Savannah River Site (SRS) Citizens Advisory Board
The Facility Disposition and Site Remediation Committee Meeting
Aiken Federal Building, Aiken, SC
August 28, 2007

The Savannah River Site (SRS) Citizens Advisory Board (CAB) Facility Disposition and Site Remediation Committee held a meeting on Tuesday, August 28, 2007, 5.–7p.m., at the Aiken Federal Building, Aiken, SC. The purpose of the meeting was to discuss:

1. Electrical Resistance Heating at the Chemicals, Metals, and Pesticides Pits (CMP)
2. General Separations Area consolidated Unit Completion (GSACU); and
3. Provide an opportunity for public comment on CAB related items.

Attendance was as follows:

CAB Members	**Stakeholders**	**DOE/Contractors**
Mary Drye, Chair	Russ Messick	Sheron Smith, DOE-SR
K. Jayaraman, Vice Chair	Lee Poe	Wade Whitaker, DOE-SR
Frank Boulineau	Sandy Carroll	Diana Hannah, DOE-SR
Leon Chavous	Liz Goodson	Karen Adams, DOE-SR
Alex Williams		Brad Davis, WSRC
Robert Meisenheimer		Joseph Amari, WSRC
Judy Greene-McLeod		Monique Rabin, WSRC
Joe Ortaldo	**Regulators**	Paul Eisenstat, WSRC
Stan Howard	None	
	Rick McLeod, Technical Advisor	

Welcome, Introduction, and Committee Chair Update:

Ms. Mary Drye, Chair, FD&SR, called the meeting to order and welcomed all in attendance. She referred to the ground rules and requested all attendees abide by them.

Meeting Summary:

The meeting discussions began with Ms Drye providing information on the response from the Department of Energy – Savannah River Operations Office (DOE-SR) on Recommendation #248. DOE-SR has committed, as requested by the CAB, to conduct public workshops on the P Reactor End-State Options on October 16th and January 17th. Details of the workshop will be provided at the full Board meeting in September.

Karen Adams, DOE-SR, provided a status of the progress and use of electrical resistance heating / soil vapor extraction to extract contaminants at the CMP. The CMP is located in the central portion of SRS in a remote location. A voltage is supplied to electrodes and current travels through soil to heat the soil and the contaminants are volatilized. Then the soil vapor extraction systems extract the contaminants. The presentation contained several pictures and diagrams of the process. The project expects to complete construction and the testing phase by fall 2007 with operations beginning in winter 2008. CAB members indicated interest in the source of the chemicals being extracted; how these chemicals are being measured when released to the atmosphere; the costs; reuse of the equipment; has the process worked well; and that the work is regulatory driven.

Discussions continued with Diana Hannah, DOE-SR, providing an update on the remediation progress at the General Separations Area Consolidation Unit (GSACU). The scope of the remedial action is: 1)

previously closed the 22 Old Radiation Waste Burial Ground (ORWBG) old solvent tanks that were grouted in place; 2) decommission of the Solid Waste support facilities; 3) removal and consolidation of contaminated soils and material from the H Retention Basin, Warner's Pond; and HP-52 Ponds and place them at pre-determined locations within the ORWBG; backfill and cover the excavated areas; engineer a ground cover system; and maintain the area under institutional control.

CAB members expressed interest in the type of contaminants being moved and dispositioned; how the process is being conducted; how much time has been expended; when will the project be complete; and does the project completion indicate meeting the performance measures (Gold Metric) targets. There were discussions on what type of geosynthetic capping was being used for the continuous 72-acre area. The project schedule reflected remedial assessment was done in September 2002; the plan approved in December 2003; the mechanical completion occurred in April 2007; with a regulatory walk down scheduled in August 2007; for completion of the post construction report expected by June 2008. The GSACU project has significant cost avoidance by consolidating, characterization, and all units working so well together. The presentation and information was so well received by the committee members that they invited Diana to present at the full Board meeting in September, and requested an article on the GSACU project be written and issued in the fall-issue of the CAB *Board Beat* newsletter.

Presentations:

Electrical Resistance Heating at the Chemicals, Metals, and Pesticides Pits (CMP) – *presented by Karen Adams, DOE-SR*

Purpose

To provide the Facilities Disposition & Site Remediation Committee a status of the use of ERH/SVE at the CMP Pits.

Location of the CMP Pits

- Located in the central portion of SRS
- Approximately one mile north of L Reactor
- Remote location

CMP Pits Layout

- Pits are located 1500 feet from Pen Branch
- Located on top of knoll; 310 feet msl
- Depth to groundwater is 90 feet
- Subunits include:
  - Pits soil
  - Ballast Area soil
  - Groundwater
  - Surface water

Chronology of Activities at the CMP Pits

Electrical Resistance Heating Basics

- Voltage supplied to electrodes
- Current travels through soil
- Soil heats and contaminants volatilize
- SVE System extracts contaminants

Below-Ground Design *(Photos and diagrams to demonstrate)*

Above-Ground Design *(Photos and diagrams to demonstrate)*

CMP Pits ERH / SVE Construction *(Photos and diagrams to demonstrate)*

Looking Forward

ERH / SVE Schedule:

- Fall 2007: Construction Complete / Testing Phase
- Winter 2008: Operation begins

ERH / SVE Project Duration:

- Heating estimated between 6 and 12 months
- SVE estimated at 12 months

Project Completion:

- Confirmation sampling to demonstrate cleanup goals have been met
- Documented in Annual Effectiveness Monitoring Report

CMP Pits History - Background Information

- 1971 to 1979: Seven unlined basins received solvents, pesticides, and lighting ballast components
- 1984: Removal Action
  - Contents were excavated, lined with gravel
  - Manholes installed for future remediation activities
  - Pits were backfilled, and an infiltration cover was installed
- 1995: RCRA/CERCLA Characterization began in
  - PCE and DCM are residual soil contaminants in pits
  - Pesticides and PCBs are surface soil contaminants in Ballast Area
  - VOCs and pesticides (Lindane) are in groundwater above MCLs
- 1999: Interim ROD Issued for VOC contamination
- 2001-2005 SVE Systems Operated in Fields A and B
  - Field B removed 230 lbs VOCs and was converted to passive Operation in 2002
  - Field A removed 9,000 lbs VOCs and was shutdown in 2005
  - Soil sampling indicates DNAPL (PCE) and DCM remain in clay horizons in small area of Pits
- 2004 -2005 Bio-remediation of Ballast Area
  - 4000 cubic yards of soil was treated for Pesticide and PCB contamination
- 2005 Final Action ROD was issued for Final Action
  - ERH with SVE was selected for the CMP Pits soils
    - PCE and DCM were identified as contaminant migration COCs
    - Remedial Action objective is to eliminate source of groundwater contamination
  - MNA was selected as final remedy for the groundwater
- February 2006 CMI / RAIP approved
- April 2006 – Remedial Action start

General Separations Area consolidated Unit Completion (GSACU) – *presented by Diana Hannah, DOE-SR*

Purpose: To provide the Facilities Disposition & Site Remediation Committee an update on the remediation progress at the General Separations Area Consolidation Unit (GSACU).

Scope of Remedial Action

- Previously closed the 22 ORWBG old solvent tanks (grouted in-place under an Interim ROD)
- Decommissioned Solid Waste support facilities
- Removed and consolidated contaminated soils and material from HRB, WP, and HP-52 and placed them at pre-determined locations within the ORWBG
- Backfilled and covered the excavated areas of HRB, WP, HP-52, and the H-Area Inactive Process Sewer Line
- After completion of consolidation activities, the engineered cover system was installed over entire ORWBG, including its 22 OSTs
- All units will be maintained under institutional control
- Before the termination of institutional controls, an intruder barrier system over persistent “hot spots” will be installed

Warner’s Pond

- Primary contaminant is Cesium 137 (2.2 curies)
- Includes a portion of the RCRA H-Area Inactive Process Sewer Line (850-foot, 18-inch vitrified clay pipe)
- Removed 25,000 cubic yards contaminated soils, pipe, and debris
- Backfilled and covered with geosynthetic cap

H-Area Retention Basin

- Operated from 1955 to 1972 to receive wastewater from the canyon facilities and H-Area Tank Farm
- Primary contaminants are Cesium 137 and Strontium 90 (55 curies)
- Installed stream bypass and sheet pile for perched water
- Set-up Water Conditioning Unit to process contaminated water
- Removed 15,000 cubic yards of contaminated soil

HP-52 Ponds

- Site contaminated by radioactive effluent spills in 1967 and 1969
- Primary contaminant is Cesium 137 (1.2 curies)
- Volume of soil removed was 5,000 cubic yards

GSACU

- Removed existing structures
- Established waste placement areas
- Consolidated materials from other areas
- Capped 80 acres and 22 grouted Solvent Tanks

GSACU Waste Placement Areas Established *(photo of area)*
GSACU Waste Disposition Process *(photo of area)*
GSACU Geosynthetic Capping Progress *(photo of area)*
Schedule Status

- Remedial Assessment 9/02
- CMI/RAIP Plan Approval 12/03
- Remedial Action Start 12/03
- Mechanical Completion 4/07
- Regulatory Field Walk Down 8/07
- Submit Post Construction Report by 6/08

Public Comment: None

Meeting Adjourned: The meeting was adjourned at 6:50 p.m. by Ms. Mary Drye, Chair, FD&SR Committee.

ACTIONS:
Provide a briefing on the GSCAU Project to the full Board in September.
Include an article in the CAB Newsletter on the GSACU Project.
Provide a copy of the institutional controls to Lee Poe. *(Complete)*