Savannah River Site
Citizens Advisory Board

Recommendation 185
SRS's Environmental Monitoring Program

Background
The Savannah River Site (SRS) takes thousands of air, water, soil, sediment, food, vegetation, and animal samples each year. The samples are analyzed for potential contaminants released from site operations, and the potential radiation exposure to the public is assessed. Samples are taken at the points where materials are released from the facilities (effluent monitoring) and in the surrounding environment (environmental surveillance) (Ref. 1). SRS has had an extensive environmental monitoring program in place since 1951 (before site startup). Other independent environmental monitoring programs are conducted and maintained by the states of South Carolina and Georgia. In addition, Georgia Power (Plant Vogtle) conducts environmental monitoring near SRS, and the City of Savannah, Georgia and the Beaufort-Jasper Water & Sewer Authority perform environmental monitoring of the Savannah River downstream of Highway 301, which would include contributions from all SRS tributaries. In 1993, SC & GA state agencies, Georgia Power, Chem Nuclear, DOE-SR, and WSRC chartered the Central Savannah River Area Radiological Environmental Monitoring Program Association (REMP) as a forum for voluntary information exchange and informal technical discussion of radiological and environmental analytical programs, information and events. The REMP Association conducts semiannual meetings to discuss monitoring programs and issues and compare analytical data. In the 1950s, data generated by the onsite environmental monitoring program were reported in site documents. Beginning in 1959, data from offsite environmental surveillance activities were presented in reports issued for public dissemination. SRS reported onsite and offsite environmental monitoring activities separately until 1985, when data from both programs were merged into one document. The *Savannah River Site Environmental Report for 2002* is an overview of effluent monitoring and environmental surveillance activities conducted on and in the vicinity of SRS from January 1 through December 31, 2002. The report's purpose is to (1) present summary environmental data that characterize site environmental management performance, (2) report compliance status with environmental standards and requirements, (3) highlight significant programs and efforts, and (4) document the impact of SRS operations on the public and the environment (Ref. 2). This report receives extensive independent peer review by the designated Environmental Advisory Committee (EAC). The EAC is composed of distinguished and independent scientists such as Dr. Edgar Berkely and previously by the renowned enviroscientist, Dr. Ruth Patrick of the Philadelphia Academy of Natural Sciences. Because of the review by this advisory committee, the public can have confidence in the value of the data and the interpretation of the results, which was the intent of the first recommendation from the SRS Citizen's Advisory Board (Ref. 3).

Comment The Savannah River Site Citizens Advisory Board (SRS CAB) supports the objectives of the SRS environmental monitoring program as well as others by affected parties. These programs and the annual Environmental Reports help to ensure the safety of the public and provide a way to assess the risks associated with past, current, and future operations. Even though the annual Environmental Reports are available to the general public, the SRS CAB believes that presentations geared toward a non-technical audience would help interested stakeholders understand the data and its potential impacts. Furthermore, more trending analysis using historical data (similar to the tritium reporting) would be useful, especially for the "worrisome" nuclides like I-129, Tc-99, Pu-238, Pu-239, Cs-137, and Sr-90.

Recommendation The SRS CAB offers the following recommendations concerning the SRS environmental monitoring program and the annual Environmental Report:

1. SRS should provide additional and continuing trending analysis, especially for the long-

lived, mobile fission products like I-129 and Tc-99, and highlight those in a separate section of the annual SRS Environmental Monitoring Report.
2. SRS should consider making a portion of the semiannual regional monitoring organization meetings open to the public and include presentations directed towards public education about the monitoring data and its impacts.
3. SRS should separate the deer and feral hog surveillance data and report the individual radiation dose to sportsmen and the general public. The SRS CAB supports this recommendation that comes from an active stakeholder in environmental affairs.
4. SRS should expand its environmental sampling and analysis program to cover both shellfish and bivalves in and around the mouth of the Savannah River and its coastal area. A presentation to the CAB of the technical requirements, potential merits, and cost estimates for such a program is requested by July 26, 2004. This recommendation is offered as a result of previous contacts with the CAB by residents of Savannah, GA.
5. SRS should consider preparing the CD-ROM that accompanies the annual Environmental Report in such formats as to permit both PC and Macintosh users to be able to easily open and read files, such as .exe, which are now only available to the former.

References

1. An Overview of SRS's Environmental Monitoring Program, presentation to the Facility Disposition & Site Remediation Committee by Jim Heffner, February 10, 2004.
2. *The Savannah River Site Environmental Report for 2002*, WSRC-TR-2003-00026.
3. Citizens Advisory Board Recommendation No. 1 (adopted October 25, 1994), "ISPR of Technical Documents".

Agency Responses

Department of Energy-SR