
Executive Summary



The Savannah River Site Environmental Report for 2008 (SRNS-STI-2009-00190) is prepared for the U.S. Department of Energy (DOE) according to requirements of DOE Order 231.1A, “Environment, Safety and Health Reporting,” and DOE Order 5400.5, “Radiation Protection of the Public and Environment.”

The annual SRS Environmental Report has been produced for more than 50 years. Several hundred copies are distributed each year to government officials, universities, public libraries, environmental and civic groups, news media, and interested individuals. The report’s purpose is to

- *present summary environmental data that characterize site environmental management performance*
- *confirm compliance with environmental standards and requirements*
- *highlight significant programs and efforts*

Minimal Impact

SRS posted another exemplary environmental compliance record in 2008, as its operations continued to result in minimal impact to the offsite public and the surrounding environment. The site’s radioactive and chemical discharges to air and water were well below regulatory standards for environmental and public health protection; its air and water quality met applicable requirements; and the potential radiation dose from its discharges was less than the national dose standards.

The largest radiation dose that an offsite, hypothetical, maximally exposed individual could have received from SRS operations during 2008 was estimated to be 0.12 millirem (mrem). (An mrem is a standard unit of measure for radiation exposure.) The 2008 SRS dose is just 0.12 percent of the DOE all-pathway dose standard of 100 mrem per year, and far less than the natural average dose of about 300 mrem per year (according to Report No. 160 of the National Council of Radiation Protection and Measurements) to people in the United States. The 2008 all-pathway dose was more than the 2007 dose

of 0.10 mrem—primarily because of the drought-influenced record low Savannah River flow rate during 2008, which resulted in less dilution.

Extensive Monitoring; Documented Compliance

Environmental monitoring is conducted extensively within a 2,000-square-mile network extending 25 miles from SRS, with some monitoring performed as far as 100 miles from the site. The area includes neighboring cities, towns, and counties in Georgia and South Carolina. Thousands of samples of air, rainwater, surface water, drinking water, groundwater, food products, wildlife, soil, sediment, and vegetation are collected by SRS and state authorities and analyzed for the presence of radioactive and nonradioactive contaminants.

Compliance with environmental regulations and with DOE orders related to environmental protection provides assurance that onsite processes do not impact the public or the environment adversely. Such compliance is documented in this report.

SRS had a National Pollutant Discharge Elimination System (NPDES) compliance rate of 99.89 percent in 2008, with only five of the 4,529 sample analyses performed exceeding permit limits. The NPDES program protects streams, reservoirs, and other wetlands by limiting the release of nonradiological pollution into surface waters. Discharge limits are set for each facility to ensure that SRS operations do not negatively impact aquatic life or degrade water quality.

Three Notices of Violation

Issued by the U.S. Environmental Protection Agency or the South Carolina Department of Health and

Environmental Control, Notices of Violation (NOVs) are the procedures that allege potential violations of an organization's permits or environmental laws or regulations. SRS received three allegations of violation in 2008 (two involving sanitary wastewater releases and one involving air emissions). The sanitary wastewater release allegations did not result in an administrative hearing to determine if a violation occurred. In 2008, the parties continued to negotiate a settlement of the air emissions release dispute, which is expected to be resolved by consent in early 2009. More detailed information on these NOVs appears in chapter 3 ("Environmental Compliance") of this report.