
SRS Implementation Elements – ISO 14001 Standard

ISO 14001 Elements SRS Implementation Summaries

Environmental Policy

The Savannah River Site Environmental Management System Policy is a statement of SRS's intention to implement sound stewardship practices that are protective of the air, water, land, and other natural cultural resources impacted by SRS operations. All activities on SRS shall be conducted in compliance with applicable laws and regulations providing for the protection of public health and the environment, to reduce the use of procedures and processes that produce hazardous wastes, and to seek ways to continuously improve the performance of activities protective of the environment. The objective of this policy is to establish a consistent sitewide approach to environmental protection through the implementation of an Environmental Management System (EMS) as part of the overall Integrated Safety Management System (ISMS). The EMS provides for the systematic planning, integrated execution, and evaluation of Site activities for (1) public health and environmental protection, (2) pollution prevention (P2), (3) compliance with applicable environmental protection requirements and (4) continuous improvement of the EMS.

Environmental Aspects and Impacts

Determining environmental aspects (elements of activities, products, processes, and services that could have a significant impact on the environment) is critical to the EMS process. It equates to analyzing hazards in ISMS discussions. Having identified the SRS Environmental Aspects, it is important to remember that this is not the end of the process. Work activities, whether routine or unusual, must consider whether these aspects are a potential part of the work activity. This leads progressively to the development and implementation of the controls necessary to mitigate the potential that the action will adversely affect the environment. SRS has determined that the following aspects of its operations have the potential to affect the environment:

- Radionuclides
- Nuclear Material
- High Level Waste
- Low Level Waste
- Transuranic (TRU) Waste
- Mixed Waste
- Solid Waste (hazardous, nonhazardous, sanitary, nonradioactive)
- Pollution Prevention
- Chemical Commodities
- Energy and Water Use
- Natural Resources
- Environmental Restoration
- Ecological Research
- Environmental Remediation
- Development, Demonstration, and Deployment
- Deactivation and Demolition
- Cultural/Historical Resources

Legal and Other Requirements

Regulatory and DOE requirements for environmental programs are included in the WSRC Standards/Requirements Identification Document(S/RID), Functional Area 20. The purpose of the S/RID is to address the Environmental, Safety, and Health requirements related to environmental protection activities undertaken by WSRC on behalf of the Department of Energy (DOE) at SRS. The source includes DOE Order 5400.5, DOE Order 450.1, and other directives. The environmental protection S/RID functional area includes activities required to protect the environment and the health of the public and workers. This S/RID covers the

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**Objectives,
Targets, and
Programs**

technical and programmatic requirements from applicable standards, laws, and regulations.

The EMS pursues and measures continuous improvement in performance by establishing and maintaining documented environmental objectives and targets that correspond to SRS's mission, vision, and core values. The environmental objectives and targets shall be established for each relevant function within the U.S. Department of Energy–Savannah River Operations Office (DOE–SR), the National Nuclear Security Administration–Savannah River Site Office (NNSA–SRSO), the NNSA–Fissile Materials Disposition Office (FMDO), and all contractors, subcontractors, and other entities performing work at SRS for all activities having actual or potentially significant environmental impacts.

DOE–SR, NNSA–SRSO, NNSA–FMDO, and all contractors, subcontractors, and other entities performing work at SRS shall

- Manage the SRS environment, natural resources, products, waste, and contaminated materials so as to eliminate or mitigate any threat to human health or the environment at the earliest opportunity, and implement process improvements, as appropriate, to ensure continuous improvement of performance in environmental management
- Develop policies, procedures, and training as needed to identify activities with significant environmental impacts; to manage, control, and mitigate the impacts of these activities; and to assess performance and implement corrective actions where needed
- Implement a pollution prevention program to reduce waste generation, pollutant releases, and future waste management and pollution control costs, and to promote energy efficiency
- Conduct operations in compliance with all applicable federal, state, and local laws, regulations, statutes, executive orders, directives, and standards
- Work cooperatively and openly with appropriate local, state, and federal agencies, public stakeholders, and site employees to prevent pollution, achieve environmental compliance, conduct cleanup and restoration activities, enhance environmental quality, and ensure the protection of workers and the public.
- Design, develop, operate, maintain, decommission, and deactivate facilities and perform operations in a manner that shall be resource efficient and will protect and improve the quality of the environment for future generations, and continue to maintain SRS as a unique national environmental asset.
- Recognize that the responsibility for quality communications rests with each individual employee, and that it shall be the responsibility of all employees to identify and communicate ideas for improving environmental protection activities and programs at the site.
- Ensure the early identification of, and appropriate response to, potential adverse environmental impacts associated with DOE operations, including, as appropriate, preoperational characterization/assessment and effluent/surveillance monitoring.
- Promote the long-term stewardship of SRS's` natural and cultural resources throughout its operational, closure, and postclosure lifecycle.

**Resources, Roles,
Responsibilities,
and Authorities**

All WSRC employees have specific roles and responsibilities in key areas, including environmental protection. Environmental and waste management technical support personnel assist site line organizations with developing and meeting their environmental responsibilities.

Competence,

The purpose of the SRS environmental training programs is to ensure that

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Training, and Awareness	personnel whose actions could have environmental consequences are properly training and made aware of their responsibilities to protect the environment, workers, and the public. EMS requirements have been provided to employees whose responsibilities include environmental protection and regulatory compliance. EMS awareness training is included within the General Employee Training Program for visitors and subcontractors. Additionally, all site employees are required to complete Consolidated Annual Training each year.
Communication	SRS continues to improve internal and external communications on environmental issues. Many policies and procedures guide communications at SRS, ranging from the general site policy to forms and techniques addressed in facility-specific procedures. Additionally, WSRC solicits input from interested parties such as community members, activists, elected officials, and regulators—primarily through the SRS Citizens Advisory Board. At the core of the communication and community involvement programs are the SRS EMS Policy and the SRS Federal Facility Agreement Community Involvement Plan.
Documentation	The following sources document ways that various SRS organizations describe or manage their environmental management systems: <ul style="list-style-type: none">▪ SRS EMS Manual, G-TM-G-0001▪ SRM 300.1.1B, Human Resources Management Manual▪ SREL Environmental Management Program Description▪ WSI-SR Environmental Management System Implementation Plan, WSI 1-05▪ USFS Natural Resource Management Plan and Natural Resource Management Operations Plan
Control of Documents	Environmental documents are part of the site document control system. Any document that relates to an environmental activity is controlled by the appropriate system.
Operational Control	This element of the EMS is intended to ensure that operational controls are in place to carry out the environmental policy-related activities of regulatory compliance, pollution prevention, and continuous improvement by SRS management. The Assisted Hazards Analysis process and Environmental Evaluation Checklists (EECs) are vital components of this program.
Emergency Preparedness and Response	SRS emergency plans and programs include occurrences categorized as environmental emergencies. Procedures that guide the Emergency Preparedness Process are referenced below. <ul style="list-style-type: none">▪ WSRC Policy Manual 1-01, MP 4.12, and Emergency Preparedness.▪ WSRC SCD-7, Savannah River Site Emergency Plan (includes drills and exercises).▪ WSRC Procedure Manual 9B, Site Item Reportability and Issue Management (SIRIM).▪ Central Services Works Engineering Spill Response Team procedures.▪ USFS-SR Emergency Response Plan and Emergency Spill Procedure▪ WSI-SRS Procedure 1-6816, Emergency Management Plan.▪ Interface Protocol Document with Memorandums of Understanding and Security and Support Services Agreements at the Savannah River Site, Westinghouse Savannah River Company (WSRC) and Wackenhut Services, Incorporated (WSI-SRS), April 2001 - provides for emergency preparedness and response coordination between WSRC and WSI-SRS.

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Monitoring and Measurement	<ul style="list-style-type: none">▪ WSRC 6Q, Vol. 1, Emergency Plan▪ SREL Safety Manual, Chapter 2. Medical and Emergency Procedures and SREL Occurrence Reporting Procedures (EHS-94-0001) <p>Monitoring and measurement means that the key characteristics of SRS operations are monitored regularly. This includes effluent monitoring (radiological and nonradiological), compliance monitoring, performance monitoring, and equipment/facility monitoring (e.g., calibration of instruments). References include the following:</p> <p><u>Effluent Monitoring</u></p> <ul style="list-style-type: none">▪ SRS Environmental Monitoring Plan▪ SRS Environmental Monitoring Program (WSRC-3Q1-2, Vol. 1, Section 1100)▪ SRS EM Corrective Action Plan (WSRC-ESH-EMS-94-0129)▪ Environmental Geochemistry Group Operating Handbook, July, 1996▪ Compliance Monitoring - DOE-SR Technical Assessment Program▪ USFS-SR Self-Assessments▪ USFS-SR Monitoring Plans▪ USFS-SR Post-Burn Evaluations▪ USFS-SR Biological Evaluations▪ WSRC SCD-4, Self Assessments▪ WSRC Manual 3Q, Environmental Compliance▪ WSRC Comprehensive Monitoring Evaluation (regulatory annual inspection) Program <p><u>Equipment/Facility Monitoring</u></p> <ul style="list-style-type: none">▪ WSRC Quality Assurance Plan, 1Q - includes QAP 12.1 and 12.2, which address quality assurance for instrument/equipment calibration <p><u>Performance Monitoring and Measurement</u></p> <ul style="list-style-type: none">▪ Annual SRS Environmental Report▪ USFS-SR Quarterly Accomplishment Reports▪ Individual Agency and Divisional Performance Indicators▪ WSRC Manual 1Q, QAP 15-1, Nonconformance Reports▪ WSRC Policy Manual 1-01, MP5.35, Corrective Action Program▪ WSI-SRS Consolidated Assessment Schedule
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Evaluation of Compliance	<p>Specific environmental legislation and regulations are evaluated and assessed on a program- or facility-specific basis. SRS has established a documented procedure for periodically evaluating its compliance with relevant environmental regulations. This procedure often is integrated in an organization's environmental, safety, and health inspection process, which is performed in a prioritized fashion by a team of experts, including one on environmental regulatory issues. Periodically, environmental support organizations will conduct a regulatory assessment in a particular topical area to verify the compliance status of multiple organizations throughout SRS. Finally, external regulatory agencies and/or technical experts may conduct independent audits of compliance.</p>
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Nonconformance, Corrective and Preventive Actions	<p>Nonconformance and corrective and preventive actions include EMS nonconformance as a part of the site's quality assurance (QA) program. The application of QA procedures, therefore, supports the total EMS. For example, use of the nonconformance report form applies to environment-related equipment, instruments, facilities, and procedures. Also, "nonconformance" with assessments and evaluations is recorded and dispositioned according to established procedures, as follows:</p>
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- WSRC Quality Assurance Management Plan
- DOE Technical Assessment Program Corrective Actions
- Comprehensive Monitoring Evaluation (Regulations)
- WSRC 1–01 Management Policies, Policy 5.35 Corrective Action Program
- WSRC Manual 12Q, FEB–1 Facility Evaluation Board
- WSRC Manual 1Q, Quality Assurance
- WSI–SRS Procedure 1–3700, Improvement/Corrective Action Management Program
- USFS–SR Forest Service Handbook 6903–11, Contract Administration
- Evaluation and Cleanup of SREL Research Sites (A–98–0002)
- Savannah River Ecology Laboratory Environmental Evaluation Procedure (A–93–0011)
- US GSA SRS EMS Description Document

Control of Records

The identification, maintenance, and disposition of environmental records are required by the SRS EMS. The site’s records management program incorporates environmental records for these purposes. Specific documentation for programmatic environmental activities is addressed in department-level procedures. For example, the Environmental Services Section (ESS) maintains records of correspondence with regulatory agencies. Environmental training records are maintained by the line organization requiring and conducting the training. EECs completed by facilities for specific activities are forwarded to and maintained by ESS, according to the following documents:

References:

- DOE Order 1324.5A, Records Management Program
- WSRC 1Q, QAP–17, Records
- WSRC Manual 1B, MRP 3.11 WSRC Document and Correspondence Numbering System
- WSRC Manual 1B, MRP 3.31 Records Management
- WSRC Management Requirements and Procedures Manual 1B, MRP 3.32 Document Control
- WSRC IM–93–0060, Rev. 7, 7/31/96, Sitewide Records Inventory and Disposition Schedule (RIDS) Section IV: Environmental
- SRIP 200, Chapter 241.1, Records Management Programs
- WSI–SRS Procedure 1–1507, Records Management Requirements
- U.S. Forest Service Handbook 6209.11, Records Management
- SREL Environmental Management Plan (ESH 94–0033)

Internal Audits

SRS audits are incorporated into the DOE assessment and WSRC self-assessment programs to verify that the site’s EMS is functioning as intended. WSRC utilizes a Facility Evaluation Board to conduct independent performance-based assessments of site programs to satisfy contractual and regulatory obligations. The EMS component is evaluated alongside other site programs through a random selection process.

Management Review

The SRS EMS Policy requires periodic evaluations of the effectiveness of the EMS. The DOE–SR assistant manager for environmental quality is specifically designated as the individual responsible for ensuring that the evaluation is performed. Guidelines are intended to keep the management review focused on continuous improvement. Oversight of SRS’s annual EMS review is the responsibility of DOE–SR’s Environmental Quality Management Division.