



SRS Citizens Advisory Board

Old Radioactive Waste Burial Ground Focus Group

Meeting Summary

February 9, 2000
Aiken Federal Building
Aiken, SC

The Citizens Advisory Board (CAB) Old Radioactive Waste Burial Ground (ORWBG) Focus Group met February 9, 2000, 5:00 pm at the Aiken Federal Building, Aiken, SC. The purpose of the meeting was to discuss Dr. Ward Whicker's recommendation, Hot spots, disposal of current waste, performance assessment intruder analysis, institutional control and path forward. Those in attendance were:

CAB:

Karen Patterson
Bill Lawless

Stakeholders:

Lee Poe
Michael Moore, DHEC
Rick McLeod
Jerry Devitt

DOE/Contractors

Brian Hennessey, DOE
Phillip Prater, DOE
Chuck Borup, DOE
Ed McNamee, BSRI
Don Toddings, BSRI
Dave Amick, SAIC
Kim Johnson, BSRI
John Bennett, BSRI
Sonny Goldston, BNFL
Elmer Wilhite, SRTC
Jim Moore, WSRC

Karen Patterson, Administrative Lead, welcomed those in attendance. Ms. Patterson stated that Dr. Ward Whicker sent in comments on DOE's proposal to create a dam below the ORWBG as an interim measure. There was much discussion on how the Focus Group should respond to Dr. Whicker's comments. It was decided that Ms. Patterson would contact Dr. Whicker to find out if he expected a formal response to his comments.

Ms. Patterson asked Lee Poe, Technical Lead, to review the evening's agenda. Mr. Poe stated that while the Independent Scientific Peer Review (ISPR) team was determining if the material transported by groundwater to surface streams would provide harm to people and the environment, the Focus Group interim direction is evaluation of use of lands associated with the ORWBG. Mr. Poe reviewed the Focus Group proposed analysis on the application of institutional controls. He also reviewed the inventory in curies in the ORWBG reduced by decay only as well as the radionuclide content of the Hot Spots. There are three types of Hot Spots: Plutonium Hot Spots, Carbon-14 Hot Spots and Mercury Hot Spots. Mr. Poe then reviewed the agenda for the evening.

Ms. Patterson asked Dave Amick, Science Applications International Corporation (SAIC), to review the status of the Hot Spots. Mr. Amick stated that the identification of a Hot Spot was based on high

concentrations and/or high levels of radioactivity, persistence of high levels of radioactivity through time, burial type, waste form, and mobility. The time of burial for the entire constituents of interest (COI) inventory is considered to be at the 1973 inventory level, the last year the ORWBG received waste. That is, no decay or transport is assumed for the time period when waste was being placed in the ORWBG making the inventory values conservative. Potential Hot Spots were analyzed in three categories based on the types and quantity of available data: Old Solvent Tanks (22 tanks), Hazardous COIs (Mercury) and Radioactive COIs.

Mr. Amick stated that the probable path forward for the Old Solvent Tank Hot Spot is grouting the tanks. The probable solution for the Mercury Hot Spot is a cap as with the rest of the burial ground. For the Radioactive Hot Spots, there are potentially 21 Hot Spots after 100 years decay. There are 8 Hot Spots after 500 years decay. The strategy is to develop and evaluate remedial alternatives for the 8 radioactive COI Hot Spots from the 500-year map. Bill Lawless requested a copy of Table 2.3 from the Corrective Measures Study/Feasibility Study that shows the COI properties in the Old Burial Ground. (A copy was FAXed to Mr. Lawless on February 14.)

Ms. Patterson requested Sonny Goldston present the current method for disposing of Low Level Waste (LLW). Mr. Goldston stated that the waste from generators is either treated, placed in disposal or in interim storage. A Waste Acceptance Criteria (WAC) is developed for each waste category. This WAC is a result of a performance assessment, a hazard assessment and a safety analysis. Each generator develops an auditable waste certification program and trains and tests its operators. All shipments of waste are approved. Mr. Goldston showed pictures of where the material was being disposed.

The E-Area LLW Disposal Vaults began operation in September 1994. The vault disposal life is out to 2009. The CAB made a recommendation to move waste that meets the trench WAC to the trenches instead of using the vaults. This would extend the vault life out 10 more years. Once filled, the vault will be covered with a minimum of 8 feet of earth.

The Intermediate Level Waste Vaults began operation in 1994. The waste is placed in B-25 waste packages and placed in the vaults. The vault will then be grouted.

The LLW Trenches started operation in December 1995. These trenches accept very low-level soil, wood and rubble. The trenches are six meters wide, six meters deep and 200 meters long. They are nominal 20 to 40 feet from the bottom of the trench to the water table. There is a reporting and tracking system designed to track the waste and check disposal location radionuclide inventory against inventory limits prior to physical placement of waste packages into the selected units. This system also keeps up with inventories during receiving and shipments.

It was suggested that the Focus Group hear comments by Chuck Borup, DOE, on institutional control and move Elmer Wilhite's presentation to another date since the meeting was running late and the interest seemed to be on institutional control. Ms. Patterson agreed and asked Mr. Borup to give his presentation.

Mr. Borup stated that for long term stewardship of the Old Burial Grounds, there were two controls; engineering controls such as caps and fences and institutional controls such as records and zoning. The Savannah River Site (SRS) policy is to maintain the site boundary in perpetuity. Maintain in perpetuity means ownership by DOE or some other federal department. DOE-Headquarters is currently developing a rule that codifies the environmental orders before relinquishing control of a site. The department has made a commitment for control as long as it takes. Chuck Borup stated that there is no intent to release areas such as High-Level Waste and separations to the public. There is also no intent to have residential zones on site.

There was much discussion on the effectiveness of institutional control after a site closure. It was mentioned that the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

documents could not protect everyone forever. However, for CERCLA, the site is required every ten years to review the status and make modified as needed. Discussions continued on how and what to control.

Ms. Patterson requested Mr. Poe to address the path forward for the Focus Group. Mr. Poe suggested the next meeting be Wednesday, March 15. The ISPR report should be available on March 1. Once we receive their report, it would be forwarded to the members of the Focus Group so they can study it before the March 15 meeting. The Focus Group will discuss the report and send comments back to the ISPR. In addition, Mr. Wilhite will give his presentation on the intruder analysis as well as Carbon-14 transport.

With no other comments, Ms. Patterson adjourned the meeting.

Meeting handouts may be obtained by calling 1-800-249-8155.