Chapter 3: **Compliance Summary**

The Savannah River Site (SRS) implements programs to meet the requirements of applicable federal and state environmental laws and regulations, as well as U.S. Department of Energy (DOE) Orders, notices, directives, policies, and guidance. The Site's goal is to comply with regulatory requirements and eliminate or minimize any environmental impacts. SRS has a decades-long commitment to environmental compliance and protecting human health and the environment.

2024 Highlights

Permitting and Compliance

- SRS complied with a multitude of federal laws and DOE orders, demonstrating its commitment to environmental and safety standards. Refer to Table 3-1 and Section 3.1.1 for comprehensive lists.
- SRS managed 433 operating and construction permits and their requirements.
- SRS did not have any releases exceeding the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Reportable Quantity.
- The Environmental Protection Agency (EPA) and/or South Carolina Department of Environmental Services (SCDES) audited and inspected various SRS Environmental programs to ensure regulatory compliance. SRS did not receive a Notice of Violation (NOV) in 2024.

Environmental and Human Health Protection

- SRS air and water discharges containing radionuclides were well below the DOE public dose limit of 100 millirem (mrem) per year. (Chapter 6, *Radiological Dose Assessment*, explains the public dose.)

Environmental Remediation

- At the end of fiscal year (FY) 2024, SRS had completed the surface and groundwater cleanup of 415 of the 515 operable units (OUs) containing solid or hazardous waste. SRS is currently remediating 8 OUs.

Radioactive Waste Management

- The annual reviews for the E Area Low-Level Waste Facility Performance Assessment (PA) and the Saltstone Disposal Facility (SDF) PA showed that SRS continued to operate these facilities in a safe and protective manner.
- SRS sent 64 transuranic waste shipments to the Waste Isolation Pilot Plant (WIPP) for deep geologic disposal.

2024 Highlights (continued)

Tank Closure (Radioactive Liquid Waste Processing and Dispositioning)

- The Salt Waste Processing Facility (SWPF) treated more than 3.1 million gallons of salt solution.
- More than 4.7 million gallons of waste was processed into grout and disposed of in the SDF.
- The Defense Waste Processing Facility filled 52 canisters with 214,721 pounds of glass waste mixture, immobilizing approximately 6.4 million curies of high-level radioactive waste.
- The F and H Area Effluent Treatment Facility processed approximately 4.3 million gallons of treated wastewater.

3.1 INTRODUCTION

Complying with environmental regulations and U.S. Department of Energy (DOE) Orders is integral to Savannah River Site (SRS) operations. This chapter summarizes how SRS complies with applicable environmental regulations and programmatic requirements. Table 3-1 summarizes the key federal environmental laws that SRS follows.

Table 3-1 Key Federal Environmental Laws Applicable to SRS

Regulatory Program	Description	Section Number
Emergency Planning and Community Right-to-Know Act (EPCRA), also referred to as Superfund Amendments and Reauthorization Act (SARA), Title III	Requires SRS to report hazardous substances and their releases to the Environmental Protection Agency (EPA), state emergency response commissions, and local planning units.	3.2.1
National Environmental Policy Act (NEPA)	Requires federal agencies to identify potential environmental consequences of proposed federal actions and alternatives to ensure informed, environmentally sound decision-making regarding design and implementing programs and projects.	3.3.1
Endangered Species Act (ESA)	Prevents the extinction of federally listed endangered or threatened species and conserves critical habitats.	3.4.1
Migratory Bird Treaty Act (MBTA)	Protects migratory birds, including their eggs and nests.	3.4.2
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)	Regulates pesticides through a state-administered certification program.	3.4.3

Table 3-1 Key Federal Environmental Laws Applicable to SRS (continued)

Regulatory Program	Description	Section Number
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)	Establishes criteria for liability and compensation, cleanup, and emergency response requirements for hazardous substances released to the environment. Protects human health and the environment by cleaning up contaminated sites.	3.5.1
Federal Facility Compliance Act (FFCA)	Requires federal agencies to comply with the same environmental regulations (federal, state, and local) as private entities, waiving sovereign immunity for fines and penalties.	3.5.2
Resource Conservation and Recovery Act (RCRA)	Governs hazardous and nonhazardous solid waste management and underground storage tanks (USTs) containing petroleum products, hazardous materials, and wastes. RCRA also regulates universal waste and recyclable used oil.	3.5.3
Toxic Substances Control Act (TSCA)	Protects human health and the environment by assessing the potential risks of new and existing chemicals. Regulates the manufacture, importation, processing, distribution, use, and disposal of chemicals. Regulated chemicals include polychlorinated biphenyls (PCBs), radon, asbestos, and lead.	3.5.6
National Historic Preservation Act (NHPA)	Protects historical and archaeological sites.	3.5.7
Federal Facility Agreement (FFA)	EPA, Department of Energy, and South Carolina Department of Environmental Services integrates CERCLA and RCRA requirements to achieve a comprehensive remediation strategy, set annual work priorities, and establish milestones to clean up and close the high-level radioactive waste tanks at SRS.	3.6.1
Ronald W. Reagan National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2005	Allows the Secretary of Energy, in consultation with the Nuclear Regulatory Commission (NRC), to determine that certain waste from reprocessing is not high-level radioactive waste requiring deep geologic disposal if it meets the criteria set forth in Section 3116(a). Section 3116(b) addresses monitoring by the NRC in coordination with SCDES.	3.6.3.1
Atomic Energy Act/DOE Order 435.1	Grants DOE the authority to develop applicable standards (documented in DOE Orders) to protect the public, workers, and environment from radioactive materials.	3.6.5

Table 3-1 Key Federal Environmental Laws Applicable to SRS (continued)

Regulatory Program	Description	Section Number
Clean Air Act (CAA)	Establishes air quality standards for criteria pollutants, such as sulfur dioxide and particulate matter, and for hazardous air pollutant emissions, such as radionuclides and benzene.	3.7.1
Clean Water Act (CWA)	Regulates liquid discharges at outfalls (for example, drains or pipes) that carry effluent to streams (National Pollutant Discharge Elimination System [NPDES], Section 402). It also regulates dredge and fill operations in Waters of the United States (Section 404) and establishes surface water quality standards for those activities (Water Quality Criteria, Section 401).	3.8.1
Safe Drinking Water Act (SDWA)	Protects drinking water and public drinking water resources. Provides for establishment of national health-based standards to protect against both naturally-occurring and man-made contaminants that may be found in drinking water.	3.8.2

Note:
South Carolina Department of Environmental Services (SCDES) was previously known as South Carolina Department of Health and Environmental Control (SCDHEC) prior to July 1, 2024.

3.1.1 Major DOE Orders for Environmental Compliance

SRS complies with the following major DOE Orders in addition to state and federal regulations for environmental compliance:

- DOE Order 226.1B, *Administrative Change 1, Implementation of Department of Energy Oversight Policy*—This order requires DOE to provide oversight related to protecting the public, workers, environment, and national security assets effectively through continuous improvement.
- DOE Order 231.1B, *Administrative Change 1, Environment, Safety and Health Reporting*—This order requires the Site to prepare this SRS Environmental Report.
- DOE Order 232.2A, *Minor Change 1, Occurrence Reporting and Processing of Operations Information*—This order requires DOE to use the designated system called Occurrence Reporting and Processing System (ORPS). ORPS ensures that the DOE complex and the NNSA are informed of events that could adversely affect the health and safety of the public and workers, the environment, DOE missions, or DOE's credibility.
- DOE Order 414.1E, *Quality Assurance*—See Chapter 8, *Quality Assurance*, of this report.
- DOE Order 435.1, *Administrative Change 2, Radioactive Waste Management*—See Section 3.6.5 in this chapter of this report.
- DOE Order 458.1, *Limited Change 4, Radiation Protection of the Public and the Environment*—See Chapter 5, *Radiological Environmental Monitoring Program*, and Chapter 6, *Radiological Dose Assessment*, of this report.

3.2 COMMUNITY ENGAGEMENT

SRS is committed to involving the community in emergency planning related to hazardous materials. SRS complies with requirements to report on chemical storage, use, and releases, which empowers communities to understand potential risks and prepare for emergencies.

3.2.1 Emergency Planning and Community Right-to-Know Act (EPCRA)/Superfund Amendment Reauthorization Act (SARA) Title III

The Emergency Planning and Community Right-to-Know Act (EPCRA) requires facilities to notify state and local emergency planning entities about their hazardous chemical inventories and to report releases of hazardous chemicals. The Pollution Prevention Act of 1990 expanded the EPCRA-mandated Toxic Release Inventory (TRI) report to include waste management. SRS complies with the applicable EPCRA-reporting requirements and incorporates the applicable TRI chemicals into its pollution prevention programs.

As required by Section 312, Chemical Inventory Reporting of EPCRA, SRS completes an annual Tier II Chemical Inventory Report for all hazardous chemicals exceeding specified quantities present at SRS during the calendar year. The inventory is due by March 1 each year. Table 3-2 shows the total number of chemicals in the Tier II chemical inventory report.

Table 3-2 Tier II Chemical Inventory Report, 2022 - 2024

Reporting Year	Reportable Chemical Categories
2022	50
2023	55
2024	57

As required by Section 313, Toxic Chemical Release Inventory of EPCRA, SRS must file an annual TRI facility report each year by July 1 for the previous year. SRS calculates chemical releases to the environment for each regulated chemical and reports to EPA those above each threshold value. SRS will submit the annual report for the 2024 reporting period in June 2025. SRS submitted the 2023 annual report on June 28, 2024, for each of the following regulated chemicals: ammonia, chromium compounds, lead compounds, mercury compounds, nickel, nitric acid, and sulfuric acid. Details are on the EPA TRI Program website.

3.2.2 Release Reporting

Releases to the air, water, and land must comply with legally enforceable licenses, permits, regulations, and/or DOE Orders. SRS reports routine releases through implementation of the environmental monitoring program. If an unpermitted release to the environment of an amount greater than or equal to a Regulatory Limit or Reportable Quantity (RQ) of a substance (including radionuclides) occurs, multiple regulations—such as the Emergency Planning and Community Right-to-Know Act (EPCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Clean Water Act (CWA); and the Clean Air Act (CAA)—require SRS to send a notice to either the National Response Center or applicable state agencies, or both. SRS did not have any releases exceeding the CERCLA RQ in 2024.

3.3 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

The National Environmental Policy Act (NEPA) process identifies the potential environmental consequences of proposed federal activities and the alternatives that support informed and environmentally sound decision-making regarding designing and implementing the proposed activities.

The SRS NEPA program complies with 10 CFR 1021, DOE regulations for compliance with NEPA. SRS initiates the required NEPA evaluation by completing an Environmental Evaluation Checklist (EEC) for new projects or changes to existing ones. SRS uses the EEC to review the proposed action, identify any potential environmental concerns, and determine the appropriate level of NEPA review required for the proposed activity. SRS conducted 1,004 EEC NEPA reviews of proposed activities in 2024. Categorical Exclusion (CX) determinations accounted for more than 94% of completed reviews. The SRS NEPA webpage contains additional information on SRS NEPA activities. Table 3-3 summarizes the types of NEPA EEC reviews in 2024.

Table 3-3 Summary of 2024 NEPA EEC Reviews

Type of NEPA Review	Number
Categorical Exclusion (CX) Determinations[a]	948
"All No" Environmental Evaluation Checklist (EEC) Determinations[a]	12
Previous NEPA Review[a]	37
Additional NEPA Review Recommended	7
Total	**1,004**

[a] Proposed action that requires no further NEPA action

The following major NEPA reviews were either completed or in progress in 2024:

- **Adoption of the Environmental Assessment (EA) and Issuance of Finding of No Significant Impact (FONSI) of the United States Department Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) Final EA for *Feral Swine Damage Management in South Carolina*.** On January 12, 2024, DOE announced its decision to adopt the USDA-APHIS EA (DOE/EA-2243) based on the determination that the analysis meets the standards for an adequate assessment under the Council of Environmental Quality and DOE NEPA regulations, concluding that it adequately assesses and discloses the environmental impacts of the proposed action and no action alternative.
- **Supplement Analysis (SA) and Issuance of Finding of No Significant Impact (FONSI) for the existing Environmental Assessment (EA) of Feral Swine Damage Management in South Carolina.** On December 6, 2024, DOE announced that the pilot project was very successful and proposed to continue to work with APHIS, targeting additional areas across SRS. DOE prepared the Supplement Analysis for *Continued Feral Swine Damage Management at Savannah River Site* (DOE/EA-2243-SA-1) and concluded that the United States Forest Service-Savannah River (USFS-SR) continuing feral swine removal by means of APHIS in other areas across SRS would have impacts no greater than those described in the 2024 EA. Therefore, the preparation of an environmental impact statement (EIS) is not required, and DOE issued a revised FONSI.
- **Draft Environmental Impact Statement for High-Assay Low-Enriched Uranium (HALEU) Availability Program *Activities in Support of Commercial Production of HALEU*.** On February 29,

2024, DOE prepared a draft EIS for HALEU Availability Program *Activities in Support of Commercial Production of HALEU Fuel* (DOE/EIS-0559). The draft EIS evaluates implementation of facilitating the commercialization of HALEU production and DOE's acquisition of HALEU, including the direct and reasonably foreseeable indirect effects of the acquisition. HALEU produced from down-blending existing Highly-Enriched Uranium (HEU) uranyl nitrate solution in storage at H Canyon at SRS could supply a limited amount of HALEU, although considerably less than the 290 metric tons (MT) identified as part of the Proposed Action. However, this would not stimulate commercial development of a domestic HALEU production capability nor meet near-term HALEU needs and, therefore, is not analyzed in the HALEU EIS.

- **Supplement Analysis (SA) and Amended Record of Decision (AROD) for the Defense Waste Processing Facility (DWPF) Failed Melter Aboveground Storage at Savannah River Site.** On December 23, 2024, DOE announced its decision to construct an interim aboveground storage facility for storage of two Defense Waste Processing Facility (DWPF) failed melters (Melter Nos. 1 and 2) in lieu of underground storage. The SA found that the proposed change and information discussed in this SA are not significant and therefore do not require a supplement to the Final Supplemental Environmental Impact Statement (Final SEIS) *Defense Waste Processing Facility* (DOE/EIS-0082-S).

Table 3-4 summarizes the major NEPA reviews completed or in-progress in 2024.

Table 3-4 Summary of Major NEPA Reviews Completed or in Progress in 2024

Type of National Environmental Policy Act (NEPA) Review	Number
Environmental Impact Statement (EIS)	0
Draft EIS	1
Record of Decision (ROD)/Amended ROD (AROD)	1
Interim Action	0
Environmental Assessment (EA)	1
Finding of No Significant Impact (FONSI)	2
Supplement Analysis (SA)	2
Total	**7**

3.4 ANIMAL AND PLANT LIFE

3.4.1 Endangered Species Act (ESA)

Since 1973, the Endangered Species Act (ESA) has protected fish, wildlife, and plant species in danger of, or threatened with, extinction and strives to conserve the ecosystems upon which they depend. Several federally listed animal species exist at SRS, including the wood stork, the red-cockaded woodpecker (RCW), the shortnose sturgeon, and the Atlantic sturgeon, as well as plant species, including the pondberry and the smooth coneflower. Additionally, SRS is home to the gopher tortoise, a reptile species the state of South Carolina lists as endangered.

SRS is the only DOE site to conduct experimental translocations of gopher tortoises. The Site captures, transports, and releases tortoises to other locations. A study by the University of Georgia's Savannah River

Ecology Laboratory (SREL) demonstrated that long-term (12 months) penning was an effective way to promote site fidelity, dramatically increasing the number of tortoises that settled into the release site. Conservation organizations use protocols developed from these SRS translocation studies to establish viable populations elsewhere in the species' range.

South Carolina's State Wildlife Action Plan of 2015 recognizes additional plants and animals not on the federal list to encourage conservation of these species. Those found on SRS include the Carolina gopher frog and the southern hognose snake, as well as numerous other animals and plants considered species of conservation concern. Gopher frogs are endangered in South Carolina and being considered for listing on the federal Endangered Species Act. SRS is one of two population strongholds in the state. USFS-SR considers these species sensitive and evaluates potential impacts to them when developing forest management plans. SREL's head-starting program aims to increase survival of captive-bred gopher frogs released into the wild, and wetland assessments define ideal habitats for the frogs and aid informed management decisions. SREL and USFS-SR are collaborating to establish a gopher frog habitat management plan. SREL's current research includes population monitoring and analysis of various head-starting techniques including dietary changes and rearing location on growth and survival. In 2024, with support from the U.S. Fish and Wildlife Service (USFWS), SREL released 200 head started gopher frogs.

Top Left, Setting up an Acoustic Recording Device; Bottom Left, Gopher Frog Tadpole Being Measured for Estimates of Growth Rate; Top Right, Gopher Frog Egg Mass in a Wetland; Bottom Right, Releasing a Gopher Frog.

While the bald eagle is no longer a federally listed threatened or endangered species, the Bald and Golden Eagle Protection Act still provides protection against "take" and nest disturbance for these species. Bald eagles have historically nested on the SRS and are year-round residents. The 2024 mid-winter bald eagle survey showed 2 active nest sites and a total of 8 bald eagles present on Par Pond and L Lake. Golden eagles are known to use SRS as wintering habitat and during the 2024 Audubon Christmas Bird Count, 2 Golden eagles were recorded.

The USFS-SR actively manages more than 65,000 acres in the RCW habitat management areas. It further improved RCW habitat in 2024 by prescribed burning of 10,905 acres and thinning forests. Restoring the natural fire regime improves native plant diversity in the understory, which enhances the native longleaf pine and wiregrass communities. Additionally, USFS-SR insert artificial cavities into

Inserting Artificial Cavity for Red-Cockaded Woodpecker Habitat.

living pine trees to increase the number of available cavities for roosting and nesting. From 1985 through 2024, active RCW clusters increased from 5 to 166 due to successful habitat restoration. As of 2024, the USFS-SR managed 35 potential recruitment clusters for a total of 201 sites for the RCW. The expected population growth rate for RCW is approximately 5% each year.

In addition to managing endangered wildlife species, the USFS-SR actively manages two populations of the federally endangered plant pondberry and four populations of the federally threatened plant smooth coneflower.

The USFS-SR continues to perform biological evaluations to determine whether forest project plans are likely to cause beneficial, insignificant, or discountable effects to proposed, endangered, threatened, sensitive, and at-risk plant and animal species.

3.4.2 Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) prohibits taking, possessing, importing, exporting, transporting, selling, purchasing, bartering, or offering for sale any migratory bird or its eggs, parts, and nests, except as the U.S. Department of the Interior authorizes under a valid permit. To support migratory bird monitoring, a one-day bird count—the Audubon Christmas Bird Count—is conducted annually in December. The 2024 SRS count, which was hosted by the USFS-SR, found 93 species with more than 10,000 individual birds observed. The Audubon Christmas Bird Count has been conducted annually in the Western Hemisphere since 1900.

In 2024, SRS conducted 142 MBTA compliance activities consisting of the following:

- 108 active nests with incubating eggs or nestlings were recorded and protected where appropriate.
- 17 abandoned nests without eggs or nestlings were removed and disposed.
- 7 abandoned nests containing non-viable eggs were removed and disposed.
- 6 MBTA compliance activities involved birds but not nests.
- 1 abandoned nest containing deceased nestlings was removed and disposed.
- 1 dead bird (American Redstart) was removed and disposed.
- 2 Barn Swallow nestlings were transported by USFS-SR to a rehabilitation center after their nest was accidently destroyed.
- 1 active Northern Mockingbird nest containing four eggs was removed by SREL from an active work area under USFWS permit authorization.

MBTA compliance activities involved an American Redstart (*Setophaga ruticilla*), Barn Swallows (H*irundo rustica*), Carolina Wrens (*Thryothorus ludovicianus*), Chimney Swifts (*Chaetura pelagica*), Cliff Swallows (*Petrochelidon pyrrhonota*), Common Grackles (*Quiscalus quiscula*), a Common Yellowthroat (*Geothlypis trichas*), Eastern Bluebirds (*Sialis sialis*), Eastern Kingbirds (*Tyrannus tyrannus*), Killdeers (*Charadrius vociferus*),

Left, Killdeer; Center, Eastern Bluebird Eggs; Right, Eastern Bluebird

Mourning Doves (*Zenaida macroura*),and Northern Mockingbirds (*Mimus polyglottos*).

The USFS-SR found an Osprey (*Pandion haliaetus*) nest on a platform staff built in 2014. The Osprey nesting platform was constructed to deter power pole conflicts, which occurred before platform construction. Ospreys nested there for the past nine years, but did not nest there in 2024. There are still two active nest sites in close proximity to L Lake.

3.4.3 Federal Insecticide, Fungicide, and Rodenticide (FIFRA)

The objective of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) is to provide federal control of pesticide distribution, sale, and use. EPA must register all pesticides used in the United States. Use of each registered pesticide must be consistent with directions contained on the package's label. SRS must comply with FIFRA and, on a state level, the South Carolina Pesticide Control Act.

SRS must also comply with the South Carolina National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Application of Pesticides. This permit authorizes applying pesticides to surface water according to limitations set forth in the NPDES general permit.

SRS procedures implement the FIFRA requirements for pesticide application, application recordkeeping, storage, and disposing of empty containers and excess pesticides. General-use pesticides (ready-to-use products that are available for public use) are applied at SRS according to the label instructions. SRS applies restricted-use pesticides on a limited basis, following label requirements and using state-certified pesticide applicators. SRS generates and maintains application records for general-use and restricted-use pesticides for each application.

3.4.4 Invasive Species Management

The purpose of Executive Order 13751, *Safeguarding the Nation from the Impacts of Invasive Species*, is to prevent the introduction and spread of invasive species, and to support efforts to eradicate and control established invasive species. The Site is surveying invasive plant and animal species and taking steps to control their populations.

Many of the former home and community sites that area residents left more than 70 years ago to allow for the government to construct SRS have since become primary sources of non-native invasive plant species (NNIPS). Escaping cultivation and containment for decades, aggressive plant species such as Chinese privet (*Ligustrum sinensis*), wisteria (*Wisteria sinensis*), chinaberry (*Melia azedarach*), Japanese climbing fern (*Lygodium japonicum*), and kudzu (*Pueraria montana*) now threaten native species onsite. Invasive species such as these are a major threat to national forests in the 21st century. NNIPS contribute to long-term ecosystem degradation due to the loss of diversity and their direct competition with native species. They also provide unwanted ladder fuels that can increase fire intensity during prescribed burning or wildfire.

Wisteria (*Wisteria sinensis*)

Before 2012, there had been no sitewide effort to document NNIPS as part of the watershed prescription process. However, recently

conducted plant surveys include recording observations and locations for NNIPS. This information is now being captured geospatially to include in compartment stand maps and geographic information system layers for management planning. Historical records and image interpretations from photos and maps, compartment folders, and stand exam data helped identify developed openings, old home sites, and community places (churches, schools, cemeteries) that may contain robust sources of introduced NNIPS communities.

The USFS-SR conducts annual botanical surveys of 5,000 to 7,000 acres, which include 40-50 species of plants considered to be non-native and invasive. The USFS-SR chemically treats an average of 72 acres each year to control across target areas that either contain former homesites and community areas or that are close to RCW colony sites. When a forest stand is cut and regenerated, the USFS-SR treats NNIPS populations discovered as part of the site preparation for replanting. In 2024, the USFS-SR applied chemical treatment, through contracts, to 143 acres of NNIPS infestations to support RCW habitat improvement and prevent increased NNIPS spread from timber harvesting activities. Sixty-four acres of previous year's treatments were monitored in 2024 to assess treatment efficacy and retreatment needs. Prior treatments were monitored in 2024 to assess treatment efficacy and retreatment needs.

Wild hogs are an invasive species in the United States and abroad. As of 2024, the U.S. Department of Agriculture estimated that in the United States alone, these animals cost $2.5 billion each year in agricultural damages and control costs. At SRS, wild hogs present safety hazards due to vehicle collisions and disease transmission. Ecological impacts include negatively affecting water quality, disturbing soil, and constantly threatening rare and endangered plant populations. USFS-SR oversees three private contractors who trap and remove wild hogs onsite year-round. In 2024, over 1,500 hogs were removed primarily through trapping efforts. SRS also hosts wildlife hunts that are open to the public. Refer to Chapter 5, *Radiological Environmental Monitoring Program*, Section 5.6 for details on the wildlife hunts. Additionally, the USFS-SR and the Southern Research Station, part of the USFS Research and Development organization, collaborate with SREL and USDA APHIS to further wild hog control options.

3.5 LAND AND WASTE MANAGEMENT

3.5.1 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

In response to the identification of improperly managed waste disposal sites in the late 1970s, Congress established the CERCLA in 1980. CERCLA, informally called Superfund, establishes criteria for liability and compensation, cleanup, and emergency response requirements for hazardous substances released to the environment. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly called the National Contingency Plan (NCP), is the federal government's blueprint for responding to both oil spills and hazardous substance releases. First developed in 1968, the scope of the NCP was broadened by CERCLA to provide the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List (NPL). SRS was placed on the NPL on November 21, 1989.

3.5.2 Federal Facility Compliance Act (FFCA)

The Federal Facility Compliance Act (FFCA) was signed into law in October 1992 as an amendment to the Solid Waste Disposal Act. It adds provisions to apply certain requirements and sanctions to federal facilities. SRS obtained and implemented a Site Treatment Plan (STP) Consent Order (95-22-HW, as amended) in 1995, as required by the FFCA. The consent order requires annual updates to the STP.

SRS and SCDES met on August 22, 2024, to discuss the 2024 update. Consistent with prior years, the parties agreed to a reduced scope update for 2024, consisting of only revised appendices to Volumes I and II. SRS submitted the STP 2024 Update to SCDES on November 8, 2024.

In October 2003, SCDES executed a Statement of Mutual Understanding for Cleanup Credits, allowing SRS to earn credits for certain accelerated cleanup actions. Credits can then be applied to the STP commitment schedules. In 2024, SRS and SCDES held STP Cleanup Credit validation meetings in January, April, August, and November. SRS earned 327 validated Cleanup Credits during FY2024.

3.5.3 Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) establishes regulatory standards to generate, transport, store, treat, and dispose of solid waste, hazardous waste (such as flammable or corrosive liquids), and underground storage tanks (USTs). SRS has a RCRA hazardous waste permit, multiple solid waste permits, and multiple UST permits, as Section 3.9, *Permits*, identifies.

3.5.3.1 Hazardous Waste Permit Activities

Under RCRA, EPA establishes requirements for treating, storing, and disposing of hazardous waste. EPA authorizes SCDES to regulate hazardous waste and the hazardous components of mixed waste. SCDES also issues a permit to implement RCRA.

EPA and SCDES conducted the unannounced RCRA Compliance Evaluation Inspection (CEI) for FY 2024 at select RCRA facilities on October 31 to November 2, 2023, discussed in *2023 SRS Environmental Report.* No CEIs were conducted during CY 2024.

SCDES performed a RCRA Comprehensive Groundwater Monitoring Evaluation on September 10 and 11, 2024, inspecting groundwater monitoring systems and corrective actions at the M Area and Metallurgical Laboratory Hazardous Waste Management Facilities (HWMFs), Sanitary Landfill, Mixed Waste Management Facility, and F and H Area HWMFs. SCDES observed some pooling of water on the surface by production wells 905-20A and 905-53A. SRS investigated and determined there was a leaky valve at 905-20A that was immediately corrected. A leak was found at 905-53A between the packing and motor shaft. In November 2024, a temporary packer was installed at 905-53A while the permanent packer is being manufactured. No other items were noted during the evaluation.

Through the SCDES-issued RCRA hazardous waste permit, SRS closed Solvent Storage Tanks (SSTs) S33-S36 and submitted the final certification of closure in October 2019. Figure 3-1 displays the step-by-step process of the SST closure plan from certification to postclosure.

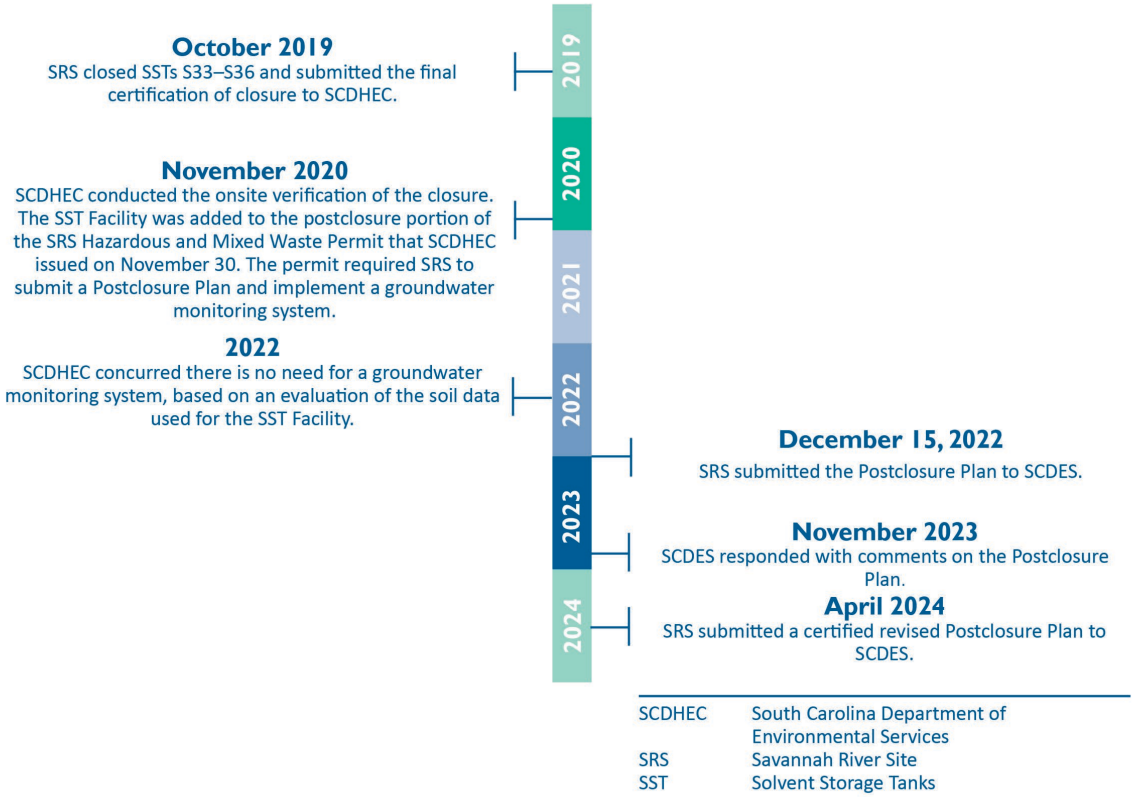

Figure 3-1 SST Closure Plan, from Certification to Postclosure

In 2023, SRS submitted revision 0 of the RCRA permit renewal application. The renewal application included four volumes: General Information (Volume I), Mixed Waste Management Facility (MWMF) (Volume VII), Mixed Waste Storage Buildings (MWSBs) (Volume VIII), and Sanitary Landfill (SLF) (Volume XXIII). Information regarding the details about each volume can be found in the *2023 SRS Environmental Report*.

On November 14, 2023, SCDES stated that based on its review, the four volumes of the 2023 RCRA Permit Renewal Application are administratively complete with respect to the regulatory requirements of RCRA and the SCHWMR. SRS resubmitted revised applications in 2024 in response to comments received from SCDES.

Table 3-5 shows a timeline for each section of the RCRA permit renewal from the date SRS submitted revision 0 in 2023 to the date SCDES determined technical completeness.

Table 3-5 RCRA Permit Renewal Application

Volume	Title	Rev. 0 Submitted to SCDES	SCDES Determination of Administrative Completeness	SCDES Comments	Rev. 1 Submitted to SCDES[a]	SCDES Determination of Technical Completeness
VI	General Information	9/12/2023	11/14/2023	2/9/2024	5/7/2024	7/17/2024
VII	MWMF Application	9/12/2023	11/14/2023	6/26/2024	10/7/2024[b]	11/15/2024
VIII	MWSB Permit Application	9/12/2023	11/14/2023	4/11/2024	7/15/2024	7/24/2024
XXIII	SLF Application	9/12/2023	11/14/2023	2/7/2024	5/7/2024	7/17/2024

Note:
SCDES = South Carolina Department of Environmental Services
MWMF = Mixed Waste Management Facility
MWSB = Mixed Waste Storage Building
SLF = Sanitary Landfill
[a] All revision 1 permit applications submitted within approved time extension requests.
[b] Due to impacts of Hurricane Helene, UPS packages were submitted to SCDES after full operations resumed at SRS.

At the end of 2024, SCDES was developing the draft RCRA permit renewal and plans to submit it for review and comment during 2025.

3.5.3.2 Solid Waste Permit Activities

The Site has solid waste permits for the 632-G Construction and Demolition (C&D) Debris Landfill; the 288-F Industrial Solid Waste Landfill; and the Saltstone Disposal Facility (SDF), identified as the Z Area Saltstone Industrial Solid Waste Landfill in its permit (Section 3.6.3.3). These solid waste landfills are active and operated in compliance with their permits during 2024. SCDES conducted quarterly landfill inspections of the 632-G and 288-F landfills and monthly SDF inspections in 2024 and found no issues of noncompliance. In addition, SRS has two closed solid waste landfills: the Interim Sanitary Landfill and the F Area Crosstie Landfill. SCDES conducted an annual inspection of these closed landfills in 2024 and found no issues of noncompliance.

3.5.4 South Carolina Infectious Waste Management Regulations

The Site is registered under the South Carolina Department of Environmental Services (SCDES) Infectious Waste Management Program as a large-quantity generator of infectious waste. SRS contracted with a permitted vendor to pick up infectious waste every four weeks. In 2024, the vendor picked up 17 shipments. Once offsite, the vendor treats and disposes of the waste in accordance with SCDES regulations. In 2024, SRS managed all infectious wastes in compliance with state regulations.

3.5.5 Underground Storage Tank (UST) Permits

Subtitle I of RCRA regulates underground storage tanks (USTs) containing usable petroleum products. Currently, SRS has 17 USTs managed under seven permits. Each UST requires an annual compliance certificate from SCDES. SCDES performed its annual inspection on May 1, 2024, and found all tanks in compliance. This annual inspection also confirmed the USTs supporting emergency power generators for DWPF, H Canyon, and Utilities and Operating Services successfully completed system testing and upgrades to meet the SCDES UST Release Detection regulations.

3.5.6 Toxic Substance Control Act (TSCA)

SRS complies with Toxic Substances Control Act (TSCA) regulations when storing and disposing of lead, asbestos, and organic chemicals, including polychlorinated biphenyl (PCBs). SRS disposes of routinely generated nonradioactive PCBs at an offsite EPA-approved disposal facility within the regulatory-defined period of one year from the date of generation. SRS made one shipment of PCB waste to an offsite hazardous waste facility in 2024.

SRS also generates PCB waste contaminated with radionuclides. SRS disposes of low-level radioactive PCB bulk product and remediation waste onsite. PCB waste contaminated with transuranic (TRU) radionuclides requires disposal at the Waste Isolation Pilot Plant (WIPP). SRS made five shipments of PCB-TRU waste to WIPP in 2024, disposing of five containers of PCB-TRU waste.

As required by TSCA regulations, SRS must prepare an annual written log by July 1 covering the previous calendar year (January through December). From the written annual log, SRS prepares an annual report to submit to EPA by July 15 of each year for the preceding calendar year. SRS submitted the 2024 annual report to EPA for this reporting period on July 8, 2025.

In April 2024, EPA finalized prohibitions and workplace protections under TSCA for methylene chloride to protect human health for specific conditions of use. SRS has several facilities that will continue to use methylene chloride under a Workplace Chemical Protection Program (WCPP). These include use as a laboratory chemical and use in solvent welding.

In December 2024, EPA finalized prohibitions and workplace protections under TSCA for trichloroethylene, perchloroethylene, and carbon tetrachloride. Similar to methylene chloride, SRS is assessing its conditions for use of these chemicals to determine whether their future use is prohibited or allowed under a WCPP. If allowed, SRS facilities will develop WCPPs in accordance with the compliance schedule identified in the regulations.

3.5.7 National Historic Preservation Act (NHPA)

The NHPA requires all federal agencies to consider the impacts to historic properties in all their undertakings. SRS ensures it complies with the NHPA through several processes. SRS uses the Site Use Program, the *Cold War Programmatic Agreement*, and *SRS's Cold War Built Environment Cultural Resource Management Plan* to ensure it is complying with NHPA. The Savannah River Archaeological Research Program (SRARP) guides DOE in managing its cultural resources to ensure it fulfills its compliance commitments. SRARP also serves as a primary organization to investigate archaeological research problems associated with cultural development within the Savannah River valley. DOE uses the results to manage more than 2,000 known archaeological sites at SRS.

SRARP evaluates and documents all locations DOE is considering for activities, such as construction, to ensure that they do not affect archaeological or historic sites. In 2024, SRARP investigated 2,956 acres onsite for cultural resource management, including conducting 22 field surveys and testing. It recorded 7 newly discovered sites and revisited 17 previously recorded sites.

3.6 CLEANUP AND REMEDIATION

3.6.1 Federal Facility Agreement

The 1993 *Federal Facility Agreement (FFA) for the Savannah River Site*—a tri-party agreement between DOE, EPA, and SCDES—integrates CERCLA and RCRA requirements for a comprehensive remediation strategy and to coordinate administrative and public participation requirements. The FFA governs remedial actions, sets annual work priorities, and establishes milestones for cleanup and tank closure. SRS conducts remediation and closure activities as the FFA identifies and in accordance with applicable regulations, whether they are from the state, the federal government, or both. Additional information regarding the FFA commitments discussed in Chapter 3 can be found on the SRS webpage.

3.6.2 Remediation Activities (Environmental Restoration and Cleanup)

SRS has 515 operable units (OUs), also known as waste units, subject to the FFA. These include RCRA and CERCLA units, site evaluation areas, and facilities included in the SRS RCRA permit. At the end of fiscal year (FY) 2024, SRS had completed the surface and groundwater cleanup of 415 of these units and was in the process of remediating an additional 8 units. Appendix C, *RCRA/CERCLA Units List*; Appendix G, *Site Evaluation List*; and Appendix H, *Solid Waste Management Units*, of the FFA list all of SRS's 515 OUs. The *Federal Facility Agreement Annual Progress Report for Fiscal Year 2024* explains the status of FFA activities at SRS for FY 2024.

CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan require remedy reviews every five years for sites that have hazardous substances remaining at levels that do not allow for unrestricted use of the area after a remedy is in place. Due to the rising number of SRS remedial decisions requiring five-year remedy reviews and new EPA guidance and format requirements, DOE, EPA, and SCDES agreed in 2014 to submit future SRS Five-Year Remedy Review Reports in phases rather than combining all OU reviews into a single document. The OUs are in groups of the following five remedy types: 1) native soil cover or land use controls, or both; 2) groundwater; 3) engineered cover systems; 4) geosynthetic or stabilization and solidification cover systems; and 5) operating equipment. To ensure that SRS completes reviews of all remedy types within five years, it looks at a different remedy type each year. The Site evaluates remedies to determine whether they are functioning as designed and are still protecting human health and the environment.

In 2024, SRS prepared the following reports to satisfy CERCLA requirements:

- *Seventh Five-Year Remedy Review Report for Savannah River Site Operable Units with Native Soil Covers and/or Land Use Controls.* DOE submitted the Revision 0 report to SCDES and EPA on December 21, 2023. DOE, SCDES, and EPA signed the report on September 11, 2024, October 7, 2024, and December 17, 2024, respectively. SRS issued the report to the public on January 7, 2025.
- *Seventh Five-Year Remedy Review Report for Savannah River Site Operable Units with Groundwater Remedies.* DOE submitted the Revision 0 report to SCDES and EPA on December 19, 2024.

3.6.2.1 Building 716-A Automotive Repair Shop OU

Building 716-A, Automotive Repair Shop, was a single-story structure constructed on a concrete slab. It was used as an automotive repair facility containing service bays with offices, related storage areas, and mechanical and electrical rooms. It also housed many vehicle lifting systems, a battery charging and

storage room, and a brake repair area. This building and related ancillary structures were decommissioned using the Integrated Sampling Model in 2005, leaving the concrete slab on its original footprint. During the decommissioning process, EPA and SCDES requested that SRS conduct soil sampling for target analyte list (TAL)/target compound list (TCL) constituents underneath the concrete slab at the lubrication pit area to determine whether there has been a release to the environment.

The Remedial Investigation (RI) Work Plan for the Automotive Repair Shop (716-A) OU was submitted to EPA and SCDES for their review. EPA and SCDES approved the RI Work Plan that discussed previous characterization data obtained during decommissioning activities, defined the data quality objectives, determined the additional characterization needs, and provided a plan for the collection of the additional data.

Based on the conceptual site model and data quality objectives, the primary objective of the building 716-A RI Work Plan was to complete characterization by sampling soils beneath the remnant concrete slab at the 103 Lubrication Pit and drain lines and sewer lines to support the principal threat source material evaluation and a contaminant migration analysis. Figure 3-2 outlines the soil sample locations at Building 716-A.

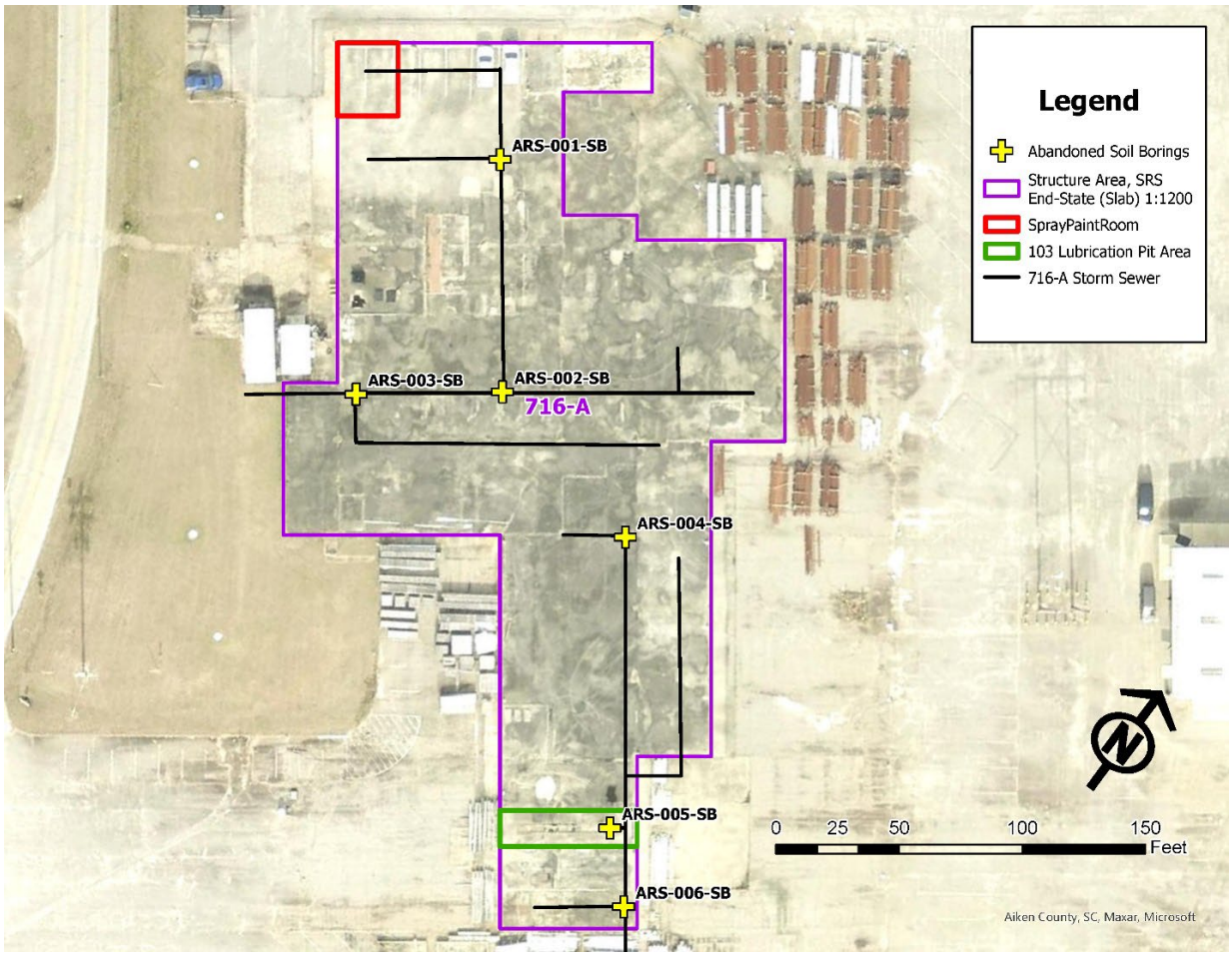

Figure 3-2 Soil Sample Locations at Building 716-A

To accomplish this objective, a sampling and analysis plan for the additional data needs at the OU was presented in the RI Work Plan. The strategy for completing characterization of the OU is summarized below.

- Sampling was conducted at six soil boring locations to determine whether there has been a release to the environment beneath the concrete slab. Samples were collected from continuous soil cores from each boring, and lithologic descriptions were recorded. The five locations (ARS-001-SB, ARS-002-SB, ARS-003-SB, ARS-004-SB, and ARS-006-SB) beneath the drain lines and sewer lines were continuously cored to a total depth of 50 feet below ground surface (bgs), and samples were collected every 5 feet through 50 feet. Additionally, the 103 Lubrication Pit location (ARS-005-SB) was continuously cored to a total depth of 160 feet bgs, and samples were collected every 5 feet through 50 feet and every 10 feet thereafter to total depth.
- All samples were analyzed for all constituents on the TAL and TCL (excluding herbicides and pesticides), to include all volatiles, semi-volatiles, and polychlorinated biphenyls.

The RI characterization field start was met on August 15, 2024, ahead of the FFA milestone date of September 30, 2024. The field start was met with the performance of ground penetrating radar for the six soil sample locations (i.e., soil borings) discussed in the RI Work Plan. The drilling activities for the six soil borings (ARS-001-SB to ARS-006-SB) were completed on December 10, 2024. All soil borings were grouted to grade. In addition to the data collected at the end of the deactivation and decommissioning phase, this data will be used to define the nature and extent of contamination for risk screening, principal threat source material analysis, contaminant fate and transport analyses, problem identification, and determination of likely response actions. The RI Report with Baseline Risk Assessment (BRA) and Feasibility Study (FS) is scheduled to be submitted on September 30, 2025.

3.6.2.2 Early Construction and Operational Disposal Site (ECDOS) N-1, Central Shops Scrap Lumber Pile (631-2G), and Building 690-N, Process Heat Exchanger Repair Facility (aka Ford Building) OU

Early Construction and Operational Disposal Sites (ECODS) were used during the construction and early operation of SRS for disposal of construction debris and other nonradioactivewaste materials. Specifically, ECODS N-1 was used to dispose of trash and construction debris, some containing asbestos, associated with the construction and operation of N Area. Starting in the 1950s the Central Shops Scrap Lumber Pile (CSSLP) was used for equipment laydown and rubble storage in addition to an area for burning construction-related material. Starting in 1975, operating procedures called for the CSSLP to receive inert, nonhazardous materials, including items such as nails, hinges, scrap lumber, poles, crates, pallets, and unsalvageable wood products. The Ford Building was used to test control rod motors for use in SRS reactors

Vegetation Removal Activities at Central Shops Scrap Lumber Pile.

starting in 1950 and converted to repair heat exchanger units for SRS reactors from the 1960s to the early 1990s. Pre-work plan characterization activities of all three units were completed in FY 2019.

A RCRA Facility Investigation (RFI)/RI Work Plan for the ECODS N-1, CSSLP, and Ford Building OU was prepared, submitted to the EPA and SCDES, and approved in FY 2020. The Corrective Measures Implementation Plan/Remedial Action Implementation Plan (CMIP/RAIP) and Land Use Control Implementation Plan (LUCIP) were submitted and approved in FY 2023 and FY 2024, respectively.

The selected remedial action consists of land use controls (LUCs) (e.g. installation of signs, deed restrictions, etc.) at the ECODS N-1 and Ford Building subunits, and excavation (hot spot removal) and disposal of arsenic contaminated media at the CSSLP. The remedial activities at the CSSLP supports unrestricted land use and will not require LUCs after completion of the remedial action.

Land Use Control Sign at Early Construction and Operational Disposal Site N-1.

The remedial action start was met on May 16, 2024, ahead of the FFA milestone date of December 16, 2024. SRS worked with the USFS-SR to begin emptying the shallow stormwater impoundment at the CSSLP via the construction of a drainage channel reinforced with best management practices. This allowed the topsoil layer to begin drying so that samples could be obtained per the approved Sampling and Analysis Plan. In addition, SRS removed vegetation to facilitate sampling of the area. The intent of the soil samples is to delineate the actual excavation boundary that will be necessary to remove the top 1 foot of soil. Soil sampling was completed in the summer of 2024 and the actual soil removal is planned to occur in FY 2025. In addition, the installation of the access control warning signs in accordance with the LUCIP was completed on June 19, 2024, at the ECODS N-1 and Ford Building.

3.6.2.3 1957 Seepage Basin Pipe Leak

An unknown amount of water leaked from the H Area Seepage Basin (904-44G) in February 1957. This is referred to as the 904-44G spill release area. The water flowed into and contaminated approximately 300 feet of a drainage ditch adjacent to the seepage basin. The constituents of concern expected at this unit are radionuclides and metals.

Based on the site investigation results of the 2003 Site Evaluation Report (SER), it was recommended that the Spill on February 1, 1957, of Unknown Seepage Basin Pipe Leak from 904-44G be removed from FFA, Appendix G.1, *Areas to Be Investigated*, and transferred to FFA, Appendix C, *RCRA/CERCLA Units*, for further evaluation

Land Use Control Sign at Ford Building

and action, as needed. The 904-44G spill release area was transferred to Appendix C in 2003.

During a strategy meeting on August 17, 2023, DOE, EPA, and SCDES agreed that the OU would be moved from FFA, Appendix C, *RCRA/CERCLA Units List* to FFA, Appendix G.1, *Areas to be Investigated*, and then a maintenance action would be implemented to excavate a cesium-137-contaminated hot spot. The Operations and Maintenance (O&M) Plan for the 904-44G spill release area describes the O&M activities for excavation of soil exceeding acceptable background levels for cesium-137 for routine worker protection in support of long-term post-closure care maintenance at the H Area Seepage Basins. The O&M action was performed at the HSB1-04 hotspot and surrounding area (see Figure 3-3).

Figure 3-3 904-44G Spill Release Area

The O&M activities included the following:

- Sampling of soil to define the area of excavation (Figure 3-4)
- Establishing an excavation boundary
- Excavating surface soil down to a minimum depth of 1 foot
- Containing and disposing of excavated soil
- Backfilling excavated area with crusher run to grade

Spill Release Area After Excavation Completion.

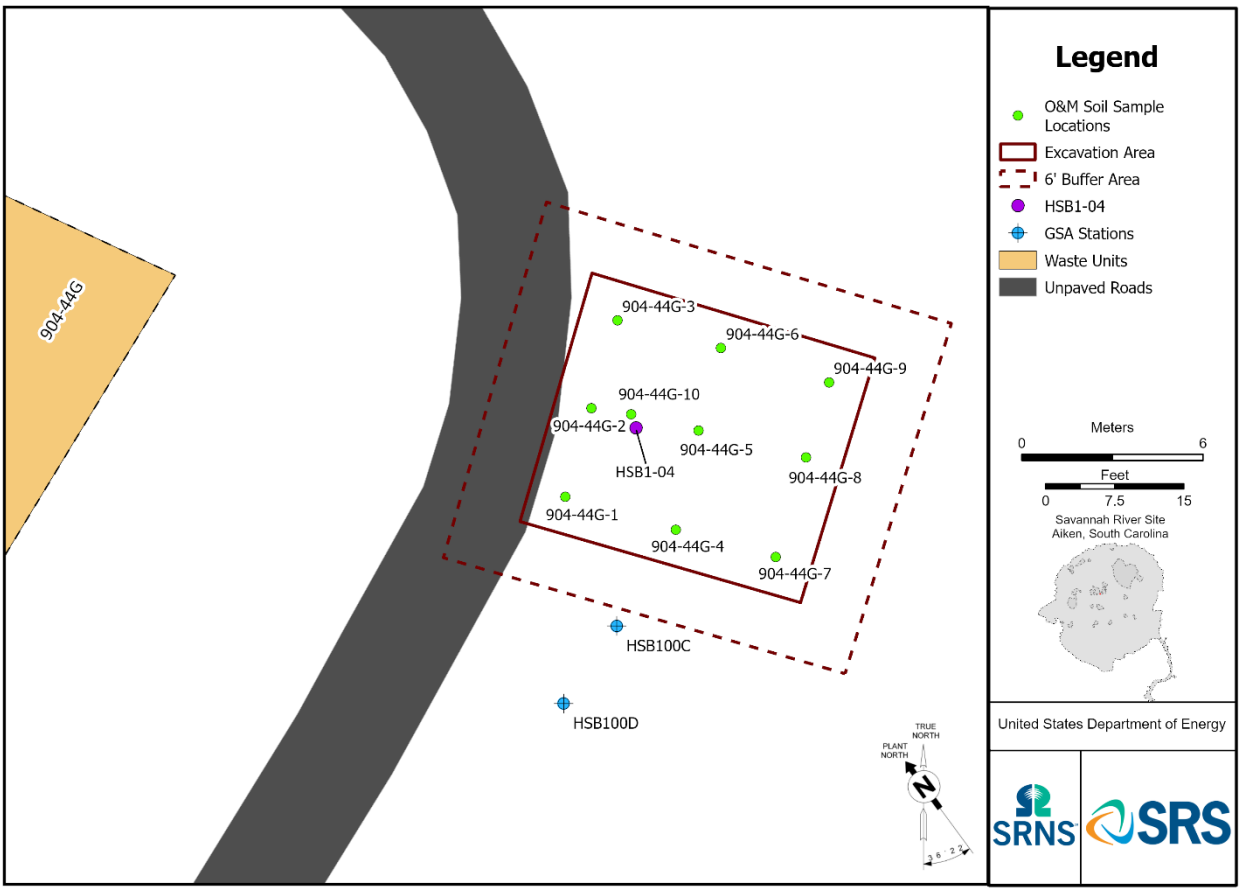

Figure 3-4 Operations and Maintenance Soil Sample Locations at the 904-44G Spill Release Area

An Addendum to the SER is being prepared to present an updated risk evaluation using post-O&M activity levels with the recommendation that the unit be moved to FFA, Appendix G.2, *Areas Determined to Require No Further Response Action*, upon regulatory approval of the addendum. The SER Addendum is due by September 30, 2025.

3.6.3 Tank Closure Activities (Radioactive Liquid Waste Processing and Dispositioning)

SRS generates liquid radioactive waste as a byproduct of processing nuclear materials. The waste is stored in underground waste tanks grouped into two tank farms (F Tank Farm and H Tank Farm). Sludge settles on the bottom of the tanks, and liquid salt waste rises to the top. The waste removed from the tanks feeds the sludge and salt waste processing programs, as Figure 3-5 depicts.

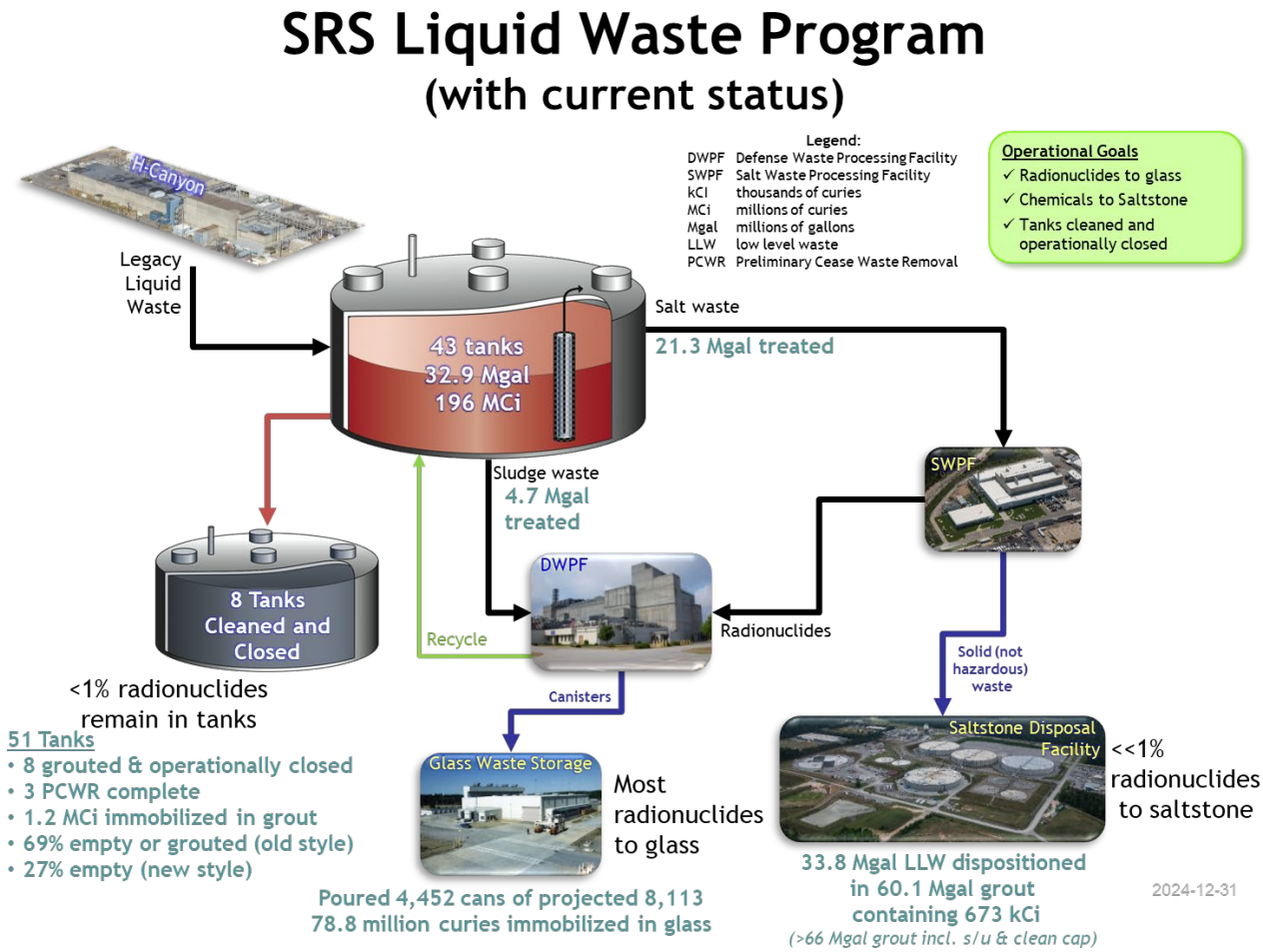

Figure 3-5 Processing and Dispositioning Radioactive Liquid Waste at SRS

3.6.3.1 Tank Closure

SRS operates F Tank Farm and H Tank Farm under SCDES industrial wastewater regulations; however, FFA Section IX, *High-Level Radioactive Waste Tank System(s)*, establishes requirements to prevent and mitigate releases from these tank systems. The FFA also contains enforceable closure schedules for the liquid waste tanks. Tank closures are subject to DOE Order 435.1, *Radioactive Waste Management*; federal regulations; and Section 3116 of the *Ronald W. Reagan National Defense Authorization Act (NDAA) for Fiscal Year 2005*.

Under NDAA Section 3116(a) Secretary of Energy, after consultation with the Nuclear Regulatory Commission (NRC), made separate determinations that the stabilized tanks and ancillary structures in F Tank Farm and H Tank Farm are not high-level waste and will not need to be permanently isolated in a deep geological repository as required by NDAA Section 3116(a), the NRC coordinates with SCDES to monitor the steps DOE takes to dispose of the waste to assess whether it is complying with the performance objectives of 10 Code of Federal Regulations (CFR) Part 61, Subpart C. Additionally, EPA may participate in the NRC monitoring

During 2024, DOE supported the NRC monitoring of F Tank Farm and H Tank Farm under Section 3116 of the NDAA by providing routine documentation (for example, groundwater monitoring reports and

Performance Assessment [PA] maintenance plan), as the NRC requested. The NRC conducted one onsite observation visit for the liquid waste tank farms in 2024. Before SRS closes the tanks, they undergo an extensive waste removal process that includes specialized mechanical cleaning and isolation from the waste transfer and chemical systems. Once these steps are complete, DOE receives regulatory confirmation that the tanks are ready to be stabilized by grouting.

In 2022, DOE, SCDES, and EPA signed the *2022 High Level Waste Tank Milestones Agreement*, which has since been added to the FFA. The agencies agreed on new Preliminary Cease Waste Removal dates and Operational Closure dates for a specified number of tanks as well as additional issues. The Preliminary Cease Waste Removal dates and new Operational Closure dates replace the previously suspended Bulk Waste Removal Efforts and Operational Closure Dates. In May 2024, the first of the new FFA Preliminary Cease Waste Removal commitments was completed for Tank 10H, ahead of the December 31, 2024, commitment. In addition, Preliminary Cease Waste Removal for Tank 4F and 9H was completed. These two tanks support the FFA commitment to complete Preliminary Cease Waste Removal for three additional tanks by December 31, 2025.

In March 2024, SRS shipped legacy cleanup equipment to an offsite commercial disposal facility. This shipping was made possible by the 2019 interpretation of high-level waste definition by DOE which classifies waste by its radiological characteristics rather than its origin. This was the first shipment subsequent to the issuance of the *Final Environmental Assessment (EA) for Commercial Disposal of Savannah River Site Contaminated Process Equipment (DOE/EA-2154)* discussed in the *2023 SRS Environmental Report*.

3.6.3.2 Salt Processing

SRS is using several processes to dispose of the salt waste from the liquid waste tanks. The Actinide Removal Process and Modular Caustic Side Solvent Extraction Unit (ARP/MCU) was an interim salt waste processing system. SCDES permitted ARP/MCU under South Carolina industrial wastewater regulations. The salt form of the liquid waste is 90% of the waste volume stored in the tanks and contains about half of the radioactivity. Before the Salt Waste Processing Facility (SWPF), the ARP/MCU process removed actinides, strontium, and cesium from the salt waste taken from the liquid waste tank farms. The facilities underwent lay-up activities to be placed in a safe, stable suspended operations state in 2019, which allowed SRS to complete final SWPF tie-ins. ARP/MCU has remained in a suspended operations state since that time.

With construction of the SWPF project complete, SRS received approval to begin facility operations in 2020. Hot commissioning of SWPF was completed in January 2021, and Parsons Corporation, which designed and built the first-of-a-kind facility, completed its first year of operations on January 17, 2022. Savannah River Mission Completion (SRMC) took over management of the Liquid Waste program in late February 2022 and management of SWPF in late March 2022. SWPF processed more than 3.1 million gallons of salt solution in 2024.

SRS procured the Tank Closure Cesium Removal (TCCR) system to treat salt waste, increase salt processing capability, and to expedite tank closure. The Site completed TCCR design and fabrication in 2017 and installation and readiness assessments in 2018. The TCCR started operating in January 2019. It processed more than 71,700 gallons of salt solution in 2022. In July 2022, SRS suspended TCCR operations and initiated lay up of the TCCR Unit to accelerate overall risk reduction (removal of waste) for several waste

tanks submerged in the water table. The TCCR Unit was deinventoried in 2023 and has been placed in a safe state. In 2024, significant progress was made in removing waste from several tanks that are submerged in the water table. Of the six remaining tanks fully or partially submerged in the water table, Preliminary Cease Waste Removal was completed for two of the tanks, one of the tanks was actively going through waste removal activities in 2024, waste removal activities were initiated in one tank, one other continued with field activities to prepare for waste removal, and one was supporting waste removal activities for other tanks in the water table.

3.6.3.3 Salt Disposition

After SWPF processing, the decontaminated salt solution is processed into grout waste at the Saltstone Production Facility and disposed of in the Saltstone Disposal Facility (SDF). SCDES permits the SDF to operate under South Carolina solid waste landfill regulations. SRS disposes of treated low-level salt waste in the SDF, based on the Secretary of Energy's determination pursuant to *Section 3116 Determination for Salt Waste Disposal at the Savannah River Site* (DOE 2006). NDAA Section 3116(b) requires the NRC, in coordination with SCDES, to monitor the disposal actions DOE takes to assess whether it is complying with the objectives of 10 CFR Part 61.

During 2024, DOE supported the NRC in monitoring SDF under Section 3116 of the NDAA by providing routine documentation (groundwater monitoring reports and the annual PA maintenance plan), as requested. The NRC conducted one onsite observation visit for salt waste disposal during 2024.

In 2024, SRS continued permanently disposing of waste, processing more than 4.7 million gallons into grout and disposing of it in cylindrical concrete Saltstone Disposal Units (SDUs). In 2024, all processing was done to SDU-6, the 375 foot in diameter rubber-lined mega-vault with a capacity of 32.8 million gallons; SDU-7 and SDU-8, with a capacity of 34.5 million gallons each were also available if needed. In 2024, SRS completed construction of SDU-9 and continued construction of SDU-10, both with capacities of 34.5 million gallons. In addition, construction was initiated for SDU-11 and SDU-12, the final mega-vaults currently planned.

3.6.3.4 Sludge Waste Processing-Vitrification of High-Activity Waste

SCDES permits the Defense Waste Processing Facility (DWPF) to operate under South Carolina industrial wastewater regulations. The sludge waste makes up less than 10% of the waste volume stored in the tanks and contains about half of the radioactivity, as Figure 3-5 shows. At DWPF, SRS combines the high-activity portion of both the sludge and salt waste from the tank farms with frit before sending the mixture to the plant's melter. The melter heats the mixture to nearly 2,100 degrees Fahrenheit, until molten, and pours the resulting glass-waste mixture into stainless steel canisters to cool and harden. This process, called "vitrification," immobilizes the radioactive waste into a solid glass form suitable for long-term storage and disposal. SRS stores these canisters temporarily in the Glass Waste Storage Buildings to prepare for final disposal in a federal repository.

DWPF produced 52 canisters, collectively containing 214,721 pounds of glass and immobilizing approximately 6.4 million curies of radioactivity during 2024. Since DWPF began operating in March 1996, it has produced 4,452 canisters collectively, containing 17.0 million pounds of glass and immobilizing 78.8 million curies of radioactivity.

3.6.4 Low-Level Liquid Waste Treatment

The F and H Area Effluent Treatment Facility (ETF) treats low-level radioactive wastewater from the tank farms. The ETF removes chemical and radioactive contaminants from the water before releasing it into Upper Three Runs Creek, an onsite stream that flows to the Savannah River. The point of discharge is a South Carolina National Pollutant Discharge Elimination System (NPDES)-permitted outfall. The ETF processed approximately 4.3 million gallons of treated wastewater in 2024. SCDES permitted the ETF under the South Carolina industrial wastewater regulations. The ETF remained in compliance with the industrial wastewater permit and the NPDES permit throughout 2024.

3.6.5 Atomic Energy Act/DOE Order 435.1, *Radioactive Waste Management*

SRS waste and materials management is complex and includes numerous facilities that DOE Orders and federal and state regulations govern. DOE Order 435.1 covers all radioactive waste management (low-level waste [LLW], high-level waste [HLW], and transuranic [TRU] waste) to protect the public, workers, and the environment. LLW is the only radioactive waste SRS disposes of onsite, at the E Area LLW Facility and the SDF. LLW is radioactive waste not classified as HLW or TRU waste and not containing any Resource Conservation and Recovery Act (RCRA) hazardous waste.

DOE Manual 435.1-1, Radioactive Waste Management Manual, requires DOE to prepare PAs to evaluate the potential impacts of low-level radioactive waste disposal and closure (the tank farms) to the workers, the public, and the environment. The PAs provide the technical basis and evaluation needed to demonstrate compliance with DOE Order 435.1. The Order also requires a composite analysis (CA) to assess the combined impact of multiple LLW disposal facilities and other interacting sources of radioactive material after closure.

SRS performs a comprehensive annual PA review for disposal facilities. This review ensures any developing information does not alter the original PA conclusions and that there is a reasonable expectation the facility will continue to meet the performance objectives of the DOE Order. In addition, SRS performs an annual CA review to evaluate the adequacy of the 2010 SRS CA and verify that SRS conducted activities within the bounds of the 2010 analysis. The FY 2023 annual reviews for the E Area Solid Waste Management Facility, the SDF, and the SRS CA determined that SRS continues to comply with the performance objectives of DOE Order 435.1. Based on the reporting and approval cycle for the PA and CA annual reviews, there is a one-year lag in reporting this information in the *SRS Environmental Report*, which is published yearly.

TRU waste is another category of radioactive waste that SRS generates. DOE Orders define TRU waste as waste containing more than 100 nanocuries of alpha-emitting TRU isotopes (elements with atomic numbers greater than uranium) per gram of waste with radiological half-lives greater than 20 years. At SRS, TRU waste consists of down-blended excess plutonium material from K Area and job waste such as clothing, tools, rags, residues, debris, and other items contaminated with trace amounts of plutonium. SRS sends TRU waste to the Waste Isolation Pilot Plant (WIPP), a deep geologic repository located near Carlsbad, New Mexico, for permanent disposal. Many different federal and state agencies (EPA, the NRC, DOE, and the State of New Mexico), along with multiple regulations, govern TRU waste management and disposal. SRS manages TRU waste under DOE Orders and federal and state hazardous waste regulations. SRS sent 64 TRU shipments to WIPP for disposal in 2024.

3.7 AIR QUALITY

3.7.1 Clean Air Act (CAA)

EPA has delegated regulatory authority to SCDES for most types of air emissions. SRS is required to comply with SCDES Regulation 61-62, *Air Pollution Control Regulations and Standards*. SRS facilities currently have the following air permits regulating activities on the Site:

- Part 70 Air Quality Operating Permit (TV-0080-0041)
- Ameresco Federal Solutions, Inc. ("Ameresco") Biomass Facilities Permit (TV-0080-0144)
- Surplus Plutonium Disposition Project Construction Permit (TV-0080-0041-C4)
- Synthetic Minor Construction Permit to switch from formic acid to glycolic acid in the DWPF (TV 0080-0041-C5)
- Savannah River National Laboratory 791-A Stack Upgrade to a Potential Impact Category (PIC) 1 Construction Permit (CP-50000078 v.1.0, Air Agency Number 0080-0041)
- National Nuclear Security Administration (NNSA) Savannah River Plutonium Processing Facility (SRPPF) Project Construction Permit (CP-50000085 v.1.0, Air Agency Number 0080-0194)

The CAA considers SRS a "major source" of nonradiological air emissions and, therefore, the Site falls under the CAA Part 70 Operating Permit Program. The Part 70 Operating Permit regulates stationary sources with the potential to emit 5 tons or more per year of any criteria pollutant. Six of the most common air pollutants are ozone precursors, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, and lead. These major stationary sources are subject to operating and emission limits, emissions monitoring, and record-keeping requirements.

EPA sets the National Ambient Air Quality Standards air pollution control standards, and SCDES regulates them. The Air Quality Permit requires SRS to demonstrate compliance through air dispersion modeling and by submitting an emissions inventory of air pollutant emissions every year.

SRS received a renewal to its CAA Part 70 Air Quality Operating Permit (TV-0080-0041), which became effective April 1, 2021. The Site also has four active construction permits (see Table 3-7). The NNSA SRPPF construction permit is not considered collocated with the SRS Title V permit (TV-0080-0041) because SRPPF does not share the same industrial grouping or fall under common control.

3.7.2 Air Emissions Inventory

SCDES Regulation 61-62.1, Section III (*Emissions Inventory*), requires SRS to compile an air emissions inventory to locate all sources of air pollution and to define and characterize the various types and amounts of pollutants.

The schedule for submitting the inventory is either every year or every three years, depending upon the emission thresholds in the regulations. SRS reviews emissions against these thresholds annually. SRS currently submits an inventory every year. The inventory for CY 2024 emissions was submitted in March 2025.

3.7.3 Refrigerants

Section 608 of the CAA prohibits knowingly releasing refrigerant during maintenance, service, repair, or disposal of air-conditioning and refrigeration equipment. Refrigerants include ozone-depleting substances

and substitute refrigerants such as hydrofluorocarbons (HFCs). Releases of chemical gases widely used as refrigerants, insulating foams, solvents, and fire extinguishers cause ozone depletion or contribute to greenhouse gas emissions.

EPA published a final rule in the Federal Register on October 11, 2024, to implement certain provisions of the American Innovation and Manufacturing (AIM) Act, as enacted on December 27,2020. The AIM Act mandates phasing down HFCs, which are potent greenhouse gases, by 85% over a period ending in 2036. The requirements of 40 CFR 84 focus on reducing HFC manufacturing and importing. SRS does not manufacture or import HFCs; however, refrigerant-containing appliances and fire-suppression systems contain HFCs, thereby affecting the Site. This regulation primarily addresses leak rate calculations, inspection, and repair requirements for equipment (refrigerant and fire suppression systems) containing HFCs.

The Site continues to manage and operate equipment containing HFCs in an environmentaly and technically sound manner. The environmental regulations do not prohibit storing HFCs when production is being phased down. Actions have been taken to procure and safely store inventories to ensure uninterrupted operation of processes that rely on using equipment containing these HFCs.

Savannah River Tritium Enterprise (SRTE) established a relationship with the Department of Defense (DoD) to identify a pathway to request a Mission-Critical Military End Use (MCMEU) application-specific allowance from the DoD. A MCMEU is the use of a regulated HFC, which has a direct impact on mission capability, by a federal agency responsible for national defense. Under the regulation, the DoD has the authority to issue, manage, and assign MCMEU-specific allowances. MCMEU allowance requests are made annually for the following calendar year (CY) and do not guarantee the availability of the regulated HFC covered. They allow only for the quantity to be manufactured and imported under EPA regulations.

3.7.4 Accidental Release Prevention Program

The CAA Amendments of 1990, Section 112(r) require any facility that maintains specific hazardous or extremely hazardous chemicals in quantities above specified threshold values to develop a risk management plan. SRS has maintained hazardous and extremely hazardous chemical inventories below each threshold value; therefore, the CAA does not require SRS to develop a risk management plan. Additionally, no reportable 112(r)-related hazardous or extremely hazardous chemical releases occurred at SRS in 2024.

3.7.5 National Emission Standard for Hazardous Air Pollutants (NESHAP)

The National Emission Standard for Hazardous Air Pollutants (NESHAP) is a CAA-implementing program that sets air quality standards for hazardous air pollutants, such as radionuclides, benzene, reciprocating internal combustion engines (RICE) emissions, and asbestos.

3.7.5.1 NESHAP Radionuclide Program

SRS complies with the NESHAP Radionuclide Program by performing all required inspections and maintaining monitoring systems. Additionally, Subpart H of NESHAP regulations require SRS to determine and report annually the highest effective radiological dose from airborne emissions to any member of the public at an offsite point. The report is due by June 30 of each year. The 2024 annual report was submitted

in June 2025. SRS transmitted the SRS Radionuclide Air Emissions Annual Report for 2023 on June 24, 2024, to EPA, SCDES, and DOE Headquarters.

There were no unplanned radiological releases to the atmosphere during 2024.

SRS estimated the maximally exposed individual effective dose equivalent during 2024 to be less than 1% of EPA standard of 10 mrem per year. Chapter 6, *Radiological Dose Assessment*, contains details on this dose calculation.

3.7.5.2 Other NESHAP Programs

In 2013, New Source Performance Standards (NSPS) under NESHAP were added (or became effective) for RICE equipment such as portable generators, emergency generators, and compressors. In 2024, SRS continued to operate in compliance with NSPS and NESHAP standards. The Site also complies with 40 CFR 63 Subpart DDDDD for its boilers.

On December 22, 2022, EPA removed the RCRA/ CERCLA exemption from 40 CFR 63 Subpart GGGGG—Site Remediation NESHAP. SRS applied for, and was granted, a one-year compliance extension and has started the design and procurement processes for a control device to be installed on the M-1 Air Stripper.

3.7.6 NESHAP Asbestos Abatement Program

Work involving asbestos at SRS falls under SCDES and federal regulations. These activities—which include operation and maintenance repairs, removing asbestos, and demolishing buildings—require an asbestos notification, an abatement license, or a demolition license.

SRS issued 256 asbestos notifications and conducted 9 permitted abatements and demolitions involving asbestos in 2024. Table 3-6 summarizes these removals. Certified personnel removed and disposed of friable (easily crumbled or pulverized) and nonfriable asbestos. All disposal sites for nonradiological asbestos waste are SCDES-approved landfills for disposing of regulated and nonregulated asbestos.

Table 3-6 Summary of Quantities of Asbestos Materials Removed in 2024

Asbestos Type	Nonradiological, Friable	Nonradiological, Nonfriable	Radiologically Contaminated Asbestos
Linear Feet Disposed	129	254	12
Square Feet Disposed	19.75	3,332	11
Cubic Feet Disposed	3	32	0
Disposal Site	Three Rivers Solid Waste Authority Landfill	SRS Construction and Demolition Landfill	SRS E-Area Low-Level Waste Facility

SRS maintains a SCDES Temporary Storage Containment Area License that facilitates removing and disposing of waste generated from nonradiological operations and maintenance, as well as smaller projects. Additionally, SRS maintains a SCDES Asbestos Group License that allows Savannah River Nuclear Solutions (SRNS), Battelle Savannah River Alliance (BSRA), and Savannah River Mission Completion (SRMC) to operate as long-term, in-house asbestos abatement contractors for DOE-Savannah River.

3.8 WATER QUALITY

3.8.1 Clean Water Act (CWA)

The Site operated pursuant to the following Clean Water Act (CWA) NPDES permits in 2024:

- Land Application Permit (Permit No. ND0072125)
- NPDES Permits for Discharge to Surface Waters (Permit No.: SC0000175)—covers Industrial Wastewater discharges
- NPDES General Permit for Stormwater Discharges Associated with Industrial Activities (except construction) (Permit No. SCR000000)
- NPDES General Permit for Stormwater Discharges from Construction Activities (Permit No. SCR100000)
- NPDES Permit for Discharge to Surface Water Permit for Utility Water Discharges (Permit No. SCG250000)
- NPDES General Permit for Discharges from Application of Pesticides (Permit No. SCG160000)
- NPDES General Wastewater Construction Permit (SCG580000)

Ameresco has its own NPDES permit and is not included in the above-mentioned SRS permits.

Stream Located on the Savannah River Site.

3.8.1.1 National Pollutant Discharge Elimination System (NPDES)

SCDES administers the NPDES program, which protects surface waters by limiting releases of pollutants into streams, reservoirs, and wetlands. As the previous section explains, several different SCDES-issued permits for different types of discharges to surface water govern SRS operations. A major goal of the NPDES program is to control or eliminate discharges of toxic pollutants, oil, hazardous substances, sediment, and contaminated stormwater to protect the quality of the nation's water. To achieve this goal, SCDES requires SRS to prepare the following plans:

- Best Management Practices Plan (BMP) to identify and control the discharge of hazardous and toxic substances
- Industrial Stormwater Pollution Prevention Plan (SWPPP) to address the potential discharge of pollutants in stormwater
- Spill Prevention, Control, and Countermeasures Plan (SPCC) to minimize the potential for discharges of oil, including petroleum, fuel oil, sludge, and oily wastewater

SRS has one NPDES permit for industrial activities that discharge to surface water (SC0000175). SRS monitors 21 NPDES-permitted industrial wastewater outfalls. Throughout the year, SRS monitors the outfalls across the Site on a frequency specified by the permits. Eight of the outfalls have no current flow and will be removed when the Industrial Wastewater NPDES Permit SC0000175 is renewed. Monitoring frequency requirements vary from as often as once a day at some locations to once a quarter at others, although typically they are conducted once a month. SRS measures physical, chemical, biological parameters, or a combination thereof and reports them to SCDES in SRS monthly Discharge Monitoring

Reports (DMR), as the permits require. Chapter 4, *Nonradiological Environmental Program*, provides additional information about NPDES permit-required sampling at SRS to remain compliant.

The following are highlights of the NPDES program at SRS:

- The SRS SWPPP for the 28 SRS industrial stormwater outfalls and related facilities was updated in 2024, following completion of the annual Comprehensive Site Inspection.
- SCDES did not require construction stormwater monitoring on any of the active construction projects underway at SRS during 2024.
- SRS undertook permitting for industrial wastewater treatment facilities pursuant to the CWA and the South Carolina Pollution Control Act. Facilities permitted are broad in scope and include those involved with groundwater remediation, radioactive liquid waste processing, and nuclear nonproliferation. In 2024, SCDES issued the construction permits for the Addition of RWM-001-R to the M-1 Air Stripper Well Network and Flowmeter Upgrades at the L-7A and G-10 Outfalls.
- In October 2024, SRS submitted a Discharge Monitoring Report for Industrial Stormwater Outfall H-07B, which indicated it did not discharge during the previous year.

Chapter 4 of this report, *Nonradiological Environmental Monitoring Program*, summarizes the sampling results of both industrial wastewater and stormwater outfalls.

3.8.2 Safe Drinking Water Act (SDWA)

SCDES regulates drinking water facilities under the Safe Drinking Water Act (SDWA). SRS uses groundwater sources to supply drinking water to onsite facilities. The A-Area drinking water system supplies most Site areas. Remote facilities, such as field laboratories, barricades, and fire stations, use small drinking water systems or bottled water. SCDES requires SRS to collect 10 bacteriological samples each month from the domestic water system that supplies drinking water to most areas at SRS. The Site exceeds this requirement by collecting and analyzing 15 samples each month throughout the system. All 2024 bacteriological samples for the A-Area drinking water system that SRS collected met state and federal drinking water quality standards.

SRS samples the A-Area drinking water system for lead and copper on a three-year cycle. The most recent lead and copper sampling was conducted in 2022. The sampling results met all state and federal drinking water standards. The next sampling will be in 2025.

In 2024, SCDES did not conduct any Sanitary Surveys of the SRS drinking water systems. However, they did perform the annual bacteriological sampling for all drinking water systems as required. Sanitary surveys are scheduled to be conducted every five years for smaller drinking water systems and every two years for larger systems. It is expected that the A-Area system as well as the two “state” systems (Par Pond Lab and L Area Fire Station) will be next inspected in 2025. State systems refer to water systems that SCDES has issued Public Water System Operating Permits for and performs compliance inspections and monitoring on but do not meet the federal definition of a public water system, because they have fewer than 15 service connections or serve fewer than 25 people 60 or more days a year.

In 2024, Central Sanitary Wastewater Treatment Facility (CSWTF) was connected to the A-Area drinking water system. CSWTF was previously served by a well and was classified as a “state” drinking water system by SCDES. The well was disconnected from the distribution piping, and, as a result, the system is now considered inactive and has been removed from the SCDES compliance sampling and inspection schedules.

3.8.3 Groundwater/Surface Water Management

The South Carolina Groundwater Use and Reporting Act protects and conserves groundwater resources of the state. The act allows SCDES to designate certain geographic areas of the state as Capacity Use Areas, requiring a groundwater withdrawal permit be in place to withdraw or use groundwater equal to or greater than 3 million gallons in any month in these areas. The Western Capacity Use Area comprises all of Aiken, Allendale, Bamberg, Barnwell, Calhoun, Lexington, and Orangeburg counties. As the Site is within the Western Capacity Use Area, it has groundwater withdrawal permits from SCDES for systems (water supply, process, and remedial) located in A, B, D, H, S, T, and Z Areas. The act and permits require SRS to report annual water use to SCDES. In 2024, SRS groundwater use was within permitted limits.

The South Carolina Surface Water Withdrawal, Permitting Use, and Reporting Act regulates surface water withdrawals. This act applies to anyone withdrawing more than 3 million gallons of surface water during any one month. SRS has a surface water withdrawal permit and reports annual water use to SCDES. In 2024, SRS surface water use was within permitted limits.

SRS participates in the Lower Savannah-Salkehatchie River Basin Council (LSSRBC), established in September 2023. There are eight (8) river basin councils in South Carolina, and each river basin council is responsible for developing a comprehensive waster use plan for the basin to ensure future water use. The LSSRBC regional plan in scheduled to be completed by August 2025.

3.8.4 Section 404(e) Dredge and Fill Permits

SRS wetlands make up 25%, or 48,973 acres, of the Site and account for more than 80% of the wetlands across the entire DOE complex. CWA Section 404 requires SRS to obtain a permit when it will conduct work in a wetland area. The U.S. Army Corps of Engineers (USACE) authorizes development in wetlands through a Nationwide Permit (NWP) program, which is for projects that have minimal impact on the aquatic environment.

SRS reviewed 67 site-use applications for potential wetland impacts in 2024. During this time, SRS permitted the following actions under the NWP program—Scientific Measurement Devices:

- Installation of Shallow Monitoring Wells in the Pen Branch Streambed
- Installation of Surface Water Flow Monitoring Stations for Pen Branch, Steel Creek, and D Area
- Installation of Additional Surface Water Flow Monitoring Stations for Pen Branch
- Installation of Spotted Turtle traps in Wetlands

SRS permitted the following actions under the NWP program – Minor Dredging:

- Minor Dredging of the 681-3G Pumphouse Intake Canal

SRS permitted the following actions under the NWP program – Temporary Construction, Access, and Dewatering Measurement Devices:

- Invasive Mammal Enclosures

3.9 PERMITS

SRS had 433 construction and operating permits in 2024 that specified operating levels to each permitted source. Table 3-7 identifies the number of permits by the permit type.

Table 3-7 SRS Permits

Type of Permit	Number of Permits
Air	6[a]
U.S. Army Corps of Engineers (USACE—Nationwide Permits)	6
Asbestos Demolition Licenses/Abatement Licenses/Temporary Storage of Asbestos Waste Notices	269
Asbestos Abatement Group License	1
Asbestos Temporary Storage of Waste License	1
Domestic Water	9
Industrial Wastewater Treatment	43
National Pollutant Discharge Elimination System (NPDES) Permits	9[b]
Construction Stormwater Grading Permit	15
Resource Conservation and Recovery Act (RCRA) Hazardous and Mixed Waste	1
Solid Waste	5
Underground Storage Tank	7
Sanitary Wastewater	15
South Carolina Department of Environmental Services (SCDES) 401	0
SCDES Infectious Waste Registration	1
SCDES Bureau of Drug Control Controlled Substances Registration	2
Non-dispensing Drug Outlet License	4
SCDES Navigable Waters	0
Underground Injection Control	8
Scientific Collecting Permits	14[c]
Groundwater Withdrawal	11
Surface Water Withdrawal	1
Radioactive Waste Transport Permits/Licenses	4
Industrial Alcohol User Permit	1
Total	433

[a] This count includes the Ameresco Clean Air Act permit (TV-00800-144) and the noncolocated Savannah River Plutonium Processing Facility construction air permit (CP-50000085 v.1.0, Air Agency Number 0080-0194).
[b] This count includes the Ameresco National Pollutant Discharge Elimination System permit (SC0049107).
[c] This count includes scientific collecting permits from the U.S. Fish and Wildlife Service, the U.S. Geological Survey, the South Carolina Department of Natural Resources, and the Georgia Department of Natural Resources. Savannah River Nuclear Solutions and the Savannah River Ecology Laboratory maintain three and four permits, respectively. This count does not include freshwater fishing licenses assigned to individuals.

EPA's Enforcement and Compliance History Online (ECHO) database contains additional information on SRS permitting and compliance. The ECHO database can be found on the EPA webpage.

3.10 SUMMARY

3.10.1 Environmental Audits

The Federal Energy Regulatory Commission (FERC), SCDES, and EPA inspected and audited the SRS environmental program for regulatory compliance. Table 3-8 summarizes the results of the 2024 audits and inspections. During 2024, SRS conducted multiple internal audits for various facility programs throughout the Site. These reviews help identify opportunities for continuous improvement.

Table 3-8 Summary of 2024 External Agency Audits and Inspections of the SRS Environmental Program and Results

Audit/Inspection	Action	Results
Air Compliance Inspection	SCDES conducted a site Air Compliance Inspection on February 21, 2024. This inspection included a review of facility operational information, control device data, and regulatory compliance reports.	SCDES identified no issues.
632-G Construction and Demolition (C&D) Landfill and 288-F Ash Landfill Inspections	SCDES conducted four quarterly inspections of 632-G and 288-F landfills.	No compliance issues or violations resulted from the quarterly inspections.
Federal Energy Regulatory Commission (FERC) Inspection	FERC performed the annual inspection of PAR Pond Dam and Steel Creek Dam, and Ponds B and C in June.	FERC visually inspected the dams and found no conditions indicating a concern for the immediate safety and permanence of the structures. FERC noted SRS adequately operates and maintains the facility, and the dams were in satisfactory condition based on visual inspection.
Resource Conservation and Recovery Act (RCRA) Comprehensive Groundwater Monitoring Evaluation	SCDES inspected groundwater facilities associated with the F and H Area Seepage Basins, M Area Settling Basin, Metallurgical Laboratory Basin, Mixed Waste Management Facility, and Sanitary Landfill on September 10-11, 2024. SCDES also completed a records review of groundwater-related files.	On September 10, 2024, SCDES observed some pooling of water on the surface by production wells 905-20A and 905-53A. SRNS investigated and determined there was a leaky valve at 905-20A that was immediately corrected. A leak was found at 905-53A between the packing and motor shaft. In November 2024, a temporary packer was installed at 905-53A while the permanent packer is being manufactured. No other items were noted during the evaluation.

Table 3-8 Summary of 2024 External Agency Audits and Inspections of the SRS Environmental Program and Results

Audit/Inspection	Action	Results
SCDES Sanitary Survey of SRS Drinking Water Systems	SCDES inspects the wells, tanks, and treatment systems supporting the primary SRS A Area Drinking Water system biannually. SCDES also inspects three of the smaller SRS Drinking Water systems (Advanced Tactical Training Academy [ATTA]) Range, PAR Pond Lab, and L Area Fire Station) on either a three- or a five-year rotation, depending on the classification of the system. SCDES did not conduct any Sanitary Surveys of the SRS Drinking Water Systems in 2024.	While no Sanitary Surveys of SRS Drinking Water systems were conducted in 2024, SCDES did perform a "Site Visit" on the ATTA Drinking Water system. No issues or concerns were noted during the visit.
Interim Sanitary Landfill and the F Area Railroad Crosstie Pile Landfill Post-Closure Inspection	SCDES conducted an annual review of the closed landfills in September.	SCDES identified no compliance issues.
RCRA Compliance Evaluation Inspection (CEI)	The Environmental Protection Agency (EPA) and SCDES conducted the unannounced RCRA CEI for FY 2024 on October 30 to November 2, 2023.	The inspectors identified container management deficiencies during the FY 2024 inspection.
Underground Storage Tank (UST) CEI	SCDES inspected 17 USTs on May 1, 2024.	SCDES identified no issues.
Saltstone Disposal Facility (SDF), identified in the permit as Z Area Saltstone Solid Waste Landfill, Inspections	SCDES performed monthly inspections of the SDF. This included reviewing facility procedures and performing walkdowns of the SDF.	SCDES identified no issues.
National Pollutant Discharge Elimination System (NPDES) 3560 CEI	SCDES conducted a CEI in 2024 covering all operating associated with NPDES permit SC0000175.	SCDES identified no compliance issues.
Environmental Laboratory Certification Onsite Evaluations	SCDES performed recertification inspections of the Domestic Water Lab and the Environmental Bioassay Lab on March 5, 2024.	Both laboratories inspected were recertified for three years.

3.10.2 Regulatory Self-Disclosures

SRS did not make any regulatory disclosures in 2024.

3.10.3 Environmental Compliance Summary

The Savannah River Site is committed to safe, efficient, and environmentally compliant operations. SRS was not involved in any environmental lawsuits during 2024. No Notices of Violations (NOVs) were issued in 2024. Table 3-9 summarizes the NOVs and Notices of Alleged Violation (NOAVs) SRS received from 2020–2024.

Table 3-9 NOV/NOAV Summaries, 2020–2024

	Notice of Violation (NOV)/Notice of Alleged Violation (NOAV)				
Program Area	**2020**	**2021**	**2022**	**2023**	**2024**
Clean Air Act (CAA)	0	0	0	0	0
Clean Water Act (CWA)	1	0	0	1	0
Resource Conservation and Recovery Act (RCRA)	0	0	0	0	0
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)	0	0	0	0	0
Others	0	0	0	0	0
Total	**1**	**0**	**0**	**1**	**0**

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