

# Blue Ridge Environmental Defense League

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## ASSESSING CHANGES IN ENVIRONMENTAL RADIOACTIVITY AND HEALTH NEAR THE SAVANNAH RIVER SITE

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### SUMMARY

The Savannah River Site (SRS) a nuclear weapons facility operated by the federal government since 1950, is situated on the South Carolina-Georgia border, just 13 miles south of Aiken SC. Operations over six decades have left large amounts of radioactive (and non-radioactive) contaminants at the Site. With the end of the Cold War in the early 1990s, nuclear weapons manufacturing at SRS ceased, and soon the long and arduous process of Environmental Management (EM), or clean up, began. The U.S. Department of Energy (DOE), which oversees EM activities, has maintained consistently that its EM work is successfully decontaminating the area, a contention with which a number of citizen advocacy groups have taken issue.

This report will review existing data on contamination levels at or near SRS, along with trends on local health status; such data is plentiful, but virtually no attempt has been made to analyze it in a format understandable to the public. The findings are as follows:

1. Radioactivity Generally Increasing. From the late 1990s to the 2000s (when EM activities reached full capacity), emissions and environmental concentrations of radioactivity in or near SRS increased for 71% (45 of 63 types) of measures with complete data. With nuclear weapons manufacturing at an end and environmental remediation attempting to reduce radioactivity, this finding differs from the expectation that levels would steadily decrease over time.
2. Radiosensitive Health Indicators Worsening. In the five counties within 25 miles of SRS, with a current population of 417,000, rate increases in 96% (46 of 48) of radiosensitive diseases or causes of death exceeded that of the U.S. In 20, the increase was statistically significant. The categories included were those affecting the fetus (infant deaths, fetal deaths, low weight births); cancer among children and the very elderly; radiosensitive cancers (thyroid, female breast, and leukemia); and those conditions in which previous articles had detected a risk among SRS workers (leukemia, lymphoma, lung cancer, myeloma, and non-cancerous lung diseases).
3. Nearly 2,000 Excess Cases of Disease and Death in Nine Years. Approximately 2,000 excess deaths and cases of disease occurred in the five counties during the latest nine year period.

This report is important for several reasons. It provides substantial amounts of information that reflects DOE cleanup operations not previously made understandable to stakeholders with an interest in SRS. It questions the DOE assertion that its EM operations are reducing contamination at SRS. It establishes a basis for evaluating EM operations at SRS and other DOE nuclear facilities. Finally, it empowers stakeholders by providing them evidence they can use in future communications with the DOE, leading to a more transparent and more successful EM process. All of these benefits occur *before* the building of numerous new nuclear facilities at SRS, and hopefully will ensure that future DOE plans and activities maximize the safety and health of local residents and workers.

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