



SRS Citizens Advisory Board

Facility Disposition and Site Remediation Committee

**Aiken Federal Building, Aiken, SC
05/4/04**

The SRS Citizens Advisory Board (CAB) Facility Disposition and Site Remediation Committee (FD&SR) met on Tuesday, May 4, 2004, 5:00 PM, at the Aiken Federal Building, Aiken, SC. The purpose of the meeting was to discuss and receive update on the F&H Area Groundwater Program and the SRS C-Area Groundwater Interim Action / Proposed Plan and public comments.

Attendance was as follows:

CAB Members

-Perry Holcomb
Jerry Devitt
-Bob Meisenheimer
-Mary Drye
-Harold Rahn

Stakeholders

Rick McLeod*
Lee Poe
Todd Crawford

DOE/Contractors

Mary Windmiller, DOE
Teresa Haas, WSRC
Paul Sauerborn, WSRC
Bob Blundy, WSRC
Tony Polk, DOE
Mike Shotton, BSRI
Bruce Schappell, BSRI
Ed McNamee, WSRC
DeLisa Bratcher, DOE
Ken Parkinson, WSRC
Barry Shedrow, WSRC
Bill Spader, DOE

Regulators

Chuck Gorman, DHEC

*CAB Technical Advisor
-FD&SR committee members
+Facilitator
^Press

Perry Holcomb, Chair, opened the meeting at 5:00 p.m. and welcomed those in attendance. In addition, Mr. Holcomb recognized Bill Spader, as the new DOE SR CAB ex-officio.

FD&SR Committee meeting schedule review: Paul Sauerborn presented the schedule, which listed items the ER committee will be reviewing for 2004. Mr. Sauerborn stated that should anyone in the public have an item relevant to the ER committee scope to please notify him in

order that he have those items reviewed and approved by the chairman of the FD&SR committee for future presentations.

Mr. Lee Poe asked for presentations on the Mixed Waste Management Facility Southwest Plume, identification and disposition of the TNX historical facilities, and an update on the Integrator Operable Unit Program. Mr. Sauerborn stated that the committee would refer the TNX inquiry to the Strategic and Long Term Issues Committee, however the others will be placed on the FD&SR Committee schedule. Mr. Holcomb thanked Mr. Poe for his input.

Interim Action Proposed Plan at the C-Area Groundwater (CRGW) Operable Unit: Bob Blundy stated that the purpose of this presentation was to present the status and proposed interim action technology for the CRGW operable unit and that the interim action has been out for public comment since March 17, 2004.

Mr. Blundy pointed out that there were several alternatives considered before two approaches came to the surface. The two considered were soil vapor extraction (SVE) at a cost of \$7,108,000 and 7 years operating time, and Electric Resistance Heating (ERH) with SVE at \$4,790,000 and less than one year operating time. The Core team approved the ERH with SVE as the preferred alternative for cleanup. This is now out for public comment.

Some key reasons the Core team chose ERH with SVE is as follows:

- Shorter operating time than SVE
- Greater removal efficiency
- Less cost
- Low-permeability limits the rate of volatile organic compound extraction in the fine grained strata by SVE alone
- Total estimated cost is 67% the cost of SVE
- Area of vadose zone contaminates is smaller and can be treated with a single ERH array

Mr. Bundy explained that ERH consists of:

- Six input electrodes and one neutral electrode
- Current flows between electrodes
- Soil heated resistively until approximately the boiling point of water
- Soil moisture becomes an in-situ source of steam
- All electrodes paired with an SVE well

Then Mr. Blundy stated that heating vaporizes and releases the volatile organic compounds, and the contaminant vapors are withdrawn from soil by SVE wells and treated at the surface.

In conclusion, the path forward for this action is as follows:

- The interim record of decision, revision 1, is to be submitted by June 1, 2004
- Remedial action field start by September 30, 2005
- Start-up testing April 5, 2006, with completion in August of 2007

If ERH proves successful at CRGW, it will then have potential for other SRS deployments.

F&H Area Groundwater Annual Update: Ed McNamee stated the purpose of the presentation is to provide a status on progress of F&H Area Groundwater, and to demonstrate the potential success of the new barrier wall deployment in lieu of Pump-and-Treat. As Mr. McNamee pointed out, the Constituents of Concern are many and include the majority of the periodic table.

F&H Areas are in the central part of the Savannah River Site (SRS). The purpose of deploying the barrier wall system is to reduce the tritium flux at Fourmile Branch, which is a stream that leads to the Savannah River. Mr. McNamee stated that the Pump-and-Treat operation has been used for years as a means to capture the tritium as it moved toward Fourmile Branch. However, as of late this process has lost effectiveness and was still costing a million dollars per month to operate, hence the barrier wall approach.

Mr. McNamee stated that the barrier wall effectiveness would be enhanced by the geological tan clay formation in the treatment areas. This would allow for the barrier walls to help concentrate the contamination for easier removal to the surface. The barrier walls run for 2,700 linear feet for an average depth of 70 feet. The deep soil mixing equipment can mix effectively at depths of 120 feet. The equipment will use a commercially available mix called *Impermix* which:

- Has low permeability
- Is less diffusive than bentonite grout
- Is resistant to degradation in acid environments

The wall when completed will be a minimum of 2 feet thick. Once the wall is in place base injection consisting of sodium hydroxide at a target zone 10 feet above the tan clay would raise the pH and reduce the mobility of the COC's allowing for a more efficient capture rate.

In closing Mr. McNamee showed the schedule as follows:

- Pilot scale test, April – June 2004
- F-Area Wall, June – October 2004
- H-Area Wall, October 2004 – March 2005
- Install F-Area Base Injection, October 2004 – June 2005

Public Comments: Perry Holcomb announced that a draft recommendation is in development regarding site D&D practices. The draft should be available for review in the next day. Mr. Holcomb stated that the draft recommendation challenges the D&D program to address risk issues and needs of buildings before demolishing serviceable buildings just to reduce site footprint.

Mr. Holcomb adjourned the meeting at 7:00 p.m.

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