# **3** COMPLIANCE SUMMARY

The Savannah River Site (SRS) implements programs designed to fulfill requirements of applicable federal and state environmental laws and regulations, including the U.S. Department of Energy (DOE) orders, notices, directives, policies, and guidance. SRS's exceptional compliance record demonstrates our commitment to protect human health and the environment. Our goal is to comply with regulatory requirements and minimize any potential environmental impacts.

## 2015 Highlights

SRS managed more than 500 operating and construction permits. SRS received one Notice of Violation (NOV) from South Carolina Department of Health and Environmental Control (SCDHEC) for failure to comply with Standards of Performance for Asbestos Projects for an incident that occurred in 2014 at the SRS Waste Solidification Building. (Page 3-12 provides information regarding the incident.)

#### **Environmental Restoration**

SRS had completed cleanup of 400 of the 515 waste units, and an additional 12 units were undergoing remediation.

The Fifth Five-Year Remedy Review Report for SRS Operable Units with Native Soil Covers and/or Land Use Controls was issued, which confirmed that the remedies selected for these 13 units were still protective of human health and the environment.

#### **Waste Management**

All 19 underground storage tanks containing usable petroleum fuel were in compliance, marking 13 consecutive years without a violation. These tanks are regulated under the Resource Conservation and Recovery Act (RCRA).

The 2015 annual reviews for the E-Area Low-Level Waste Facility Performance Assessment (PA) and the Saltstone Disposal Facility PA showed that SRS continued to operate these facilities in a safe and protective manner.

The Defense Waste Processing Facility (DWPF) produced 93 canisters with approximately 350,000 pounds of glass, immobilizing approximately 1.8 million curies of high-level radioactive waste. The Saltstone facilities processed over 750,000 gallons of low activity waste.

#### Radiation Protection of the Public and the Environment

SRS air and water discharges containing radionuclides were well below the DOE public dose limit of 100 mrem per year. (Chapter 6, "Radiological Dose Assessment", provides details on the public dose.)

## 2015 Highlights (continued)

# **Air Quality and Protection**

SRS achieved a 100% compliance rate in FY 2015 with the five air permits governing operating facilities.

## **Water Quality and Protection**

SRS monitors 28 industrial outfalls as required by the National Pollutant Discharge Elimination System (NPDES) permit and achieved a 100% compliance rate.

All 37 SRS stormwater outfalls covered under a Stormwater Pollution Prevention Plan (SWPPP) to prevent contamination and control sedimentation and erosion achieved a 100% compliance rate in 2015.

## **Environmental Protection and Resource Management**

SRS conducted 409 National Environmental Policy Act (NEPA) reviews to identify potential environmental impacts from proposed federal activities. Three hundred and forty of these were identified as categorical exclusions.

SRS continued to comply with many other federal laws including the Emergency Planning and Right-to-Know Act (EPCRA), Superfund Amendments and Reauthorization Act (SARA) Title III, the Endangered Species Act (ESA), the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), the National Historic Preservation Act (NHPA), and the Migratory Bird Treaty Act (MBTA).

# **DOE Orders/Executive Orders for Environmental Systems**

There were no significant environmental events reported under the Occurrence Reporting and Processing System.

SRS made no regulatory self-disclosures.

SCDHEC, the U.S. Environmental Protection Agency (EPA), and the U.S. Army Corps of Engineers (USACE) conducted eight audits/inspections of the SRS environmental program for regulatory compliance with zero significant findings.

## **Release Reporting**

SRS had no EPCRA or Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) reportable releases.

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#### 3.1 INTRODUCTION

Compliance with environmental regulations and DOE orders is an integral part of SRS operations. The purpose of this chapter is to provide a summary of SRS compliance with environmental regulations and programmatic requirements.

# 3.2 ENVIRONMENTAL RESTORATION/CLEANUP

The <u>Federal Facility Agreement (FFA)</u>, signed in 1993, integrates the CERCLA and RCRA requirements to achieve a comprehensive remediation strategy for SRS and to coordinate administrative and public participation requirements. The FFA governs the remedial action process, sets annual work priorities, and establishes milestones for cleanup actions.

SRS has 515 waste units subject to the FFA, including RCRA/CERCLA units, Site Evaluation Areas, and facilities covered by the SRS RCRA permit. At the end of Fiscal Year (FY) 2015, surface and groundwater cleanup of 400 of these units were complete and 12 units were in the remediation phase. You will find a listing of all 515 waste units at SRS in the FFA Appendices C ("RCRA/CERCLA Units List"), G ("Site Evaluation List") and H ("Solid Waste Management Units Evaluation"). You can learn more about the status of FFA activities for FY 2015 in the Federal Facility Agreement Annual Progress Report for Fiscal Year 2015.

CERCLA requires that reviews be conducted every five years for sites where hazardous substances remain at levels that do not allow for unrestricted use after remedy completion. The remedies are evaluated to determine if they are functioning as designed, and are still protective of human health and the environment.

EPA, SCDHEC and DOE signed the <u>Fifth Five-Year Remedy Review Report for SRS Operable Units (OUs) with Native Soil Covers and/or Land Use Controls</u> in 2015. This report spans 10 remedy decisions for 13 OUs, and all were determined to be protective of human health and the environment. DOE submitted the *Fifth Five-Year Remedy Review Report for SRS Operable Units with Groundwater Remedies* to EPA and SCDHEC in December 2015. The regulators will review and comment on the groundwater remedy review report, which is expected to be issued to the public by 2017.

#### 3.3 WASTE MANAGEMENT

The management of waste and materials at SRS is complex and includes numerous facilities regulated under DOE Orders, as well as federal and state regulations. SRS manages, treats, and stores low-level, high-level, and transuranic (TRU) waste in compliance with DOE Order 435.1. Only low-level waste is disposed of at SRS. Low-level waste is any radioactive waste not classified as high level or TRU waste. Low-level waste is disposed of onsite at the E-Area Low-Level Waste Facility.

## 3.3.1 Atomic Energy Act/DOE Order 435.1, Radioactive Waste Management

As required by Manual 435.1-1, "Radioactive Waste Management," DOE is required to prepare Performance Assessments (PAs) to evaluate the potential impacts of low-level radioactive waste disposal 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 completion of a Composite Analysis (CA) to assess the combined impact of multiple low-level waste disposal facilities after closure.

Annually, SRS performs a comprehensive PA review for disposal facilities to ensure any developing information does not alter the original PA conclusions and there is a reasonable expectation the facility will continue to meet the performance objectives of the Order. The 2015 annual reviews for the E-Area Low-Level Waste Facility PA and the Saltstone Disposal Facility PA, showed that operations in FY 2015 were within the performance standards established by DOE Orders, and that the public and the environment were protected. In addition, SRS annually performs a CA review evaluating the adequacy of the 2010 SRS CA and verifying that SRS activities were conducted within the bounds of the 2010 analysis.

## 3.3.2 Radioactive Liquid Waste Processing and Disposition Facilities

Liquid radioactive waste is generated at the SRS as by-products from the processing of nuclear materials (legacy liquid waste). The waste is stored in underground waste tanks grouped into two tank farms (F-Tank Farm and H-Tank Farm). The liquid waste in tank storage exists in essentially two forms: sludge and salt, as shown in Figure 3-1.

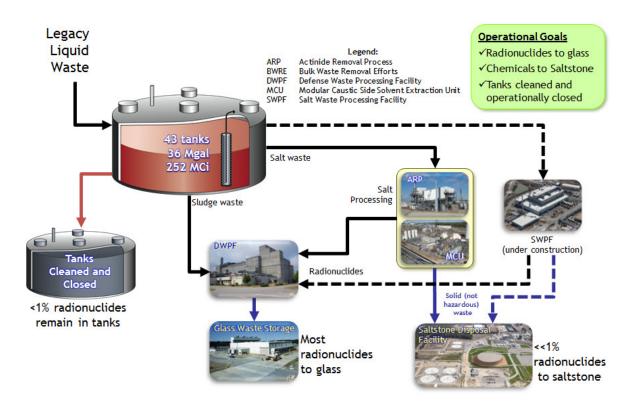


Figure 3-1 Pathway for Processing and Dispositioning of Radioactive Liquid Waste at SRS

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### 3.3.2.1 Tank Closure Project

SCDHEC permits the F-Tank Farm and H-Area Tank Farms under the industrial wastewater regulations through the provisions of Section IX, "High-Level Radioactive Waste Tank System(s)," of the FFA. Enforceable schedules for closure activities for the liquid waste tanks are contained in the FFA. In addition, tank closure activities are subject to DOE Order 435.1, "Radioactive Waste Management," federal regulations, and the Ronald W. Reagan National Defense Authorization Act (NDAA) for Fiscal Year 2005 Section 3116.

The tanks undergo an extensive waste removal process that includes specialized mechanical cleaning and isolation of the tanks from all external systems. These activities culminate in regulatory confirmation that the tanks are ready for stabilization, which is done by grouting the tanks. In 2015, SRS began to manage closure of the H-Tank Farm pursuant to closure plans approved by the SCDHEC, with the closure of Tank 16H. In 2015, SRS completed operational closure of Tank 16H and continued preparation activities for the closure of Tank 12H.

NDAA Section 3116(a) is legislation that allows the Secretary of Energy, in consultation with the Nuclear Regulatory Commission (NRC), to determine that certain waste from spent fuel reprocessing is not high-level radioactive waste and does not require deep geologic disposal. The NRC performs their monitoring role of F-Tank Farm and H-Tank Farms in coordination with SCDHEC. In addition to SCDHEC representatives, EPA also participates in NRC Tank Farm monitoring activities. The Section 3116

Determination for Closure of F-Tank Farm at the Savannah River Site and Section 3116 Determination for Closure of H-Tank Farm at the Savannah River Site, demonstrate that the stabilized tanks and ancillary structures in the F-Tank Farm and H-Tank Farm meet the necessary criteria and will not require permanent isolation in a deep geologic repository. During 2015, the NRC performed an on-site observation visit concerning both F- and H-Tank Farms and requested various documents for review. All requested documentation, along with other Follow-up Action Items, have been provided to the NRC as requested. The NRC did not identify any Open Issues resulting from the visit and review of the provided documentation. You can learn more by reading the NRC Onsite Observation Visit Report for the July 28-29, 2015 visit.

You will find more information on Tank Closure activities on the <u>Tank Farms at the Savannah River Site</u> web page.

#### 3.3.2.2 Liquid Waste Processing

The Actinide Removal Process and Modular Caustic Side Solvent Extraction Unit (ARP/MCU) is an interim salt waste processing system. SCDHEC permitted ARP/MCU under the South Carolina industrial wastewater regulations. The salt form from the tanks comprises about 90% of the volume and contains about half of the radioactivity in the tank farms. The salt waste is treated at the MCU and the ARP. These processes remove actinides, strontium and cesium from the salt waste removed from the liquid waste tank farms. The higher activity portion of the salt waste—a very small stream—is sent to DWPF. The rest is a decontaminated salt solution sent to the Saltstone facilities. The Salt Waste Processing Facility (SWPF), which is under construction, will eventually replace the ARP/MCU process, as shown in Figure 3-1.

SRS continued processing radioactive liquid waste processing and disposition at SDUs and E-Area. You will find more information in the <u>Liquid Waste Disposition</u> and the <u>Waste Solidification</u> fact sheets on the SRS web page.

#### 3.3.2.3 Salt Disposition

The low activity salt solution is sent to the Saltstone Production Facility after ARP/MCU for processing into grout for disposition in the Saltstone Disposal Facility (SDF). SCDHEC permits operation of the SDF under the South Carolina solid waste landfill regulations. SRS disposes of treated salt waste in the SDF based on the Secretary of Energy's determination pursuant to Section 3116 of the NDAA legislation. The Basis for this determination is found at <u>Section 3116 Determination for Salt Waste Disposal at the Savannah River Site</u>. The NRC, in coordination with SCDHEC, monitors the SDF as required by NDAA Section 3116(b). In 2015, SRS continued to use cylindrical Saltstone Disposal Units (SDUs) for disposal operations. SRS also continued construction of a new design for the cylindrical SDUs with plans to begin operations in 2017. The new design is similar to the current cylindrical SDU and will hold approximately ten times the volume of waste. In FY 2015, over 750,000 gallons of waste was processed and disposed through the Saltstone facilities.

You will find more information on Salt Disposition 3116 activities on the <u>Salt Waste Disposal at the Savannah River Site</u> web page.

### 3.3.2.4 Defense Waste Processing Facility (DWPF) Vitrification

SCDHEC permits the operation of DWPF under the South Carolina industrial wastewater regulations. The DWPF is designed to treat the high-activity radionuclides from both forms of this waste. The sludge form, while comprising only about 10% of the volume in the tanks, contains the balance of the radioactivity. All of it goes to DWPF where the sludge-like high activity waste from the tank farms is immobilized in glass and poured into canisters. These canisters are stored at SRS in preparation for final disposal in a federal repository.

In FY 2015, DWPF produced 93 canisters with approximately 350,000 pounds of glass, immobilizing approximately 1.8 million curies of radioactivity. Since operations began in March 1996, over 15 million pounds of glass have been produced and 57.4 million curies have been immobilized.

# 3.3.2.5 <u>Low Level Liquid Waste Treatment</u>

The F and H Effluent Treatment Project (ETP) is where low-level radioactive wastewater from processes in the tank farms is treated. SCDHEC permitted the ETP under the South Carolina industrial wastewater regulations. ETP removes chemical and radioactive contaminants before releasing the water into Upper Three Runs Creek, an onsite stream that flows to the Savannah River. The point of discharge is a South Carolina NPDES permitted outfall. ETP processes up to approximately 20 million gallons of wastewater per year. ETP remained in compliance throughout 2015 with the industrial wastewater permit and the NPDES permit.

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## 3.3.3 Transuranic (TRU) Waste Management

In 2015, Transuranic Waste Pad 16 was closed under a SCDHEC approved RCRA Interim Measures Plan. All waste was removed from the building, the Rubb<sup>TM</sup> structure was removed, the pad was covered with concrete, and the sump was filled with grout. SCDHEC approved the Interim Measures Closure Certification Report in December 2015.



**Interim Closure of TRU Waste Pad 16** 

(clockwise from top: removal of  $Rubb^{TM}$  enclosure atop pad; pouring concrete over the pad; and completed interim closure)

# 3.3.4 Resource Conservation and Recovery Act (RCRA)

RCRA establishes regulatory standards for generation, transportation, storage, treatment, and disposal of hazardous waste, such as flammable or corrosive liquids. EPA authorizes SCDHEC to regulate hazardous waste and the hazardous components of mixed waste at SRS. SCDHEC issued a RCRA hazardous waste permit to SRS. In 2015, SRS submitted RCRA permit renewal applications for the TRU Pads and the Solvent Storage Tanks S33-S36.

In 2015, SRS operated active treatment, storage, and disposal facilities and maintained closed facilities in compliance with the SRS RCRA permit requirements. Nineteen underground storage tanks (USTs) at SRS contain usable petroleum products and are regulated under Subtitle I of RCRA. These tanks require an annual compliance certificate from SCDHEC. A SCDHEC inspection and audit on October 22, 2015 found all 19 tanks to be in compliance, marking 13 consecutive years without a violation.

## 3.3.5 Federal Facility Compliance Act (FFCA)

The FFCA's main purpose is identification of mixed waste (radioactive waste mixed with hazardous waste), and requires site owners to develop a Site Treatment Plan (STP). DOE is required to implement the STP with enforceable timetables for the development of mixed waste treatment capacities and technologies. SRS and SCDHEC held the annual STP status meeting in September 2015 to examine current milestones against projected STP goals and validated three quarters of cleanup credits.

## 3.3.6 Toxic Substances Control Act (TSCA)

SRS complies with TSCA regulations for the storage and disposal of lead, asbestos, and organic chemicals, including polychlorinated biphenyl compounds (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 also generates radioactive waste contaminated with PCBs. Low-level radioactive PCB bulk product waste is disposed of onsite. PCB waste that is contaminated with TRU requires disposal at the Waste Isolation Pilot Plant (WIPP), located in New Mexico. SRS did not send any PCB TRU waste to WIPP in 2015. WIPP is still in recovery mode after a radioactive release occurred at their facility in 2014.

SRS completed the 2015 annual PCB document log on April 12, 2016 and submitted the 2015 annual report of onsite PCB disposal activities to EPA on June 15, 2016, meeting applicable requirements.

#### 3.3.7 South Carolina Infectious Waste Management Regulation

SCDHEC registered SRS as a large quantity generator based on the amount of infectious (medical) waste generated per month. SRS contracts with a vendor for monthly pick-up of infectious waste. The waste is then treated and disposed of in accordance with the SCDHEC regulations. In 2015, SRS managed all infectious wastes in compliance with the requirements for treatment, storage, transportation, and disposal or destruction.

## 3.4 RADIATION PROTECTION OF THE PUBLIC AND THE ENVIRONMENT

DOE Order 458.1, "Radiation Protection of the Public and the Environment," establishes the requirements to protect the public and the environment against any undue risk from radiation associated with radiological activities at DOE sites. This Order requires an Environmental Radiological Protection Program (ERPP). The SRS ERPP describes the methods used to ensure SRS implements the appropriate actions to comply with the requirements of DOE Order 458.1. This order specifies radiation dose standards for individual members of the public. The dose standard to the public is 100 millirem per year to a person from routine DOE operations.

In 2015, SRS radioactive discharges to air and water were well below regulatory standards for the public and the environment. Compliance with DOE Order 458.1 dose requirements is found in Chapter 6, "Radiological Dose Assessment." Chapter 6 provides the radioactive discharges to air and water and the potential radiation dose to the public and the DOE public dose limit.

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## 3.5 AIR QUALITY AND PROTECTION

# 3.5.1 Clean Air Act (CAA)

EPA has delegated regulatory authority for all types of emissions to SCDHEC. SRS is required to comply with SCDHEC Regulation 61-62, "Air Pollution Control Regulations and Standards." SRS currently has five air permits regulating programs on Site:

- Part 70 Air Quality Permit (TV-0080-0041),
- 784-7A Biomass Boiler Construction Permit (TV-0080-0041a-CG-R1),
- 784-7A Oil Boiler Construction Permit (TV-0080-0041a-CF-R1)
- Ameresco Federal Solutions, Inc. ("Ameresco") biomass facilities permit (TV-0080-0144)
- Mixed Oxide Fuel Fabrication Facility (MFFF) (TV-0080-0139-CA-R1)

Information on these permits is available at the <u>EPA's Enforcement and Compliance History Online (ECHO)</u> database.

Under the CAA, SRS is considered a "major source" of non-radiological air emissions and therefore, falls under the CAA Part 70 Operating Permit Program. The Part 70 Operating Permit regulates stationary sources with the potential to emit five tons or more per year of any criteria pollutant (six of the most common air pollutants). The criteria 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, as well as emissions monitoring and record keeping requirements.

The National Ambient Air Quality Standards are air pollution control standards set by the EPA and regulated by SCDHEC. SRS is required by the Part 70 Operating Permit to demonstrate compliance through air dispersion modeling and the submission of an annual emissions inventory of air pollutant emissions. Table 3-1 shows the estimates for all the criteria pollutants emitted by SRS permitted sources as determined by the air emissions inventory conducted for the last five years. SCDHEC's 2015 review of the emissions found that SRS sources operated in compliance with permitted emission rates and the ambient air quality standards.

The current CAA Permit expired on March 31, 2008. SRS submitted a complete renewal application prior to the expiration allowing the Site to continue operations under the expired permit. SRS received a draft permit for review in 2011. SRS provided comments to SCDHEC on the draft permit in February 2012. SRS anticipates transmitting another draft permit for review in 2017 prior to public comment.

#### 3.5.2 Accidental Release Prevention Program

The Clean Air Act Amendments of 1990 Section 112(r) requires 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 the threshold value; therefore, SRS was not required to develop a risk management plan. Additionally, no reportable 112(r)-related hazardous or extremely hazardous chemical releases occurred at SRS in 2015.

Table 3-1 SRS Estimated SCDHEC Nonradiological Pollutant Air Emissions, 2011-2015 (TV-0080-0041)

Pollutant Name	Emissions (Tons/Year)					
	2011	2012 <sup>b</sup>	2013 °	2014	2015	
Sulfur dioxide (SO2)	4,560	953	6.8	6.7	4.81	
Total particulate matter (PM)	329	26	12.4	12.5	12.5	
Particulate matter < 10 micrometers (PM10)	142	18	9.1	8.7	8.41	
Particulate matter < 2.5 micrometers (PM2.5)	427	16	7.2	6.6	6.32	
Carbon monoxide (CO)	125	52	21.7	58.0	54.0	
Volatile organic compounds (VOCs) (Ozone Precursors) <sup>a</sup>	46	40	41.5 39.6		34.5	
Gaseous fluorides (as hydrogen fluoride)	12.3	3	0.0025	0.0021	0.0011	
Nitrogen dioxide (NO2) <sup>d</sup>	2,060	621	268.4	223.6	83.7	
Lead (lead and lead compounds)	0.0166	0.00064	0.0047	0.0045	0.0079	

<sup>&</sup>lt;sup>a</sup> Corrected errors in 2009-2011 entries during 2012 annual report generation.

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<sup>&</sup>lt;sup>b</sup> Decreases in emissions attributed to limited use of D Area Powerhouse during 2012.

<sup>&</sup>lt;sup>c</sup> D-Area Powerhouse permanently ceased all operations on April 25, 2012. Decreased emissions are attributed to no production in 2013. The increase in lead emissions is result of annual emission inventory reporting of lead and lead compounds where previously only lead was included.

<sup>&</sup>lt;sup>d</sup> Less nitric acid was consumed in site operations during 2015 than in previous years. Nitric acid converts to NO2.

## 3.5.3 Ozone-Depleting Substances (ODS)

The CAA mandates air quality standards for the protection of stratospheric ozone. Releases of chemical gases such as chlorofluorocarbons, hydrofluorocarbons, halons, and other ODS widely used as refrigerants, insulating foams, solvents, and fire extinguishers, cause ozone depletion. The CAA requires SRS to comply with the standards for emissions reduction and the systematic reduction of ODS. It is a requirement that no ODS is knowingly or willfully released into the atmosphere. SRS reported no excursions occurred during 2015.

#### 3.5.4 Air Emissions Inventory

SCDHEC Regulation 61-62.1, Section III ("Emissions Inventory"), requires compilation of an air emissions inventory in order to locate all sources of air pollution and to define and characterize the various types and amounts of pollutants.

SRS is required to update the Site annual air emission inventories to SCDHEC by March 31 for the previous calendar year. SRS submitted the 2015 electronic emissions inventories on March 31, 2016 (SRNS-2210-2016-00055). SRS provides its air emissions inventory to the EPA for inclusion in the National Emissions Inventory, a comprehensive and detailed estimate of air emissions of both criteria and hazardous air pollutants from all air emissions sources. You will find the most recent information on the EPA National Emission Inventories website.

### 3.5.5 National Emission Standard for Hazardous Air Pollutants (NESHAP)

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.

#### 3.5.5.1 NESHAP Radionuclide Program

SRS maintains compliance with the NESHAP Radionuclide Program by performing all required inspections and maintaining monitoring systems. Subpart H of the NESHAP regulations require SRS to determine and report annually by June 30 the highest effective dose from airborne emissions to any member of the public at an offsite point. During 2015, the maximally exposed individual (MEI) effective dose equivalent, calculated using the NESHAP required CAP88 computer code, was estimated to be less than 1% of the EPA standard. SRS transmitted the SRS Radionuclide Air Emissions Annual Report for 2014 on June 24, 2015 to EPA, SCDHEC, and DOE headquarters. Chapter 6, "Radiological Dose Assessments," contains details on this dose calculation.

## 3.5.5.2 NESHAP Reciprocating Internal Combustion Engine (RICE) Program

In 2013, NESHAP emission standards applicable to stationary RICE, such as portable generators, emergency generators and compressors, became effective. SRS operates numerous RICE impacted by these regulations. RICE must also comply with the New Source Performance Standards. In 2015, SRS successfully submitted the semiannual compliance report.

### 3.5.5.3 NESHAP Asbestos Abatement Program

Asbestos operations and maintenance activities, minor and small jobs, as well as building renovations and demolitions at SRS fall under SCDHEC and federal regulations. SRS conducted 106 permitted renovations and demolitions involving asbestos in 2015.

SRS issued 91 asbestos notifications in 2015. Certified personnel removed and disposed of 388 linear feet, 48 square feet, and 22 cubic feet of friable (easily crumbled or pulverized) asbestos, and 367 linear feet, 172 square feet, and 2 cubic feet of non-friable asbestos during 2015. Non-radiological asbestos waste was disposed of at the Three Rivers Solid Waste Authority Landfill and the SRS Construction and Demolition (C&D) Landfill. Both disposal sites are SCDHEC-approved landfills for the disposal of regulated and non-regulated asbestos. Additionally, SRS disposed of 140 linear feet and 24 square feet of radiologically contaminated asbestos waste in 2015 at the SRS E-Area Low-Level Waste Facility.

On January 16, 2015, SRNS received a NOV from SCDHEC for failure to comply with SC R.61-86.1, *Standards of Performance for Asbestos Projects* at the SRS Waste Solidification Building. On December 2, 2014, an electrician removed electrical wiring from a rooftop HVAC system. The removal process generated less than 20 linear feet of asbestos containing wiring insulation. The individual who removed the wiring was not an asbestos-trained individual, nor was an abatement license obtained prior to the removal activity. No fines or penalties were assessed by SCDHEC as a result of this violation. The amount of asbestos released was below the one pound CERCLA Reportable Quantity and therefore did not require reporting to the National Response Center.

# 3.6 WATER QUALITY AND PROTECTION

#### 3.6.1 Clean Water Act (CWA)

## 3.6.1.1 National Pollutant Discharge Elimination System (NPDES)

SCDHEC administers the NPDES program. The program protects surface waters by limiting releases of effluents into streams, reservoirs, and wetlands. With the exception of Ameresco, which has its own NPDES permit, SRS operated pursuant to eight NPDES permits in 2015:

- Land Application Permit (ND0072125)
- General Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction) (SCR000000)
- Permit for Discharge to Surface Waters (SC0000175)
- Permit for Discharge to Surface Waters (SC0047431)
- General Permit for Stormwater Discharges from Construction Activities (SCR100000)
- General Permit for Utility Water Discharges (SCG250000)
- General Permit for Discharges from Application of Pesticides (SCG160000)
- General Permit for Vehicle Wash Water Discharges (SCG750000)

Information on these permits is available at the <u>EPA's Enforcement and Compliance History Online (ECHO)</u> database.

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Throughout the year, SRS monitors 28 NPDES-permitted industrial wastewater outfalls across SRS on a frequency specified by the permits. Monitoring requirements vary from as much as once a day at some locations to once a quarter at others, although typically they are conducted once a month. For each outfall, physical, chemical, and/or biological parameters are determined and reported to SCDHEC in SRS monthly discharge monitoring reports, as required by the permit. Chapter 4, "Non-Radiological Environmental Program," provides additional information about sampling as required to remain compliant with the SRS's NPDES permits.

In 2015, the SRS NPDES program maintained a 100% compliance rate. SRS did not have a permit exceedance and received no NOVs for the NPDES program in 2015.

Stormwater Pollution Prevention Plans (SWPPPs) are required for construction and industrial activities on Site to prevent stormwater contamination, control sedimentation, and erosion, and to comply with CWA requirements. The SRS SWPPP contains information on all SRS outfalls and outfall facilities. SRS currently has 37 outfalls that are covered under this SWPPP.

In 2015, no construction stormwater monitoring was required at SRS and there were zero non-compliance notices issued by SCDHEC.

You will find the results from sampling of both industrial and stormwater outfalls in the 2015 Environmental Monitoring Program Data Report (SRNS 2016a).

The construction, operation, and closure of industrial wastewater treatment facilities are permitted under the NPDES program. Facilities permitted are broad in scope and include those involved with groundwater remediation, radioactive liquid waste processing, and nuclear nonproliferation. Inspections by SCDHEC in 2015 included those related to the Salt Solution Receipt Tanks at Saltstone and the Waste Solidification Building in June and the Western Sector Treatment System in December 2015.

SRNS submitted a Notice of Intent for the NPDES General Permit for Discharges from the Application of Pesticides in 2015 for woody vegetation control of approximately 35 acres at various ponds and lakes at SRS.

# 3.6.2 Safe Drinking Water Act (SDWA)

SCDHEC regulates drinking water facilities under the SDWA. SRS uses groundwater sources to supply onsite drinking water facilities. The A-Area drinking water system supplies most Site areas. Remote facilities such as field laboratories, barricades, and pump houses use small drinking water systems or bottled water.

SRS and SCDHEC collect and analyze samples to ensure that all Site domestic water systems meet SCDHEC and EPA bacteriological and chemical drinking water quality standards. All samples collected in 2015 met those standards. SRS samples domestic water systems for lead and copper on a three-year, rotating cycle. The A-Area water system will not be sampled again for lead and copper until 2016.

#### 3.7 ENVIRONMENTAL PROTECTION AND RESOURCE MANAGEMENT

## 3.7.1 National Environmental Policy Act (NEPA)

The NEPA process is used to identify the potential environmental consequences of proposed federal activities and alternatives to support informed environmentally sound decision-making regarding design and implementation.

SRS initiates the evaluation process required by NEPA by completing an Environmental Evaluation Checklist (EEC) for new projects or changes to existing projects. 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 409 NEPA reviews in 2015 (Table 3-2). Categorical exclusion (CX) determinations accounted for 83 % of completed reviews. You will find additional information on SRS NEPA activities on the <u>SRS NEPA</u> web page.

**Table 3-2 Summary of NEPA Reviews** 

Type of NEPA Review	Number	
CX Determinations	340	
"All No" EEC Determinations <sup>a</sup>	47	
Actions Tiered to Previous NEPA Reviews	12	
Environmental Impact Statements (EIS) <sup>b</sup>	3	
Supplement Analysis (SA) <sup>c</sup>	3	
Interim Action <sup>d</sup>	0	
Revised Finding of No Significant Impact (FONSI)	1	
EA	3	
Total	409	

<sup>&</sup>lt;sup>a</sup> Proposed actions that require no further NEPA action

SRS completed the following major NEPA reviews in 2015:

- Final Surplus Plutonium Disposition Supplemental Environmental Impact Statement (SPD SEIS)
- Environmental Assessment, for Gap Material Plutonium-Transport, Receipt, and Processing
   [DOE/EA-2024]
- Supplement Analysis for the Foreign Research Reactor Spent Nuclear Fuel Acceptance Program;
   Highly Enriched Uranium Target Residue Material Transportation (DOE/EIS-0218-SA-07)

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<sup>&</sup>lt;sup>b</sup> DOE/EIS-0283-S2, Surplus Plutonium Disposition Supplemental EIS; DOE/EIS-0375, Disposal of Greater-Than-Class-C Low-Level Radioactive Waste; DOE-EIS/0423-S1, Long-Term Management and Storage of Elemental Mercury (all in process)

<sup>&</sup>lt;sup>c</sup> SA on the Uranium Lease and Take Back Program for Irradiation for Production of Molybdenum-99 for Medical Use (ULTB Program)(DOE/EIS-0279-SA-05, DOE/EIS-0387-SA-02); Supplement Analysis for Interim Management of Nuclear Materials Final Environmental Impact Statement: Disposition of Mk-18A Targets at Savannah River Site (DOE/EIS-0220-SA-02)

<sup>&</sup>lt;sup>d</sup> An interim action is an action within the scope of an EIS that is taken before a Record of Decision is issued. An interim action may not have adverse impacts on the environment or prejudice the selection of alternatives considered in the EIS.

An Environmental Assessment for a Proposal to Permit 750 Acres at the Savannah River Site for Use by the State of South Carolina Military Department [DOE/EA-1999] and for the Acceptance and Disposition of Used Nuclear Fuel Containing U.S. Origin Highly Enriched Uranium from the Federal Republic of Germany [DOE/EA-1977] are in progress. Due to incorrectly identifying DOE/EA-1977 as complete in the SRS Environmental Report for 2014, an Errata, Appendix B, has been prepared to provide accurate information regarding 2014 NEPA activities.

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

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 Chemical Release Inventory (TRI) report to include waste management activities. SRS complies with the applicable reporting requirements for EPCRA, and incorporates the applicable TRI chemicals into its pollution prevention efforts.

As required by Section 312 (Chemical Inventory Reporting) of EPCRA, SRS completes an annual Tier II Chemical Inventory Report for all hazardous chemicals in excess of specified quantities present at SRS during the calendar year. SRS submits hazardous chemical storage information to state and local authorities electronically via the Homeland Security E-Plan database by March 1 for the previous calendar year. SRS submitted its Tier II Chemical Inventory for 2015 on February 24, 2016.

As required by Section 313 (Toxic Chemical Release Inventory) of EPCRA, SRS must file an annual TRI report by July 1 for the previous year. SRS calculates chemical releases to the environment for each regulated chemical and reports those above the threshold value to EPA. For 2015, SRS submitted the Toxic Release Inventory Report on June 30, 2016 for each of the following regulated chemicals: ammonia, chromium compounds, ethylene glycol, formic acid, lead/lead compounds, manganese, mercury compounds, naphthalene, nickel compounds, nitrate/nitrate compounds, nitric acid, sodium nitrite, and sulfuric acid. You will find details on the EPA Toxic Release Inventory Program website.

#### 3.7.3 Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

The objective of FIFRA is to provide federal control of pesticide distribution, sale, and use. All pesticides used in the United States must be registered (licensed) by EPA. Use of each registered pesticide must be consistent with use directions contained on the label or labeling. South Carolina maintains the South Carolina Pesticide Control Act. SRS must comply with both FIFRA and the South Carolina Pesticide Control Act.

SRS has procedures in place to ensure compliance with FIFRA that establishes the requirements for application of pesticides, record keeping for pesticide applications, storage of pesticides, and the disposal of empty containers and excess pesticides. General Use Pesticides (ready- to-use products that are available for public use) are applied at SRS per the label instructions. Restricted Use Pesticides are applied at SRS per their Pesticide Program Plan. Application records for General Use and Restricted Use Pesticides are generated and maintained for each application.

## 3.7.4 Endangered Species Act (ESA)

The ESA provides for the designation and protection of wildlife, fish, and plants in danger of becoming extinct. This federal law also protects and conserves the critical habitats on which such species depend. Several federally listed plant and animal species exist at SRS, including the wood stork, the Red-Cockaded Woodpecker, the Shortnose Sturgeon, the Atlantic Sturgeon, the Pondberry, and the Smooth Coneflower. In addition, SRS is home to the Gopher Tortoise, which recently was listed as a candidate for protection under the ESA. The SRS is one of the first sites to conduct experimental translocations of gopher tortoises. Protocols developed during the translocation project are now widely used by conservation organizations to establish viable populations elsewhere in the species' range. South Carolina has enacted legislation that lists additional plants and animals not on the federal list to encourage management of populations of those species of conservation concern. Those found on SRS include the Carolina Gopher Frog and the Swallow Tailed Kite. While the Bald Eagle is no longer on the federally listed endangered or threatened species list, nesting Bald Eagles and wintering Golden Eagles remain protected by the Bald and Golden Eagle Protection Act. Bald Eagles nest on SRS and are considered year-round residents. Golden Eagles use SRS as wintering habitat. The U.S. Forest Service-Savannah River (USFS-SR) manages programs onsite to enhance the habitat and survival of these species.

The USFS-SR actively manages over 65,000 acres in the Red-Cockaded Woodpecker habitat management area using mechanical, chemical, and prescribed fire operations to effectively create and improve habitat by restoring the natural fire regime, improving native plant diversity in the understory, and enhancing native pine stands. Additionally, the USFS-SR inserts artificial cavities into living pine trees to supplement the available cavities for roosting and nesting. From 1985 through FY 2015, the number of active Red-Cockaded Woodpecker clusters has increased from three to 87 due to successful habitat restoration.



Gopher Tortoise and Smooth Purple Coneflower, Two Protected Species, Found at SRS



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During FY 2015, while implementing the <u>United States Department of Energy Natural Resources</u>

<u>Management Plan for SRS</u>, USFS-SR amended two SRS watershed management plans resulting in two reviews of biological evaluations for timber, research, and wildlife-related management activities. Three other biological evaluations were written during this time. Two were for standard USFS-SR project plans and one was at DOE's request for the SC National Guard's Training Operations on the Savannah River Site. These biological evaluations determined that forest implementation plans are not likely to affect federally listed endangered or threatened species adversely due to beneficial, insignificant, or discountable effects.

# 3.7.5 National Historic Preservation Act (NHPA)

The NHPA requires that all federal agencies consider the impacts to historic properties in all their undertakings. SRS ensures compliance 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 compliance with NHPA. The Savannah River Archaeological Research Program (SRARP) provides cultural resource management guidance to DOE to ensure fulfillment of compliance commitments. SRARP also serves as a primary facility for investigation of archaeological research problems associated with cultural development within the Savannah River valley, using the results to help DOE manage more than 1,900 known archaeological sites at SRS.

Through this program, SRARP evaluates and documents all locations being considered for activities, such as construction, to ensure that archaeological or historic sites are not impacted. In FY 2015, 936 acres of land on the SRS were investigated for cultural resource management; including 26 field surveys and testing. Twenty-nine newly discovered sites were recorded, and seven previously recorded sites were revisited.

You will find more information on activities conducted by the SRARP on the <u>SRARP</u> website. In addition, SRARP's 2015 report is located on the <u>Savannah River Site Environmental Report for 2015</u> web page.

#### 3.7.6 Migratory Bird Treaty Act (MBTA)

The MBTA prohibits the taking, possession, import, export, transport, selling, purchase, barter of, offering for sale, or purchase of any migratory bird or its eggs, parts, and nests, except as authorized under a valid permit.

Three abandoned Northern Mockingbird nests (*Mimus polyglottos*) were discovered in government vehicles in 2015. In May 2015, an SRS worker drove a government vehicle to another site location for maintenance service. A nest containing three Northern Mockingbird eggs was discovered under the hood

in the engine compartment of the vehicle. Two other abandoned Northern Mockingbird nests were discovered in government vehicles during September and October 2015.

A subcontractor initiated repair work on HVAC units located on the roof of Building 730-2B. Birds mobbed workers, causing them to stop work. SRS conducted the first walk down on June 25, 2015. Two Barn Swallow (*Hirundo rustica*) nests were located on the external ductwork of HVAC Units 1 and 3; each nest contained four nestlings. A stop work order was initiated requiring all work to stop until the nestlings fledged. Weekly



**Barn Swallows in Nest** 

inspections documented the continued use of the nests until fledging. The Unit 1 nestlings fledged between July 1 and July 8. The Unit 3 nestlings fledged between July 8 and July 15. HVAC repair work resumed after fledging.

In 2014, an osprey (*Pandion haliaetus*) nest was discovered on a power pole at the L-Lake Dam. USFS-SR consulted with U.S. Fish and Wildlife Service (USFWS) on moving the nest. A pole with a nest platform was erected and the nesting material was moved from the power pole to the platform. Exclusion devices were placed on the power pole to discourage the ospreys from rebuilding their nest on the power pole. In 2015, USFS-SR staff monitored the nest platform for nesting activity. The osprey did nest and produced three fledglings. The exclusion device on the power pole was an effective deterrent.

## 3.8 RELEASE REPORTING

Federally permitted releases comply with legally enforceable licenses, permits, regulations, or orders. If an unpermitted release to the environment of an amount greater than, or equal to, a reportable quantity (RQ) of a hazardous substance (including radionuclides) occurs, EPCRA, CERCLA, CWA and the CAA require notification to the National Response Center and state agencies. SRS had no reportable releases in 2015.

SRS had two releases reported to SCDHEC as a "courtesy" due to exceeding 50% of the RQ. On March 11, a leak on a fuel truck released 25 gallons of diesel fuel at the MOX project. On September 24, H-Tank Farm reported that a leak on the chromate cooling water system had released 8.7 pounds of sodium chromate. One other incident of interest was a CSX Train Derailment on January 27 that was partially on SRS property near Martin, South Carolina. This resulted in a release of 19,000 gallons of hydrochloric acid and 4,000 gallons of diesel fuel. CSX Railroad handled all reporting and cleanup. DOE and SRNS served in a support role.

## 3.9 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 O 451.1B, Administrative Change 3, National Environmental Policy Act Compliance Program. See NEPA section of this chapter.
- DOE O 436.1, Departmental Sustainability. See Chapter 2, Environmental Management Systems.
- DOE O 458.1, Administrative Change 3, Radiation Protection of the Public and the Environment. See Chapters 5 and 6 of this report.
- DOE O 435.1, Change 1, Radioactive Waste Management. See Waste Management Section in this chapter.
- DOE O 231.1B, Environment, Safety and Health Reporting, requires the preparation of this Annual Environmental Report.
- DOE O 232.2, Administrative 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). The ORPS ensures that the DOE complex and the National Nuclear Security Administration are informed of events that could adversely affect the health and safety of the public and workers, the environment, DOE missions, or the

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- credibility of the Department. In 2015, there were no significant environmental ORPS reportable events.
- DOE O 226.1B, Implementation of Department of Energy Oversight Policy. This Order requires
   DOE to provide oversight related to protection of the public, workers, environment, and
   national security assets effectively through continuous improvement.

# 3.9.1 Regulatory Self-Disclosures

SRS did not make any regulatory self-disclosures in 2015.

## 3.9.2 Environmental Audits

SCDHEC, EPA, and the United States Army Corps of Engineers (USACE) conducted inspections and audits of the SRS environmental program for regulatory compliance. Table 3-3 provides a summary of the results of the 2015 audits and inspections.

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

Audit/Inspection	Purpose	Results
632-G C&D Landfill, 288-F Landfill, 488-4D Ash Landfill Inspections	SCDHEC conducted four quarterly inspections of the landfills.	No issues were identified.
SCDHEC Sanitary Survey of Domestic Water Systems	SCDHEC inspected the A-Area water system and three smaller systems on February 23, 2015. SCDHEC pulled water samples for bacteriological analysis.	SCDHEC indicated the systems are "satisfactory," and are operating in compliance with the State Primary Drinking Water Regulations.
Comprehensive Groundwater Monitoring Evaluation	SCDHEC 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 March 2-3, 2015.	A records review of groundwater related files was also completed. Inspectors identified one damaged groundwater monitoring well sign. SRS replaced the sign, and no other issues were noted.
Industrial Wastewater Construction Permit Inspections	SCDHEC conducted inspections to approve the operation or closure of a variety of industrial wastewater treatment projects including the Waste Solidification Building, the Western Sector Treatment System, the Salt Solution Receipt Tanks, and Tanks 18F and 19F in the F-Area Tank Farm.	No issues were identified.
Interim Sanitary Landfill Post-Closure Inspection	SCDHEC conducted an annual review of the landfill.	No issues were identified.

Table 3-3 Summary of External Agency Audits/Inspections of the SRS Environmental Program and Results (continued)

Audit/Inspection	Purpose	Results
RCRA Compliance Evaluation Inspection (CEI)	SCDHEC inspected eight facilities and reviewed hazardous waste program requirements (i.e., notifications and reports to SCDHEC, plans, training records, internal inspections, and waste documentation) during their March 24 – 26, 2015 CEI.	SCDHEC noted failure to note the "time" on E-Area inspections. This deficiency was corrected prior to the conclusion of the inspection.
Underground Storage Tank CEI	SCDHEC inspected 19 USTs.	No issues were identified.
Z-Area Saltstone Solid Waste Landfill Inspections	SCDHEC performed inspections monthly of the SDF.	SCDHEC reviewed facility procedures and performed a walk-down of the SDF. No issues were noted.

# **3.10 PERMITS**

SRS had 509 construction and operating permits in 2015 that specified operating levels to each permitted source. Table 3-4 identifies these permits. These numbers reflect permits for all organizations at SRS, with the exception of Ameresco.

**Table 3-4 SRS Permits** 

Type of Permit	Number of Permits
Air	5
USACE - Section 10, Rivers & Harbors Act of 1899	0
USACE Nationwide Permit	5
USACE - 404 Permit (Dredge and Fill)	0
Asbestos Demolition/Abatement/Temporary Storage of Asbestos Waste	107
Domestic Water	175
GA Department of Natural Resources Scientific Collecting Permit	1
Industrial Wastewater	77
NPDES Permits	8
Construction Stormwater Grading Permit	10
RCRA Hazardous Waste	1
RCRA Solid Waste	4
RCRA Underground Storage Tank	7
Sanitary Wastewater	98
SC Department of Natural Resources Scientific Collecting Permit	2
SCDHEC 401	0
SCDHEC Navigable Waters	1
Underground Injection Control	8
Total	509

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# 3.11 KEY FEDERAL LAWS COMPLIANCE SUMMARY

Federal laws are implemented by regulations contained in the Code of Federal Regulations and/or state regulations if the program has been delegated to the state by the federal agency. You can find additional information online at <a href="mailto:epa.gov">epa.gov</a>. Table 3-5 summarizes SRS's 2015 compliance status with applicable key federal environmental laws.

Table 3-5 Status of Key Federal Environmental Laws Applicable to SRS

Regulatory Program Description	2015 Status
Atomic Energy Act/DOE Order 435.1 grants authority to DOE to develop applicable standards (documented in DOE Orders) for protecting the public and environment from radioactive materials.	The 2015 PA review showed that radioactive low-level waste operations were within the required performance envelope and the facilities continued to protect the public and environment.
Clean Air Act (CAA) establishes air quality standards for criteria pollutants, such as sulfur dioxide and particulate matter, and for hazardous air emissions, such as radionuclides and benzene.	SRS continues to operate under a CAA Permit that expired on March 31, 2008. SRS anticipates receiving a renewal draft permit in 2017. SRS continues to operate in accordance with all permit requirements of the CAA.
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.	By the end of FY2015, 400 RCRA/CERCLA waste unit cleanups were completed and 12 waste units were in the remediation phase.
Clean Water Act (CWA) regulates liquid discharges at outfalls (e.g., drains or pipes) that carry effluent to streams (NPDES, Section 402); regulates dredge and fill operations in waters of the United States (Section 404) and water quality for those activities (Water Quality Criteria, Section 401).	The SRS NPDES program maintained a 100% compliance rate.
Emergency Planning and Community Right-to- Know Act (EPCRA) also referred to as SARA, Title III, requires reporting of hazardous substances and their releases to EPA, state emergency response commissions, and local planning units.	SRS complied with all reporting and emergency planning requirements.
Endangered Species Act (ESA) prevents the extinction of federally listed endangered or threatened species and conserves critical habitats.	SRS continued to protect these species and their habitats as outlined in the Natural Resource Management Plan for SRS.

Table 3-5 Key Federal Environmental Laws Applicable to SRS (Continued)

Table 5-5 Key Federal Environmental Laws Applicable to 5K5 (Continued)			
Regulatory Program Description	2015 Status		
The Federal Facility Agreement for the Savannah River Site (FFA) between the EPA, DOE, and SCDHEC integrates CERCLA and RCRA requirements to achieve a comprehensive remediation of high-level radioactive waste tanks at SRS.	SRS completed operational closure of Tanks 16H and continued preparation for the closure of 12H.		
Federal Facility Compliance Act (FFCA) requires compliance on the part of Federal agencies with all requirements of federal, state, and local solid/hazardous waste laws.	SRS and SCDHEC held the annual Site Treatment Plan (STP) status meeting in October. No concerns were identified that required submittal of a 2015 STP update.		
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) regulates restricted-use pesticides through a state-administered certification program.	SRS continues to operate in compliance with FIFRA requirements.		
Migratory Bird Treaty Act (MBTA) provides for the protection of migratory birds, including their eggs and nests.	SRS continues to comply with the MBTA. A new osprey (Pandion haliaetus) nest platform at the L-Lake Dam was built at the suggestion of the USFWS. USFS-SR staff monitored the nest platform for nesting activity. The osprey did nest and produced three fledglings.		
National Defense Authorization Act, Section 3116(a) (NDAA) allows the Secretary of Energy, in consultation with the 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. Section 3116(b) addresses monitoring by NRC and SCDHEC.	NRC continues to monitor SRS facilities in accordance with NDAA 3116(a), making two site visits in 2015.		
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 implementation of programs and projects.	SRS is in full compliance with NEPA requirements and completed 409 NEPA reviews.		

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Table 3-5 Key Federal Environmental Laws Applicable to SRS (Continued)

Regulatory Program Description	2015 Status
National Historic Preservation Act (NHPA) protects historical and archaeological sites.	The SRARP provides cultural resource management guidance to DOE.
Resource Conservation and Recovery Act (RCRA) governs the management of hazardous and non-hazardous solid waste and underground storage tanks (USTs) containing petroleum products, hazardous materials, and wastes. RCRA also regulates universal waste and recyclable used oil.	SRS continues to manage hazardous, non-hazardous solid waste and USTs in compliance with RCRA.
Rivers and Harbors Act (RHA) regulates construction over, or obstruction of, navigable waters of the United States.	SRS continued to operate within the requirements of the RHA.
Safe Drinking Water Act (SDWA) provides for the protection of drinking water and public drinking water resources.	SRS maintained one large and several smaller domestic water systems. These systems met all primary drinking water standards, as well as operational and maintenance requirements.
Toxic Substances Control Act (TSCA) regulates polychlorinated biphenyls (PCBs), radon, asbestos and lead and requires evaluation and notification to EPA for new chemicals and significant new uses of existing chemicals.	SRS managed all TSCA-regulated materials in compliance with all requirements. SRS submitted the 2015 annual report of onsite disposal activities to EPA on June 15, 2016.

# **3.12 ENVIRONMENTAL COMPLIANCE SUMMARY**

SRS was not involved in any environmental lawsuits during 2015.

SRS received one NOV in 2015.

Table 3-6 summarizes the NOVs/NOAVs received from 2011 through 2015.

Table 3-6 NOV/NOAV Summary, 2011 – 2015

	NOV/NOAV				
Program Area	2011	2012	2013	2014	2015
CAA	0	0	0	0	1
CWA	0	1	2	0	0
RCRA	0	0	0	0	0
CERCLA	0	0	0	0	0
Others	0	0	0	0	0
Total	0	1	2	0	1

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