



Land Use Control Assurance Plan for the Savannah River Site

WSRC-RP-98-4125

Revision 1.1

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DISCLAIMER

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Prepared for

U.S. Department of Energy
and
Savannah River Nuclear Solutions, LLC
Aiken, South Carolina

—
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LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|--------|---|
| ACP | Area Completion Projects |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CFR | Code of Federal Regulations |
| ECODS | Early Construction and Operational Disposal Site |
| FFA | Federal Facility Agreement for the Savannah River Site |
| IOU | Integrator Operable Unit |
| LUC | Land Use Control |
| LUCAP | Land Use Control Assurance Plan |
| LUCIP | Land Use Control Implementation Plan |
| MOA | Memorandum of Agreement |
| NBN | No Building Number |
| RCRA | Resource Conservation and Recovery Act |
| ROD | Record of Decision |
| RUNK | R-Area Unknown |
| SCDHEC | South Carolina Department of Health and Environmental Control |
| SROO | Savannah River Operations Office |
| SRNS | Savannah River Nuclear Solutions, LLC |
| SRS | Savannah River Site |
| USDOE | United States Department of Energy |
| USEPA | United States Environmental Protection Agency |
| WADB | Wetland Area at Dunbarton Bay |
| WSRC | Washington Savannah River Company |

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1.0 INTRODUCTION

On April 21, 1998, the United States Environmental Protection Agency (USEPA) Region 4 Federal Facilities Branch issued a memorandum entitled *Assuring Land Use Controls at Federal Facilities* (Johnston 1998). By implementing this policy, USEPA Region 4 sought development of Land Use Control Assurance Plans (LUCAPs) by federal facilities that utilize land use controls (LUCs) as components of Resource Conservation and Recovery Act (RCRA)/Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedies. The United States Department of Energy (USDOE)-Savannah River Operations Office (SROO) recognizes the memorandum as setting forth policy guidance that does not carry the force of law as is established through rulemaking. Thus, as a matter of comity and cooperation and, most importantly, for the purpose of advancing the goal of protecting human health and the environment at the Savannah River Site (SRS), this LUCAP has been developed as a means to facilitate accomplishment of this shared objective.

The USDOE-SROO, the USEPA, and the South Carolina Department of Health and Environmental Control (SCDHEC) are herein after referred to as “the Parties”.

Definitions for terms used in this document are provided in Appendix A.

2.0 SITE DESCRIPTION

2.1 Savannah River Site Description

The SRS covers 310 square miles, encompasses parts of Aiken, Barnwell, and Allendale counties in western South Carolina, and borders the Savannah River. The SROO manages SRS as a controlled area with limited public access. Open fields and pine and hardwood forests comprise 73 percent of the SRS; wetlands, streams, and two large reservoirs cover approximately 22 percent; and production and support areas, roads, and utility corridors account for the remaining 5 percent. Land adjacent to the SRS is used mainly for forest and agricultural purposes.

2.2 SRS Land Use Planning Process

SRS utilizes a comprehensive planning process. This entails a systematic method for ensuring a site-wide approach to moving the site from the present into the future based on SRS strategic planning. A comprehensive plan is developed that addresses such things as land use, facilities, infrastructure, cultural resources, and natural resources. A site procedure (SRS Manual 1D, *Site Infrastructure and Services*, Procedure 3.02, *Site Real Property Configuration Control*) is in place to ensure that proposed land and facility activities are considered for consistency with the comprehensive plan. This process, along with the Site Use Permit system, ensures that sites selected for an activity are the most appropriate and that any potential conflicts or problems are identified and solved prior to approval.

2.3 Environmental Restoration Program Description

The goal of the SRS Area Completion Projects (ACP) Program is to investigate, and if needed, remediate releases of hazardous substances to minimize or eliminate potential risks to human health and the environment. SRS personnel began inventorying waste units in 1981 and have identified 515 inactive waste and groundwater units to date. The waste units range in size from a few square feet to tens of acres and include basins, pits, piles, burial grounds, landfills, tanks, and groundwater contamination. Soil, groundwater, and surface water have been contaminated with radionuclides and hazardous chemicals as a result of 40 years of site operations (WSRC 1998).

Remediation of the waste units is regulated under the RCRA 3004 (u), 3004 (v), 3005, and CERCLA. In 1993, SRS entered into a Federal Facility Agreement (FFA) with the USEPA and the SCDHEC to ensure that the environmental impacts associated with past and present activities at SRS were thoroughly investigated, and that appropriate corrective/remedial action would be taken to protect public health and welfare and the environment. Figure 1 depicts the watersheds within the SRS. The current industrial areas with buffers, heavy industrial (nuclear facility) areas, heavy industrial (non-nuclear facility) areas, and administrative facility areas are also shown on Figure 1. Figures 2 through 7 show the ACP waste units that have been, are currently undergoing, or are planned for investigation and remediation, if needed, within each watershed. Tables 1 through 6 provide a list of the waste units within each watershed that have LUCs/institutional controls as part of the selected remedy. As the three Parties agree upon remedial decisions, the figures and tables will be updated to highlight those waste units that require LUCs as part of the remedial decision. Appendix C provides a more comprehensive listing of the waste units in each watershed.

Because the SRS is currently and will likely remain under Federal ownership, the SROO desires future site remedy decisions that take land use into account. The Parties agree that when LUCs are necessary to assure the reliability of land use assumptions, a plan is needed to ensure that LUCs will be maintained for as long as necessary to keep the selected remedy fully protective of human health and the environment.

LUCs include, but are not limited to, institutional controls, and are defined in Appendix A of this document. Institutional controls are actions that may be used to supplement engineering controls to prevent or limit exposure to contaminants at a site to ensure protection of human health. Institutional controls may be applied to limit or prevent exposures to contaminants and to ensure that selected land uses are maintained. The advantage of these administrative mechanisms is that they can be employed to provide flexibility in the risk decision-making process. Institutional controls also mitigate health risks by physically restricting land use at a waste unit. These controls may include fences, security guards, warning signs, deed restrictions, and land-use restrictions.

3.0 LAND USE CONTROL GOALS, OBJECTIVES, AND STRATEGIES

3.1 Purpose

This LUCAP was developed to assure the effectiveness and reliability of the required LUCs for as long as any LUCs continue to be required in order for the response action to remain protective. The requirements described herein are only applicable to those waste units listed in the FFA (FFA 1993) Appendices C and H, for which LUCs were selected as part of the corrective/remedial action.

For the units in Appendix H, the LUC requirements are discussed and approved as part of the closure/post-closure/permit application process for these waste units.

As the corrective/remedial action that includes LUCs is selected for individual waste units, a unit-specific Land Use Control Implementation Plan (LUCIP) will be developed. Appendix B of this LUCAP contains the unit-specific LUCIPs. As LUCIPs are finalized and appended to this LUCAP, Appendix B will be updated to reflect any additions or deletions of units that require LUCs as part of the selected remedy. Table B-1 provides a list of all LUCIPs that are a part of this LUCAP. Copies of all updates will be distributed to the USEPA and the SCDHEC for inclusion in their copies of the LUCAP.

3.2 Access Controls

3.2.1 On-Site Workers

In accordance with procedures in place and maintained at SRS, use of all lands and waters on the SRS shall be coordinated via the Site Use Program. No use of land (i.e., excavation or any other land use) shall be undertaken without prior approval documented by a Site Use Permit. Also, in accordance with procedures, all work at SRS that adds or modifies features or facilities portrayed on the SRS development maps (i.e., plot plans of facilities/utilities at SRS) is authorized by a Site Clearance Permit before execution. All Site Clearance requests are reviewed to verify that either an approved Site Use Permit has been obtained, or that an existing Site Use Permit has sanctioned the request. Verification of the USDOE approval for intended land use must be obtained before issuance of a Site Clearance Permit. The Site Use and Site Clearance processes are applicable to all activities and personnel on site (including subcontractors). The processes are controlled within the SRS Quality Assurance Program.

The SRS identifies all buildings and facilities on maps used in the Site Use/Site Clearance Program and includes a 200-foot buffer zone around each facility. Each waste unit is identified on these maps.

Any work proposed at the waste units will be strictly controlled and workers will be appropriately trained and briefed about health and safety requirements if work is deemed necessary for maintenance. Any changes in the use or disturbance of the waste units will require advance notification to the USEPA and the SCDHEC before the disturbance occurs. To prevent unknowing entry and to ensure that unrestricted use of the waste units do not occur while under the ownership of the government, identification signs will be posted at the waste unit access points. Figures will be included in the unit-specific LUCIPs that

indicate where the signs will be posted. The signs will be legible from a distance of at least 25 feet. The signs will read:

Waste Unit Name and Building Number
“Danger – Unauthorized Personnel Keep Out.
This waste unit was used to manage hazardous substances.
Do not dig or excavate. Do not enter without contacting the
waste site custodian.”
Custodian: Manager, Post Closure Maintenance
Phone: (803) 725-PAGE (19192)

3.2.2 Trespassers

Additionally, while under the ownership of the USDOE, access control of the entire SRS will continue to be maintained in accordance with the 2013 RCRA Permit Renewal Application, Volume I, Section F.1. This section describes the security procedures and equipment (R.61-79.264.14; 270.14(b)(4)), 24-hour surveillance system (R.61-79.264.14(b)(1)), artificial or natural barriers (R.61-79.264.14(b)(2)(i)), control entry systems (R.61-79.264.14(b)(2)(ii)), and warning signs (R.61-79.264.14(c)) in place at the SRS boundary to comply with the security requirements for a RCRA-permitted facility.

3.3 Federal Facility Program and Point-of-Contact

The person responsible for ensuring that unit-specific LUCIPs and the LUCAP are monitored, maintained, and enforced is the Manager of the SROO. The SROO Assistant Manager for Infrastructure and Environmental Stewardship is the point-of-contact and can be reached as follows:

US Department of Energy
Assistant Manager for Infrastructure and Environmental Stewardship
P. O. Box A
Aiken, SC 29802

Phone: (803) 952-6371

3.4 Funding

The Parties expect that all obligations of the SROO arising under the LUCAP will be fully funded through congressional appropriations. Consistent with congressional limitations on future funding, the USDOE SROO will use its best efforts to request timely funding to meet its obligations under this plan.

If appropriate funds are not available to fulfill SROO’s obligations, USEPA and SCDHEC will be notified as soon as the SROO is aware of the potential shortfall.

3.5 Decision Documents

The Parties agree when unit-specific LUCs are to be implemented, an adequate description of the LUCs, along with conditions for their use, should be included in the appropriate decision documents (i.e., proposed plan, record of decision (ROD), RCRA permit, as appropriate, etc.) that reflects the selected remedy for a unit. Additionally, Appendix D of this document contains a sample of the standard language for inclusion in such decision documents.

During the 5-year remedy reviews or RCRA permit renewals, the need for LUCIPs for decision documents approved prior to April 21, 1998, in which LUCs were selected as part of the remedy, will be decided. A LUCIP will then be developed as agreed to by the three Parties.

3.6 Land Use Control Implementation Plan

As a component of the post-ROD documentation for waste units that require LUCs as part of the corrective measure/remedial action, a unit-specific LUCIP must be developed and approved following remedy selection through the unit-specific ROD and permit modification. The LUCIP should:

- a) identify the area that is under restriction via a survey plat that is certified by a professional land surveyor. In the case of LUCs and groundwater, an appropriate survey will be prepared to delineate the groundwater under LUCs;
- b) identify each LUC objective for the waste unit (e.g., prohibit residential use, etc.); and
- c) specify the specific controls and mechanisms required to achieve each identified objective (e.g., install/maintain a fence, post warning signs, etc.).

For waste units where the corrective measure/remedial action is institutional controls only, a single post-ROD document identifying the LUCs will be developed. For waste units where institutional controls are combined with an active corrective measure/remedial action, the LUCIP will be developed as an appendix to the agreed upon post-ROD document (i.e., the Corrective Measures/Remedial Design Work Plan, the Corrective Measures/Remedial Design Report, the Corrective Measures/Remedial Action Work Plan, Corrective Measures Implementation/Remedial Action Implementation Plan, Remedial Action Completion Report, Post-Construction Report, etc., or any combination of the listed documents). Since March 2004, LUCIPs have been developed as separate documents. Upon approval, each unit-specific LUCIP will be appended to this LUCAP to serve as a single source for documenting all LUCs.

If a 5-year remedy review or RCRA permit renewal analysis determines that a LUCIP should be required for any LUC selected in a decision document approved prior to April 21, 1998, that LUCIP will be developed and included in Appendix B.

3.7 Monitoring and Field Inspections

For waste units that require LUCs, quarterly on-unit monitoring will be performed throughout the remediation period, unless the Parties, in the unit-specific LUCIP, approve another monitoring frequency. Justification for a different monitoring frequency will be provided in the unit-specific LUCIP, where appropriate. In addition, field inspections will be conducted at least annually to assess the conditions of all units subject to LUCs. These inspections are to be conducted to determine whether the current land use remains protective and consistent with all corrective measure/remedial action objectives outlined in the unit-specific decision documents (e.g., engineering controls remain in place, etc.). The mechanisms and methodology for the monitoring and field inspections will be established in the unit-specific LUCIPs.

3.8 Notifications

3.8.1 Major Land Use Changes

In the event that SROO anticipates any “major changes in land use” for the waste units subject to LUCs, the SROO shall determine whether the contemplated changes will or will not necessitate the need for re-evaluation of the selected response action or implementation of specific measures to ensure continued protection of human health and the environment. The SROO shall evaluate such changes that impact RODs pursuant to 40 CFR 300.430(f)(3)(ii) and 40 CFR 300.435(c)(2). The SROO will notify the USEPA and the SCDHEC in writing of such changes at least sixty (60) days prior to the initiation of such changes to obtain USEPA and SCDHEC positions on the proposed changes. Each notification shall include:

- a) an evaluation of whether the anticipated land use change will pose unacceptable risks to human health and the environment or negatively impact the effectiveness of the remedy;
- b) an evaluation of the need for any additional remedial action(s) resulting from the anticipated land use changes; and
- c) a proposal for any necessary changes to the selected remedial action and identification of documentation requirements (e.g., ROD amendments, ROD Explanation of Significant Differences, RCRA permit modification, etc.) for the proposed changes.

Upon notification by the SROO of an anticipated major land use change, the USEPA and the SCDHEC shall evaluate the information provided and shall issue comments within sixty (60) days so as to minimize any potential adverse impacts to the SRS activities or operations. Together with such comments, the USEPA and SCDHEC will each indicate their agreement or disagreement with USDOE’s determinations as to whether the anticipated change in use, considering any changes to the selected remedial action(s) and/or implementation of additional measures proposed by USDOE, will ensure continued protection of human health and the environment. In the event USDOE proceeds with a major land use change that USEPA and/or SCDHEC determine will render a selected remedial action no longer protective of human health and the environment, USEPA and/or

SCDHEC may take any action consistent with their respective authorities under applicable laws to ensure continued protection of human health and the environment.

The Parties agree that “major changes in land use” are defined as:

- a) a change in land use that is inconsistent with the exposure assumptions in the risk assessment that was the basis for the LUCs (either human health or ecological risk assessment). Examples include: the human health risk assessment assumed that a unit is in “caretaker” status with a worker visiting the waste unit once a week for 2 hours, and the proposed change would have the worker at the waste unit for 8 hours a day, 5 days a week; any change from industrial, commercial, or recreational land use to a more sensitive land use, such as housing, schools, hospitals, and/or daycare centers is a major land use change; any change from industrial or commercial land use to recreational land use; any change in a land use that has been prohibited in order to protect the environment;
- b) any action that may disrupt the effectiveness of the remedial action. For example, excavation at a landfill, groundwater pumping that may impact a groundwater pump and treat system, or a construction project that may result in unacceptable exposure to an ecological habitat protected by the remedy; and
- c) any other action that might alter or negate the need for the LUC. For example, any plan to actively remediate a waste unit subject to LUCs in order to allow for unrestricted land use.

In addition, the SROO will immediately notify the USEPA and the SCDHEC upon discovery of any activity inconsistent with any LUCIP. This notification will provide all pertinent information as to the nature and extent of the change and describe any measures implemented or to be implemented (to include a timetable for future completion) to reduce or prevent human health or ecological impacts.

3.8.2 Property Transfer

In the event that the SROO determines to enter into any contract for the sale or transfer of any of the SRS, the SROO will comply with the requirements of Section 120(h) of CERCLA, 42 United States Code § 9620(h), in effectuating that sale or transfer, including all notice requirements. In addition, the SROO will include notice of the FFA in any document transferring ownership or operation of the SRS to any subsequent owner and/or operator of any portion of the SRS and will notify USEPA and SCDHEC of any such sale or transfer at least ninety (90) days prior to such sale or transfer while the FFA is in effect. No property transfer of the SRS or any portion thereof or notice pursuant to Section 120(h) of CERCLA, 42 United States Code § 9620(h), will relieve the SROO of its obligation to perform remediation pursuant to the FFA. No property transfer of the SRS or any portion thereof will be consummated by the SROO without provision for continued maintenance of any containment system, treatment system, or other response action(s) installed or implemented pursuant to the FFA. In the event of any property transfer of the SROO or

any portion thereof, USDOE will consider the need for measures to ensure continued maintenance of any LUCs selected as part of a response action associated with the unit subject to transfer. The USDOE will include in the above-referenced notice of transfer a discussion of its conclusions regarding the need for any such measures and any specific measures to be employed attendant to the transfer.

3.9 Certification

The Manager, SROO, will annually certify that SRS is in compliance with all unit-specific LUCIP requirements in the FFA Annual Progress Report. The annual report will also serve to notify the USEPA and the SCDHEC of any change in the designated officials or of land use changes that are not considered major as described in Section 3.8.1 of this document.

3.10 Change in Applicable or Relevant and Appropriate Standards

Nothing included in this LUCAP should be construed to preclude SRS from proposing at any time or from the Parties otherwise agreeing to effect the deletion of any unit from coverage under the terms of this LUCAP on account of either:

- a) a post-remedy implementation change to applicable or relevant and appropriate Federal or State cleanup standards; or
- b) a change in previously documented contaminant concentration levels allowing for unrestricted use.

3.11 Future Communications

In accordance with FFA Section XXVIII, the FFA Project Managers shall receive all correspondence and communications on behalf of the Parties pertaining to all matters falling under the terms of this LUCAP.

3.12 Site Access

All Parties agree to use the procedures set forth in the FFA, Section XXX. Access/Data/Document Availability, regarding site access and data and document availability with regards to this LUCAP.

3.13 Reservation of Rights

It is agreed and understood that the USEPA and SCDHEC reserve all rights and authorities each agency may currently have or hereafter acquire by law to require SRS to comply with those Federal and State laws and regulations applicable to the investigation, cleanup, and near- and long-term maintenance of those waste units to be covered by this LUCAP. It is also understood that the SROO herein reserves those rights and authorities granted to the SROO by Federal or State law, regulation, or executive order. The SROO further reserves the right to put all property under its domain to those uses deemed necessary for mission accomplishment or otherwise deemed necessary by appropriate authority to meet the needs of the SROO.

3.14 Anti-Deficiency Act

No provision in this document shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act (31 United States Code §1341).

3.15 Amendments

Any minor modifications to the LUCAP Memorandum of Agreement (MOA) and/or this LUCAP incorporated herein shall be made effective upon written approval of the Parties' FFA Project Managers. Any major modification shall be made effective upon the written approval by each of the signatories to the MOA (or their successors). A modification will be considered major if so determined by any of the three Parties hereto.

3.16 Effective Date

The LUCAP shall become effective on the date that the last of the authorized representatives of the Parties signs the MOA incorporating this LUCAP. The LUCAP requirements shall then apply to LUCs in any corrective measure/remedial action for which the decision document was approved on or after April 21, 1998.

4.0 REFERENCES

Federal Facility Agreement (FFA), 1993. *Federal Facility Agreement for the Savannah River Site*, Administrative Docket Number 89-05-FF, Effective Date: August 16, 1993, WSRC-OS-94-42.

Johnston, J. D. (EPA-Region 4), 1998. *EPA Region IV Policy, Assuring Land Use Controls at Federal Facilities*, Letter to T. Heenan (DOE-SR) (April 21).

WSRC, 1998. *Management Action Plan*, WSRC-MS-95-0054, Revision 5.0, Westinghouse Savannah River Company, Aiken, SC (May).

5.0 APPENDICES

Appendix A - Definitions

Appendix B - Operable Unit-Specific Land Use Control Implementation Plans

Appendix C - Maps and Tables of Waste Units Within Each Watershed

Appendix D - Sample Land Use Control Language for Inclusion in Decision Documents

Appendix E - Memorandum of Understanding

Appendix F - Modification Record

Appendix G - Annual Land Use Certification Required Under Section 3.9

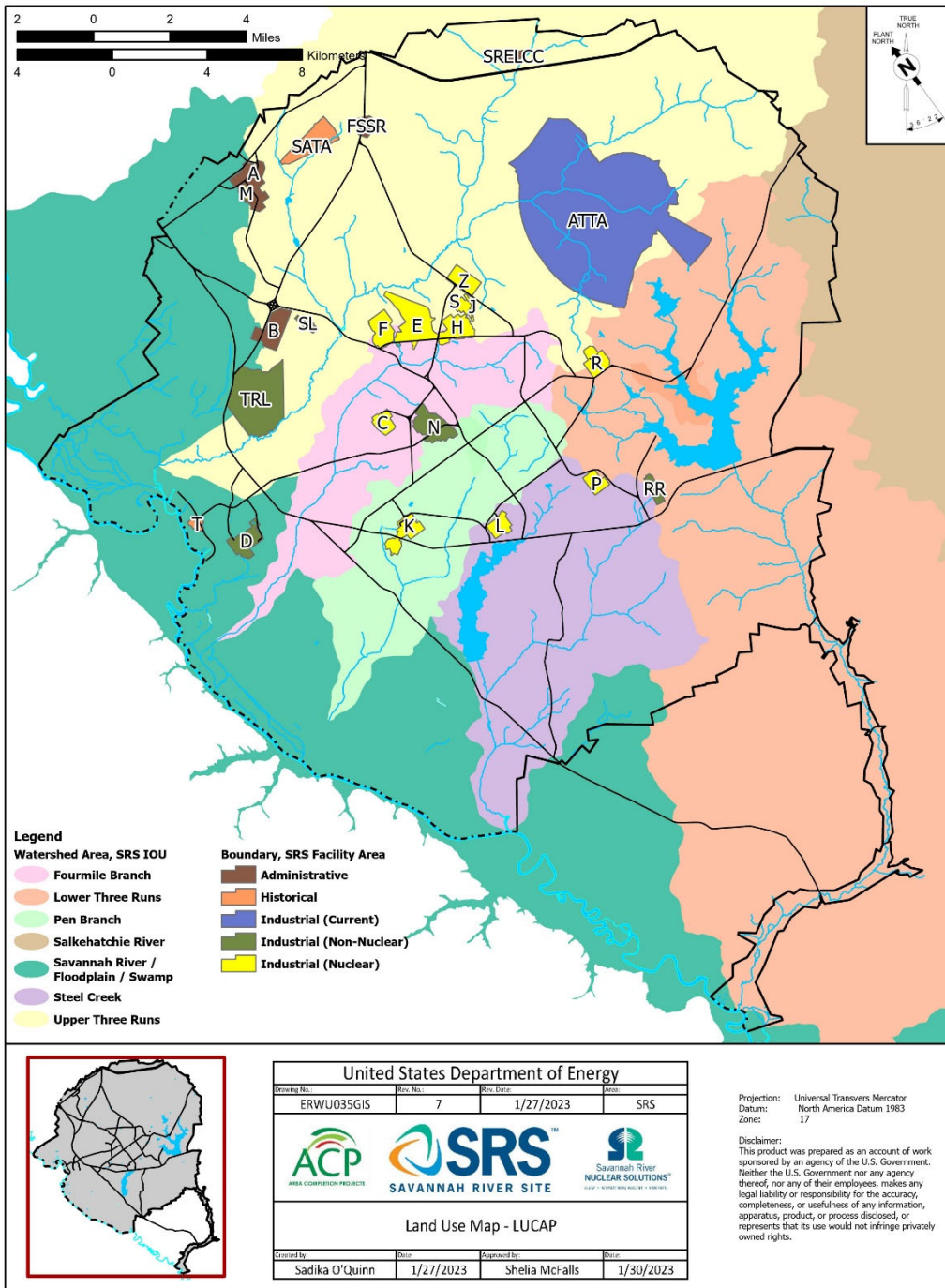


Figure 1. SRS Land Use Map

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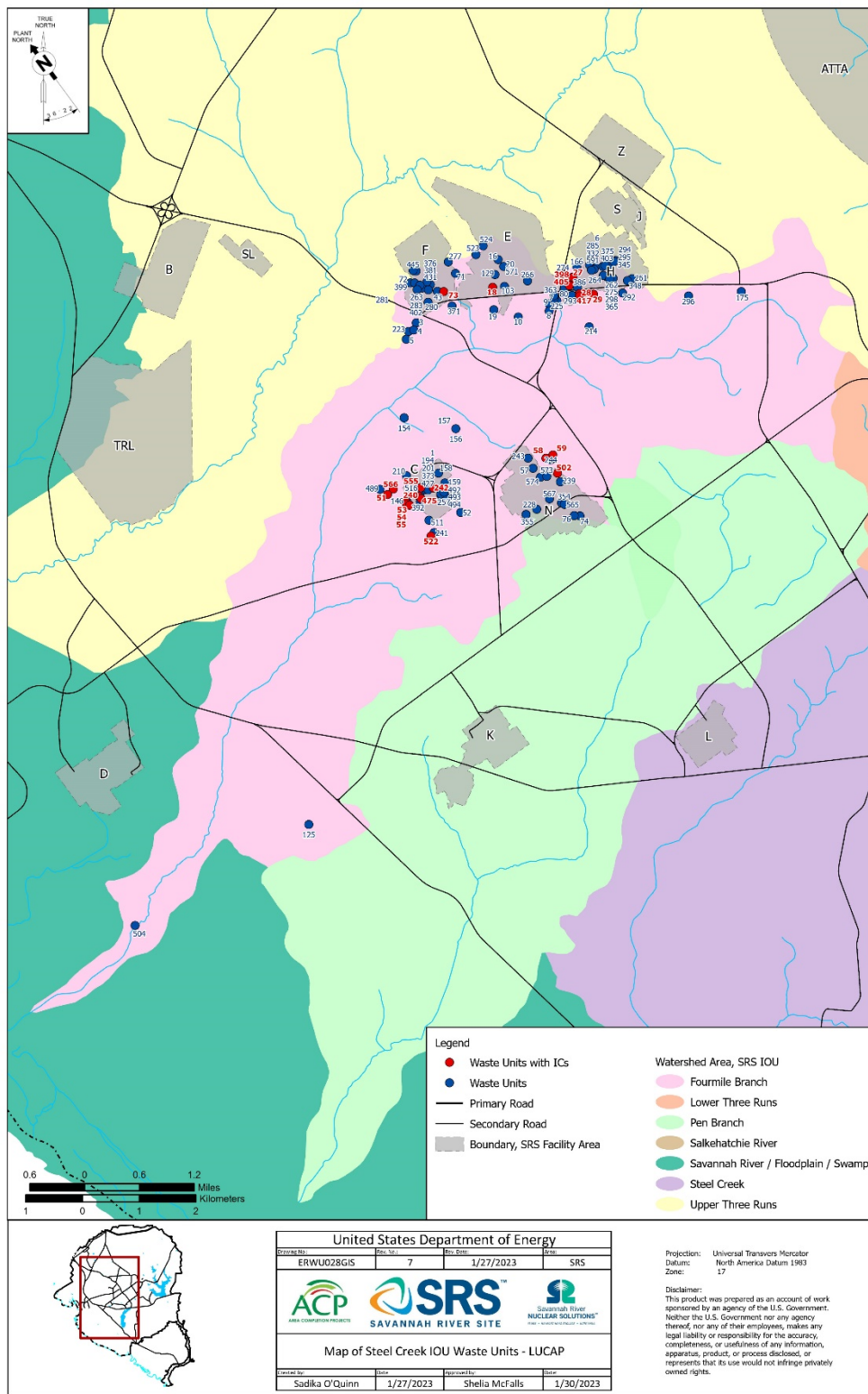


Figure 2. Fourmile Branch Watershed Operable Units that have Land Use Controls/Institutional Controls as a Component of the Selected Remedy

Table 1. Fourmile Branch Watershed Operable Units That Have Land Use Controls / Institutional Controls As A Component of the Selected Remedy

| Unit No. | Unit Name |
|---|--|
| 18 29 28 417 27 405 398 | General Separations Area Consolidation Unit (consists of Old Radioactive Waste Burial Ground [Including Solvent Tanks], 643-E, HP-52 Ponds, H-Area Retention Basin, 281-3H, Spill on 05/01/1956 of Unknown of Retention Basin Pipe Leak, NBN, Warner's Pond, 685-23G, Spill on 03/08/1978 of Unknown Seepage Basin Pipe Leak in H-Area Seepage Basin, NBN, and Spill on 02/08/1978 of Unknown of H-Area Process Sewer Line Cave-in, NBN) |
| 51 | C-Area Burning/Rubble Pit Operable Unit, 131-C |
| 566 | Old C-Area Burning/Rubble Pit, NBN |
| 240 242 475 522 555 | C-Area Operable Unit Early Action (consists of Potential Release from C-Area Disassembly Basin, Potential Release from C-Area Reactor Cooling Water System, C-Area Cask Car Railroad Tracks as Abandoned, Early Construction and Operational Disposal Site [ECODS] C-1, C-Area Process Sewer Lines as Abandoned) |
| 53 | C-Area Reactor Seepage Basin, 904-66G |
| 54 | C-Area Reactor Seepage Basin, 904-67G |
| 55 | C-Area Reactor Seepage Basin, 904-68G |
| 577 | C-Reactor Complex Early Action |
| 58 | Central Shops Burning/Rubble Pit, 631-1G |
| 59 | Central Shops Burning/Rubble Pit, 631-3G |
| 73 | F-Area Retention Basin, 281-3F |
| 502 | Heavy Equipment Wash Basin, NBN |

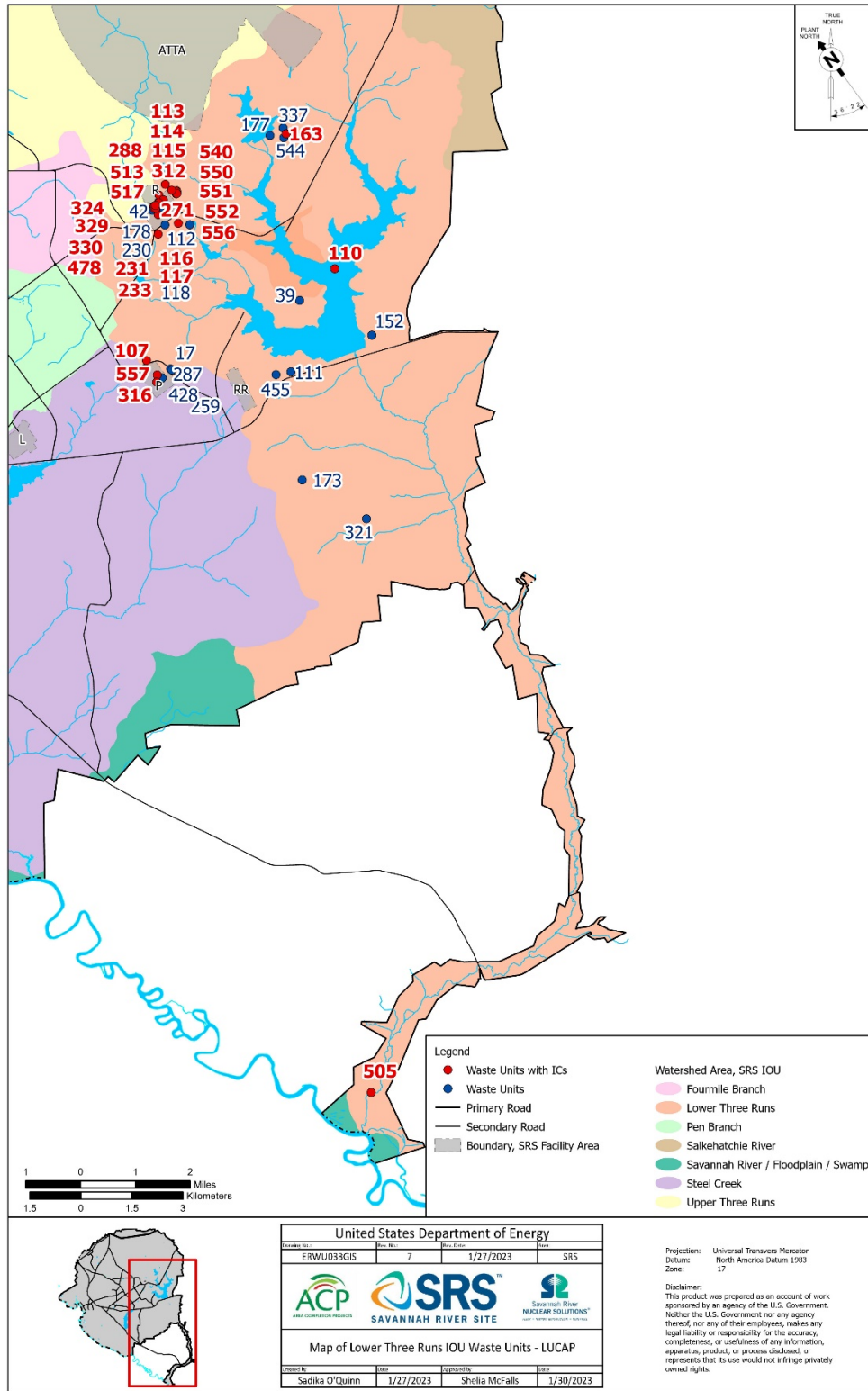


Figure 3. Lower Three Runs Watershed Operable Units that have Land Use Controls/Institutional Controls as a Component of the Selected Remedy

Table 2. Lower Three Runs Watershed Operable Units That Have Land Use Controls / Institutional Controls As A Component of the Selected Remedy

| Unit No. | Unit Name |
|---|--|
| 540 | ECODS R-1A, -1B, -1C |
| 163 337 544 | Gunsite 012 Operable Unit (consists of Gunsite 012 Rubble Pile, NBN, Rubble Pile Across from Gunsite 012, NBN, and ECODS G-3 [Adjacent to Gunsite 012], NBN) ¹ |
| 505 | Lower Three Runs Integrator Operable Unit (IOU) Tail Portion (Middle and Lower Subunits) |
| 505 110 312 | Lower Three Runs IOU (Upper Subunit) (consists of PAR Pond [Including the Pre-Cooler Ponds and Canals], 685-G and Old R-Area Discharge Canal, NBN) |
| 107 | P-Area Bingham Pump Outage Pit, 643-4G |
| 113 | R-Area Bingham Pump Outage Pits, 643-10G |
| 114 | R-Area Bingham Pump Outage Pits, 643-8G |
| 115 | R-Area Bingham Pump Outage Pits, 643-9G |
| 116 | R-Area Burning/Rubble Pit, 131-1R |
| 117 | R-Area Burning/Rubble Pit, 131-R |
| 550 | R-Area Unknown Pit #1 (RUNK-1), NBN |
| 551 | R- Area Unknown Pit #2 (RUNK-2), NBN |
| 552 | R- Area Unknown Pit #3 (RUNK-3), NBN |
| 231 233 271 288 324 329 330 478 513 517 556 | R Area Operable Unit (consists of Area on the North Side of Building 105-R, Laydown Area North of 105-R, and Release from the Decontamination of R-Area Reactor Disassembly Basin, NBN, Combined Spills North of Building 105-R, NBN, Cooling Water Effluent Sump, 107-R, Potential Release from R-Area Disassembly Basin, NBN, Potential Release of NaOH/H ₂ SO ₄ from 183-2R, NBN, R-Area Ash Basin, 188-0R, R-Area Groundwater, R-Area Process Sewer Lines as Abandoned, NBN, R-Area Reactor Area Cask Car Railroad Tracks as Abandoned, NBN) |

¹ A remedy of No Action was selected for Rubble Pile Across from Gunsite 012 and ECODS G-3 (Adjacent to Gunsite 012).

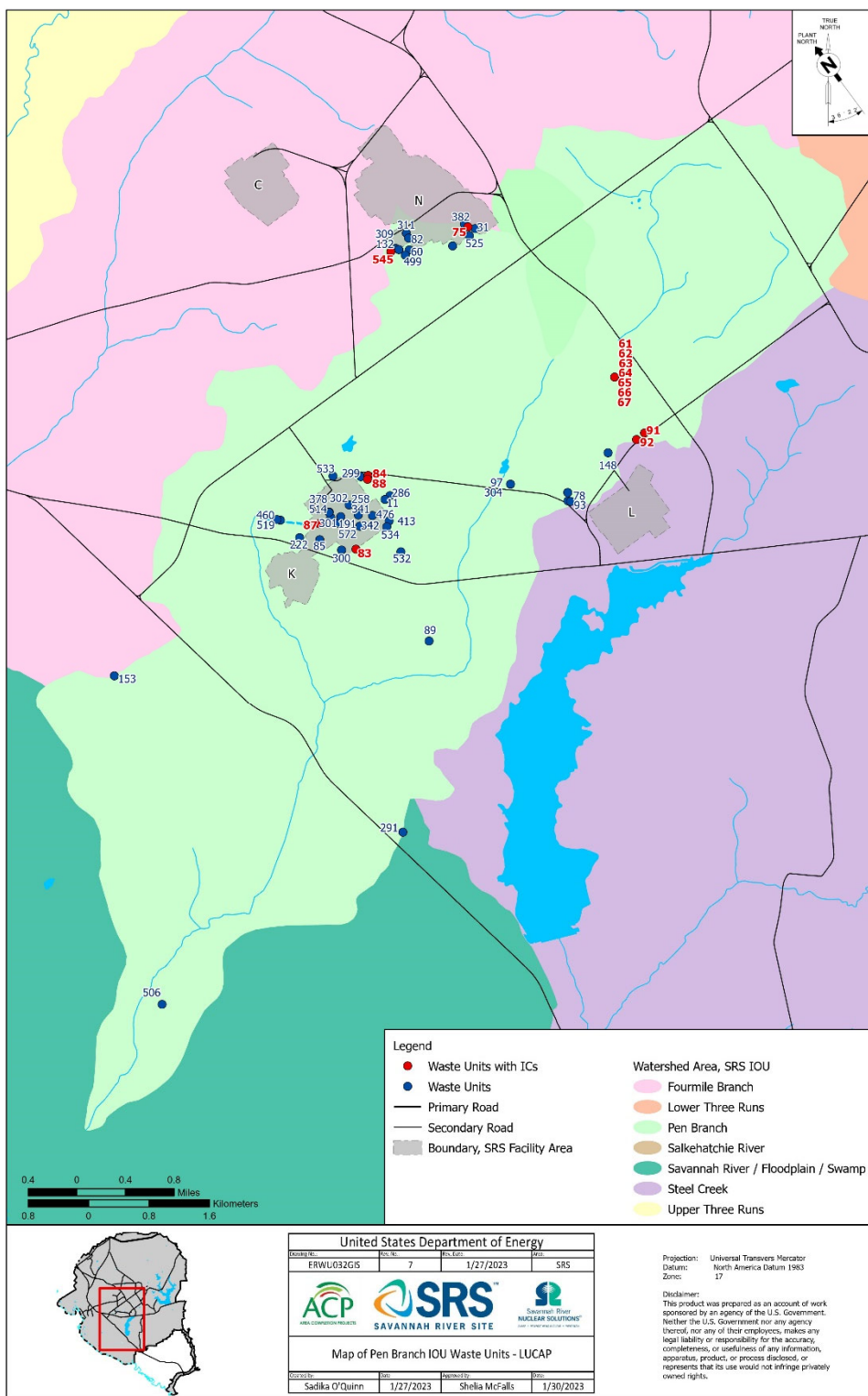


Figure 4. Pen Branch Watershed Operable Units that have Land Use Controls/Institutional Controls as a Component of the Selected Remedy

Table 3. Pen Branch Watershed Operable Units That Have Land Use Controls / Institutional Controls As A Component of the Selected Remedy

| Unit No. | Unit Name |
|-----------------|---|
| 545 | ECODS N-2 |
| 75 | Ford Building Seepage Basin, 904-91G |
| 83 | K-Area Bingham Pump Outage Pit, 643-1G |
| 84 | K-Area Burning/Rubble Pit, 131-K |
| 87 | K-Area Reactor Seepage Basin, 904-65G |
| 88 | K-Area Rubble Pile, 631-20G |
| 583 | K-Reactor Complex Early Action |
| 91 | L-Area Bingham Pump Outage Pit, 643-2G |
| 92 | L-Area Bingham Pump Outage Pit, 643-3G |
| 61 | Chemical, Metals, and Pesticides (CMP) Pits, 080-170G |
| 62 | CMP Pits, 080-171G |
| 63 | CMP Pits, 080-180G |
| 64 | CMP Pits, 080-181G |
| 65 | CMP Pits, 080-182G |
| 66 | CMP Pits, 080-183G |
| 67 | CMP Pits, 080-190G |

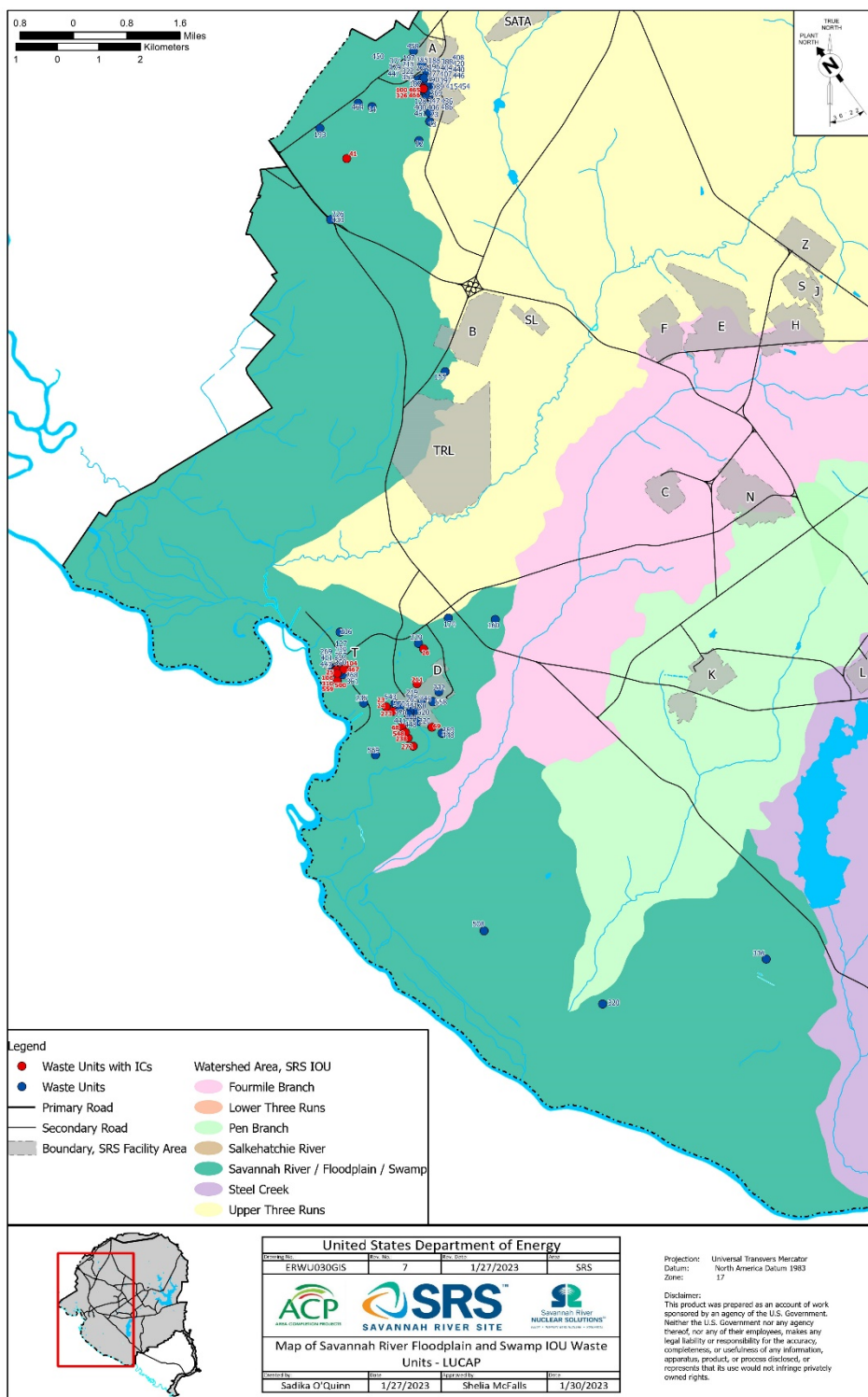


Figure 5. Savannah River and Floodplain Swamp Watershed Operable Units that have Land Use Controls/Institutional Controls as a Component of the Selected Remedy

Table 4. Savannah River and Floodplain Swamp Watershed Operable Units That Have Land Use Controls / Institutional Controls As A Component of the Selected Remedy

| Unit No. | Unit Name |
|--------------------------------------|---|
| 25 106 104 139 127 | TNX Area Operable Unit (consists of TNX Groundwater , 082-G, Old TNX Seepage Basin, 904-076G, New TNX Seepage Basin, 904-102G, and TNX Burying Ground, 643-5G [Including Spill on 01/12/53 of ½ ton of Uranyl Nitrate, NBN]) |
| 26 | D-Area Oil Seepage Basin, 631-G |
| 32 | D-Area Burning/Rubble Pit, 431-1D |
| 33 | D-Area Burning/Rubble Pit, 431-D |
| 41 | Silverton Road Waste Site, 731-3A |
| 68 273 | D-Area Expanded Operable Unit (consists of D-Area Rubble Pit, 431-2D & D-Area Ash Basin, 488-D) |
| 69 70 211 265 558 570 | D Area Operable Unit Early Action (consists of Combined Spills from 483-D and Associated Areas, NBN, D-Area Asbestos Pit, 080-20G, D-Area Coal Pile Runoff Basin, 489-D, D-Area Process Sewer Lines as Abandoned, NBN, D-Area Waste Oil Facility, 484-10D ² , D-006 Petroleum Release Site, NBN) |
| 238 272 548 | D-Area Operable Unit Second Early Action (consists of the 488-1D Ash Basin [including Inlet Basins], 488-2D Ash Basin, 488-4D Ash Landfill, and 489-D Coal Pile Runoff Basin [Southern 75%]) ³ |
| 100 | M-Area Inactive Process Sewer Lines Operable Unit, 081-M (consists of 313-M and 320-M Inactive Clay Process Sewers to Tims Branch, NBN) ⁴ |
| 310 467 500 559 | T Area Operable Unit (consists of Neutralization Sump, 678-T; X-001 Outfall Drainage Ditch, NBN; TNX Outfall Delta, Lower Discharge Gully, and Swamp, NBN; & TNX-Area Process Sewer Lines and Tile Fields as Abandoned, NBN) |

² This refers to the environmental media associated the 484-10D Facility.

³ No remedial action is needed for the 489-D Coal Pile Runoff Basin (Southern 75%) or the Inlet Basins portion of 488-1D Ash Basin.

⁴ The M-Area Inactive Process Sewer Lines Operable Unit is divided between Savannah River and Floodplain Swamp Watershed and Upper Three Runs Watershed.

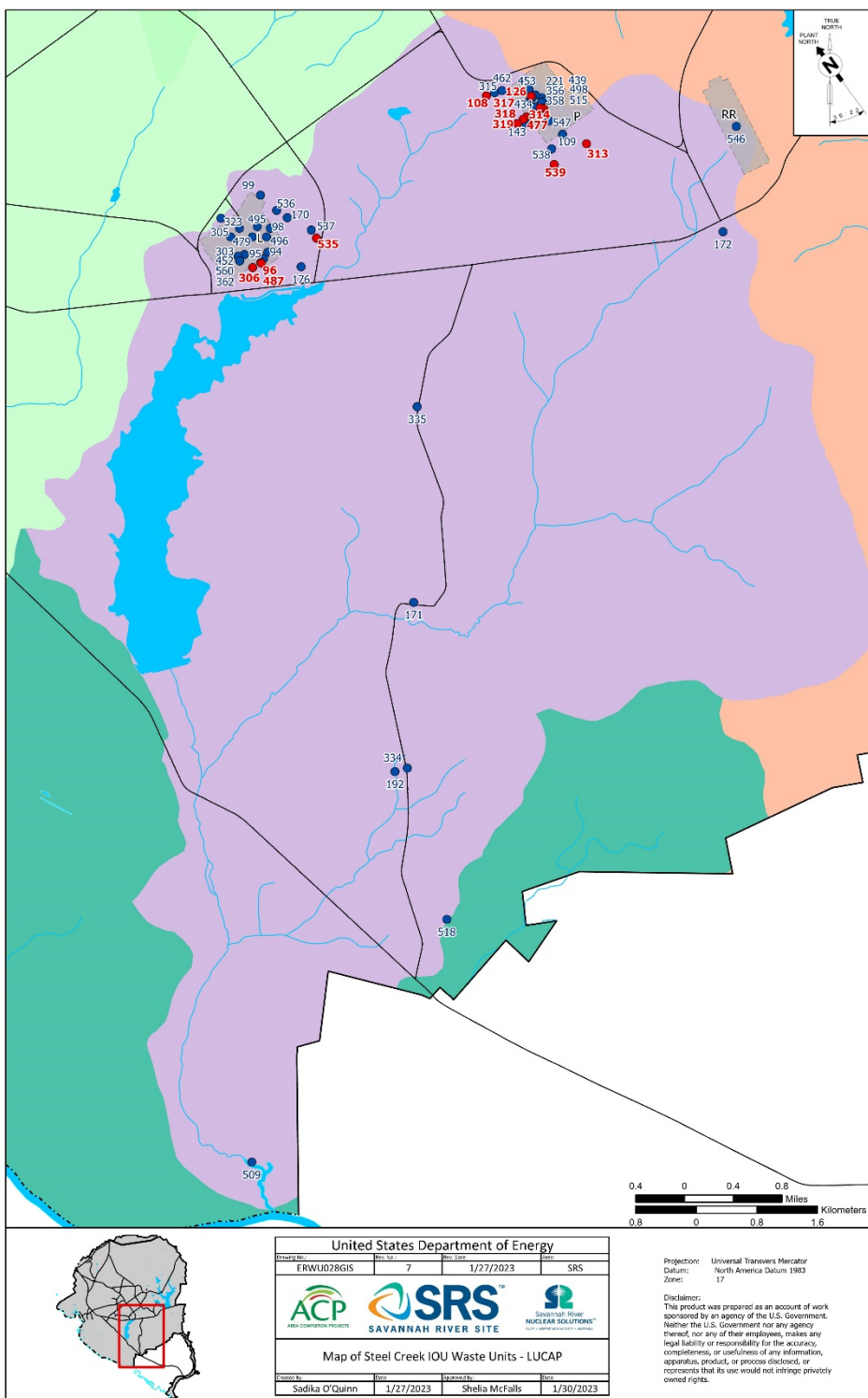


Figure 6 Steel Creek Watershed Operable Units that have Land Use Controls/Institutional Controls as a Component of the Selected Remedy

Table 5. Steel Creek Watershed Operable Units That Have Land Use Controls / Institutional Controls As A Component of the Selected Remedy

| Unit No. | Unit Name |
|--|--|
| 96 | L-Area Oil/Chemical Basin, 904-83G |
| 584 | L-Reactor Complex Early Action |
| 108 | P-Area Burning/Rubble Pit, 131-P |
| 306 | L-Area Reactor Seepage Basin, 904-064G |
| 126 313 314 316 477 557 | P Area Operable Unit (consists of P-Area Ash Basin [Including Outfall P-007], 188-P; P-Area Process Sewer Lines as Abandoned, NBN and Spill on 03/15/79 of 5500 Gallons of Contaminated Water, NBN; P-Area Reactor Area Cask Car Railroad Tracks as Abandoned, NBN; Potential Release from P-Area Disassembly Basin, NBN; Potential Release from P-Area Reactor Cooling Water System, 186/190-P) |
| 317 | P-Area Reactor Seepage Basin, 904-61G |
| 318 | P-Area Reactor Seepage Basin, 904-62G |
| 319 | P-Area Reactor Seepage Basin, 904-63G |
| 535 | ECODS L-1 |
| 539 | ECODS P-2 |
| 487 | L-Area Southern Groundwater |
| 509 ⁵ | Wetland Area at Dunbarton Bay |

⁵ This unit number is associated with Steel Creek IOU, which includes the Wetland Area at Dunbarton Bay (WADB). Portions of the WADB have been remediated; Steel Creek IOU has not.

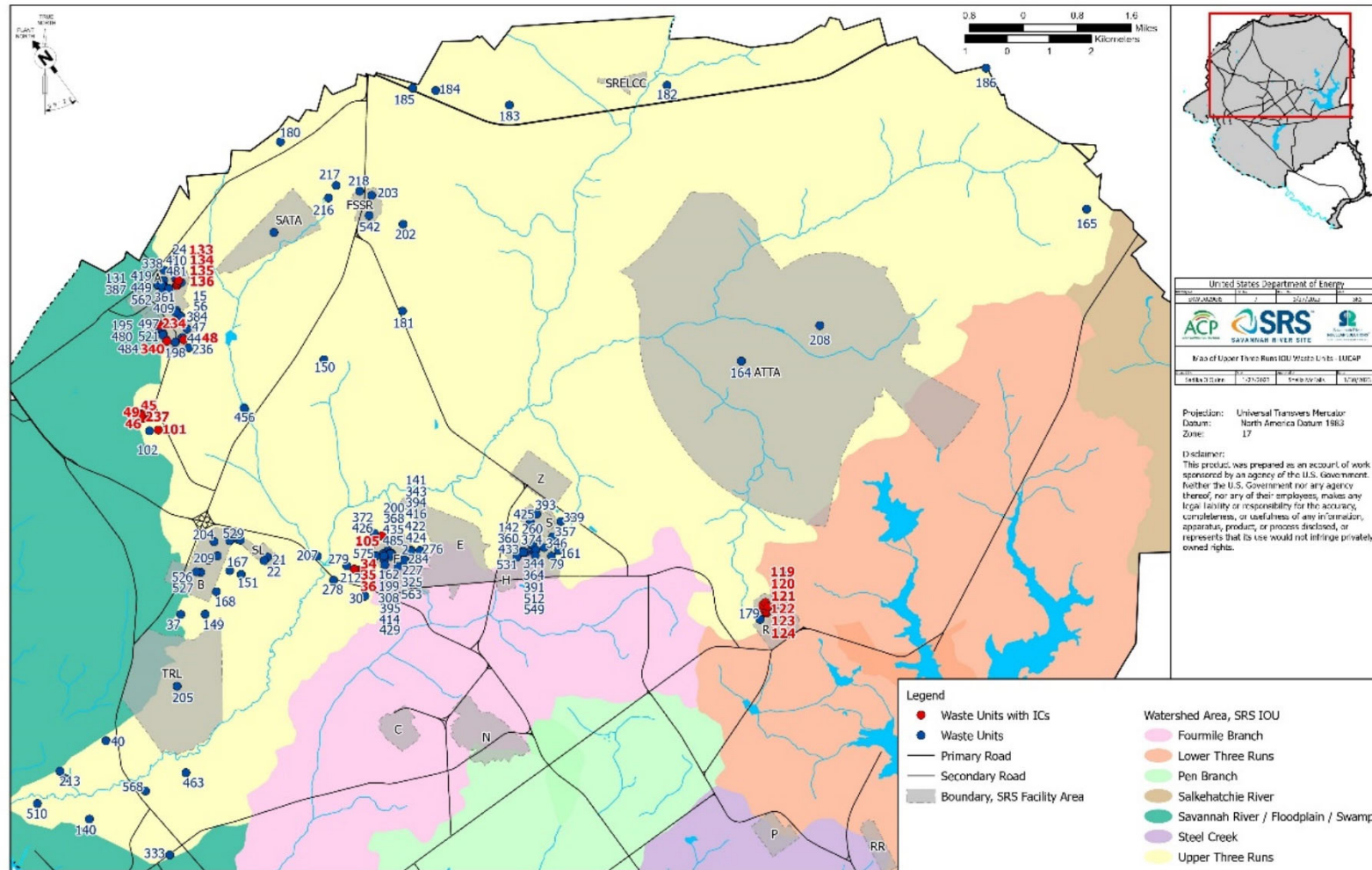


Figure 7 Upper Three Runs Watershed Operable Units that have Land Use Controls/Institutional Controls as a Component of the Selected Remedy

Table 6. Upper Three Runs Watershed Operable Units That Have Land Use Controls / Institutional Controls As A Component of the Selected Remedy

| Unit No. | Unit Name |
|---------------------------------------|--|
| 237 | A-Area Ash Pile, 788-2A |
| 45 | A-Area Burning/Rubble Pit, 731-1A |
| 46 | A-Area Burning/Rubble Pit, 731-A |
| 48 | A-Area Miscellaneous Rubble Pile, 731-6A |
| 49 | A-Area Rubble Pit, 731-2A |
| 593 528 530 | B Area Operable Unit (consists of 770-U Test Reactor Building [HWCTR], ECODS B-3 [East of B Area, South of Road C], and ECODS B-5 [Adjacent to ECODS B-3]) |
| 34 | F-Area Burning/Rubble Pits, 231-1F |
| 35 | F-Area Burning/Rubble Pits, 231-2F |
| 36 | F-Area Burning/Rubble Pits, 231-F |
| 234 | M-Area Inactive Process Sewer Lines Operable Unit, 081-M (consists of 313-M and 320-M Inactive Clay Process Sewers to Tims Branch, NBN) ⁶ |
| 465 466 340 326 ⁷ | M Area Operable Unit (consists of Underground Sump 321 M #001, Underground Sump 321 M #002, Salvage Yard, 741-A, and Potential Release of TCT, TET TCE, HNO ₃ , U, Heavy Metals from 321-M Abandoned Sewer Line, NBN) |
| 101 | Miscellaneous Chemical Basin, 731-4A |
| 105 | Old F-Area Seepage Basin, 904-49G |
| 119 | R-Area Reactor Seepage Basin, 904-103G |
| 120 | R-Area Reactor Seepage Basin, 904-104G |
| 121 | R-Area Reactor Seepage Basin, 904-57G |
| 122 | R-Area Reactor Seepage Basin, 904-58G |
| 123 | R-Area Reactor Seepage Basin, 904-59G |
| 124 | R-Area Reactor Seepage Basin, 904-60G |
| 133 | SRL Seepage Basin, 904-51G1 |
| 134 | SRL Seepage Basin, 904-53G2 |
| 135 | SRL Seepage Basin, 904-54G |
| 136 | SRL Seepage Basin, 904-55G |

⁶ The M-Area Inactive Process Sewer Lines Operable Unit is divided between Savannah River and Floodplain Swamp Watershed and Upper Three Runs Watershed.

⁷ Unit Number 326 is a subunit of M-Area Operable Unit; however, it is located in the Savannah River and Floodplain Swamp Watershed and is shown on Figure 5 and included in Table C-4.

APPENDIX A

DEFINITIONS

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CERCLA, as defined in the National Oil and Hazardous Pollution Contingency Plan, is the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986.

Decision Document, as defined in the EPA Region 4 Policy, refers to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Records of Decision, Resource Conservation and Recovery Act (RCRA) Statement of Basis/Notices of Decision, and RCRA Permit Modifications.

Facility, as defined in the EPA Region 4 Policy, refers to a military base or other entire federal installation.

Land Use Control (LUC), as defined in the EPA Region 4 Policy and in regard to real property on federal facilities, means any restriction or control that limits the use of and/or exposure to any portion of that property, including water resources, arising from the need to protect human health and the environment. The term encompasses “institutional controls”, such as those involved in real estate interests, governmental permitting, zoning, public advisories, deed notices, and other “legal” restrictions. The term may also include restrictions on access, whether achieved by means of engineered barriers (e.g., fence or concrete pad) or by human means (e.g., the presence of security guards). Additionally, the term may involve both affirmative measures to achieve the desired restrictions (e.g., night lighting of an area) and prohibitive directives (e.g., no drilling of drinking water wells). Considered altogether, the LUCs for a facility will provide a tool for how its property should be used in order to maintain the level of protectiveness that one or more remedial/corrective actions were designed to achieve.

Land Use Control Assurance Plan (LUCAP), as defined in the EPA Region 4 Policy, is a written facility-wide plan that sets out the procedure to assure LUCs remain effective over the long-term for all areas at the particular facility where they are required.

Land Use Control Implementation Plan (LUCIP), as defined in the EPA Region 4 Policy, is a written plan, normally developed after a decision document has required one or more LUCs for some particular area (e.g., operable unit, contaminated unit, and/or solid waste management unit), that

- (1) identifies each LUC objective for that area (e.g., to restrict public access to the area for recreational use) and
- (2) specifies those actions required to achieve each identified objective (e.g., install/maintain a fence, post warning signs, record notice in deed records).

LUCIPs specify what must be done to impose and maintain the required LUCs, and are therefore analogous to design and/or operation and maintenance plans developed for active remedies.

Monitoring, as defined in the EPA Region 4 Policy, is used to indicate a variety of investigative activities, ranging from “drive-by” visual observations to detailed scientific sampling and testing. The nature of the particular LUCs being implemented will determine the type(s) and extent of any “monitoring” activities provided at an operable unit.

Proposed Plan(s), as defined in the FFA, mean the report(s) describing the corrective/remedial action(s) recommended for a waste unit, Section 117(a) of CERCLA, 42 USC § 9617.

RCRA is the Resource Conservation and Recovery Act, 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 units.

Record(s) of Decision (RODs), as defined in the FFA, mean the document(s) issued as the final corrective/remedial action plan for a waste unit, Section 117(b) of CERCLA, 42 USC § 9617

Statement(s) of Basis, as defined in the FFA, mean the report(s) describing the corrective measure(s)/remedial action(s) being conducted pursuant to South Carolina Hazardous Waste Management Regulations, as amended.

Waste Unit refers to a particular area (such as an “operable unit”) that makes up only a portion of the facility.

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APPENDIX B

OPERABLE UNIT-SPECIFIC LAND USE CONTROL IMPLEMENTATION PLANS

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Table B- 1 Unit-Specific LUCIPs

| Unit Name | Document Title | Approval Date¹ | Tab Number² | Watershed Figure³ |
|---|--|----------------------------------|-------------------------------|-------------------------------------|
| A-Area Burning/Rubble Pits, 731-A and -1A and A-Area Rubble Pit, 731-2A ^h | Appendix A of <i>Post-Construction Report for the A-Area Burning/Rubble Pits, 731-A and -1A and A-Area Rubble Pit, 731-2A</i> (WSRC-RP-2003-4019, Revision 1, July 2003) | 09/12/2003 | 1 | 7 |
| A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) and the Miscellaneous Chemical Basin/Metals Burning Pit (731-4A and -5A) Operable Unit ⁱ | <i>Land Use Control Implementation Plan for the A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) & the Miscellaneous Chemical Basin/Metals Burning Pit (731-4A & -5A) Operable Unit</i> (WSRC-RP-2006-4073, Revision 1, September 2007) | 2/7/2008 | 37 | 7 |
| A-Area Miscellaneous Rubble Pile, 731-6A | Appendix A of <i>Corrective Measures Implementation/ Remedial Action Implementation Plan for A-Area Miscellaneous Rubble Pile, 731-6A</i> (WSRC-RP-2002-4067, Revision 1, July 2003) | 08/07/2003 | 2 | 7 |
| B Area Operable Unit (consists of 770-U Test Reactor Building (HWCTR), ECODS B-3 (East of B Area, South of Road C), and ECODS B-5 (Adjacent to ECODS B-3)) | <i>Land Use Control Implementation Plan for B Area Operable Unit (U)</i> (SRNS-RP-2013-00113, Revision 1, January 2014) | 01/13/2014 | 45 | 7 |
| C-, K-, and L-Reactor Complexes Early Action | <i>Land Use Control Implementation Plan for the C-, K-, and L-Reactor Complexes Early Action</i> (SRNS-RP-2009-01470, Revision 1, May 2010) | 7/1/2010 | 38 | 2 (C) 4 (K) 6 (L) |
| C-Area Burning/Rubble Pit Operable Unit (131-C) and Old C-Area Burning/Rubble Pit (NBN) | <i>Land Use Control Implementation Plan for the C-Burning/Rubble Pit Operable Unit (131-C) and Old C-Area Burning/Rubble Pit (NBN)</i> | 06/11/2009 | 35 | 2 |

^h This LUCIP provides the signage for the A-Area Burning/Rubble Pits, 731-A and -1A and A-Area Rubble Pit, 731-2A; however, this LUCIP was superseded by the LUCIP for the A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) and the Miscellaneous Chemical Basin/Metals Burning Pit (731-4A and -5A) Operable Unit (WSRC-RP-2006-4073, Revision 1, September 2007).

ⁱ This OU includes the A-Area Ash Pile (788-2A).

| Unit Name | Document Title | Approval Date ¹ | Tab Number ² | Watershed Figure ³ |
|---|--|----------------------------|-------------------------|-------------------------------|
| | (WSRC-RP-2008-4050, Revision 1.1, April 2009) | | | |
| C-Area Operable Unit Early Action (consists of Potential Release from C-Area Disassembly Basin, Potential Release from C-Area Reactor Cooling Water System, C-Area Cask Car Railroad Tracks as Abandoned, ECODS C-1, C-Area Process Sewer Lines as Abandoned) | <i>Early Action Land Use Control Implementation Plan for the C-Area Operable Unit (U)</i> (SRNS-RP-2015-00034, Revision 1, September 2015) | 9/30/2015 | 47 | 2 |
| C-Area Reactor Seepage Basins, 904-66G, -67G, and -68G | Appendix A of <i>Post-Construction Report/Final Remediation Report for C-Area Reactor Seepage Basins, 904-66G, -67G, and 68G</i> (WSRC-RP-2002-4219, Revision 1, January 2003) | 03/19/2003 | 3 | 2 |
| Central Shops Burning/Rubble Pits, 631-1G and 631-3G | Appendix A of <i>Corrective Measures Implementation/ Remedial Action Implementation Plan for Central Shops Burning/Rubble Pits, 631-1G and 631-3G</i> (WSRC-RP-2003-4018, Revision 1, August 2003) | 09/12/2003 | 4 | 2 |
| CMP Pits, 80-170G, -171G, -180G, -181G, -182G, -183G, and -190G | <i>Land Use Control Implementation Plan for the Chemical, Metals, and Pesticides Pits Operable Unit, 080-170G, 080-180G, 080-181G, 080-182G, 080-183G, and 080-190G</i> (WSRC-RP-2005-4078, Revision 1.2, July 2007) | 08/09/2007 | 29 | 4 |
| D-Area Burning/Rubble Pits, 431-D and -1D | Section 2.0 of <i>Final Remediation Report for the D-Area Burning/Rubble Pits (431-D and 431-ID)</i> (WSRC-RP-97-406, Revision 1.1, March 1998) | 04/22/1998 | 31 | 5 |
| D-Area Expanded Operable Unit (consists of D-Area Ash Basin, 488-D and D-Area Rubble Pit, 431-2D) | <i>Land Use Control Implementation Plan for the D-Area Expanded Operable Unit</i> (WSRC-RP-2004-4065, Revision 1, June 2005) | 08/03/2005 | 27 | 5 |

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| Unit Name | Document Title | Approval Date ¹ | Tab Number ² | Watershed Figure ³ |
|---|---|----------------------------|-------------------------|---|
| D-Area Oil Seepage Basin, 631-G | Appendix B of <i>Corrective Measures Implementation/ Remedial Design/Remedial Design Report/Remedial Action Workplan for the D-Area Oil Seepage Basin, 631-G</i> (WSRC-RP-99-4006, Revision 1, August 1999) | 08/16/1999 | 5 | 5 |
| D Area Operable Unit Early Action (consists of Spills from 483-D and Associated Areas (NBN), D-Area Asbestos Pit, 080-20G, D-Area Coal Pile Runoff Basin, 489-D, D-Area Process Sewer Lines as Abandoned, NBN, D-Area Waste Oil Facility, 484-10D, D-006 Petroleum Release Site, NBN) | <i>Early Action Land Use Control Implementation Plan for the D Area Operable Unit</i> (SRNS-RP-2011-01166, Revision 0 (corrected), July 2011) | 08/25/2011 | 41 | 5 |
| D-Area Operable Unit Second Early Action (consists of the 488-1D Ash Basin [including Inlet Basins], 488-2D Ash Basin, 488-4D Ash Landfill, and 489-D Coal Pile Runoff Basin [Southern 75%]) ^j | <i>Second Early Action Land Use Control Implementation Plan for the D-Area Operable Unit (U)</i> (SRNS-RP-2020-00759, Revision 0, November 2020) | 02/26/2021 | 49 | 5 |
| Early Construction and Operational Disposal Site (ECODS) L-1, N-2, P-2, and R-1A, -1B, -1C | <i>Land Use Control Implementation Plan for the Early Construction and Operational Disposal Site (ECODS) L-1, N-2, P-2, & R-1A, -1B, -1C</i> (SRNS-RP-2009-01373, Revision 1, April 2010) | 6/9/2010 | 39 | 3 (R-1A, -1B, -1C) 4 (N-2) 6 (L-1, P-2) |
| F-Area Burning/Rubble Pits, 231-F, -1F, and -2F | Section 2.0 of <i>Final Remediation Report for the F-Area Burning/Rubble Pits (231-F, 231-1F, and 231-2F)</i> (WSRC-RP-97-193 Revision 1.1, March 1998) | 04/23/1998 | 33 | 7 |
| F-Area Industrial Solid Waste Landfill | <i>Land Use Control Implementation Plan for the F-Area Industrial Solid Waste</i> | 06/01/2000 | 44 | NA |

^j No remedial action is needed for the 489-D Coal Pile Runoff Basin (Southern 75%) or the Inlet Basins portion of the 488-1D Ash Basin.

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| Unit Name | Document Title | Approval Date¹ | Tab Number² | Watershed Figure³ |
|--|--|----------------------------------|-------------------------------|-------------------------------------|
| | <i>Landfill</i> (WSRC-RP-2000-4086, Revision 0, June 2000) | | | |
| F-Area Retention Basin, 281-3F | Appendix A of <i>Corrective Measures Implementation/Post-Construction Report/Final Remediation Report for the F-Area Retention Basin, 281-3F</i> (WSRC-RP-2001-4049, Revision 1, September 2001) | 10/15/2001 | 6 | 2 |
| Ford Building Seepage Basin, 904-91G | Appendix A of <i>Post-Construction Report/Corrective Measures Implementation Report/Final Remediation Report for the Ford Building Seepage Basin, 904-91G</i> (WSRC-RP-2003-4038, Revision 1, October 2003) | 09/17/2003 | 7 | 4 |
| General Separations Area (consists of Old Radioactive Waste Burial Ground (Including Solvent Tanks 650-01E to 22E), 643-E, HP-52 Ponds, H-Area Retention Basin, 281-3H, Spill on 05/01/1956 of Unknown of Retention Basin Pipe Leak, NBN, Warner's Pond, 685-23G, Spill on 03/08/1978 of Unknown Seepage Basin Pipe Leak in H-Area Seepage Basin, NBN, and Spill on 02/08/1978 of Unknown of H-Area Process Sewer Line Cave-in, NBN) | Appendix A of <i>Corrective Measures Implementation/ Remedial Action Implementation Plan (CMI/RAIP) for the General Separations Area Consolidation Unit</i> (WSRC-RP-2003-4053, Revision 1.1, November 2003) | 12/12/2003 | 8 | 2 |
| Gunsite 012 Operable Unit (consists of Gunsite 012 Rubble Pile, NBN, Rubble Pile Across from Gunsite 012, NBN, and ECODS G-3 [Adjacent to Gunsite 012], NBN) ^k | <i>Land Use Control Implementation Plan for the Gunsite 012 Operable Unit</i> (SRNS-RP-2011-00293, Revision 1, August 2011) | 09/07/2011 | 42 | 3 |

^k A remedy of No Action was selected for Rubble Pile Across from Gunsite 012 and ECODS G-3 (Adjacent to Gunsite 012).

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| Unit Name | Document Title | Approval Date¹ | Tab Number² | Watershed Figure³ |
|---|---|----------------------------------|-------------------------------|-------------------------------------|
| Heavy Equipment Wash Basin, NBN | <i>Land Use Control Implementation Plan for the Heavy Equipment Wash Basin and Central Shops Burning Rubble Pit (631-5G)¹</i> (WSRC-RP-2005-4015, Revision 1, July 2005) | 09/01/2005 | 26 | 2 |
| K-Area Bingham Pump Outage Pit, 643-1G | Section 2 of <i>Final Remediation Report for the K-Area Bingham Pump Outage Pit, 643-1G</i> , (WSRC-RP-98-4003, Revision 1, August 1998) | 10/05/1998 | 9 | 4 |
| K-Area Burning/Rubble Pit, 131-K and K-Area Rubble Pile, 631-20G | Appendix D of <i>Post-Construction Report for the K-Area Burning/Rubble Pit 131-K and K-Area Rubble Pile 631-20G</i> (WSRC-RP-2002-4095, Revision 1, October 2002) | 11/22/2002 | 10 | 4 |
| K-Area Reactor Seepage Basin, 904-65G | Appendix A of <i>Post-Construction Report for the K-Area Reactor Seepage Basin</i> (WSRC-RP-2002-4030, Revision 1, July 2002) | 09/30/2002 | 11 | 4 |
| L- and P-Area Bingham Pump Outage Pits, 643-2G, 643-3G and 643-4G | Section 2.0 of <i>Final Remediation Report for the L- and P-Area Bingham Pump Outage Pits, 643-2G, 643-3G and 643-4G</i> (WSRC-RP-2000-4030, Revision 0, March 2000) | 06/13/2000 | 12 | 4 (643-2G, 643-3G) 3 (643-4G) |
| L-Area Oil and Chemical Basin, 904-83G | Appendix A of <i>Post-Construction Report/Final Remediation Report for the L-Area Oil and Chemical Basin, 904-83G</i> (WSRC-RP-2001-4078, Revision 1, September 2001) | 11/05/2001 | 14 | 6 |
| L-Area Reactor Seepage Basin, 904-064G | Appendix A of <i>Post-Construction Report/Final Remediation Report for the L-Area Reactor Seepage Basin</i> (WSRC-RP-2003-4118, Revision 1, February 2004) | 03/19/2004 | 15 | 6 |
| L-Area Southern Groundwater Operable Unit | <i>Land Use Control Implementation Plan for L-Area Southern Groundwater Operable</i> | 05/08/2009 | 34 | 6 |

¹ Central Shops Burning Rubble Pit (631-5G) was designated as a No Action OU and removed from the LUCAP.

| Unit Name | Document Title | Approval Date ¹ | Tab Number ² | Watershed Figure ³ |
|--|---|----------------------------|-------------------------|-------------------------------|
| | <i>Unit</i> (WSRC-RP-2007-4049, Revision 1, April 2009) | | | |
| Lower Three Runs Integrator Operable Unit (IOU) Tail Portion (Middle and Lower Subunits) | <i>Early Action Land Use Control Implementation Plan for the Lower Three Runs Integrator Operable Unit Tail Portion (Middle and Lower Subunits)</i> (SRNS-RP-2013-00046, Revision 1, August 2013) | 8/22/2013 | 46 | 3 |
| Lower Three Runs IOU Tail Portion (Upper Subunit) (consists of PAR Pond [Including the Pre-Cooler Ponds and Canals], 685-G and Old R-Area Discharge Canal, NBN) | <i>Land Use Control Implementation Plan for the Lower Three Runs Integrator Operable Unit (Upper Subunit)</i> (SRNS-RP-2022-00017, Revision 1, August 2022) | 10/04/2022 | 50 | 3 |
| M Area Operable Unit (consists of Underground Sump 321 M #001, Underground Sump 321 M #002, Salvage Yard, 741-A, and Potential Release of TCT, TET TCE, HNO ₃ , U, Heavy Metals from 321-M Abandoned Sewer Line, NBN) | <i>Land Use Control Implementation Plan for the M Area Operable Unit (MAOU)</i> (WSRC-RP-2008-4067, Revision 1, April 2009) | 05/08/2009 | 36 | 7 |
| M-Area Inactive Process Sewer Lines Operable Unit, 081-M (consists of 313-M and 320-M Inactive Clay Process Sewers to Tims Branch, NBN) ^m | <i>Land Use Control Implementation Plan for the M-Area Inactive Sewer Lines Operable Unit</i> (WSRC-RP-2006-4068, Revision 1, April 2007) | 05/17/2007 | 30 | 5 (081-M) 7 (313-M, 320-M) |
| Miscellaneous Chemical Basin/Metals Burning Pit, 731-4A and 731-5A ⁿ | Appendix A of <i>Interim Post-Construction Report for the Miscellaneous Chemical Basin/Metals Burning Pit, 731-4A and 731-5A</i> (WSRC-RP-2002-4038, Revision 1.1, December 2002) | 03/13/2003 | 17 | 7 |

^m The M-Area Inactive Process Sewer Lines Operable Unit is divided between the Savannah River and Floodplain Swamp Watershed and the Upper Three Runs Watershed.

ⁿ This LUCIP provides the signage for the Miscellaneous Chemical Basin, 731-4A; however, this LUCIP was superseded by the LUCIP for the A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) and the Miscellaneous Chemical Basin/Metals Burning Pit (731-4A and -5A) Operable Unit (WSRC-RP-2006-4073, Revision 1, September 2007). The Metals Burning Pit, 731-5A, is located outside the established land use controls boundary and no further problem warranting action exist in the surface soil subunit; therefore, inspections were discontinued in 2022.

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| Unit Name | Document Title | Approval Date¹ | Tab Number² | Watershed Figure³ |
|---|---|----------------------------------|-------------------------------|-------------------------------------|
| Old F-Area Seepage Basin, 904-49G | Appendix A of <i>Post-Construction Report for the Old F-Area Seepage Basin, 904-49G</i> (WSRC-RP-2000-4100, Revision 1, August 2001) | 08/01/2001 | 18 | 7 |
| P-Area Burning/Rubble Pit, 131-P | Appendix A of <i>Corrective Measures Implementation/Remedial Action Implementation Plan P-Area Burning/Rubble Pit, 131-P</i> (WSRC-RP-2002-4216, Revision 1, August 2003) | 09/26/2003 | 19 | 6 |
| P Area Operable Unit (consists of P-Area Ash Basin (Including Outfall P-007), 188-0P; P-Area Process Sewer Lines as Abandoned, NBN and Spill on 03/15/79 of 5500 Gallons of Contaminated Water, NBN; P-Area Reactor Area Cask Car Railroad Tracks as Abandoned, NBN; Potential Release from P-Area Disassembly Basin, NBN; Potential Release from P-Area Reactor Cooling Water System, 186/190-P) | <i>Land Use Control Implementation Plan for the P Area Operable Unit</i> (SRNS-RP-2010-00619, Revision 1, October 2010) | 11/29/2010 | 40 | 6 |
| P-Area Reactor Seepage Basins, 904-61G, -62G, and -63G | <i>Land Use Control Implementation Plan for P-Area Reactor Seepage Basins, 904-61G, -62G, and -63G</i> (WSRC-RP-2003-4139, Revision 1, January 2004) | 03/03/2004 | 20 | 6 |
| R-Area Bingham Pump Outage Pits, 643-8G, -9G, and -10G and R-Area Unknown Pits #1, #2, and #3, RUNKS-1, -2, and -3 | Appendix B of <i>Final Remediation Report for the R-Area Bingham Pump Outage Pits, 643-8G, -9G, and -10G and R-Area Unknown Pits #1, #2, and #3, RUNKS-1, -2, and -3</i> (WSRC-RP-2003-4061, Revision 1, July 2003) | 08/29/2003 | 21 | 3 |
| R-Area Burning/Rubble Pits (131-R and -1R) and R-Area Rubble Pile (631-25G) | <i>Land Use Control Implementation Plan for R-Area Burning/Rubble Pits (131-R and 131-1R) and R-Area Rubble Pile (631-25G)</i> | 03/16/2005 | 25 | 3 |

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| Unit Name | Document Title | Approval Date ¹ | Tab Number ² | Watershed Figure ³ |
|--|--|----------------------------|-------------------------|-------------------------------|
| | <i>Operable Unit</i> (WSRC-RP-2004-4119, Revision 0, January 2005) | | | |
| R Area Operable Unit (consists of Area on the North Side of Building 105-R, Laydown Area North of 105-R, and Release from the Decontamination of R-Area Reactor Disassembly Basin, NBN, Combined Spills North of Building 105-R, NBN, Cooling Water Effluent Sump, 107-R, Potential Release from R-Area Disassembly Basin, NBN, Potential Release of NaOH/H ₂ SO ₄ from 183-2R, NBN, R-Area Ash Basin, 188-0R, R-Area Groundwater, R-Area Process Sewer Lines as Abandoned, NBN, R-Area Reactor Area Cask Car Railroad Tracks as Abandoned, NBN) | <i>Land Use Control Implementation Plan for the R Area Operable Unit</i> (SRNS-RP-2010-01208, Revision 1, February 2011) | 03/07/2011 | 43 | 3 |
| R-Area Reactor Seepage Basins, 904-57G, -58G, -59G, -60G, -103G, and -1-4G | <i>Land Use Control Implementation Plan for R-Area Reactor Seepage Basins, 904-57G, -58G, -59G, -60G, -103G, and -104G</i> (WSRC-RP-2004-4032, Revision 1, September 2004) | 11/16/2004 | 24 | 7 |
| Silverton Road Waste Unit, 731-3A | Section 2.0 of <i>Final Remediation Report for the Silverton Road Waste Unit (731-3A)</i> (WSRC-RP-97-153 Revision 1.1, March 1998) | 04/23/1998 | 32 | 5 |
| SRL Seepage Basins, 904-51G1, -53G2, -54G, and -55G | Appendix A of <i>Corrective Measures Implementation Report/Post-Construction Report/ Final Remediation Report for the SRL Seepage Basins, 904-51G1, -53G3, -54G, and -55G</i> (WSRC-RP-2001-4123, Revision 1, February 2002) | 04/04/2002 | 22 | 7 |

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| Unit Name | Document Title | Approval Date¹ | Tab Number² | Watershed Figure³ |
|--|---|----------------------------------|-------------------------------|-------------------------------------|
| T Area Operable Unit (consists of Neutralization Sump, 678-T; X-001 Outfall Drainage Ditch, NBN; TNX Outfall Delta, Lower Discharge Gully, and Swamp, NBN; and TNX-Area Process Sewer Lines and Tile Fields as Abandoned, NBN) | <i>Land Use Control Implementation Plan for T Area Operable Unit (WSRC-RP-2005-4029, Revision 1, July 2006)</i> | 10/10/2006 | 28 | 5 |
| TNX Groundwater (082-G), Old TNX Seepage Basin (904-076G), and New TNX Seepage Basin (904-102G) | <i>Land Use Control Implementation Plan for TNX Operable Unit (WSRC-RP-2003-4173, Revision 1, April 2004)</i> | 05/04/2004 | 23 | 5 |
| Wetland Area at Dunbarton Bay | <i>Land Use Control Implementation Plan for the Wetland Area at Dunbarton Bay in Support of Steel Creek Integrator Operable Unit (U) (SRNS-RP-2018-00479, Revision 1, November 2018)</i> | 11/28/2018 | 48 | 6 |
| Wetland Area at Dunbarton Bay | <i>Addendum to the Revision 1 Land Use Control Implementation Plan for the Wetland Area at Dunbarton Bay in Support of Steel Creek Integrator Operable Unit (U) (SRNS-RP-2023-00335, Revision 0, June 2023)</i> | 07/31/2023 | 51 | 6 |

¹ Date of the latest regulatory approval received.

² This refers to the tab attachment for the unit LUCIP.

³ This refers to the location of the unit on the watershed figures in the LUCAP.

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LUCIP for the
A-Area Burning/Rubble Pits, 731-A and -1A
and A-Area Rubble Pit, 731-2A
Appendix A of Post-Construction Report for the A-Area Burning/Rubble Pits,
731-A and -1A and A-Area Rubble Pit, 731-2A
(WSRC-RP-2003-4019, Revision 1, July 2003)

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LUCIP for the A-Area Miscellaneous Rubble Pile, 731-6A
Appendix A of *Corrective Measures Implementation/Remedial Action Implementation*
Plan for A-Area Miscellaneous Rubble Pile, 731-6A
(WSRC-RP-2002-4067, Revision 1, July 2003)

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LUCIP for the
C-Area Reactor Seepage Basins, 904-66G, -67G, and 68G
Appendix A of Post-Construction Report/Final Remediation Report for
C-Area Reactor Seepage Basins, 904-66G, -67G, and 68G
(WSRC-RP-2002-4219, Revision 1, January 2003)

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LUCIP for the
Central Shops Burning/Rubble Pits, 631-1G and 631-3G
Appendix A of Corrective Measures Implementation/Remedial Action Implementation
Plan for Central Shops Burning/Rubble Pits, 631-1G and 631-3G
(WSRC-RP-2003-4018, Revision 1, August 2003)

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LUCIP for the
D-Area Oil Seepage Basin, 631-G
Appendix B of Corrective Measures Implementation/Remedial Design/Remedial Design
Report/Remedial Action Workplan for the D-Area Oil Seepage Basin, 631-G
(WSRC-RP-99-4006, Revision 1, August 1999)

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**LUCIP for the
F-Area Retention Basin, 281-3F**
*Appendix A of Corrective Measures Implementation/Post-Construction Report/Final
Remediation Report for the F-Area Retention Basin, 281-3F*
(WSRC-RP-2001-4049, Revision 1, September 2001)

On February 6, 2014, the DOE submitted a letter (ACP-14-125, ARF #019315) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated March 20, 2014 (ARF #019385) and March 7, 2014 (ARF #019360), respectively.

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**LUCIP for the
Ford Building Seepage Basin, 904-91G**

*Appendix A of Post-Construction Report/Corrective Measures Implementation
Report/Final Remediation Report for the Ford Building Seepage Basin, 904-91G
(WSRC-RP-2003-4038, Revision 1, October 2003)*

On August 20, 2014, the DOE submitted a letter (IACD-14-186, ARF #019770) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated October 2, 2014 (ARF #019837) and September 17, 2014 (ARF #019816), respectively.

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**LUCIP for the
General Separations Area Consolidated Unit
(consists of Old Radioactive Waste Burial Ground (including Solvent Tanks 650-01E to -22E), 643-E, HP-52 Ponds, H-Area Retention Basin, 281-3H, Spill on 05/01/1956 of Unknown of Retention Basin Pipe Leak, NBN, Warner's Pond, 685-23G, Spill on 03/08/1978 of Unknown Seepage Basin Pipe Leak in H-Area Seepage Basin, NBN, and Spill on 02/08/1978 of Unknown of H-Area Process Sewer Line Cave-in, NBN)**

Appendix A of *Corrective Measures Implementation/Remedial Action Implementation Plan (CMI/RAIP) for the General Separations Area Consolidation Unit* (WSRC-RP-2003-4053, Revision 1.1, November 2003)

On February 6, 2014, the DOE submitted a letter (ACP-14-125, ARF #019315) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated March 20, 2014 (ARF #019385) and March 7, 2014 (ARF #019360), respectively.

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**LUCIP for the
K-Area Bingham Pump Outage Pit, 643-1G**
Section 2 of *Final Remediation Report for the
K-Area Bingham Pump Outage Pit, 643-1G*
(WSRC-RP-98-4003, Revision 1, August 1998)

On February 6, 2014, the DOE submitted a letter (ACP-14-125, ARF #019315) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated March 20, 2014 (ARF #019385) and March 7, 2014 (ARF #019360), respectively.

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**LUCIP for the
K-Area Burning/Rubble Pit, 131-K and K-Area Rubble Pile, 631-20G**
Appendix D of *Post-Construction Report for the K-Area Burning/Rubble Pit, 131-K and
K-Area Rubble Pile, 631-20G*
(WSRC-RP-2002-4095, Revision 1, October 2002)

Due to a discrepancy that was identified between the PCR (WSRC-RP-2002-4095, Revision 1, October 2002) and the LUCIP that is appended to the PCR in the inspection frequency (i.e., PCR states semi-annual and the LUCIP states annual), DOE submitted a letter to the EPA and SCDHEC requesting approval to perform the inspections on an annual basis in accordance with the LUCIP (see ACP-10-279 dated October 1, 2010, ARF #01764). The EPA and SCDHEC approved the request in letters dated October 25, 2010 (ARF #017202) and October 25, 2010 (ARF #017205), respectively.

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LUCIP for the
K-Area Reactor Seepage Basin, 904-65G
Appendix A of Post-Construction Report/Final Remediation Report for the K-Area
Reactor Seepage Basin, 904-65G
(WSRC-RP-2002-4030, Revision 1, July 2002)

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**LUCIP for the
L- and P-Area Bingham Pump Outage Pits, 643-2G, 643-3G and 643-4G**
Section 2.0 of *Final Remediation Report for the L- and P-Area Bingham Pump Outage
Pits, 643-2G, 643-3G and 643-4G*
(WSRC-RP-2000-4030, Revision 0, March 2000)

On February 6, 2014, the DOE submitted a letter (ACP-14-125, ARF #019315) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated March 20, 2014 (ARF #019385) and March 7, 2014 (ARF #019360), respectively.

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THIS TAB IS NO LONGER USED

The L-Area Hot Shop (717-G) OU was designated as a No Action OU in FY2014 and was removed from the LUCAP.

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LUCIP for the
L-Area Oil and Chemical Basin, 904-83G
Appendix A *Post-Construction Report/Final Remediation Report for the*
L-Area Oil and Chemical Basin, 904-83G
(WSRC-RP-2001-4078, Revision 1, September 2001)

On February 6, 2014, the DOE submitted a letter (ACP-14-125, ARF #019315) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated March 20, 2014 (ARF #019385) and March 7, 2014 (ARF #019360), respectively.

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LUCIP for the
L-Area Reactor Seepage Basin, 904-064G
Appendix A of Post-Construction Report/Final Remediation Report for the
L-Area Reactor Seepage Basin
(WSRC-RP-2003-4118, Revision 1, February 2004)

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**The L-Area Rubble Pile (131-3L) Groundwater Plume OU
was designated as a No Action OU in FY2018 and was removed from the LUCAP.**

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LUCIP for the
Miscellaneous Chemical Basin/Metals Burning Pit, 731-4A and 731-5A
Appendix A of Interim Post-Construction Report for the Miscellaneous Chemical
Basin/Metals Burning Pit, 731-4A and 731-5A
(WSRC-RP-2002-4038, Revision 1.1, December 2002)

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**LUCIP for the
Old F-Area Seepage Basin, 904-49G**
Appendix A of *Post-Construction Report for the Old F-Area Seepage Basin, 904-49G*
(WSRC-RP-2000-4100, Revision 1, August 2001)

On February 6, 2014, the DOE submitted a letter (ACP-14-125, ARF #019315) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated March 20, 2014 (ARF #019385) and March 7, 2014 (ARF #019360), respectively.

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LUCIP for the
P-Area Burning/Rubble Pit, 131-P
Appendix A of Corrective Measures Implementation/Remedial Action Implementation
Plan P-Area Burning/Rubble Pit, 131-P
(WSRC-RP-2002-4216, Revision 1, August 2003)

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**LUCIP for the
P-Area Reactor Seepage Basins, 904-61G, -62G, and -63G**
*Land Use Control Implementation Plan for P-Area Reactor Seepage Basins,
904-61G, -62G, and -63G*
(WSRC-RP-2003-4139, Revision 1, January 2004)

On February 6, 2014, the DOE submitted a letter (ACP-14-125, ARF #019315) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated March 20, 2014 (ARF #019385) and March 7, 2014 (ARF #019360), respectively.

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LUCIP for the
R-Area Bingham Pump Outage Pits, 643-8G, -9G, and -10G and R-Area Unknown
Pits #1, #2, and #3, RUNKS-1, -2, and -3

Appendix B of Final Remediation Report for the R-Area Bingham Pump Outage Pits, 643-8G, -9G, and -10G and R-Area Unknown Pits #1, #2, and #3, RUNKS-1, -2, and -3 (WSRC-RP-2003-4061, Revision 1, July 2003)

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LUCIP for the
SRL Seepage Basins, 904-51G1, -53G3, -54G, and -55G
*Appendix A of Corrective Measures Implementation Report/Post-Construction Report/
Final Remediation Report for the SRL Seepage Basins, 904-51G1, -53G3, -54G, & -55G*
(WSRC-RP-2001-4123, Revision 1, February 2002)

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LUCIP for the
TNX Groundwater (082-G), Old TNX Seepage Basin (904-076G), and
New TNX Seepage Basin (904-102G)
Land Use Control Implementation Plan for TNX Operable Unit
(WSRC-RP-2003-4173, Revision 1, April 2004)

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LUCIP for the
R-Area Reactor Seepage Basins, 904-57G, -58G, -59G, -60G, -103G, and -104G
Land Use Control Implementation Plan for R-Area Reactor Seepage Basins, 904-57G, -
58G, -59G, -60G, -103G, and -104G
(WSRC-RP-2004-4032, Revision 1, September 2004)

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LUCIP for the
R-Area Burning/Rubble Pits (131-R and -1R) and R-Area Rubble Pile (631-25G)¹⁵
Land Use Control Implementation Plan R-Area Burning/Rubble Pits (131-R and -1R)
and R-Area Rubble Pile (631-25G)
(WSRC-RP-2004-4119, Revision 0, January 2005)

¹⁵ R-Area Rubble Pile is designated as a No Action/No Further Action Operable Unit.

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LUCIP for the
Heavy Equipment Wash Basin and Central Shops Burning Rubble Pit (631-5G)
Land Use Control Implementation Plan for the Heavy Equipment Wash Basin
and Central Shops Burning Rubble Pit (631-5G)¹⁶
(WSRC-RP-2005-4015, Revision 1, July 2005)

¹⁶ Central Shops Burning Rubble Pit (631-5G) is designated as a No Action/No Further Action Operable Unit.

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LUCIP for the
D-Area Expanded Operable Unit
(consists of D-Area Ash Basin, 488-D, and D-Area Rubble Pit, 431-2D)
Land Use Control Implementation Plan for the D-Area Expanded Operable Unit
(WSRC-RP-2004-4065, Revision 1, June 2005)

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**LUCIP for the
T Area Operable Unit**
**(consists of Neutralization Sump, 678-T; X-001 Outfall Delta, NBN; Lower
Discharge Gully, and Swamp, NBN; and TNX-Area Process Sewer Lines and Tile
Fields as Abandoned, NBN)**
Land Use Control Implementation Plan for T Area Operable Unit
(WSRC-RP-2005-4029, Revision 1, July 2006)

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LUCIP for the
CMP Pits, 80-70G, -171G, -180G, -181G, -182G, -183G, and -190G
Land Use Control Implementation Plan for the Chemical, Metals, and Pesticides Pits
Operable Unit, 080-170G, 080-180G, 080-181G, 080-182G, 080-183G, and 080-190G)
(WSRC-RP-2005-4078, Revision 1.2, July 2007)

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LUCIP for the
M-Area Inactive Process Sewer Lines Operable Unit, 081-M (consists of 313-M and
320-M Inactive Clay Process Sewers to Tims Branch, NBN)
Land Use Control Implementation Plan for the
M-Area Inactive Sewer Lines Operable Unit
(WSRC-RP-2006-4068, Revision 1, April 2007)

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LUCIP for the D-Area Burning/Rubble Pits (431-D and 431-ID)

*Section 2.0 of Final Remediation Report for the
D-Area Burning/Rubble Pits (431-D and 431-ID)*
(WSRC-RP-97-406, Revision 1.1, March 1998)

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LUCIP for the Silverton Road Waste Unit (731-3A)
Section 2.0 of *Final Remediation Report*
for the Silverton Road Waste Unit (731-3A)
(WSRC-RP-97-153, Revision 1.1, March 1998)

On February 6, 2014, the DOE submitted a letter (ACP-14-125, ARF #019315) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated March 20, 2014 (ARF #019385) and March 7, 2014 (ARF #019360), respectively.

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LUCIP for the F-Area Burning/Rubble Pits (231-F, 231-1F, and 231-2F)
Section 2.0 of *Final Remediation Report for the*
F-Area Burning/Rubble Pits (231-F, 231-1F, and 231-2F)
WSRC-RP-97-193 Revision 1.1, March 1998

On February 6, 2014, the DOE submitted a letter (ACP-14-125, ARF #019315) to the EPA and SCDHEC to perform the inspections for this operable unit on an annual basis. The EPA and SCDHEC approved the request in letters dated March 20, 2014 (ARF #019385) and March 7, 2014 (ARF #019360), respectively.

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LUCIP for the
L-Area Southern Groundwater Operable Unit
Land Use Control Implementation Plan for L-Area Southern Groundwater Operable Unit
(WSRC-RP-2007-4049, Revision 1, April 2009)

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**LUCIP for the C-Burning/Rubble Pit Operable Unit (131-C) and
Old C-Area Burning/Rubble Pit (NBN)**

*Land Use Control Implementation Plan for the
C-Burning/Rubble Pit Operable Unit (131-C) and Old C-Area Burning/Rubble Pit (NBN)*
(WSRC-RP-2008-4050, Revision 1.1, April 2009)

The LUCIP doesn't specify an inspection frequency. Therefore, DOE submitted a letter to the EPA and SCDHEC requesting approval to perform the inspections on an annual basis in accordance with the approved ICMI/Remedial Design/Remedial Design Report/Remedial Action Work Plan (WSRC-RP-98-4058, Revision 1.1, January 1999) (see ACP-10-276 dated October 1, 2010, ARF #017162). The EPA and SCDHEC approved the request in letters dated October 25, 2010 (ARF #017203) and October 29, 2010 (ARF #017204), respectively.

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**LUCIP for the
M Area Operable Unit (consists of Underground Sump 321 M #001, Underground
Sump 321 M #002, Salvage yard, 741-A, and Potential Release of TCT, TET TCE,
HNO₃, U, Heavy Metals from 321-M Abandoned Sewer Line, NBN)**
Land Use Control Implementation Plan for the M Area Operable Unit (MAOU)
(WSRC-RP-2008-4067, Revision 1, April 2009)

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LUCIP for the
A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) and the
Miscellaneous Chemical Basin/Metals Burning Pit (731-4A and -5A) Operable Unit
Land Use Control Implementation Plan for the
A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) & the Miscellaneous
Chemical Basin/Metals Burning Pit (731-4A & -5A) Operable Unit
(WSRC-RP-2006-4073, Rev.1, September 2007)

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LUCIP for the
C-, K-, and L-Reactor Complexes Early Action
Land Use Control Implementation Plan for the
C-, K-, and L-Reactor Complexes Early Action
(SRNS- RP-2009-01470, Rev.1, May 2010)

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LUCIP for the
Early Construction and Operational Disposal Site (ECODS)
L-1, N-2, P-2, and R-1A, -1B, -1C
Land Use Control Implementation Plan for the Early Construction and Operational
Disposal Site (ECODS) L-1, N-2, P-2, & R-1A, -1B, -1C
(SRNS-RP-2009-01373, Rev.1, April 2010)

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**LUCIP for the
P Area Operable Unit (consists of P-Area Ash Basin [Including Outfall P-007], 188-P; P-Area Process Sewer Lines as Abandoned, NBN and Spill on 03/15/79 of 5500 Gallons of Contaminated Water, NBN; P-Area Reactor Area Cask Car Railroad Tracks as Abandoned, NBN; Potential Release from P-Area Disassembly Basin, NBN; Potential Release from P-Area Reactor Cooling Water System, 186/190-P)**

*Land Use Control Implementation Plan for the
P Area Operable Unit*

(SRNS-RP-2010-00619, Rev.1, October 2010)

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**LUCIP for the
D Area Operable Unit Early Action (consists of Combined Spills from 483-D and
Associated Areas (NBN), D-Area Asbestos Pit, 080-20G, D-Area Coal Pile Runoff
Basin, 489-D, D-Area Process Sewer Lines as Abandoned, NBN, D-Area Waste Oil
Facility, 484-10D, D-006 Petroleum Release Site, NBN)**
*Land Use Control Implementation Plan for the D Area Operable Unit
(SRNS-RP-2011-01166, Revision 0 (corrected), July 2011)*

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**LUCIP for the
Gunsite 012 Operable Unit**
**(consists of Gunsite 012 Rubble Pile, NBN, Rubble Pile Across from Gunsite 012,
NBN, and ECODS G-3 (Adjacent to Gunsite 012), NBN)¹⁷**
Land Use Control Implementation Plan for the Gunsite 012 Operable Unit
(SRNS-RP-2011-00293, Revision 1, August 2011)

¹⁷ Rubble Pile Across from Gunsite 012, NBN and ECODS G-3 (Adjacent to Gunsite 012), NBN are No Action/No Further Action Operable Units.

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LUCIP for the

R Area Operable Unit (consists of Area on the North Side of Building 105-R, Laydown Area North of 105-R, and Release from the Decontamination of R-Area Reactor Disassembly Basin, NBN, Combined Spills North of Building 105-R, NBN, Cooling Water Effluent Sump, 107-R, Potential Release from R-Area Disassembly Basin, NBN, Potential Release of NaOH/H₂SO₄ from 183-2R, NBN, R-Area Ash Basin, 188-0R, R-Area Groundwater, R-Area Process Sewer Lines as Abandoned, NBN, R-Area Reactor Area Cask Car Railroad Tracks as Abandoned, NBN)

*Land Use Control Implementation Plan for the R Area Operable Unit
(SRNS-RP-2010-01208, Revision 1, February 2011)*

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LUCIP for the
F-Area Industrial Solid Waste Landfill
Land Use Control Implementation Plan for the F-Area Industrial Solid Waste Landfill
(WSRS-RP-2000-4086, Revision 0, June 2000)

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**LUCIP for the
B Area Operable Unit (consists of 770-U Test Reactor Building (HWCTR), ECODS
B-3 (East of B Area, South of Road C), and ECODS B-5 (Adjacent to ECODS B-3))¹⁸**
Land Use Control Implementation Plan for the B Area Operable Unit
(SRNS-RP-2013-00113, Revision 1, January 2014)

¹⁸ ECODS B-3 (East of B Area, South of Road C) and ECODS B-5 (Adjacent to ECODS B-3) are designated as No Action/No Further Action Operable Units.

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LUCIP for the
Lower Three Runs Integrator Operable Unit (IOU)
Tail Portion (Middle and Lower Subunits)
Early Action Land Use Control Implementation Plan for the
Lower Three Runs Integrator Operable Unit Tail Portion (Middle and Lower Subunits)
(SRNS-RP-2013-00046, Revision 1, August 2013)

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**LUCIP for the
C-Area Operable Unit Early Action (consists of Potential Release from C-Area
Disassembly Basin, Potential Release from C-Area Reactor Cooling Water System,
C-Area Cask Car Railroad Tracks as Abandoned, ECO DS C-1, C-Area Process
Sewer Lines as Abandoned)**

Land Use Control Implementation Plan for the C-Area Operable Unit Early Action
SRNS-RP-2015-00034, Revision 1, September 2015

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LUCIP for the
Wetland Area at Dunbarton Bay
Land Use Control Implementation Plan for the Wetland Area at Dunbarton Bay
in Support of Steel Creek Integrator Operable Unit (U)
SRNS-RP-2018-00479, Revision 1, November 2018

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**LUCIP for the
D-Area Operable Unit Second Early Action
(consists of the 488-1D Ash Basin [including Inlet Basins], 488-2D Ash Basin, 488-
4D Ash Landfill, and 489-D Coal Pile Runoff Basin [southern 75%])¹⁹**
*Second Early Action Land Use Control Implementation Plan
for the D-Area Operable Unit (U)*
SRNS-RP-2020-00759, Revision 1, November 2020

¹⁹ No remedial action is needed for the 489-D Coal Pile Runoff Basin (Southern 75%) or the Inlet Basins portion of 488-1D Ash Basin.

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**LUCIP for the
Lower Three Runs Integrator Operable Unit (Upper Subunit)
(consists of PAR Pond [Including the Pre-Cooler Ponds and Canals], 685-G and Old
R-Area Discharge Canal, NBN)²⁰**
*Land Use Control Implementation Plan
for the Lower Three Runs Integrator Operable Unit (U)*
SRNS-RP-2022-00017, Revision 1, August 2022

²⁰ The LUCIP for the Lower Three Runs Integrator Operable Unit (Upper Subunit) (SRNS-RP-2022-00017, Revision 1, August 2022) was approved by South Carolina Department of Health and Environmental Control and United States Environmental Protection Agency on September 22, 2022 and October 4, 2022, respectively. However, the LUCs will not be implemented until Spring of 2023.

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**LUCIP Addendum for the
Wetland Area at Dunbarton Bay**
*Addendum to the Revision 1 Land Use Control Implementation Plan
for the Wetland Area at Dunbarton Bay in Support of
Steel Creek Integrator Operable Unit (U)*
SRNS-RP-2023-00335, Revision 0, June 2023

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APPENDIX C

MAPS AND TABLES OF WASTE UNITS WITHIN EACH WATERSHED

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Figure C- 1. Fourmile Branch Watershed Operable Units

**The information on Figure 2 and Figure C – 1 has been combined on one figure.
Please see Figure 2, located within the body of the LUCAP.**

Table C- 1 Fourmile Branch Watershed Operable Units

| Unit No. | Unit Name |
|------------------------|--|
| 1 | TANK 105-C HAZARDOUS WASTE MANAGEMENT FACILITY |
| 3 | F-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (F-AREA SEEPAGE BASIN, 904-41G) |
| 4 | F-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (F-AREA SEEPAGE BASIN, 904-42G) |
| 5 | F-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (F-AREA SEEPAGE BASIN, 904-43G) |
| 6 | H-AREA ACID/CAUSTIC BASIN, 904-75G |
| 7 | H-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (H-AREA SEEPAGE BASIN, 904-44G) |
| 8 | H-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (H-AREA SEEPAGE BASIN, 904-46G) |
| 9 | H-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (H-AREA SEEPAGE BASIN, 904-45G) |
| 10 | H-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (H-AREA SEEPAGE BASIN, 904-56G) |
| <i>18^a</i> | <i>OLD RADIOACTIVE WASTE BURIAL GROUND (INCLUDING SOLVENT TANKS 650-01E-22E) 643-E</i> |
| 19 | F & H-AREA HAZARDOUS WASTE MANAGEMENT FACILITIES (GROUNDWATER) |
| <i>27^a</i> | <i>WARNER'S POND, 685-23G</i> |
| <i>28^a</i> | <i>H-AREA RETENTION BASIN, 281-3H</i> |
| <i>29^a</i> | <i>HP-52 PONDS, NBN</i> |
| 43 | 211-FB PU-239 RELEASE, 081-F |
| <i>51^a</i> | <i>C-AREA BURNING/RUBBLE PIT, 131-C</i> |
| <i>53^a</i> | <i>C-AREA REACTOR SEEPAGE BASINS, 904-66G</i> |
| <i>54^a</i> | <i>C-AREA REACTOR SEEPAGE BASINS, 904-67G</i> |
| <i>55^a</i> | <i>C-AREA REACTOR SEEPAGE BASINS, 904-68G</i> |
| 57 | CENTRAL SHOPS BURNING/RUBBLE PIT, 631-5G |
| <i>58^a</i> | <i>CENTRAL SHOPS BURNING/RUBBLE PIT, 631-1G</i> |
| <i>59^a</i> | <i>CENTRAL SHOPS BURNING/RUBBLE PIT, 631-3G</i> |
| <i>73^a</i> | <i>F-AREA RETENTION BASIN, 281-3F</i> |
| 80 | H-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (H-AREA INACTIVE PROCESS SEWER LINE 081-H) |
| 82 | HYDROFLUORIC ACID SPILL, 631-4G |
| 103 | MIXED WASTE MANAGEMENT FACILITY (GROUNDWATER) |
| 132 | SRL OIL TEST SITE, 080-16G |
| 146 | C-AREA REACTOR GROUNDWATER |
| 210 | C-AREA ASH PILE, 188-0C |
| 225 | SPILL ON 02/01/57 OF UNKNOWN OF SEEPAGE BASIN PIPE LEAK FROM 904-44G, NBN |
| 239 | ARSENIC TREATED WOOD STORAGE AREA, NBN |
| <i>240^a</i> | <i>POTENTIAL RELEASE FROM C-AREA DISASSEMBLY BASIN, 105-C</i> |
| <i>242^a</i> | <i>POTENTIAL RELEASE FROM C-AREA REACTOR COOLING WATER SYSTEM, 186/190-C</i> |
| 244 | CENTRAL SHOPS SCRAP LUMBER PILE, 631-2G |
| 261 | COMBINED SPILLS FROM 241-84H, NBN |
| 262 | COMBINED SPILLS FROM 241-H, NBN |
| 263 | COMBINED SPILLS FROM 242-F, NBN |
| 264 | COMBINED SPILLS FROM 242-H, NBN |

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| Unit No. | Unit Name |
|------------------------|---|
| 266 | COMBINED SPILLS FROM 643-G, NBN |
| 274 | DITCH TO OUTFALL H-13 (TRIBUTARY TO FOURMILE CREEK), NBN |
| 275 | DIVERSION BOX – RADIOACTIVITY FROM 907-1H, NBN |
| 277 | F-AREA ASH BASIN, 288-1F |
| 280 | F-AREA RETENTION BASIN, 281-08F |
| 283 | F-AREA TANK FARM, 241-F |
| 285 | H-AREA ACID/CAUSTIC BASIN (GROUNDWATER) |
| 292 | H-AREA ASH BASIN, 288-0H |
| 293 | H-AREA RETENTION BASIN, 281-08H |
| 298 | H-AREA TANK FARM, 241-H |
| 309 | MISCELLANEOUS RUBBLE PILE, 631-7G |
| 311 | NEW SALVAGE YARD, 741-G |
| 332 | SPILL ON 10/07/85 OF 20,000 GALLONS OF CONTAMINATED WATER FROM 244-H, NBN |
| 345 | SANDBLAST AREA CMH-003, NBN |
| 348 | SANDBLAST AREA CMH-004, NBN |
| 354 | SANDBLAST AREA CMN-001, NBN |
| 375 | SPILL ON 01/19/80 OF UNKNOWN OF CHROMATED WATER FROM H-AREA PUMP HOUSE, NBN |
| 376 | SPILL ON 01/19/83 OF 1000 FT ² OF RADIOACTIVE SPILL |
| 380 | SPILL ON 10/01/71 OF 100 SQ FT OF FLUSH WATER – RAD, NBN |
| 381 | SPILL ON 10/16/81 OF 30 GAL OF LOW LEVEL WASTE FROM TRAILER, NBN |
| 383 | SPILL ON 11/10/81 OF 500 GAL OF CHROMATED WATER FROM 243-H, NBN |
| 386 | SPILL ON 11/24/89 OF 10 MCI OF CS – 137 FROM 254-8H, NBN |
| 390 | SPILL ON 02/01/69 OF UNKNOWN OF WASTE TANK SPILL, NBN |
| 398^a | <i>SPILL ON 02/08/78 OF UNKNOWN OF H-AREA PROCESS SEWER LINE CAVE-IN, NBN</i> |
| 399 | SPILL ON 03/01/66 OF 500 SQ FT OF FLUSH WATER – RAD, NBN |
| 403 | SPILL ON 03/28/87 OF <15000 GAL OF CHROMATED WATER FROM 241-24H, NBN |
| 405^a | <i>SPILL ON 03/08/78 OF UNKNOWN OF SEEPAGE BASIN PIPE LEAK IN H-AREA SEEPAGE BASIN</i> |
| 411 | SPILL ON 04/14/81 OF 3 GAL OF CONTAMINATED FLUSH WATER, NBN |
| 412 | SPILL ON 04/18/80 OF UNKNOWN OF CHROMATED WATER FROM VALVE HOUSE 3, NBN |
| 417^a | <i>SPILL ON 05/01/56 OF UNKNOWN OF RETENTION BASIN PIPE LEAK, NBN</i> |
| 418 | SPILL ON 05/01/71 OF UNKNOWN OF SEEPAGE BASIN PIPE LEAK, NBN |
| 423 | SPILL ON 05/02/85 OF 10 GAL OF COOLING WATER FROM TANK FARM, NBN |
| 431 | SPILL ON 05/28/81 OF 9000 GAL OF CHROMATED WATER, NBN |
| 432 | SPILL ON 05/30/78 OF UNKNOWN OF SUMP OVERFLOW, NBN |
| 438 | SPILL ON 06/26/75 OF 250 CU FT OF RAD CONTAMINATED SOIL, NBN |
| 442 | SPILL ON 06/06/79 OF <1 GAL OF CONTAMINATED LIQUID, NBN |
| 459 | STORMWATER OUTFALL H-013, NBN |
| 475^a | <i>C-AREA REACTOR AREA CASK CAR RAILROAD TRACKS AS ABANDONED, NBN</i> |
| 489 | C-AREA ASH PILE OFF POWERLINE ROAD, NBN |
| 490 | SPILL ON 04/57 OF RAD LIQUID FROM SOLVENT TRAILER, NBN |
| 499 | CENTRAL SHOPS OPEN DISPOSAL TRENCH |
| 502^a | <i>HEAVY EQUIPMENT WASH BASIN</i> |
| 511 | C-AREA REACTOR DISCHARGE CANAL, NBN |
| 522^a | <i>ECODS C-1 (NEAR C-AREA REACTOR DISCHARGE CANAL)</i> |
| 531 | ECODS H-1 (WEST OF MAIN H-AREA FACILITIES) |

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| Unit No. | Unit Name |
|------------------------|---|
| 554 | H-AREA PROCESS SEWER LINES AS ABANDONED, NBN |
| <i>555^a</i> | <i>C-AREA PROCESS SEWER LINES AS ABANDONED, NBN</i> |
| 565 | N-AREA PROCESS SEWER LINES AS ABANDONED, NBN |
| <i>566^a</i> | <i>OLD C-AREA BURNING/RUBBLE PIT, NBN</i> |
| <i>577^a</i> | <i>C-REACTOR COMPLEX EARLY ACTION</i> |

^a – land use controls/institutional controls are part of the selected remedy

Figure C- 2. Lower Three Runs Watershed Operable Units

**The information on Figure 3 and Figure C – 2 has been combined on one figure.
Please see Figure 3, located within the body of the LUCAP.**

Table C- 2. Lower Three Runs Watershed Operable Units

| Unit No. | Unit Name |
|------------------------|---|
| 17 | P-AREA ACID/CAUSTIC BASIN, 904-78G |
| 39 | GUNSITE 218 RUBBLE PILE, 631-23G |
| 42 | 108-4R OVERFLOW BASIN, 108-4R |
| <i>107^a</i> | <i>P-AREA BINGHAM PUMP OUTAGE PIT, 643-4G</i> |
| 110 | PAR POND (INCLUDING THE PRE-COOLER PONDS AND CANALS), 685-G |
| 111 | PAR POND SLUDGE LAND APPLICATION SITE, 761-5G |
| <i>113^a</i> | <i>R-AREA BINGHAM PUMP OUTAGE PITS, 643-10G</i> |
| <i>114^a</i> | <i>R-AREA BINGHAM PUMP OUTAGE PITS, 643-8G</i> |
| <i>115^a</i> | <i>R-AREA BINGHAM PUMP OUTAGE PITS, 643-9G</i> |
| <i>116^a</i> | <i>R-AREA BURNING/RUBBLE PITS, 131-1R</i> |
| <i>117^a</i> | <i>R-AREA BURNING/RUBBLE PITS, 131-R</i> |
| 118 | R-AREA RUBBLE PILE, 631-25G |
| <i>163^a</i> | <i>GUNSITE 012 RUBBLE PILE, NBN</i> |
| 230 | R-AREA CONCRETE LAKE, 183-1R/186R |
| <i>231^a</i> | <i>AREA ON THE NORTH SIDE OF BUILDING 105-R, NBN</i> |
| <i>233^a</i> | <i>LAYDOWN AREA NORTH OF 105-R, NBN</i> |
| <i>271^a</i> | <i>COOLING WATER EFFLUENT SUMP, 107-R</i> |
| <i>288^a</i> | <i>R-AREA GROUNDWATER, NBN</i> |
| 312 | OLD R-AREA DISCHARGE CANAL, NBN |
| <i>316^a</i> | <i>P-AREA REACTOR COOLING WATER SYSTEM, 186/190-P</i> |
| <i>324^a</i> | <i>POTENTIAL RELEASE OF NAOH/H2 SO4 FROM 183-2R, NBN</i> |
| <i>329^a</i> | <i>R-AREA ASH BASIN, 188-0R</i> |
| <i>330^a</i> | <i>R-AREA DISASSEMBLY BASIN, 105-R</i> |
| 337 | RUBBLE PILE ACROSS FROM GUNSITE 012, NBN |
| <i>478^a</i> | <i>R REACTOR AREA: R-AREA REACTOR AREA CASK CAR RAILROAD TRACKS AS ABANDONED, NBN</i> |
| <i>505^a</i> | <i>LOWER THREE RUNS INTEGRATOR OPERABLE UNIT (IOU) TAIL PORTION (MIDDLE AND LOWER SUBUNITS)</i> |
| <i>513^a</i> | <i>RELEASE FROM THE DECONTAMINATION OF R-AREA REACTOR DISASSEMBLY BASIN, NBN</i> |
| <i>517^a</i> | <i>COMBINED SPILLS NORTH OF BUILDING 105-R, NBN</i> |
| <i>540^a</i> | <i>ECODS R-1A, -1B, -1C (EAST OF R REACTOR)</i> |
| 544 | ECODS G-3 (ADJACENT TO GUNSITE 012, NBN) |
| 546 | DUNBARTON RAILROAD YARD, NBN |
| 547 | P-AREA COAL PILE, NBN |
| <i>550^a</i> | <i>R-AREA UNKNOWN PIT #1 (RUNK-1), NBN</i> |
| <i>551^a</i> | <i>R-AREA UNKNOWN PIT #2 (RUNK-2), NBN</i> |
| <i>552^a</i> | <i>R-AREA UNKNOWN PIT #3 (RUNK-3), NBN</i> |
| <i>556^a</i> | <i>R-AREA PROCESS SEWER LINES AS ABANDONED, NBN</i> |

^a – land use controls/institutional controls are part of the selected remedy

Figure C- 3. Pen Branch Watershed Operable Units

**The information on Figure 4 and Figure C – 3 has been combined on one figure.
Please see Figure 4, located within the body of the LUCAP.**

Table C- 3. Pen Branch Watershed Operable Units

| Unit No. | Unit Name |
|------------------------|--|
| 11 | K-AREA ACID/CAUSTIC BASIN, 904-80G |
| <i>61^a</i> | <i>CMP PITS, 080-170G</i> |
| <i>62^a</i> | <i>CMP PITS, 080-171G</i> |
| <i>63^a</i> | <i>CMP PITS, 080-180G</i> |
| <i>64^a</i> | <i>CMP PITS, 080-181G</i> |
| <i>65^a</i> | <i>CMP PITS, 080-182G</i> |
| <i>66^a</i> | <i>CMP PITS, 080-183G</i> |
| <i>67^a</i> | <i>CMP PITS, 080-190G</i> |
| <i>75^a</i> | <i>FORD BUILDING SEEPAGE BASIN, 904-91G</i> |
| 77 | G-AREA OIL SEEPAGE BASIN, 761-13G |
| <i>83^a</i> | <i>K-AREA BINGHAM PUMP OUTAGE PIT, 643-1G</i> |
| <i>84^a</i> | <i>K-AREA BURNING/RUBBLE PIT, 131-K</i> |
| <i>87^a</i> | <i>K-AREA REACTOR SEEPAGE BASIN, 904-65G</i> |
| <i>88^a</i> | <i>K-AREA RUBBLE PILE, 631-20G</i> |
| 89 | K-AREA SLUDGE LAND APPLICATION SITE, 761-4G |
| <i>91^a</i> | <i>L-AREA BINGHAM PUMP OUTAGE PITS, 643-2G</i> |
| <i>92^a</i> | <i>L-AREA BINGHAM PUMP OUTAGE PITS, 643-3G</i> |
| 99 | L-AREA RUBBLE PIT, 131-4L |
| 148 | L-AREA ASH BASIN 188-0L |
| 169 ^b | L-AREA RUBBLE PILE, 131-3L |
| 222 | SPILL ON 01/01/57 OF <1 CI OF BETA - GAMMA, NBN |
| 286 | K-AREA ACID/CAUSTIC BASIN (GROUNDWATER) |
| 299 | K-AREA AREA OF CONCERN, NBN |
| 300 | K-AREA ASH BASIN, 188-0K |
| 301 | K-AREA DISASSEMBLY BASIN, 105-K |
| 302 | K-AREA REACTOR COOLING WATER SYSTEM, 186/190-K |
| 305 | L-AREA REACTOR COOLING WATER SYSTEM, 186/190-L |
| 460 | K-AREA REACTOR DISCHARGE CANAL, NBN |
| 476 | K REACTOR AREA: K-AREA REACTOR AREA CASK CAR RAILROAD TRACKS AS ABANDONED, NBN |
| 514 | COMBINED SPILLS FROM 105-K, 106-K, AND 109-K, NBN |
| 519 | K-AREA REACTOR GROUNDWATER (INCLUDING TRITIUM ANOMALY) |
| 525 | ECODS N-1 (SOUTH OF N AREA) |
| 532 | ECODS K-1 (SOUTHEAST OF FORMER LAYDOWN YARD AT K AREA) |
| 533 | ECODS K-2 (NORTHWEST OF K AREA FACILITIES) |
| 534 | ECODS K-3 (SOUTHEAST OF K AREA IN FORMER LAYDOWN YARD) |
| <i>545^a</i> | <i>ECODS N-2</i> |
| <i>583^a</i> | <i>K-AREA REACTOR COMPLEX EARLY ACTION</i> |

^a – land use controls/institutional controls are part of the selected remedy

^b – L-Area Rubble Pile (131-3L) Groundwater Plume Operable Unit was designated as a No Action OU in FY2018 and was removed from the LUCAP.

Figure C- 4. Savannah River and Floodplain Swamp Watershed Operable Units

**The information on Figure 5 and Figure C – 4 has been combined on one figure.
Please see Figure 5, located within the body of the LUCAP.**

Table C-4. Savannah River and Floodplain Swamp Watershed Operable Units

| Unit No. | Unit Name |
|------------------|---|
| 25 ^a | <i>TNX GROUNDWATER, 082-G</i> |
| 26 ^a | <i>D-AREA OIL SEEPAGE BASIN, 631-G</i> |
| 32 ^a | <i>D-AREA BURNING/RUBBLE PITS, 431-1D</i> |
| 33 ^a | <i>D-AREA BURNING/RUBBLE PITS, 431-D</i> |
| 41 ^a | <i>SILVERTON ROAD WASTE SITE, 731-3A</i> |
| 68 ^a | <i>D-AREA ASH BASIN, 488-D</i> |
| 69 ^a | <i>D-AREA COAL PILE RUNOFF BASIN, 489-D</i> |
| 70 ^b | D-AREA WASTE OIL FACILITY, 484-10D |
| 100 ^a | <i>M-AREA SETTLING BASIN INACTIVE PROCESS SEWERS TO MANHOLE 1, 081-M</i> |
| 104 ^a | <i>NEW TNX SEEPAGE BASIN, 904-102G</i> |
| 106 ^a | <i>OLD TNX SEEPAGE BASIN, 904-076G</i> |
| 127 ^a | <i>SPILL ON 01/12/53 OF 1/2 TON OF URANYL NITRATE, NBN</i> |
| 139 ^a | <i>TNX BURYING GROUND, 643-5G</i> |
| 211 ^a | <i>D-AREA ASBESTOS PIT, 080-20G</i> |
| 229 | UNIDENTIFIED TRASH PILE, NBN |
| 238 | <i>D-AREA ASH BASIN, 488-1D (INCLUDING INLET BASINS)</i> |
| 265 | COMBINED SPILLS FROM 483-D AND ASSOCIATED AREAS, NBN |
| 272 ^a | <i>D-AREA ASH BASIN, 488-2D</i> |
| 273 ^a | <i>D-AREA RUBBLE PIT, 431-2D</i> |
| 310 ^a | <i>NEUTRALIZATION SUMP, 678-T</i> |
| 326 ^a | <i>POTENTIAL RELEASE OF TCT, TET TCE, HNO₃, U, HEAVY METALS FROM 321-M ABANDONED SEWER LINE, NBN</i> |
| 349 | SANDBLAST AREA CMD-002, NBN |
| 352 | SANDBLAST AREA CMM-008, NBN |
| 415 | SPILL ON 04/25/87 OF 15 GAL OF WATER - RAD, NBN |
| 440 | SPILL ON 06/28/84 OF 100 GAL OF CHILLED WATER, NBN |
| 458 | STORMWATER OUTFALL A-024, NBN |
| 465 | UNDERGROUND SUMP 321 M #001 321-M |
| 466 | UNDERGROUND SUMP 321 M #002 321-M |
| 467 ^a | <i>X-001 OUTFALL DRAINAGE DITCH, NBN</i> |
| 500 ^a | <i>TNX OUTFALL DELTA, LOWER DISCHARGE GULLY, AND SWAMP, NBN</i> |
| 520 | D-AREA UPGRADIENT SOURCES |
| 543 | ECODS D-1 (NEAR D-AREA RUBBLE PILE, 431-2D) |
| 548 ^a | <i>D-AREA ASH BASIN, 488-4D</i> |
| 558 | D-AREA PROCESS SEWER LINES AS ABANDONED, NBN |
| 559 ^a | <i>TNX-AREA PROCESS SEWER LINES AS ABANDONED, NBN</i> |
| 570 ^a | <i>D-006 PETROLEUM RELEASE SITE, NBN</i> |

^a – land use controls/institutional controls are part of the selected remedy

^b – This entry is for the environmental media associated with the 484-10D Facility.

Figure C- 5. Steel Creek Watershed Operable Units

**The information on Figure 6 and Figure C – 5 has been combined on one figure.
Please see Figure 6, located within the body of the LUCAP.**

Table C-5. Steel Creek Watershed Operable Units

| Unit No. | Unit Name |
|---------------------------|--|
| 94 | L-AREA HOT SHOP (INCLUDING SANDBLAST AREA CML-003, NBN), 717-G |
| <i>96^a</i> | <i>L-AREA OIL/CHEMICAL BASIN, 904-83G</i> |
| 98 | L-AREA RUBBLE PIT, 131-1L |
| <i>108^a</i> | <i>P-AREA BURNING/RUBBLE PIT, 131-P</i> |
| <i>126^a</i> | <i>SPILL ON 03/15/79 OF 5500 GALLONS OF CONTAMINATED WATER, NBN</i> |
| 143 | P-AREA REACTOR GROUNDWATER |
| 303 | POTENTIAL RELEASE FROM L-AREA DISASSEMBLY BASIN, 105-L |
| <i>306^a</i> | <i>L-AREA REACTOR SEEPAGE BASIN, 904-064G</i> |
| 307 | L LAKE, NBN |
| <i>313^a</i> | <i>P-AREA ASH BASIN, 188-0P</i> |
| <i>314^a</i> | <i>P-AREA DISASSEMBLY BASIN, 105-P</i> |
| 315 | P-AREA EROSION CONTROL SITE, 131-1P |
| <i>316^a</i> | <i>POTENTIAL RELEASE FROM P-AREA REACTOR COOLING WATER SYSTEM, 186/190-P</i> |
| <i>317^a</i> | <i>P-AREA REACTOR SEEPAGE BASIN, 904-061G</i> |
| <i>318^a</i> | <i>P-AREA REACTOR SEEPAGE BASIN, 904-062G</i> |
| <i>319^a</i> | <i>P-AREA REACTOR SEEPAGE BASIN, 904-063G</i> |
| 391 | SPILL ON 02/01/83 OF 50 GAL OF OIL - RAD, NBN |
| 452 | SPILL ON 09/21/84 OF 200 GAL OF WATER -RAD, NBN |
| 462 | P-AREA REACTOR DISCHARGE CANAL, NBN |
| <i>477^a</i> | <i>P-AREA REACTOR AREA CASK CAR RAILROAD TRACKS AS ABANDONED, NBN</i> |
| 479 | L-AREA REACTOR AREA CASK CAR RAILROAD TRACKS AS ABANDONED, NBN |
| <i>487^a</i> | <i>L-AREA SOUTHERN GROUNDWATER, NBN</i> |
| <i>509^{a, b}</i> | <i>WETLAND AREA AT DUNBARTON BAY, NBN</i> |
| 518 | GUN EMPLACEMENT 407A & 407B RUBBLE PILE, NBN |
| <i>535^a</i> | <i>ECODS L-1</i> |
| 536 | ECODS L-2 (EAST OF L AREA) |
| 537 | ECODS L-3 (EAST OF L AREA) |
| 538 | ECODS P-1 (SOUTH OF P AREA) |
| <i>539^a</i> | <i>ECODS P-2 (SOUTH OF P AREA)</i> |
| <i>557^a</i> | <i>P-AREA PROCESS SEWER LINES AS ABANDONED, NBN</i> |
| 560 | L-AREA PROCESS SEWER LINES AS ABANDONED, NBN |
| <i>584^a</i> | <i>L REACTOR COMPLEX EARLY ACTION</i> |

^a – land use controls/institutional controls are part of the selected remedy

^b – This unit number is associated with Steel Creek Integrator Operable Unit (IOU), which includes the Wetland Area at Dunbarton Bay (WADB). Portions of the WADB have been remediated; Steel Creek IOU has not.

Figure C- 6. Upper Three Runs Watershed Operable Units

**The information on Figure 7 and Figure C – 6 has been combined on one figure.
Please see Figure 7, located within the body of the LUCAP.**

Table C- 6. Upper Three Runs Watershed Operable Units

| Unit No. | Unit Name |
|------------------------|--|
| 2 | F-AREA ACID/CAUSTIC BASIN, 904-47G |
| 12 | M-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (LOST LAKE) |
| 13 | M-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (M-AREA SETTLING BASIN, 904-51G) |
| 15 | METALLURGICAL LABORATORY HAZARDOUS MANAGEMENT FACILITY, 904-110G |
| 16 | MIXED WASTE MANAGEMENT FACILITY (INCLUDING THE RCRA REGULATED PORTIONS OF LLRWF 643-7E), 643-28E |
| 21 | NON-RADIOACTIVE WASTE DISPOSAL FACILITY (AKA SANITARY LANDFILL RCRA PORTION), 740-G |
| 22 | NON-RADIOACTIVE WASTE DISPOSAL FACILITY (AKA SANITARY LANDFILL) (GROUNDWATER), 740-G |
| 23 | M-AREA HAZARDOUS WASTE MANAGEMENT FACILITY: A/M AREA GROUNDWATER PORTION, 904-110G |
| 24 | SRL GROUNDWATER |
| <i>34^a</i> | <i>F-AREA BURNING/RUBBLE PITS, 231-1F</i> |
| <i>35^a</i> | <i>F-AREA BURNING/RUBBLE PITS, 231-2F</i> |
| <i>36^a</i> | <i>F-AREA BURNING/RUBBLE PITS, 231-F</i> |
| <i>45^a</i> | <i>A-AREA BURNING/RUBBLE PITS, 731-1A</i> |
| <i>46^a</i> | <i>A-AREA BURNING/RUBBLE PITS, 731-A</i> |
| 47 | A-AREA COAL PILE RUNOFF BASIN, 788-3A |
| <i>48^a</i> | <i>A-AREA MISCELLANEOUS RUBBLE PILE, 731-6A</i> |
| <i>49^a</i> | <i>A-AREA RUBBLE PIT, 731-2A</i> |
| 56 | M-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (CAROLINA BAY) |
| 72 | F-AREA HAZARDOUS WASTE MANAGEMENT FACILITY (F-AREA INACTIVE PROCESS SEWER LINE 081-1F) |
| 79 | H-AREA COAL PILE RUNOFF BASIN, 289-H |
| <i>101^a</i> | <i>MISCELLANEOUS CHEMICAL BASIN, 731-4A</i> |
| 102 | METALS BURNING PITS, 731-5A |
| <i>105^a</i> | <i>OLD F-AREA SEEPAGE BASIN, 904-49G</i> |
| <i>119^a</i> | <i>R-AREA REACTOR SEEPAGE BASIN, 904-57G</i> |
| <i>120^a</i> | <i>R-AREA REACTOR SEEPAGE BASIN, 904-58G</i> |
| <i>121^a</i> | <i>R-AREA REACTOR SEEPAGE BASIN, 904-59G</i> |
| <i>122^a</i> | <i>R-AREA REACTOR SEEPAGE BASIN, 904-60G</i> |
| <i>123^a</i> | <i>R-AREA REACTOR SEEPAGE BASIN, 904-103G</i> |
| <i>124^a</i> | <i>R-AREA REACTOR SEEPAGE BASIN, 904-104G</i> |
| 131 | SRL 904-A PROCESS TRENCH, 904-A |
| <i>133^a</i> | <i>SRL SEEPAGE BASINS, 904-53G1</i> |
| <i>134^a</i> | <i>SRL SEEPAGE BASINS, 904-53G2</i> |
| <i>135^a</i> | <i>SRL SEEPAGE BASINS, 904-54G</i> |
| <i>136^a</i> | <i>SRL SEEPAGE BASINS, 904-55G</i> |
| 141 | F-AREA INACTIVE PROCESS SEWER LINES FROM BUILDING TO THE SECURITY FENCE, 081-1F |
| 142 | H-AREA INACTIVE PROCESS SEWER LINES FROM BUILDING TO THE SECURITY FENCE, 081-H |
| 208 | ADVANCED TACTICAL TRAINING AREA (ATTA) FIRING RANGES, NBN |
| <i>234^a</i> | <i>313-M AND 320-M INACTIVE CLAY PROCESS SEWERS TO TIMS BRANCH, NBN</i> |
| 236 | A-AREA ASH PILE, 788-0A |

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| Unit No. | Unit Name |
|------------------------|---|
| 237^a | <i>A-AREA ASH PILE, 788-2A</i> |
| 260 | COMBINED SPILLS FROM 211-H, NBN |
| 270 | COMBINED SPILLS FROM 701-1F SPILL, NBN |
| 276 | F-AREA ASH LANDFILL, 288-0F |
| 279 | F-AREA RAILROAD CROSSTIE PILE, NBN |
| 284 | F-AREA ACID/CAUSTIC BASIN (GROUNDWATER) |
| 294 | H-AREA RETENTION BASIN, 281-1H |
| 295 | H-AREA RETENTION BASIN, 281-2H |
| 308 | LOW LEVEL RADIOACTIVE DRAIN LINES, 772-F |
| 339 | S-AREA EROSION CONTROL SITE, NBN |
| 340^a | <i>SALVAGE YARD, 741-A</i> |
| 343 | SANDBLAST AREA CMF-001, NBN |
| 344 | SANDBLAST AREA CMH-001, NBN |
| 346 | SANDBLAST AREA CMH-002, NBN |
| 347 | SANDBLAST AREA CMM-002, NBN |
| 359 | SMALL ARMS TRAINING AREA (SATA), NBN |
| 374 | SPILL ON 01/12/87 OF <100 GM OF MERCURY NORTH OF 211-H, NBN |
| 387 | SPILL ON 12/01/71 OF 1000 GAL OF RAD WATER FROM 773-A, NBN |
| 394 | SPILL ON 02/25/85 OF 20000 CM OF WATER VAPOR - RAD, NBN |
| 414 | SPILL ON 04/24/91 OF .11 CI OF PU 239, 772-1F |
| 429 | SPILL ON 05/26/88 OF 10 GAL OF ETHYLENE GLYCOL-RAD FROM 772-F, NBN |
| 435 | SPILL ON 06/01/59 OF <1 CI OF SEGREGATED SOLVENT FROM 211-F, NBN |
| 436 | SPILL ON 06/16/87 OF ~1 GAL OF WATER - RAD, NBN |
| 456 | STEED POND, NBN |
| 457 | STORMWATER OUTFALL A-002, NBN |
| 465^a | <i>UNDERGROUND SUMP 321 M #001 321-M</i> |
| 466^a | <i>UNDERGROUND SUMP 321 M #002 321-M</i> |
| 480 | SANDBLAST AREA CMM-003, NBN |
| 481 | A-001 OUTFALL, NBN |
| 483 | STORMWATER OUTFALL A-013, NBN |
| 484 | M-AREA HAZARDOUS WASTE MANAGEMENT FACILITY: M-AREA VADOSE ZONE, 643-28G |
| 485 | COMBINED SPILLS FROM 221-F, NBN |
| 497 | SANDBLAST AREA CMM-001, NBN |
| 512 | COMBINED SPILLS FROM 221-H, NBN |
| 517 | COMBINED SPILLS NORTH OF BUILDING 105-R, NBN |
| 521 | ECODS A-2 (NEAR SANDBLAST AREA CMM-001, NBN) |
| 523 | ECODS F-1 (SOUTHEAST OF F-AREA ASH BASIN, 276-0F) |
| 524 | ECODS F-3 (EAST OF ECOD F-1) |
| 526 | ECODS B-1A, 1B (SOUTH OF B AREA) |
| 527 | ECODS B-2 (SOUTH OF B AREA) |
| 528^a | <i>ECODS B-3 (EAST OF B AREA, SOUTH OF ROAD C)</i> |
| 529 | ECODS B-4 (EAST OF B AREA, SOUTH OF ROAD C) |
| 530^a | <i>ECODS B-5 (ADJACENT TO ECODS B-3)</i> |
| 541 | ECODS G-1 (ADJACENT TO GUNSITE 072 RUBBLE PILE, 080-31G) |
| 542 | ECODS G-2 (ADJACENT TO FORESTRY FACILITIES) |

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| Unit No. | Unit Name |
|------------------------|---|
| 549 | GENERAL SEPARATIONS AREA EASTERN GROUNDWATER OPERABLE UNIT (FORMERLY KNOWN AS H-AREA GROUNDWATER OPERABLE UNIT) |
| 562 | A-AREA PROCESS SEWER LINES AS ABANDONED, NBN |
| 563 | F-AREA PROCESS SEWER LINES AS ABANDONED, NBN |
| 564 | H-AREA PROCESS SEWER LINES AS ABANDONED, NBN |
| 571 | LOW LEVEL RADIOACTIVE WASTE DISPOSAL FACILITY (NON-HAZARDOUS WASTE DISPOSAL PORTION OF 643-7E), 643-7E |
| 593^a | <i>770-U TEST REACTOR BUILDING (HWCTR)</i> |

^a – land use controls/institutional controls are part of the selected remedy

APPENDIX D

**SAMPLE LAND USE CONTROL LANGUAGE FOR INCLUSION IN DECISION
DOCUMENTS**

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The following language is intended as sample language to be considered for inclusion in decision documents (e.g., proposed plans, records of decision) that have land use controls as part of the final selected remedy. This language may be modified as necessary for waste unit specific requirements.

This language should be considered for inclusion in the Executive Summary, The Preferred Alternative, and the Post-ROD Document Schedule sections of proposed plans and in the Declaration (Description of the Selected Remedy), The Selected Remedy, and the Post-ROD Document Schedule sections of records of decision, as indicated below.

Proposed Plan Executive Summary and The Preferred Alternative and Record of Decision Declaration (Description of the Selected Remedy)

Based upon the investigation, the remedial action objectives are to (*note: this list is just for sample purposes only and should be modified to meet waste unit specific requirements*):

- reduce the risk to human health and the environment and
- achieve remedial goals for soil

The LUC objective(s) necessary to ensure the protectiveness of the preferred alternative is (*note: this list is just for sample purposes only and should be modified to meet waste unit specific requirements*):

- prevent contact, removal, or excavation of buried waste in the area;
- preclude residential use of the area; and
- prevent unauthorized access to contaminated groundwater in the area.

Record of Decision The Selected Remedy Section Language

The (insert waste unit name) is in an (industrial or residential – choose one) zone as identified on the Proposed SRS Future Land Use Map of the *SRS FFA Implementation Plan* (FFA, 1993) for both current and anticipated future land use. However, USDOE has recommended that residential use of SRS land in the vicinity of the (insert area name (i.e., A Area, P Area, etc.) be controlled; therefore, future residential use, potential residential water usage, and other controls will be taken to ensure long-term protectiveness. Institutional controls will restrict the (insert waste unit name) to future industrial use and will prohibit residential use of the area. Unauthorized excavation will also be prohibited and the waste unit will remain undisturbed. Institutional Controls will be maintained until such time that they are deemed unnecessary.

In accordance with the USEPA Region-4 Land Use Controls (LUCs) Policy, a LUC Assurance Plan (LUCAP) for the SRS has been developed and approved by the USEPA and the SCDHEC. Based upon the results of the (insert waste unit name) [baseline risk assessment, or the presence of buried source material that constitutes a leachability threat, or to prevent the excavation of buried source material – choose as applicable] the selected remedial alternative for this operable unit incorporates LUCs and therefore, a LUC Implementation Plan (LUCIP) for the (insert waste unit name) will be developed and submitted to the regulators for approval. The unit-specific LUCIP will be submitted with the (insert the name of the post-ROD document that the LUCIP will be submitted with) in accordance with the post-ROD document schedule provided in Figure (insert the post-ROD

schedule figure number). The LUCIP details how SRS will implement, maintain, and monitor the land use control elements of the (insert waste unit name) ROD to ensure that the remedy remains protective of human health and the environment. Upon regulatory approval, the (insert waste unit name) LUCIP will be appended to the SRS LUCAP.

The LUC objective(s) necessary to ensure the protectiveness of the preferred alternative is *(note: this list is just for sample purposes only and will be modified to meet waste unit specific requirements)*:

- prevent contact, removal, or excavation of buried waste in the area;
- preclude residential use of the area; and
- prevent unauthorized access to contaminated groundwater in the area.

The institutional controls required to prevent unauthorized exposure to the contaminated media at the (insert waste unit name) include the following *(note: this list is just for sample purposes only and will be modified to meet waste unit specific requirements)*:

- controlled access to the (insert waste unit name) through existing SRS security gates and perimeter fences and the site use/site clearance program;
- installation of warning signs at the most probable access points to contact the waste unit custodian prior to entry;
- general maintenance of the waste unit, including signs and visible markers, to identify the waste unit; and
- evaluation of the need for deed notifications/restrictions if the property is ever transferred to non-federal ownership, as required under CERCLA Section 120(h).

In addition, a survey plat of the area under LUCs will be prepared, certified by a professional land surveyor, and included with the post-ROD documents. In the case of LUCs and groundwater, an appropriate survey will be provided to delineate the groundwater under LUCs.

Other actions to be performed if the property is ever transferred to non-Federal ownership include a deed notification disclosing former waste management and disposal activities, as well as any remedial actions taken at the waste unit, and any continuing groundwater monitoring commitments. The deed notification will, in perpetuity, notify any potential purchaser that the property has been used for the management and disposal of (list what items were disposed at the unit – e.g., construction debris, etc.), including hazardous substances. These requirements are also consistent with the intent of the RCRA deed notification required at final closure of the RCRA facility, if contamination would remain at the unit. *(If the unit is a CERCLA only unit, then the previous sentence should be replaced with the following: RCRA deed notification requirements are not required for this waste unit since it does not require a RCRA permit modification per the SRS FFA, Appendix C.)* The deed will also include restrictions precluding residential use of the property. However, the need for these deed restrictions may be reevaluated at the time of transfer in the event that exposure assumptions differ and/or contamination no longer poses an unacceptable risk under residential use. Any reevaluation of the need for deed restrictions would be done through an amended ROD with the USEPA and the SCDHEC

approval. In addition, the survey plat will be reviewed and updated, as necessary, at the time the site is transferred and will be recorded with the appropriate county recording agency.

The post-ROD document, (list the post-ROD document(s) that will be submitted for the waste unit), will be submitted to the USEPA and the SCDHEC within approximately (insert time period for issuance – e.g. 180 days, one month, four months, etc.) after the issuance of the ROD. The (insert name of post-ROD document) will describe (insert words that detail what the post-ROD document will do). The regulatory review period, SRS revision period, and final regulatory review and approval period will be X days, Y days, and Z days, respectively.

Record of Decision – Section II Site and Operable Unit Compliance History, SRS Compliance History Subsection

(Note: The following paragraphs should be added after the second paragraph in this subsection.)

By separate Memorandum of Agreement (MOA) dated (insert date), the USEPA, the SCDHEC, and the USDOE agreed to implement facility-wide, certain periodic site inspection, certification, and notification procedures set forth in a LUCAP, developed pursuant to the USEPA Region 4 LUCs Policy. These procedures are designed to ensure the maintenance by USDOE-SRS personnel of any site-specific LUCs, set forth in a response action decision document, deemed necessary for future protection of human health and the environment. A fundamental premise underlying execution of that MOA was that through USDOE-SRS's substantial good-faith compliance with the procedures called for in the LUCAP, reasonable assurances would be provided to USEPA and SCDHEC as to the permanency of those remedies, which included the use of specific LUCS.

Although the terms and conditions of the LUCAP MOA are not specifically incorporated or made enforceable herein by reference, it is understood and agreed upon by USDOE-SRS, USEPA, and SCDHEC that the contemplated permanence of the remedy reflected herein is in part dependent upon USDOE's substantial good-faith compliance with the

specific LUC maintenance commitments reflected therein. Should such compliance not occur or should the MOA be terminated, it is understood that the protectiveness of the remedy concurred in may be reconsidered and that additional measures may need to be taken to adequately ensure necessary future protection of human health and the environment.

Statement of Basis/Proposed Plan and Record of Decision Post-ROD Schedule Language

A (list the post-ROD document(s) that will be submitted for the waste unit), will be submitted to the USEPA and the SCDHEC after the issuance of the ROD. The (insert name of post-ROD document) will describe (insert words that detail what the post-ROD document will do).

The post-ROD document schedule is illustrated in Figure XX. Key components of the schedule include the following (*note: this list is just for sample purposes only and will be modified to meet waste unit specific requirements*):

1. The (insert post-ROD document name) for the (insert waste unit name) will be submitted for USEPA and SCDHEC review (insert time period) after issuance of the ROD. This report will contain the LUCIP as part of the submittal.
2. USEPA and SCDHEC review of the Revision 0 (insert post-ROD document name) will be completed X days after submittal of the document.
3. SRS revision of the (insert post-ROD document name) will be completed Y days after receipt of all regulatory comments.
4. USEPA and SCDHEC final review and approval of the Revision 1 (insert post-ROD document name) will be completed Z days after submittal of the document.

APPENDIX E

MEMORANDUM OF AGREEMENT

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MEMORANDUM OF AGREEMENT**IMPLEMENTATION OF A LAND USE CONTROLS ASSURANCE
PLAN FOR THE UNITED STATES DEPARTMENT OF ENERGY
SAVANNAH RIVER OPERATIONS OFFICE****Section 1****PURPOSE AND SCOPE**

This Memorandum of Agreement (MOA) is entered into by the United States Department of Energy Savannah River Operations Office (SR), the United States Environmental Protection Agency Region IV office (EPA Region IV), and the South Carolina Department of Health and Environmental Control (SCDHEC). The purpose of this MOA, together with the attached "Land Use Control Assurance Plan" (LUCAP), is to establish and implement procedures to assure the long-term effectiveness of Land Use Controls (LUCs) being relied upon to protect human health and the environment at certain contaminated portions of the Savannah River Site (SRS) undergoing remediation pursuant to the Federal Facility Agreement for SRS. Consistent with the purposes as set forth in the LUCAP, SR, EPA Region IV, and SCDHEC are entering into the MOA as means to implement the provisions of the LUCAP.

Section 2**RESPONSIBILITIES**

The responsibilities of the Parties under this MOA shall be set forth in the attached "Land Use Control Assurance Plan for the Savannah River Site" which LUCAP is fully incorporated herein. The Parties agree to act in good faith in carrying out their responsibilities under the LUCAP.

Section 3**MODIFICATION**

Any minor modifications to this MOA and/or the LUCAP incorporated herein shall be made effective upon the written approval of the Parties' Federal Facilities Agreement Project Managers. Any major modification shall be made effective upon the written approval by each of the signatories to this MOA (or their successors). A modification will be considered major if so determined by any of the three Parties hereto.

Section 4

TERMINATION

This MOA shall terminate at such time as the undersigned representatives of the Parties or their successors mutually concur that the objectives of the Parties pursuant to this agreement have been fulfilled. Alternatively, any Party may withdraw from this MOA upon sixty (60) days written notice to the other Parties. This 60-day notice requirement is for the purpose of allowing the Parties an opportunity to discuss any issues contributing to a Party's desire to withdraw from this agreement in the interest of reaching resolution so that the agreement can continue. It is understood that, should SR withdraw from this MOA, EPA and/or SCDHEC may, consistent with applicable law, reconsider any remedy(ies) associated with any SRS area having a LUC in place at the time of such withdrawal.

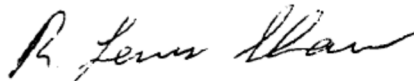
Signature Blocks:



Greg Rudy, Manager

U.S. Department of Energy, Savannah River Operations Office

Date: 10/15/99



R. Lewis Shaw, Deputy Commissioner

South Carolina Department of Health and Environmental Control

Date: 11/29/99



John H. Hankinson, Jr., Regional Administrator

U.S. Environmental Protection Agency, Region IV

Date: 3/26/2000

APPENDIX F

RECORD OF MODIFICATIONS AND UPDATES

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Table F- 1. Record of Modifications and Updates

| Date | Pages Changed | Modification or Update |
|-------------------|----------------------|---|
| 03/25/2000 | Not Applicable | LUCAP was declared effective. |
| 01/12/2002 | Tables | All applicable tables were updated. |
| 01/12/2002 | Appendix B | <p>The following unit-specific LUCIPs were added:</p> <ul style="list-style-type: none"> • A-Area Burning/Rubble Pit, 731-1A, • A-Area Burning/Rubble Pit, 731-A, • A-Area Rubble Pit, 731-2A, • C-Area Reactor Seepage Basin, 904-66G, • C-Area Reactor Seepage Basin, 904-67G, • C-Area Reactor Seepage Basin, 904-68G, • K-Area Reactor Seepage Basin, 904-65G, • L-Area Bingham Pump Outage Pit, 643-2G, • L-Area Bingham Pump Outage Pit, 643-3G, • Metals Burning Pit, 731-5A, • Miscellaneous Chemical Basin, 731-4A, • P-Area Bingham Pump Outage Pit, 643-4G, • SRL Seepage Basin, 904-51G1, • SRL Seepage Basin, 904-53G2, • SRL Seepage Basin, 904-54G, and • SRL Seepage Basin, 904-55G |
| 06/25/2003 | Tables and Figures | All applicable tables and figures were updated. |
| 06/25/2003 | Appendix B | <p>To aid in the update of the LUCAP, Appendix B was changed from numbered pages to Tabbed inserts. Each unit-specific LUCIP is located behind a tab.</p> <p>The following unit-specific LUCIPs were added:</p> <ul style="list-style-type: none"> • Ford Building Seepage Basin, 904-91G, and • L-Area Reactor Seepage Basin, 904-064G |
| 06/25/2003 | Appendix C | The figures in Appendix C duplicated the information contained in the Figures 2 to 7. The figures were combined and the figures in Appendix C were eliminated. |

Table F- 1. Record of Modifications and Updates (*continued*)

| Date | Pages Changed | Modification or Update |
|-------------|----------------------|---|
| 10/31/2003 | Tables and Figures | All applicable tables and figures were updated. |
| 10/31/2003 | Appendix B | The following unit-specific LUCIPs were added:: <ul style="list-style-type: none"> • A-Area Miscellaneous Rubble Pile, 731-6A, • Central Shops Burning/Rubble Pits, 631-1G, -3G, • F-Area Retention Basin, 281-3F, • L-Area Oil and Chemical Basin, 904-83G, • Old F-Area Seepage Basin, 904-49G, • P-Area Burning/Rubble Pit, 131-P, and • R-Area Bingham Pump Outage Pits, 643-8G, -9G, -10G and R-Area Unknowns, RUNK-1, -2, and -3 |
| 03/15/2004 | Tables and Figures | All applicable tables and figures were updated. |
| 03/15/2004 | Appendix B | The following unit-specific LUCIPs were added: <ul style="list-style-type: none"> • General Separations Area Consolidation Unit and • L-Area Hot Shop (Including Sandblast Area CML-003, NBN), 717-G |
| 04/30/2004 | Section 3.3 | The name, title, and phone number of the point of contact was updated. |
| 04/30/2004 | Tables and Figures | All applicable tables and figures were updated. |
| 04/30/2004 | Appendix B | The following unit-specific LUCIPs were added: <ul style="list-style-type: none"> • P-Area Rector Seepage Basins, 904-61G, -62G, and -63G, • L-Area Reactor Seepage Basin, 904-064G, and • L-Area Rubble Pile, 131-3L |
| 08/01/2004 | Tables and Figures | All applicable tables and figures were updated. |
| 08/01/2004 | Appendix B | The following unit-specific LUCIP was added: <ul style="list-style-type: none"> • TNX Groundwater (082-G), Old TNX Seepage Basin (904-076G), and New TNX Seepage Basin (904-102G) |
| 01/03/2005 | Tables and Figures | All applicable tables and figures were updated. |
| 01/03/2005 | Appendix B | The following unit-specific LUCIP was added: <ul style="list-style-type: none"> • R-Area Reactor Seepage Basins |
| 01/03/2005 | Appendix G | The 2004 Land Use Controls Certification was added. |

Table F- 1. Record of Modifications and Updates (*continued*)

| Date | Pages Changed | Modification or Update |
|-------------|--------------------------------|--|
| 04/15/2005 | Tables and Figures | All applicable tables and figures were updated. |
| 04/15/2005 | Appendix B | The following unit-specific LUCIP was added: <ul style="list-style-type: none"> • R-Area Burning/Rubble Pits (131-R and -1R) and R-Area Rubble Pile (631-25G) |
| 01/08/2008 | Appendix B, Tables and Figures | All applicable tables and figures were updated and the Unit-Specific LUCIPs were added. |
| 10/22/2009 | Appendix B, Tables and Figures | All applicable tables and figures were updated and the Unit-Specific LUCIPs were added. |
| 02/03/2011 | Appendix B, Tables and Figures | All applicable tables and figures were updated and the Unit-Specific LUCIPs were added |
| 10/5/2011 | Appendix B, Tables and Figures | All applicable tables and figures were updated and the Unit-Specific LUCIPs were added. |
| 01/26/2012 | Appendix B | Added F-Area Industrial Solid Waste Landfill LUCIP. |
| 03/15/2013 | Appendix B, Tables and Figures | All applicable tables and figures were updated. |
| 03/15/2013 | Appendix G | The 2012 Land Use Controls Certification was added. |
| 03/15/2014 | Tables and Figures | All applicable tables and figures were updated. |
| 03/15/2014 | Appendix B | Added B-Area Operable Unit LUCIP. Added as-built drawings to Section 2.0 of Final Remediation Report for the D-Area Burning/Rubble Pits (431-D and 431-ID); Section 2.0 of Final Remediation Report for the F-Area Burning/Rubble Pits (231-F, 231-IF, and 231-2F); Section 2.0 of Final Remediation Report for the Silverton Road Waste Unit (731-3A); Land Use Control Implementation Plan for R-Area Reactor Seepage Basins (904-57G, -58G,, -59G, -60G, -103G, and -104G); and Land Use Control Implementation Plan for the Chemical, Metals, and Pesticides Pits Operable Unit (080-170G, 080-180G, 080-181G, 080-182G, 080-183G, and 080-190G). |
| 03/15/2014 | Appendix G | The 2013 Land Use Controls Certification was added. |

Table F- 1. Record of Modifications and Updates (*continued/end*)

| Date | Pages Changed | Modification or Update |
|-------------------|----------------------|--|
| 08/27/2014 | Tables and Figures | All applicable tables and figures were updated. |
| 08/17/2014 | Appendix B | The following unit-specific LUCIP was added: <ul style="list-style-type: none"> • Lower Three Runs Tail Portion (Middle and Lower Subunits) <p>L-Area Hot Shop, 717-G, OU was designated as a No Action OU in Fiscal Year (FY) 2014 and was removed from the LUCAP.</p> |
| 12/07/2015 | Tables and Figures | All applicable tables and figures were updated. |
| 12/07/2015 | Appendix B | The following unit-specific LUCIP was added: <ul style="list-style-type: none"> • C-Area Operable Unit Early Action |
| 12/07/2015 | Appendix G | The 2015 Land Use Controls Certification was added. |
| 02/15/2018 | Appendix G | The 2017 Land Use Controls Certification was added. |
| 02/23/2023 | Tables and Figures | All applicable tables and figures were updated. |
| 02/23/2023 | Section 2.2 | Update the site procedure reference. |
| 02/23/2023 | Section 2.3 | Revised Environmental Restoration (ER) to Area Completion Projects (ACP). |
| 02/23/2023 | Sections 3.5 and 3.6 | Changed 5-year ROD review to 5-year remedy review since it's the remedies discussed in the RODs that are being reviewed. |
| 02/23/2023 | Appendix B | L-Area Rubble Pile, 131-3L, OU was designated as a No Action OU in FY2018 and was removed from the LUCAP. <p>The following unit-specific LUCIPs were added.</p> <ul style="list-style-type: none"> • Wetland Area at Dunbarton Bay, • D-Area OU Second Early Action, and • Lower Three Runs IOU (Upper Subunit) |
| 02/23/2023 | Appendix G | The 2022 Land Use Controls Certification was added. |
| 01/29/2024 | Appendix B | The following unit-specific LUCIP was added: <ul style="list-style-type: none"> • Addendum to the Revision 1 LUCIP for the Wetland Area at Dunbarton Bay |
| 01/29/2024 | Appendix G | The 2023 Land Use Controls Certification was added. |

APPENDIX G

ANNUAL LAND USE CERTIFICATION REQUIRED UNDER SECTION 3.9

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Land Use Controls Units

During Fiscal Year (FY) 2000, the Parties approved the Land Use Control Assurance Plan (LUCAP) for Savannah River Site (SRS) and signed its associated Memorandum of Agreement. The LUCAP is updated periodically to include additional approved unit-specific Land Use Control Implementation Plans (LUCIPs). The unit-specific LUCIPs detail how SRS will implement, maintain, and monitor the land use control (LUC) elements of the selected remedy to ensure that the remedy remains protective of human health and the environment.

Records of Decision (RODs) have been issued for some Resource Conservation and Recovery Act (RCRA)/Comprehensive Environmental Response, Compensation, and Liability Act Units at the SRS in which the selected alternative is or includes LUCs. To assure United States Environmental Protection Agency, South Carolina Department of Health and Environmental Control, and the public that United States Department of Energy (USDOE) is maintaining the LUCs as stipulated, the Manager, Savannah River Operations Office, shall annually certify these units. These units are currently being controlled in accordance with the unit-specific RODs, unit-specific LUCIPs, and in accordance with the LUCAP for SRS.

Unit-specific LUCs were not part of the interim remedies at the E-Area Low-Level Waste Facility (LLWF) (Slit Trench Disposal Units 1 to 5) Operable Unit (OU) and the F-Area Tank Farm (FTF) OU (Waste Tanks 5, 6, and 17 to 20). The E-Area LLWF and the FTF OU are currently in the operational phase, and OU-specific LUCs are deferred until final closure of the entire E-Area LLWF and FTF OUs. SRS facility security and administrative controls that restrict unauthorized access to these operating facilities were not previously recognized as part of the interim remedies. In the *Fifth Five-Year Remedy Review Report for Savannah River Site Operable Units with Geosynthetic or Stabilization/Solidification Cover Systems* (SRNS-RP-2016-00610, Revision 1.1, December 2017), USDOE recommended revising the Federal Facility Agreement Annual Progress Report list of LUC Units to include these OUs to recognize SRS facility security and administrative controls that restrict unauthorized access as providing long-term protection of human health and the environment.

The H-Area Tank Farm (HTF) OU (Waste Tank 16) Interim ROD (Irod) (SRR-CWDA-2015-00157, Revision 1, July 2016) was issued in August 2016. The HTF OU (Waste Tank 12) Explanation of Significant Difference to the Irod (SRR-CWDA-2016-00107, Revision 0, December 2016) was issued in April 2017. A remedy evaluation was premature for inclusion in the *Fifth Five-Year Remedy Review Report for Savannah River Site Operable Units with Geosynthetic or Stabilization/ Solidification Cover Systems* (SRNS-RP-2016-00610, Revision 1.1, December 2017). However, the same conditions apply to the operational HTF OU as to the E-Area LLWF and FTF OUs. Therefore, these OUs were added to the list below to certify long-term protectiveness through compliance with the SRS facility security and administrative controls. A remedy evaluation for the HTF OU (Waste Tanks 12 and 16) was discussed for the first time in the *Sixth Five-Year Remedy Review Report for Savannah River Site Operable Units with Geosynthetic or Stabilization/ Solidification Cover Systems* (SRNS-RP-2021-04229, Revision 1, July 2022). Additional slit trench disposal units and waste tanks will be added as interim remedies are implemented.

Unit-specific LUCs were not part of the interim remedy at the C-Area Groundwater (CAGW) OU. The electrical resistance heating with soil vapor extraction interim remedy was determined to be protective of human health and the environment in the short-term. However, for the remedy to be protective in the long-term, additional remedial actions, including LUCs (if needed), will need to be implemented at CAGW OU. SRS facility security and administrative controls that restrict unauthorized access to this OU were not previously recognized as part of the interim remedy. In the *Sixth Five-Year Remedy Review Report for Savannah River Site Operable Units with Groundwater Remedies* (SRNS-RP-2019-00511, Revision 1, July 2020), USDOE recommended revising the FFA Annual Progress Report list of LUC Units to include this OU to recognize SRS facility security and administrative controls that restrict unauthorized access as providing long-term protection of human health and the environment. Therefore, the CAGW OU was added to the list below.

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The FY2023 certification is applicable to the following RCRA/CERCLA Units.

| Unit Name | SRS Index Number(s) | SEMS Number(s) |
|---|----------------------------|-----------------------|
| A-Area Burning/Rubble Pits (731-A, -1A) and Rubble Pit (731-2A) and the Miscellaneous Chemical Basin/Metals Burning Pit (731-4A and -5A) OU (includes A-Area Ash Pile, 788-2A) | 45, 46, 49, 101, 102, 237 | 28 |
| A-Area Miscellaneous Rubble Pile (731-6A) OU | 48 | 30 |
| B-Area OU (consisting of Heavy Water Components Test Reactor [Building 770-U] and Early Construction and Operational Disposal Site [ECODS] B-3 [East of B Area, South of Road C] [no building number {NBN}] and ECODS B-5 [Adjacent to ECODS B-3] [NBN]) | 528, 530, 2003 | 48 |
| C-, K-, and L-Reactor Complexes Early Action | 577, 583, 584 | 79, 90, 91 |
| C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning Rubble Pit (NBN) OU | 51, 566 | 31 |
| C-Area OU Early Action (consisting of C-Area Process Sewer Lines as Abandoned [NBN], C-Area Reactor Area Cask Car Railroad Tracks as Abandoned [NBN], ECODS C-1 [Near C-Area Reactor Discharge Canal {NBN}], Potential Release from C-Area Disassembly Basin [NBN], Potential Release from C-Area Reactor Cooling Water System [186/190-C]) | 555, 475, 522, 240, 242 | 79 |
| C-Area Groundwater OU (NBN) | 146 | 82 |
| C-Area Reactor Seepage Basins (904-66G, -67G, and -68G) OU | 53, 54, 55 | 60 |
| Central Shops Burning/Rubble Pits (631-1G and -3G) OU | 58, 59 | 50 |
| Chemicals, Metals, and Pesticides Pits (080-170G, -171G, -180G, -182G, -183G, and -190G) OU | 61, 62, 63, 64, 65, 66, 67 | 24 |
| D-Area Burning/Rubble Pits (431-D and -1D) OU | 32, 33 | 15 |
| D-Area Expanded OU (consisting of D-Area Rubble Pit [431-2D] and D-Area Ash Basin [488-D]) | 68, 273 | 67 |
| D-Area Oil Seepage Basin (631-G) OU | 26 | 27 |
| D-Area Operable Unit (DAOU) Early Action (consisting of D-Area Asbestos Pit [080-20G] and D-Area Coal Pile Runoff Basin [489-D] [Northern 25%]) | 69, 211 | 63 |
| DAOU Second Early Action (consisting of D-Area Ash Basins [488-1D {including Inlet Basins} and 488-2D], D-Area Ash Landfill [488-4D], and D-Area Coal Pile Runoff Basin [489-D] [Southern 75%]) | 238, 272, 548, 211 | 63 |
| E-Area Low-Level Waste Facility (643-26E) OU (Slit Trench Disposal Units 1 to 5) | 592 | 86 |
| ECODS L-1, N-2, P-2, and R-1A, -1B, -1C OU | 535, 539, 545, 540 | 22 |
| F-Area Burning/Rubble Pits (231-F, -1F, and -2F) OU | 34, 35, 36 | 14 |
| F-Area Industrial Solid Waste Landfill (F-Area Railroad Crosstie Pile) (NBN) | 279 | N/A* |
| F-Area Retention Basin (281-3F) OU | 73 | 23 |
| F-Area Tank Farm OU (Waste Tanks 5 to 6, 17 to 20, F-Area Diversion Boxes 5 and 6) | 283, 580 | 23 |

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| Unit Name | SRS Index Number(s) | SEMS Number(s) |
|--|-----------------------------------|-----------------------|
| Ford Building Seepage Basin (904-91G) OU | 75 | 58 |
| General Separations Area Consolidation Unit (consisting of Old Radioactive Waste Burial Ground [ORWBG] [including Solvent Tanks 650-01E to 650-22E] [643-E], HP-52 Ponds, H-Area Retention Basin [281-3H] and Spill on 05/01/1956 of Unknown of Retention Basin Pipe Leak [NBN], Warner's Pond [685-23G] and Spill on 03/08/1978 of Unknown of Seepage Basin Pipe Leak in H-Area Seepage Basin [NBN], and Spill on 02/08/78 of Unknown of H-Area Process Sewer Line Cave-In [NBN]) | 18, 29, 28, 417, 27, 405, 398 | 32 |
| Gunsite 012 OU (consisting of Gunsite 012 Rubble Pile [NBN], Rubble Pile Across from Gunsite 012 [NBN], and ECODS G-3 [Adjacent to Gunsite 012] [NBN]) | 163, 337, 544 | 78 |
| H-Area Tank Farm OU (Waste Tanks 12 and 16) | 298, 582 | 89 |
| Heavy Equipment Wash Basin (NBN) OU | 502 | 53 |
| K-Area Bingham Pump Outage Pit (643-1G) OU | 83 | 20 |
| K-Area Burning/Rubble Pit (131-K) and K-Area Rubble Pile (631-20G) OU | 84, 88 | 40 |
| K-Area Reactor Seepage Basin (904-65G) OU | 87 | 55 |
| L- and P-Area Bingham Pump Outage Pits (643-2G, -3G, and -4G) OU | 91, 92, 107 | 26, 39 |
| L-Area Oil and Chemical Basin (904-83G) OU | 96 | 17 |
| L-Area Reactor Seepage Basin (904-64G) OU | 306 | 65 |
| L-Area Southern Groundwater (NBN) OU | 487 | 77 |
| Lower Three Runs Integrator Operable Unit (IOU) Tail Portion (Middle and Lower Subunits) | 505 | 35 |
| Lower Three Runs IOU (Upper Subunit) | 110, 312, 505 | 35 |
| M-Area OU (consisting of Potential release of Heavy Metals from 321-M Abandoned Sewer Line [NBN], Salvage Yard [741-A], Underground Sump 321-M #001, and Underground Sump 321-M #002) | 585, 326, 340, 465, 466 | 92 |
| M-Area Settling Basin Inactive Process Sewer Lines OU (081-M) | 100, 234 | 19 |
| Old F-Area Seepage Basin (904-49G) OU | 105 | 16 |
| P-Area Burning/Rubble Pit (131-P) OU | 108 | 59 |
| P-Area OU (consisting of Spill on 03/15/79 of 500 Gallons of Contaminated Water [NBN], P-Area Ash Basin [188-0P], Potential Release from P-Area Disassembly Basin [105-P], Potential Release from the P-Area Reactor Cooling Water System [186/190-P], P-Area Reactor Area Cask Car Railroad Tracks as Abandoned [NBN], P-Area Process Sewer Lines as Abandoned [NBN]) | 126, 313, 314, 316, 477, 557, 587 | 94 |
| P-Area Reactor Seepage Basins (904-61G, -62G, and -63G) OU | 317, 318, 319 | 66 |
| R-Area Bingham Pump Outage Pits (643-8G, -9G, and -10G) and R-Area Unknown Pits #1, #2, #3 (RUNK-1, -2, and -3) OU | 113, 114, 115, 550, 551, 552 | 38 |
| R-Area Burning/Rubble Pits (131-R and 131-1R) and R-Area Rubble Pile (631-25G) OU | 117, 116, 118 | 43 |

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| Unit Name | SRS Index Number(s) | SEMS Number(s) |
|---|--|----------------|
| R-Area OU (consisting of Area on the North Side of Building 105-R, Laydown Area North of 105-R, and Release from the Decontamination of R-Area Reactor Disassembly Basin [NBN], Combined Spills North of Building 105-R [NBN], Cooling Water Effluent Sump [107-R], Potential Release from R-Area Disassembly Basin [NBN], Potential Release of NaOH/H ₂ SO ₄ from 183-2R [NBN], R-Area Ash Basin [188-0R], R-Area Groundwater, R-Area Process Sewer Lines as Abandoned [NBN], and R-Area Reactor Area Cask Car Railroad Tracks as Abandoned [NBN]) | 231, 233, 271, 288, 324, 329, 330, 478, 513, 517, 556, 588 | 95 |
| R-Area Reactor Seepage Basins (904-57G, -58G, -59G, -60G, -103G, and -104G) OU | 119, 120, 121, 122, 123, 124 | 25 |
| Silverton Road Waste Site (731-3A) | 41 | 13 |
| Savannah River Laboratory Seepage Basins (904-53G1, -53G2, -54G, and -55G) OU | 133, 134, 135, 136 | 47 |
| T-Area OU (consisting of Neutralization Sump [678-T], TNX Outfall Delta, Lower Discharge Gully, and Swamp [NBN], TNX-Area Process Sewer Lines and Tile Fields as Abandoned [NBN], and X-001 Outfall Drainage Ditch [NBN] [See USDOE Letter SGP-05-128 for list of decommissioned facilities added to T-Area Completion]) | 589, 310, 500, 559, 467 | 96 |
| TNX OU (consisting of TNX Burying Ground [643-5G] [including Spill on 01/12/53 of 1/2 Ton of Uranyl Nitrate], New TNX Seepage Basin [904-102G], Old TNX Seepage Basin [904-076G], and TNX Groundwater [082-G]) | 139, 104, 106, 25, 127 | 21, 29 |
| Wetland Area at Dunbarton Bay in Support of Steel Creek IOU | 509 | 71 |

* N/A = Not Applicable

SEMS = Superfund Enterprise Management System

Notes:

- The L-Area Hot Shop OU (717-G) was designated as a No Action OU in FY2014 and was removed from this LUC certification list.
- The L-Area Rubble Pile (131-3L) OU was designated as a No Action OU in FY2018 and was removed from this LUC certification list.
- The E-Area LLWF, FTF, HTF, and CAGW OUs were added to the list to certify long-term protectiveness through compliance with the SRS facility security and administrative controls.
- The LUCIP for the Lower Three Runs Integrator Operable Unit (Upper Subunit) (SRNS-RP-2022-00017, Revision 1, August 2022) was approved by South Carolina Department of Health and Environmental Control (SCDHEC) and United States Environmental Protection Agency (USEPA) on September 22, 2022 and October 4, 2022, respectively. The installation of the 55 signs was completed on July 17, 2023. The initial inspection is expected to be conducted in Spring of 2028. Field inspections will be completed every five years. Additional inspections may be necessary in the event of unusual weather or other condition warranting inspection.
- The LUCIP for the Wetland Area at Dunbarton Bay in Support of Steel Creek IOU (SRNS-RP-2018-00479, Revision 1, November 2018) was approved by EPA and SCDHEC on November 14, 2018 and November 28, 2018, respectively. The signs were installed on January 8, 2020. Per the regulatory approved LUCIP, the field inspections will be performed every five years. The initial inspection was completed on November 15, 2022. The Addendum to the Revision 1 LUCIP for the Wetland Area at Dunbarton Bay in Support of Steel Creek IOU (SRNS-RP-2023-00335, Revision 0, June 2023) was approved by EPA and SCDHEC on July 31, 2023. The signs discussed in the LUCIP Addendum were installed on October 17, 2023. Per the LUCIP Addendum, there is no change to the field inspection and maintenance activities because of the Addendum. The next inspection will be completed in November 2027. Additional inspections may be necessary in the event of unusual weather or any other condition warranting inspection.

USDOE-SR Certification for Land Use Controls

I certify that the Savannah River Site has maintained compliance with all unit-specific Land Use Control Implementation Plans in accordance with the *Land Use Control Assurance Plan for the Savannah River Site*.

Signature: **Michael D. Budney** Digitally signed by Michael D. Budney
Date: 2023.11.29 08:38:32 -05'00' _____ Date: 11/29/23
Michael D. Budney
Manager
Savannah River Operations Office