th %tile <sup>2</sup>	2X SRS BKGRD 95th %tile <sup>2</sup>	SRS BKGRD Max <sup>2</sup>	IOU BKGRD Max <sup>3</sup>	Most Likely PRG
Sediment/ Soil	Cesium-137 (+D)	pCi/g	0.144	NA	0.34	<i>0.68</i>	3.3	0.623	0.68
	Cobalt-60	pCi/g	<i>0.0295</i>	NA	NA	NA	NA	0.011	0.0295
Fish Tissue	Cesium-137 (+D)	pCi/g	NA	<i>0.0544</i>	NA	NA	NA	0.488	0.0544
	Mercury	mg/kg	NA	<i>0.154</i>	NA	NA	NA	0.24	0.154

Notes:

The IOU onsite worker scenario is based on the most likely human receptor for the Upper Subunit: an SRS worker/researcher (exposure assumptions: 20 years, 150 days/year, 8 hours/day). Because it is known that some contaminants could bioaccumulate in fish, and fish are a mobile media, the evaluation of human exposure also included a hypothetical recreational fisherman scenario for the ingestion of fish (exposure assumptions: 26 years, 350 days/year, 54 g/day).

Sources of the most likely PRG are italicized

NA = not applicable

<sup>1</sup> Risk-based PRGs obtained using the calculator function available at the USEPA Preliminary Remediation Goals website (USEPA 2018a) for the radiological constituents and the USEPA Regional Screening Levels website (USEPA 2018b) for mercury.

<sup>2</sup> SRS background concentrations obtained from the *Background Soils Statistical Summary Report for the Savannah River Site*, Table B-1 (WSRC 2006) and the IOU Background Dataset (SRNS 2017), as available.

<sup>3</sup> IOU Background maximum concentrations from the *Remedial Investigation/Baseline Risk Assessment for the Lower Three Runs Integrator Operable Unit* (SRNS 2017).

**Table 2. Description of CERCLA Evaluation Criteria**

<b>Threshold Criteria:</b>
<ul style="list-style-type: none"> <li>• <i>Overall Protectiveness of Human Health and the Environment</i> determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Compliance with ARARs</i> evaluates whether the alternative meets Federal and State environmental statutes, regulations, and other requirements that pertain to the site. ARARs may be waived under certain circumstances. ARARs are divided into chemical-specific, location-specific, and action-specific criteria.</li> </ul>
<b>Primary Balancing Criteria:</b>
<ul style="list-style-type: none"> <li>• <i>Long-Term Effectiveness and Permanence</i> considers the ability of an alternative to maintain protection of human health and the environment over time. It evaluates magnitude of residual risk and adequacy of reliability of controls.</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Reduction of Toxicity, Mobility, or Volume of Contaminants through Treatment</i> evaluates an alternative’s use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Short-Term Effectiveness</i> considers the length of time needed to implement an alternative and the risks the alternative poses to workers, residents, and the environment during implementation.</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Implementability</i> considers the technical and administrative feasibility of implementing the alternative, including factors such as the relative availability of goods and services.</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Cost</i> includes estimated capital and annual operations and maintenance costs, as well as present worth cost. Present worth cost is the total cost of an alternative over time in terms of today’s dollar value. Cost estimates are expected to be accurate within a range of +50 to -30 percent.</li> </ul>
<b>Modifying Criteria:</b>
<ul style="list-style-type: none"> <li>• <i>State Support/Agency Acceptance</i> considers whether USEPA and SCDHEC agree with the analyses and recommendations by the USDOE. Approval of the Record of Decision constitutes approval of the selected alternative by the regulatory agencies.</li> </ul>
<ul style="list-style-type: none"> <li>• <i>Community Acceptance</i> considers whether the local community agrees with the Preferred Alternative. Comments received on the Proposed Plan during the public comment period are an important indicator of community acceptance. Comments from the public are considered in the final remedy selection in the Record of Decision.</li> </ul>

**Table 3. Comparison of Alternatives Against the CERCLA Evaluation Criteria**

Criterion	Alternative A-1 No Action	Alternative A-2 LUCS with MNR	Alternative A-3 Capping of PTSM Sediment/soil	Alternative A-5 Excavation, Treatment and Disposal of PTSM Sediment/Soil	Alternative A-6 Maintain Water in Ponds
<b>Overall Protection of Human Health and the Environment</b>					
Protection of Human Health	Not protective	Protective.	Protective.	Protective.	Protective.
Protection of the Environment	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
<b>Compliance with ARARs</b>					
Chemical-specific	Not preferred.	None identified.	None identified.	None identified.	None identified.
Action-specific	Not preferred.	None identified.	None identified.	Yes	None identified.
Location-specific	Not preferred.	None identified.	Yes	Yes	Yes
<b>Long-Term Effectiveness and Permanence</b>					
Magnitude of Residual Risks	Not applicable.	Effective in reducing risk of exposure to contaminated media by controlling exposure.	Effective in reducing risk of exposure to contaminated media by breaking exposure pathway.	Effective in reducing risk of exposure to contaminated media by removal of PTSM at specific locations.	Effective in reducing risk of exposure to contaminated media by breaking exposure pathway.
Adequacy of Controls	Not adequate	Adequate	Adequate	Adequate	Adequate
Permanence	Not permanent	Permanent	Permanent	Permanent	Permanent
Estimated Time Frame to Reach RG	290 years	290 years	290 years	235 years	290 years
<b>Reduction of Toxicity, Mobility, or Volume Through Treatment</b>					
Treatment Process	None	None	Treatment	Treatment	None
Degree of Expected Reduction in Toxicity, Mobility, or Volume	None	None	The use of an amendment in the cap will reduce the mobility of the PTSM sediment/soil.	The use of a drying agent will reduce mobilization during transportation and disposal.	None

**Table 3. Comparison of Alternatives Against the CERCLA Evaluation Criteria (Continued)**

Criterion	Alternative A-1 No Action	Alternative A-2 LUCS with MNR	Alternative A-3 Capping of PTSM Sediment/soil	Alternative A-5 Excavation, Treatment and Disposal of PTSM Sediment/Soil	Alternative A-6 Maintain Water in Ponds
<b>Short-Term Effectiveness</b>					
Risk to Remedial Workers	Not applicable; no remedial action involved.	None	Worker exposure to contaminated sediment/soil will be minimal as the cap will be installed from a barge or vessel from the surface of the water. An onsite disposal area.	Worker exposure to contaminated sediment/soil may be significant due to dewatering, staging, and transportation of excavated sediment/soil to an onsite disposal area.	None
Risk to Community	Not applicable; no remedial action involved.	None	Risk to the community would be mitigated by the use of a silt curtain during cap construction to control sediment/soil migration.	Risk to the community from sediment/soil migration would be mitigated by the use of a silt curtain during excavation.	Continued maintenance of the dam protects the community by preventing migration of contaminated sediment/soil.
Risk to Environment	Not applicable; no remedial action involved.	None	None	Disturbance would be limited to area of PTSM	None
Estimated Time Frame to Achieve RAOs	Readily Implementable	8 months	18-24 months	12-16 months	4 months
<b>Implementability</b>					
Availability of materials, equipment, and skilled labor	No implementation	Readily implemented	Readily implemented	Readily implemented	Readily implemented
Ability to construct and operate remedial technology	Not Applicable	Readily available. No specialized materials, equipment or labor required.	Availability of specialized equipment/contractors and mobilization of a barge may be difficult.	Readily available. No specialized materials, equipment or labor required.	Readily available. No specialized materials, equipment or labor required.
Ability to obtain permits/approvals from Agencies	Not Applicable	Not Applicable	Not Applicable	Readily implemented.	Not Applicable
Ease of undertaking additional actions	Compatible	Compatible	Compatible	Compatible	Compatible

**Table 3. Comparison of Alternatives Against the CERCLA Evaluation Criteria (Continued/End)**

Criterion	Alternative A-1 No Action	Alternative A-2 LUCS with MNR	Alternative A-3 Capping of PTSM Sediment/soil	Alternative A-5 Excavation, Treatment and Disposal of PTSM Sediment/Soil	Alternative A-6 Maintain Water in Ponds
<b>Cost</b>					
Total Present-Worth Costs	\$0	\$17M for entire Upper subunit	EA1 - \$417K EA3 - \$2.7M EA5 - \$805K	EA1 - \$486K EA3 - \$2M EA5 - \$796K	EA3 - \$2.1M EA6 - \$2.8M EA9 - \$591K
<b>Modifying Criteria</b>					
State Support/Agency Acceptance	Not preferred.	USEPA and SCDHEC support Alternative A-2 for the entire Upper subunit (EA1 thru EA9).	Not preferred.	EPA and SCDHEC support Alternative A-5 for EA1.	EPA and SCDHEC support Alternative A-6 for EA3 and EA6.
Community Acceptance	This criterion will be completed following public review.	This criterion will be completed following public review.	This criterion will be completed following public review.	This criterion will be completed following public review.	This criterion will be completed following public review.

**APPENDIX A**

**DETAILED COST ESTIMATE  
FOR ELEMENTS OF THE PREFERRED ALTERNATIVE**

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Lower Three Runs — Integrator Operable Unit - Upper Section  
A-2: Land Use Controls and Monitored Natural Recovery

Item	Quantity	Units	Unit Cost	Total Cost	
<b>Direct Capital Costs</b>					
Land Use Controls					
Posting of Warning Signs EA1	5	ea	\$200	\$1,000	At access points - approximately 5 per EA except where noted differently
Posting of Warning Signs EA2	5	ea	\$200	\$1,000	At access points - approximately 5 per EA except where noted differently
Posting of Warning Signs EA3	5	ea	\$200	\$1,000	At access points - approximately 5 per EA except where noted differently
Posting of Warning Signs EA4	5	ea	\$200	\$1,000	At access points - approximately 5 per EA except where noted differently
Posting of Warning Signs EA5	5	ea	\$200	\$1,000	At access points - approximately 5 per EA except where noted differently
Posting of Warning Signs EA6	50	ea	\$200	\$10,000	At access points - estimated and reviewed with JK
Posting of Warning Signs EA7	15	ea	\$200	\$3,000	At access points - estimated and reviewed with JK
Posting of Warning Signs EA8	7	ea	\$200	\$1,400	At access points - estimated and reviewed with JK
Posting of Warning Signs EA9	10	ea	\$200	\$2,000	At access points - estimated and reviewed with JK
Land Use Control Implementation Plan	1	ea	\$30,000	\$30,000	3 times the normal cost due to the number of exposure areas
Deed Restrictions	1	lf	\$40,000	\$40,000	A little more than 5 times the normal cost due to fish advisories and number of Eas
Monitoring - Initial					
Development of Monitoring Plan	1	ea	\$40,000	\$40,000	Reference Nobis Engineering NH-2423-2010 Table 12-2
Initial monitoring - Sediment sampling & analyses	36	ea	\$1,000	\$36,000	4 Locations per EA
Initial monitoring -Fish Sampling and Analyses	12	ea	\$1,000	\$12,000	4 samples per fishable Pond (B, C, and Par)
Initial monitoring - Deposition measurements	20	ea	\$500	\$10,000	4 samples per Pond (A, B, C, and Par, 4 &5)
Data analysis & Reporting	1	ea	\$45,000	\$45,000	Reference Nobis Engineering NH-2423-2010 Table 12-2
					Total number of signs is
Subtotal - Direct Capital Cost				\$234,400	
Mobilization/Demobilization	10%	of subtotal direct capital		\$23,440	Includes submittals, badging and training as well.
Site Preparation/Site Restoration	55%	of subtotal direct capital		\$128,920	Includes GPR, site preparation, minor access roads, path clearing, boat usage, sample mobilization etc. (See backup sheet).
<b>Total Direct Capital Cost</b>		(sum of * items)		<b>\$386,760</b>	
<b>Indirect Capital Costs</b>					
Engineering & Design	15%	of direct capital		\$58,014	Estimating Guideline Range 14-26%. Includes SU/SC sketches, placement sketches, workplan support (see backup sheet)
Project/Construction Management	5%	of direct capital		\$19,338	Standard
Health & Safety	10%	of direct capital		\$38,676	Increased percentage because of remote locations.
Overhead	30%	of direct capital		\$116,028	Standard
Contingency	20%	of direct capital		\$77,352	Standard
<b>Total Indirect Capital Cost</b>				<b>\$309,408</b>	
<b>Total Estimated Capital Cost</b>				<b>\$696,168</b>	
<b>Direct O&amp;M Costs</b>					
<b>Annual Costs (during implementation)</b>	0.7%	discount rate for costs > 30 years duration <sup>1</sup>			
Access Controls	1	yr	\$6,750	\$6,750	Standard cost of \$750 was multiplied by 9 to account for the Eas
Subtotal - Annual Costs				\$6,750	
<b>Present Worth Annual Costs (-0.5% Discount Rate)</b>				<b>\$6,784</b>	
<b>Annual Costs (Land Use Controls)</b>	1	290 years O&M			
Access Controls	1	ea	\$6,750	\$6,750	Land Use Controls will last 290 years - until decay reaches 2x background Standard cost of \$750 was multiplied by 9 to account for the Eas
Subtotal - Annual Costs				\$6,750	
<b>Present Worth Annual Costs (0.7% Discount Rate)</b>				<b>\$830,925</b>	
<b>Five Year Costs</b>	58				
Inspections / Reporting (1 every 5 years)	1	ea	\$13,500	\$13,500	Assume 2 inspectors (\$45/hr) for 15 days/10 hr days (Big ponds assume 3 days each, other Eas 1 day each)
Path Maintenance /Vegetation Removal for Access	1	ea	\$13,500	\$13,500	Assume 2 workers for 15 days/10 hr days (Big ponds assume 3 days each, other Eas 1 day each)
Sign Maintenance / Repairs (1 per year) Allowance	1	ea	\$13,500	\$13,500	Assume 2 workers to accompany inspectors for 15 days/10 hr days
Remedy Review	1	ea	\$100,000	\$100,000	Standard remedy review cost of \$20,000 multiplied by 5 to account for large number of EA's and review of MNR data
Subtotal - Five Year O&M Costs				\$140,500	
<b>Present Worth Annual Costs (0.7% Discount Rate)</b>				<b>\$6,632,276</b>	
<b>MNR Costs (every 5 years for 50 years)</b>	10				
Review/revise Monitoring Plan	1	ea	\$25,000	\$25,000	Engineering review/revision of monitoring plan - assume slightly more than half of development cost (\$40k)
Sediment sampling & analyses	36	ea	\$1,000	\$36,000	Costs are estimated for sediment sampling, however gamma overflight data may be used in lieu of sampling.
Fish Sampling and Analyses	12	ea	\$1,000	\$12,000	Sampling costs include transportation to site, sample collection, sample analyses, boat costs, radcon support
Deposition measurements	20	ea	\$500	\$10,000	Deposition measurements can be collected during sediment and fish sampling
Data evaluation & Reporting	1	ea	\$45,000	\$45,000	Reporting assumed to be in addition to 5-yr remedy review
				\$128,000	
Present Worth Five Year Costs				\$1,280,000	
<b>Total Present Worth Direct O&amp;M Cost</b>				<b>\$8,749,986</b>	
<b>Indirect O&amp;M Costs</b>					
Project/Admin Management	25%	of direct O&M		\$2,187,496	0.05 FTE/YEAR \$75 PER HR 2500 HR/YR \$2,718,750 Approximate
Health & Safety	20%	of direct O&M		\$1,749,997	0.05 FTE/YEAR \$45 PER HR 2500 HR/YR \$1,631,250 Approximate
Overhead	30%	of direct O&M		\$2,624,996	
Contingency	15%	of direct O&M		\$1,312,498	
<b>Total Estimated Present Worth Indirect O&amp;M Cost</b>				<b>\$7,874,987</b>	
<b>Total Estimated Present Worth O&amp;M Cost</b>				<b>\$16,624,973</b>	
<b>TOTAL ESTIMATED COST</b>				<b>\$17,321,141</b>	

1. Interest rate from OMB Circular No A-94 (December 12, 2016)

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Lower Three Runs — Integrator Operable Unit - Upper Section  
A-5: Excavation, Treatment and Disposal of PTSM Sediments  
EA-1 Pond A — Including R Discharge Canal

Item	Quantity	Units	Unit Cost	Total Cost	
<b>Direct Capital Costs</b>					
Regulatory Documents and Work Planning	1	ea	\$50,000	\$50,000	Develop RAIP, sampling plan, workpackages
Sampling to define extent of PTSM in R-Canal					
Sample Analysis	20	ea	\$1,500	\$30,000	Approximately 1 sample every 30 meters
Labor for sampling	4	days	\$2,250	\$9,000	2 samplers, 2 radcon, 1 health and safety for 10 hours per day = (\$45/hr x 5 people x 10 hr /day) = \$2250/day
Mobilization/Demobilization	1	ea	\$3,500	\$3,500	Includes bringing in mini excavator, two bobcats/backhoes, removing & disposal of silt curtain
Clearing for roll off pan laydown yard	0.5	acre	\$4,197	\$2,099	Unit cost for clearing and grubbing from 488-1D estimate
Site Prep for roll of pan laydown yard	0.5	acre	\$14,000	\$7,000	grade to provided containment berm, lay crusher run, etc... (crusher run volume = 202 cy - cost \$6722
Access road improvements - widening	1750	ft	\$34	\$58,958	From GOSB estimate for access road improvements (cost includes canal prep for equipment access and temporary bridge for equipment)
Clear/stage/ship vegetation (rad waste)	108	ft <sup>2</sup>			Removal of vegetation tree debris required prior to cap placement.
Mini - excavator with long reach & clam shell	1	week	\$1,000	\$1,000	assume that a mini excavator with long reach clamshell can operate from dry land
Labor - operator	30	hrs	\$100	\$3,000	Assume one operator for 30 hours per week. 1 day to mobilize & prejob brief, on day to remove vegetation, one day to decon & demobilize
General Laborer	60	hrs	\$45	\$2,700	Two laborers required to set up staging, dewatering for vegetation, place in roll off with burrito bags
Truck driver	5	hrs	\$50	\$250	Vegetation is assumed to require 2 roll off pans with two trips to E-Area (3 hr round trip includes wait time)
Radcon	60	hrs	\$75	\$4,500	2 radcon assumed for support of vegetation removal and burrito bag preparation for shipping
Equipment Cost- Sediment Excavation					
Excavator Rental	1	week	\$1,500	\$1,500	3 days to include mobilization, excavation and decontamination
Roll Off pan	2	ea	\$400	\$800	
truck contaminated sediments to E-Area	13	cy	\$220	\$2,860	20 mile round trip ((1.5 hrs x \$45/hr)*1 truck + truck rental \$500/day x 2 days) x 2 radcon@\$45/hr x 20 hrs = \$2868
Dewater roll offs - burrito wrap for transport	2	ea	\$2,700	\$5,400	Assume 2 radcon \$45/hr and 2 laborers \$45/hr all for 30 hours
Install silt curtain	25	ft	\$17	\$413	Per "The Balance" turbidity barrier material and installation costs are 8.25/ft - double based on SRS factor and small area
Post excavation sampling/surveying	1	ea	\$2,300	\$2,300	Survey cost based on Seth's estimate for project 01293250
Subtotal - Direct Capital Cost				\$185,279	
Mobilization/Demobilization	12%	of subtotal direct capital		\$22,233	Includes badging, radworker training
Site Preparation/Site Restoration	10%	of subtotal direct capital		\$18,528	Includes submittals, workpackage development, acceptance walkdowns
<b>Total Direct Capital Cost</b>		(sum of * items)		<b>\$226,040</b>	
<b>Indirect Capital Costs</b>					
Engineering & Design	25%	of direct capital		\$56,510	Estimating Guideline Range 14-26%. Includes engineering review and development of maintenance criteria
Project/Construction Management	25%	of direct capital		\$56,510	Standard
Health & Safety	15%	of direct capital		\$33,906	Health and safety review and sign off on procedures
Overhead	30%	of direct capital		\$67,812	Standard
Contingency	20%	of direct capital		\$45,208	Standard
<b>Total Indirect Capital Cost</b>				<b>\$259,946</b>	
<b>Total Estimated Capital Cost</b>				<b>\$485,986</b>	
<b>Direct O&amp;M Costs (over 290 years)</b>					
Annual Costs (yearly costs over 290 years)	0.7%	discount rate for costs > 30 years duration <sup>1</sup>		\$0	
Subtotal - Annual Costs				\$0	
Five Year Costs	10	ea		\$0	
LUCs and remedy reviews are included in A-2				\$0	
Present Worth Five Year Costs				\$0	
<b>Total Present Worth Direct O&amp;M Cost</b>				<b>\$0</b>	
<b>Indirect O&amp;M Costs</b>					
Project/Admin Management	90%	of direct O&M		\$0	0.05 FTE/YEAR \$75 PER HR 1250 HR/YR \$46,875 Approximate doubled this due to huge dam construction project
Health & Safety	50%	of direct O&M		\$0	0.05 FTE/YEAR \$45 PER HR 1250 HR/YR \$28,125 Approximate doubled this due to huge dam construction project
Overhead	30%	of direct O&M		\$0	
Contingency	15%	of direct O&M		\$0	
<b>Total Estimated Present Worth O&amp;M Cost</b>				<b>\$0</b>	
<b>TOTAL ESTIMATED COST</b>				<b>\$485,986</b>	

- Interest rate from OMB Circular No. A-94 (December 12, 2016)
- In addition to costs associated with this alternative, LUCs with MNR and five-year remedy reviews for the entire Upper subunit is estimated at ~\$17 M (refer to details in Alternative A-2)

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Lower Three Runs — Integrator Operable Unit - Upper Section  
A-6: Maintain Water in Ponds for EA-3 – Pond B

<u>Item</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Total Cost</u>	
<b>Direct Capital Costs</b>					
No physical activities					
Establish Procedures MOU to concur with ROD requirements	1	ea	\$10,000	\$10,000	Establish formal internal documents to ensure dam maintenance complies with ROD
	1	ea	\$0	\$0	
				<u>\$10,000</u>	
Subtotal - Direct Capital Cost				\$10,000	
Mobilization/Demobilization	0%	of subtotal direct capital		\$0	
Site Preparation/Site Restoration	0%	of subtotal direct capital		\$0	
				<u>\$0</u>	
<b>Total Direct Capital Cost</b>		(sum of * items)		<b><u>\$10,000</u></b>	
<b>Indirect Capital Costs</b>					
Engineering & Design	15%	of direct capital		\$1,500	Estimating Guideline Range 14-26%. Includes engineering review and development of maintenance criteria
Project/Construction Management	15%	of direct capital		\$1,500	Standard
Health & Safety	5%	of direct capital		\$500	Health and safety review and sign off on procedures
Overhead	30%	of direct capital		\$3,000	Standard
Contingency	20%	of direct capital		\$2,000	Standard
				<u>\$8,500</u>	
<b>Total Indirect Capital Cost</b>				<b><u>\$8,500</u></b>	
<b>Total Estimated Capital Cost</b>				<b><u>\$18,500</u></b>	
<b>Direct O&amp;M Costs (over 290 years)</b>					
Annual Costs (yearly costs over 290 years)	0.7%	discount rate for costs > 30 years duration <sup>1</sup>			
	50	Years O&M			
Baseline Dam Program & Minor Maintenance Pond B	1	yr	\$37,050	\$37,050	Average of costs provided by SI for FY15-FY17 (SEE WORKSHEET FROM SI)
Assume one significant repair per year between both dams	1	yr	\$62,000	\$62,000	Average of costs provided by SI for FY15-FY17 (SEE WORKSHEET FROM SI)
Subtotal - Annual Costs				\$99,050	
<b>Present Worth Annual Costs (0.7% Discount Rate)</b>				<b><u>\$1,366,964</u></b>	
Five Year Costs					
Remedy Review (Included in A-2 LUCs and MNA)	0	ea	\$0	\$0	
Subtotal - Five Year O&M Costs				\$0	
Present Worth Five Year Costs				\$0	
<b>Total Present Worth Direct O&amp;M Cost</b>				<b><u>\$1,366,964</u></b>	
<b>Indirect O&amp;M Costs</b>					
Project/Admin Management	4%	of direct O&M		\$54,679	0.005 FTE/YR \$75 PER HR 2500 HR/YR \$46,875 Approximate
Health & Safety	2%	of direct O&M		\$27,339	0.005 FTE/YR \$45 PER HR 2500 HR/YR \$28,125 Approximate
Overhead	30%	of direct O&M		\$410,089	
Contingency	15%	of direct O&M		\$205,045	
				<u>\$697,152</u>	
<b>Total Estimated Present Worth Indirect O&amp;M Cost</b>				<b><u>\$697,152</u></b>	
<b>Total Estimated Present Worth O&amp;M Cost</b>				<b><u>\$2,064,116</u></b>	
<b>TOTAL ESTIMATED COST</b>				<b><u>\$2,082,616</u></b>	

1. Interest rate from OMB Circular No. A-94 (December 12, 2016)  
2. In addition to costs associated with this alternative, LUCs with MNR and five-year remedy reviews for the entire Upper subunit is estimated at ~\$17 M (refer to details in Alternative A-2)

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Lower Three Runs — Integrator Operable Unit - Upper Section  
A-6: Maintain Water in Ponds for EA-6 PAR Pond

<u>Item</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Total Cost</u>	
<b>Direct Capital Costs</b>					
No physical activities					
Establish Procedures MOU to concur with ROD requirements	1	ea	\$10,000	\$10,000	Establish formal internal documents to ensure dam maintenance complies with ROD
	1	ea	\$0	\$0	
				\$10,000	
Subtotal - Direct Capital Cost				\$10,000	
Mobilization/Demobilization		0% of subtotal direct capital		\$0	
Site Preparation/Site Restoration		0% of subtotal direct capital		\$0	
				\$0	
<b>Total Direct Capital Cost</b>		(sum of * items)		<b>\$10,000</b>	
<b>Indirect Capital Costs</b>					
Engineering & Design		15% of direct capital		\$1,500	Estimating Guideline Range 14-26%. Includes engineering review and development Standard Health and safety review and sign off on procedures Standard Standard
Project/Construction Management		15% of direct capital		\$1,500	
Health & Safety		5% of direct capital		\$500	
Overhead		30% of direct capital		\$3,000	
Contingency		20% of direct capital		\$2,000	
				\$8,500	
<b>Total Indirect Capital Cost</b>				<b>\$8,500</b>	
<b>Total Estimated Capital Cost</b>				<b>\$18,500</b>	
<b>Direct O&amp;M Costs (over 290 years)</b>					
Annual Costs (yearly costs over 290 years)	0.7%	discount rate for costs > 30 years duration <sup>1</sup>			
	50	Years O&M			
Baseline Dam Program & Minor Maintenance Pond PAR	1	yr	\$74,100	\$74,100	Average of for FY15-FY17
	1	yr	\$62,000	\$62,000	
				\$136,100	
Subtotal - Annual Costs				\$136,100	
<b>Present Worth Annual Costs (0.7% Discount Rate)</b>				<b>\$1,878,282</b>	
Five Year Costs					
Remedy Review (Included in A-2 LUCs and MNA)	0	ea	\$0	\$0	
Subtotal - Five Year O&M Costs				\$0	
Present Worth Five Year Costs				\$0	
<b>Total Present Worth Direct O&amp;M Cost</b>				<b>\$1,878,282</b>	
<b>Indirect O&amp;M Costs</b>					
Project/Admin Management		3% of direct O&M		\$56,348	0.006 FTE/YR \$75 PER HR 2500 HR/YR \$56,250 Approximate
Health & Safety		2% of direct O&M		\$37,566	0.005 FTE/YR \$45 PER HR 2500 HR/YR \$28,125 Approximate
Overhead		30% of direct O&M		\$563,484	
Contingency		15% of direct O&M		\$281,742	
				\$939,141	
<b>Total Estimated Present Worth Indirect O&amp;M Cost</b>				<b>\$939,141</b>	
<b>Total Estimated Present Worth O&amp;M Cost</b>				<b>\$2,817,422</b>	
<b>TOTAL ESTIMATED COST</b>				<b>\$2,835,922</b>	

1. Interest rate from OMB Circular No. A-94 (December 12, 2016)  
2. In addition to costs associated with this alternative, LUCs with MNR and five-year remedy reviews for the entire Upper subunit is estimated at ~\$17 M (refer to details in Alternative A-2)

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Lower Three Runs — Integrator Operable Unit - Upper Section  
A-6: Maintain Water in Ponds for EA-9 – Pond C

<u>Item</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Total Cost</u>	
<b>Direct Capital Costs</b>					
No physical activities					
Establish Procedures MOU to concur with ROD requirements	1	ea	\$10,000	\$10,000	Establish formal internal documents to ensure dam maintenance complies with ROD
	1	ea	\$0	\$0	
Subtotal - Direct Capital Cost				\$10,000	
Mobilization/Demobilization	0%	of subtotal direct capital		\$0	
Site Preparation/Site Restoration	0%	of subtotal direct capital		\$0	
<b>Total Direct Capital Cost</b>		(sum of * items)		<b>\$10,000</b>	
<b>Indirect Capital Costs</b>					
Engineering & Design	15%	of direct capital		\$1,500	Estimating Guideline Range 14-26%. Includes engineering review and development of maintenance
Project/Construction Management	15%	of direct capital		\$1,500	Standard
Health & Safety	5%	of direct capital		\$500	Health and safety review and sign off on procedures
Overhead	30%	of direct capital		\$3,000	Standard
Contingency	20%	of direct capital		\$2,000	Standard
<b>Total Indirect Capital Cost</b>				<b>\$8,500</b>	
<b>Total Estimated Capital Cost</b>				<b>\$18,500</b>	
<b>Direct O&amp;M Costs (over 290 years)</b>					
Annual Costs (yearly costs over 290 years)	0.7%	discount rate for costs > 30 years duration <sup>1</sup>			
	50	Years O&M			
Baseline Dam Program & Minor Maintenance Pond C	1	yr	\$24,700	\$24,700	Average of costs provided by SI for FY15-FY17 (SEE WORKSHEET FROM SI)
Subtotal - Annual Costs				\$24,700	
<b>Present Worth Annual Costs (0.7% Discount Rate)</b>				<b>\$340,878</b>	
<b>Five Year Costs</b>					
Remedy Review (Included in A-2 LUCs and MNA)	0	ea	\$0	\$0	
Subtotal - Five Year O&M Costs				\$0	
Present Worth Five Year Costs					
<b>Indirect O&amp;M Costs</b>					
Project/Admin Management	15%	of direct O&M	\$51,132		0.005 FTE/YEAR \$75 PER HR 2500 HR/YR \$46,875 Approximate
Health & Safety	8%	of direct O&M	\$27,270		0.005 FTE/YEAR \$45 PER HR 2500 HR/YR \$28,125 Approximate
Overhead	30%	of direct O&M	\$102,264		
Contingency	15%	of direct O&M	\$51,132		
<b>Total Estimated Present Worth Indirect O&amp;M Cost</b>				<b>\$231,797</b>	
<b>Total Estimated Present Worth O&amp;M Cost</b>				<b>\$572,676</b>	
<b>TOTAL ESTIMATED COST</b>				<b>\$591,176</b>	

1. Interest rate from OMB Circular No. A-94 (December 12, 2016)  
2. In addition to costs associated with this alternative, LUCs with MNR and five-year remedy reviews for the entire Upper subunit is estimated at ~\$17 M (refer to details in Alternative A-2)

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**United States Department of Energy**  
**Proposed Plan Fact Sheet**  
**for the**  
**Lower Three Runs Integrator Operable Unit**  
**SEMS Number: 35**  
**SRNS-RP-2020-00110**

**Savannah River Site, South Carolina**

**January 2021**

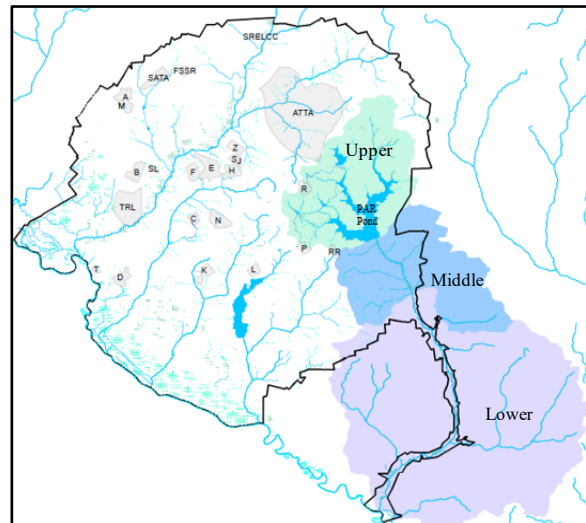
## INTRODUCTION

This fact sheet summarizes the Proposed Plan for the Lower Three Runs (LTR) Integrator Operable Unit (IOU) located at the Savannah River Site (SRS). The United States Department of Energy owns and operates the SRS. Hazardous substances that are regulated under the federal law requirements of the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act are managed at the SRS as part of a comprehensive cleanup program.

A remedial action is needed at the LTR IOU because cesium-137 and cobalt-60 are present in sediment/soil, and cesium-137 and mercury are present in fish tissue at levels that may pose a threat to human health and the environment. The Proposed Plan for the LTR IOU outlines the range of remedial alternatives evaluated to clean up the contaminated sediment/soil and presents the proposed remedy. The document describes how the public can comment on the proposed action through written comments and by participating in public meetings.

## LTR IOU BACKGROUND

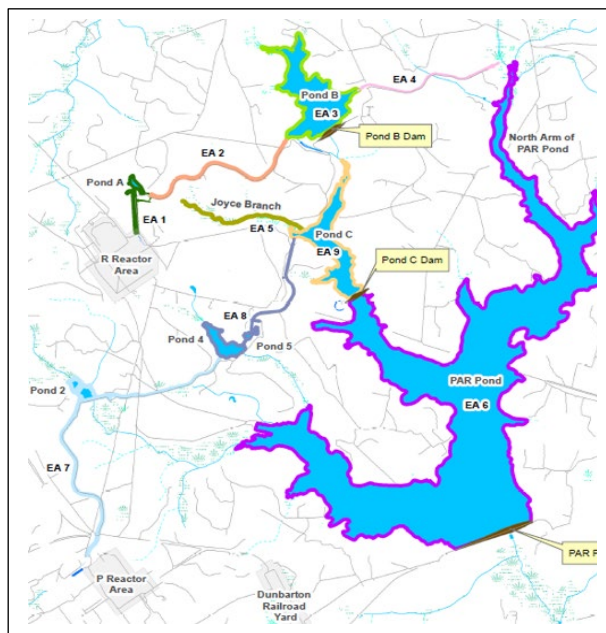
The LTR watershed is located in the southeastern portion of SRS. LTR is a large blackwater stream that originates in the northeast portion of SRS and follows a southerly direction for approximately (~) 40 kilometers (km [24.5 miles {mi}]), discharging into the Savannah River. The LTR IOU consists of an Upper, Middle, and Lower subunit. The Upper subunit is located upgradient of the PAR Pond Dam and includes PAR Pond and the pre-cooler ponds and canal system. The Upper subunit is the subject of this Proposed Plan.



The Middle and Lower subunits are located below the PAR Pond Dam. The remedial action for the Middle and Lower subunits of land use controls (LUCs) was previously addressed and documented in the *Explanation of Significant Differences (ESD) for the Revision 0 Interim Action Record of Decision Remedial Alternative Selection: PAR Pond Unit (U); Lower Three Runs Integrator Operable Unit Tail Portion (Middle and Lower Subunits) (U)*. As documented in the ESD, no additional data collection, risk assessment, or response evaluation is necessary for the Middle and Lower subunits, and LUCs will be documented as the final action for the Middle and Lower subunits in the LTR IOU Record of Decision.

The Upper subunit is segregated into the following nine individual Exposure Areas (EAs):

- EA1: Pond A – Including R-Area Discharge Canal
- EA2: Canal from Pond A to Pond B
- EA3: Pond B – Including canal to Pond C
- EA4: Canal from Pond B to North Arm of PAR Pond
- EA5: Joyce Branch (Old Discharge Canal)
- EA6: PAR Pond
- EA7: Canal from P-Area to Ponds 4 and 5 – Including Pond 2
- EA8: Ponds 4 and 5 – Including canal from Ponds 4 and 5 to Pond C
- EA9: Pond C



Residual sediment/soil contamination, primarily cesium-137, is present in the LTR IOU stream corridor due to historical reactor operations. R-Reactor began operations in 1953 and was followed by P-Reactor in 1954. Both reactors received cooling water from the Savannah River via the river water distribution system. R-Reactor initially discharged reactor effluent directly into Joyce Branch, while P-Reactor discharged reactor effluent directly into Steel Creek. In 1958, PAR Pond, along with a series of pre-cooler ponds and a connecting canal system, were constructed to address the cooling water requirements of both P- and R-Reactors. Effluent from R-Reactor was routed to the R-Area Discharge Canal and pre-cooler Pond B where it discharged into the north arm of PAR Pond. This effluent pathway was used for R-Reactor discharge from 1961 until the reactor was shut down in 1964. Since the shutdown of R-Reactor, R-Area Discharge Canal and Pond B have remained essentially undisturbed.

PAR Pond also served as a heat exchange/cooling reservoir for P-Reactor until 1988. Heated water was released through a series of man-made canals and smaller impoundments into the pre-cooler Pond C and released into PAR Pond. Effluent discharges from P-Reactor ceased in 1987 with the shutdown of the reactor. As with the R-Area Discharge Canal, the associated canal system and pre-cooler ponds have remained essentially undisturbed. Releases from P-Reactor and R-Reactor operations included process leaks, reactor disassembly basin purges, and thermal discharges that contained primarily cesium-137.



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The LTR IOU is currently designated for industrial use. No current or projected future development is planned, nor is the current land use expected to change. To support the risk management decision-making, an IOU onsite worker (wetland researcher) land use scenario was evaluated. A recreational fisherman scenario was also evaluated for EAs that can sustain populations of consumable fish, i.e., EA3 (Pond B), EA6 (PAR Pond), and EA9 (Pond C).

A risk evaluation determined that for EA1 through EA9, cesium-137 and cobalt-60 activity in sediment/soil exceeded a risk of 1E-06 for the onsite worker. A risk greater than or equal to 1E-06 indicates a probability of 1 chance in 1,000,000 of an individual developing cancer. Surface water was determined to not be an environmental medium of concern and did not pose an unacceptable risk to the IOU onsite worker.

Principal threat source materials (PTSM) are described as highly toxic materials that would present a significant risk to human health or the environment should exposure occur. Results of the PTSM screening determined that the maximum activity of cesium-137 exceeded the PTSM threshold (i.e., risk  $\geq 1E-03$ ) for the IOU onsite worker in one submerged location at EA1 in the R-Area Discharge Canal. EA3 (Pond B) had two sample locations with cesium-137 levels above the PTSM threshold, and EA5 (Joyce Branch) had two locations with cesium-137 above the PTSM threshold.

For EA3 (Pond B), EA6 (PAR Pond), and EA9 (Pond C), cesium-137 and mercury in fish tissue exceed a risk of 1E-06 for the hypothetical recreational fisherman.

## **CLEANUP GOALS**

Cleanup goals for the LTR IOU include the following:

- Protect IOU onsite workers from exposure to cesium-137 and cobalt-60 in sediment/soil that exceed 1E-06 risk threshold or background levels. The primary exposure route of concern is the external radiation pathway.
- Protect the recreational fisherman from exposure to cesium-137 and mercury in fish tissue. The primary route of exposure is the ingestion of fish pathway.

## **PROPOSED REMEDY**

Due to the complexity of the Upper subunit, multiple remedial strategies are needed to address the nature and extent of contamination within the LTR IOU system. The preferred remedial alternative for the entire Upper Subunit (EA1 through EA9) is LUCs with Monitored Natural Recovery (MNR). In addition, the Excavation of PTSM Sediment/Soil alternative is the preferred alternative to address the one location in EA1 in the R-Area Discharge Canal that exceeded the PTSM



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threshold, and the Maintain Water in Ponds alternative is the preferred alternative to provide additional exposure protection for EA3 (Pond B) and EA6 (PAR Pond).

LUCs include engineering controls such as signs and gates at access points and administrative measures (i.e., deed restrictions and worker protection programs) to effectively reduce exposure of contaminated media to human receptors. MNR is a remedy that uses the ongoing, naturally-occurring process to contain, destroy, or reduce the bioavailability or toxicity of contaminants in sediment/soil. The MNR remedy component will utilize and assess the natural decay of cesium-137 (its half-life is approximately 30 years) in the Upper subunit over time. Cesium-137 levels are expected to decay below the PTSM threshold in the Upper subunit in approximately 50 years, and the need to continue with the MNR component of the remedy will be reevaluated at that time.

For EA1, the Excavation and Disposal of PTSM sediment/soil remedial alternative will be implemented to remove the single PTSM location in the R-Area Discharge Canal. The PTSM location is in relatively shallow water and is accessible for standard excavation practices. The excavated sediment/soil will be treated with a drying agent to reduce contaminant mobility during transportation and on site disposal.

EA5 (Joyce Branch) contains two PTSM locations in shallow water. EA5 (Joyce Branch) is located interior to the site approximately 7.2 km (4.5 mi) from the SRS boundary, is remotely located from site operations, and is not accessible to the public (i.e., trespassers). Because PTSM is present in EA5 (Joyce Branch) in two locations, LUCs will be augmented in the form of additional signage at access roads and utility corridors in addition to gates within the SRS access roads leading toward the two PTSM locations. Also, additional signs will be installed along the banks near the PTSM locations.

The Maintain Water in Ponds remedial alternative is the preferred action for EA3 (Pond B) and EA6 (PAR Pond) to minimize access and limit exposure to submerged, contaminated sediment/soil within the ponds. This alternative consists of maintaining dam structures for water retention, allows for natural fluctuation of water levels, and controls sediment movement downstream of the PAR Pond Dam. Annual inspections and periodic maintenance of the physical attributes (i.e., dams, weirs, control gates, etc.) that make water retention viable are already in place per SRS procedures and the Federal Energy Regulatory Commission guidelines.

The proposed remedy for the LTR IOU Upper subunit includes LUCs with MNR, Excavation and Disposal of PTSM, and Maintain Water in Ponds remedial alternatives. The proposed remedy will require five-year remedy reviews. The United States Environmental Protection Agency and South Carolina Department of Health and Environmental Control concur with the proposed remedy.



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**Savannah River Site, South Carolina**

**January 2021**

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**FOR MORE INFORMATION**

The Administrative Record File, which contains the information pertaining to the selection of the response action, is available at the following locations:

US Department of Energy  
Public Reading Room  
Gregg-Graniteville Library  
University of South Carolina Aiken Campus  
471 University Parkway  
Aiken, South Carolina 29803  
(803) 641-3504

Thomas Cooper Library  
Government Information and Maps  
Department  
University of South Carolina  
1322 Green Street  
Columbia, South Carolina 29208  
(803) 777-4841

Hard copies of the Proposed Plan for the LTR IOU are available at the locations above and at the following locations:

Reese Library  
Government Information Department  
Augusta University  
2500 Walton Way  
Augusta, Georgia 30904  
(706) 737-1744

Asa H. Gordon Library  
Savannah State University  
2200 Tompkins Road  
Savannah, Georgia 31404  
(912) 358-4324

**HOW TO SUBMIT COMMENTS**

The public comment period for the Proposed Plan for LTR IOU begins January 27, 2021 and ends March 12, 2021. To request a public meeting during the public comment period, to obtain more information concerning this document, or to submit written comments, contact one of the following:

Angie Benfield  
Savannah River Nuclear Solutions, LLC  
Savannah River Site  
Building 730-1B  
Aiken, South Carolina 29808  
(803) 952-9830  
[Angela.Benefield@srs.gov](mailto:Angela.Benefield@srs.gov)

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Declared Value of this Shipment is \$ <u>N/A</u>			
<b>Security Classification</b>			
<input checked="" type="radio"/> Unclassified <input type="radio"/> Official Use Only <input type="radio"/> UCNI <input type="radio"/> Classified			
<b>Destination Information</b>			
Name/Company Ms. Melissa Johnson Reese Library Govt. Section Augusta University		Street Address 2500 Walton Way	
Phone Number 706-737-1744	City Augusta	State GA	Zip 30909
<b>I certify that overnight delivery of</b>			
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Division Director/Manager Name - Level 4 (Print) <i>Chris Berger</i>		Division Director/Manager - Level 4 (Signature) <i>[Signature]</i>	

\* Denotes Additional Fee Applies

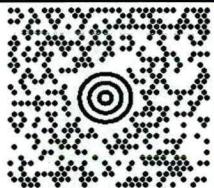
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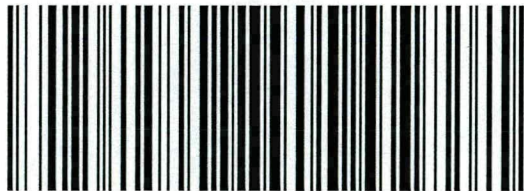
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Declared Value of this Shipment is \$ <u>N/A</u>			
<b>Security Classification</b>			
<input checked="" type="radio"/> Unclassified <input type="radio"/> Official Use Only <input type="radio"/> UCNI <input type="radio"/> Classified			
<b>Destination Information</b>			
Name/Company LaTasha P. Denard Asa H. Gordon Library Savannah State University		Street Address 2200 Tompkins Road	
Phone Number 912-358-4325	City Savannah	State GA	Zip 31404
<b>I certify that overnight delivery of</b> <small>Proposed Plan for the Lower Three Runs Integrator Operable Unit (U) and United States Department of Energy Proposed Plan Fact Sheet for the Lower Three Runs Integrator Operable Unit</small> <hr/> (Title of Document or Description of Material) <b>is necessary to comply with mission objectives and that no other method of forwarding is available or feasible to meet the required delivery deadline. This is Official Business material.</b>			
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Division Director/Manager Name - Level 4 (Print) <b>Chris Bergren</b>		Division Director/Manager - Level 4 (Signature) 	

\* Denotes Additional Fee Applies

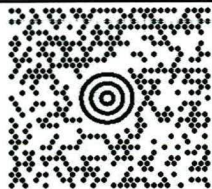
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**SAVANNAH GA 31404-5235**



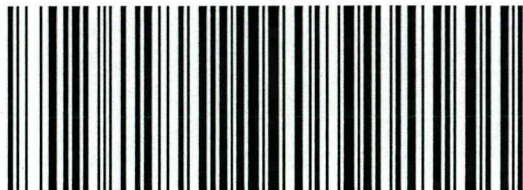
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Name/Company Mr. Bill Sudduth Government Information Dept. Thomas Cooper Library		Street Address 1322 Greene Street	
Phone Number 803-777-5699	City Columbia	State SC	Zip 29208
<b>I certify that overnight delivery of</b> <small>Proposed Plan for the Lower Three Runs Integrator Operable Unit (U) and United States Department of Energy Proposed Plan Fact Sheet for the Lower Three Runs Integrator operable Unit</small> <hr/> (Title of Document or Description of Material) <b>is necessary to comply with mission objectives and that no other method of forwarding is available or feasible to meet the required delivery deadline. This is Official Business material.</b>			
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Division Director/Manager Name - Level 4 (Print) <b>Chris Berggren</b>		Division Director/Manager - Level 4 (Signature) 	

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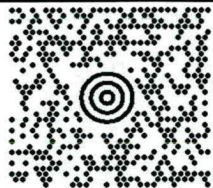
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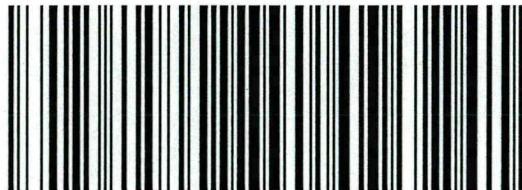
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<b>Le Anne Barkley</b>	<b>730-4B</b>	<b>2-7589</b>	<b>07YXBPMDOC</b>
<b>Delivery Option*</b>			
<input checked="" type="checkbox"/> Delivery Confirmation		<input type="checkbox"/> Signature Required	
Declared Value of this Shipment is \$ <u>N/A</u>			
<b>Security Classification</b>			
<input checked="" type="radio"/> Unclassified <input type="radio"/> Official Use Only <input type="radio"/> UCNI <input type="radio"/> Classified			
<b>Destination Information</b>			
Name/Company		Street Address	
Ms. Susie O'Connor Gregg-Graniteville Library University of South Carolina Aiken		471 University Parkway	
Phone Number	City	State	Zip
803-641-3261	Aiken	SC	29803
<b>I certify that overnight delivery of</b>			
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Division Director/Manager Name - Level 4 (Print)		Division Director/Manager - Level 4 (Signature)	
<i>Chris Bergren</i>			

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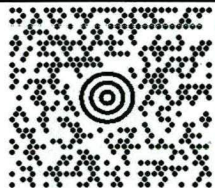
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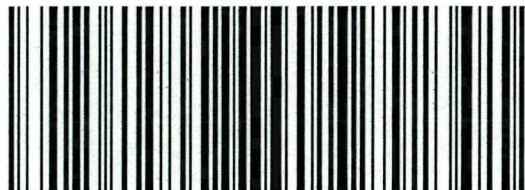
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