



Recommendation No. 59

May 19, 1998

SRS Integrator Operable Units

Background

The seven Integrator Operable Units (IOUs) at the Savannah River Site (SRS) are the five major site streams and their associated flood plains and wetlands, the Savannah River Swamp, and the Savannah River. The IOUs are the primary hydrologic pathways of contaminant migration from the SRS. Several IOUs are contaminated from past releases directly to the streams. In addition some receive contamination from spills, leaks, etc. that contaminated groundwater which is now outcropping into the streams. The IOUs have been added to Appendix C of the Federal Facility Agreement (FFA). The Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Remedial Investigation (RI) Work Plans are replacing IOU study reports, evaluations of data collected from each IOU will be done annually and the required CERCLA documents will be prepared. The three agencies (DOE, EPA and SCDHEC), with the involvement of the Natural Resource Trustees (multi-agency trustees for the natural resources of SRS), have agreed to Work Plan scopes and to dates for Work Plan submittals, Monitoring Program field starts, Remedial/Feasibility Study Field Starts, Record of Decisions, and start of remediation activities related to each of the IOUs.

Preceding these agreements, the SRS developed a Savannah River IOU Study that was issued to the public, EPA and SCDHEC. ⁽¹⁾ EPA and SCDHEC provided comments on this study in April 1997, and the SRS CAB sanctioned an Independent Scientific Peer Review (ISPR) of the Study (CAB Recommendation 39, May 1997). Dr. Joel Massmann, University of Washington, directed the ISPR which has been completed. ⁽²⁾

Many of the comments from the ISPR were similar to those from EPA and SCDHEC. However, the ISPR also concluded that the initial IOU study was performed without adequate consensus among the agencies that could have provided clearer guidance to its purpose and goals. The ISPR suggested that IOU studies should provide general guidance and not be locked into a RI/FS process, and that models should be developed to describe

the interactions within and between the SRS watersheds. The majority of the recommendations from the ISPR report have been incorporated in the IOU Work Plans.

The Work Plans initiate actions with the following objectives:

- Evaluate existing data (surface water, sediment and fish) and determine if any Early Actions, Interim, or Final Remediations are needed.
- Examine annually field data collected by all SRS programs to determine if there is a potential concern developing in an IOU. The potential concern are for an onsite worker, recreational fisherman, subsistence fisherman or adolescent resident/trespasser. The latter three categories are appropriate only for the Savannah River, site creek-mouths or at Lower Three Runs.
- Review field data and determine data gaps. If significant gaps exist, take steps to fill them.
- Provide EPA, SCDHEC, Natural Resource Trustees, CAB and the public an opportunity to participate in the actions for the IOUs.

Presently, the SRS streams, wetlands and swamp will remain under government control and remediation decisions are not scheduled to be made until the 2007 to 2016 time frame.

Results from the IOU studies/work plans will influence priorities set for the Operable Units (OUs) if unacceptable human health or ecological risk are found in the IOUs. While there may be no transport modeling planned as part of the IOU studies, the results from other modeling studies, such as those done under CERCLA for the OUs, Performance Assessments and Composite Analyses, will provide modeling results that can be used in assessing IOUs. Because of this it is important that consistency among models be maintained and that the three agencies reach a consensus on model selection. Multiple years of data and modeling results will benefit the eventual Remedial Investigation/Feasibility Studies that may be required for the IOUs.

Recommendation:

The Savannah River Site Citizens Advisory Board will support the IOUs if they are used to ensure the protection of human and environmental health, to reduce the time to initiate remedial actions in the field, and to reduce the cost of remedial actions. The Savannah River Site Citizens Advisory Board recognizes that DOE, EPA, SCDHEC and the Natural Resource Trustees have worked hard to design the IOU program to achieve these objectives, but the CAB is concerned as to whether the benefits received from the IOU programs justify the costs expended. The IOU process should not result in additional bureaucracy with its associated costs and little benefit to the public or environment. In that sources of pollutants to the SRS hydrologic pathways are currently being controlled, contained, or eliminated by existing programs, the IOU program may increase the cost of remediation without impact on the remediation of existing OU's. Therefore, the CAB recommends that:

1. That the three agencies—DOE, EPA and SCDHEC—present to the CAB a consensus position on the benefits of performing the IOUs. Specifically address how the IOUs will improve the Federal Facility Agreement and the Federal Facility Agreement Implementation Plan (FFA/FIP) process by shortening the regulatory approval times, by protecting human health and the environment, and by reducing the cost of remediation.
2. That the three agencies—DOE, EPA and SCDHEC—illustrate how the benefits of performing the IOU's justify the costs as compared to other remediation programs.
3. That the three agencies avoid following strictly CERCLA investigation and report processes for the IOUs. These procedures were developed for OUs and they may not be appropriate for IOUs. Instead, as urged by the ISPR, the IOU studies and work plans should be used as part of a common-sense approach to gaining a bigger picture of SRS.
4. That a three agency consensus be obtained on how the IOU and work plan process will enhance the use of Plug-In RODs and Early Actions to speed up the remediation activities at SRS.
5. The three agencies commit to work together to minimize costs and resource requirements for the IOU work scopes.
6. That the three agencies agree on a process to resolve IOU regulatory and technical issues (e.g., policy issues, data gaps) including consensus on the models.
7. That SRS focus on environmental remediation tasks that directly fulfill FFA/FIP obligations and that enhance waste management, such as Environmental Management Integration across the DOE complex (especially for low level, mixed, Transuranic and high level wastes) . As long as funding for SRS continues to decline, the CAB's first priority will remain to reduce risks and treat wastes quickly and cost-effectively. The CAB supports commitments of time and resources commensurate with benefits. In other words do not devote more time and effort to the IOUs than will be returned

-
1. Savannah River Integrator Operable Unit Study, Westinghouse Savannah River Company, Report WSRC-RP-96-460, September 25, 1996
 2. Final Report Independent Scientific Peer Review, The Savannah River Integrator Operable Unit Study, April 1, 1998

Agency Responses

[Department of Energy-SR](#)