To Our Readers

Highlights

The U.S. Department of Energy (DOE) Order 231.1B (Environment, Safety, and Health Reporting) requires Annual Site Environmental Reports (ASERs) assess both environmental program performance and sitewide environmental monitoring and surveillance effectiveness. ASERS also confirm that sites are complying with environmental standards and requirements.

ASERs are prepared in a manner that addresses likely public concerns and to solicit feedback from the public and other stakeholders. The Savannah River Site (SRS) began publishing ASERs in 1959.

Readers can find the *SRS Environmental Report* at the following address:

srs.gov/general/pubs/ERsum/index.html

The *SRS Environmental Report 2023* is an overview of environmental management activities conducted on and in the vicinity of the Savannah River Site (SRS) from January 1 through December 31, 2023. This report includes the following:

- A summary of implemented environmental management systems that facilitate sound stewardship practices and demonstrate compliance with applicable environmental regulations and laws intended to protect air, water, land, and other natural and cultural resources that SRS operations have impacted.
- A summary of measurement results of nonradiological parameters. These results are compared to permit limits and applicable standards.
- A summary of the results of effluent monitoring and environmental surveillance of air, water, soil, vegetation, biota, and agricultural products to determine radioactivity in these media. SRS compares the results with historical data and background measurements, and to applicable standards and requirements to verify that SRS does not adversely impact the environment or the health of humans or biota.
- A discussion of the potential dose to members of the public from radioactive releases from SRS operations compared to applicable standards and regulations, and from special-case exposure scenarios.
- An explanation of the quality assurance and quality control program, which ensures that samples and data SRS collects and analyzes are reported with utmost confidence.
- A discussion of per- and polyfluoroalkyl (PFAS) substances. Chapter 9 was created for the 2022 *SRS Environmental Report* in response to the challenges these emerging contaminants of concern present to SRS and the environment. This year's chapter discussion updates the Site's efforts to assess PFAS presence at the Site and to determine appropriate action.

The report addresses three general levels of reader interest:

1) The first is a brief summary with a "take-home" conclusion. This is presented in the "Highlights" text box at the beginning of each chapter. There are no technical tables, figures, or graphs in the "Highlights."

2) The second level is a more in-depth discussion with figures, summary tables, and summary graphs accompanying the text. The chapters of the annual report represent this level, which requires some familiarity with scientific data and graphs.

3) The third level includes supplemental and technical reports and websites that support the annual report. The Uniform Resource Locators (URLs) that lead to this information on the internet may be found in the "In-text Reference Links" section that precedes Chapter 1 of this report. Blue text in the report indicates that there is an associated URL that when copied into your browser will take you to additional information. Many of the reports mentioned in Chapter 3, *Compliance Summary*, are submitted to meet compliance requirements and are not available on the *SRS Environmental Report* 2023 webpage or through an "In-text Reference Links" section listing. These reports may be obtained through a Freedom of Information Act (FOIA) request. Similarly, the raw data used to prepare Appendices C and D, which support findings presented in Chapter 4, *Nonradiological Environmental Monitoring Program*, and Chapter 5, *Radiological Environmental Monitoring Program,* are submitted to the South Carolina Department of Health and Environmental Control and are available to the public through a FOIA request.

When a regulation or U.S. Department of Energy (DOE) Order requires reporting on a fiscal year (FY) basis, the information in this report is reported by FY. This allows for consistency with existing documentation. FY reporting is typically found in Chapter 2, *Environmental Management System*, and Chapter 3, *Compliance Summary*. The FY is from October 1 to September 30. Information not designated as applicable to the FY is reported for the calendar year (January 1 to December 31).

The SRS Environmental Report webpage contains reports from multiple years with the 2023 report being the latest. The report's webpage is broken down into the following:

- The full report with website addresses to supplemental information or reports
- Maps with environmental sampling locations for the various media samples. These figures are identified as "Maps Figure" within the text of the report
- Annual reports from SRS organizations

Savannah River Nuclear Solutions, LLC (SRNS) develops this report as the management and operations contractor to the DOE at SRS. In addition to SRNS, the contributors to the annual report include the U.S. Department of Energy, the Savannah River Operations Office (DOE-SR); Savannah River Mission Completion (SRMC); Centerra-SRS; Ameresco Federal Solutions; the Savannah River Ecology Laboratory (SREL); and the United States Forest Service-Savannah River (USFS-SR).

Note:

In 2023, SRS transitioned to a new comprehensive environmental database. This system replaced a suite of existing applications, systems, and databases and now allows for SRS to load and extract data from a consolidated data storage system. The *2022 SRS Environmental Report* was the first publication after this change. For the 2022 reporting year, data was housed in both the new and pre-existing databases, which made for a challenge in reporting data. In preparation of the *2023 SRS Environmental Report*, we identified some cases where the continuity of data across systems had not been perfect and, as such, there are corrections to be made to the 2022 report. These corrections do not influence the final dose values that were reported for 2022. The corrections can be found on the *2022 SRS Environmental Report* webpage.