



## **SRS Citizen's Advisory Board**

### **Facilities Disposition and Site Remediation Committee**

#### **North Augusta Community Center, North Augusta, SC**

**06/27/05**

The Savannah River Site (SRS) Citizens Advisory Board (CAB) Facilities Disposition and Site Remediation Committee (FD&SR) met on Monday, June 27, 2005, 6:00 PM, at the North Augusta Community Center, N. Augusta, SC. The purpose of this meeting was to discuss the SRS F&H Areas Groundwater Status and Annual Update and to hear public comment. Attendance was as follows:

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#### **CAB Members**

William Lawrence

Meryl Alalof

-Gloria Williams

Way

Karen Patterson

Joe Ortaldo

- Leon Chavous

- Perry Holcomb

Manuel Bettencourt

- Donna Antonucci

Ranowl Jzar

- Mary Drye

#### **Stakeholders**

Sam Booher

Lee Poe

\*Rick McLeod

#### **Regulators**

Robert Pope, EPA

Albert Frazier, Jr., Ga

DNR/EPD

#### **DOE/Contractors**

Drew Grainger, DOE

De'Lisa Bratcher, DOE

Dorcaus Robinson, DOE

Jack Mayer, WSRC

Paul Sauerborn, WSRC

Jim Moore, WSRC

Nick Delaplane, DOE

Ed McNamee, BSRI

\*CAB Technical

Advisor

-FD&SR committee

members

**Note:** Danielle Mackey, Dorene Richardson are CAB members of the FD&SR committee, but were unable to attend this session.

#### **Welcome and Introduction:**

Perry Holcomb, Chair, welcomed those in attendance and asked them to introduce themselves.

**F&H Areas Groundwater Status and Update:** Ed McNamee stated that the purpose of this presentation was to provide a status on progress of F&H Area

Groundwater including barrier placement and base injection, and to demonstrate potential success of new barrier wall deployment in lieu of pump and treat including water level changes near barriers and base injection effects. Mr. McNamee indicated that the F&H Area are located in the central portion of SRS

The walls in both F&H Areas consist of a commercially available mix called Impermix which has the following qualities:

- A permeability range in the 10 to the minus 8, to 10 to the minus 10 centimeters per second
- Is less diffusive than bentonite grout
- Is resistant to degradation in acid environment

The drilling equipment is able to mix at depths of 120 feet, and the resulting wall is a minimum of 2 feet thick and employs an acid-resistant grout.

The objective of the SRS RCRA permit calls for a 70% reduction in tritium flux at Fourmile Branch and reduction of metals / tritium to levels below regulatory thresholds at the seep lines in the near term. The barriers are anticipated to redirect the direct flow of groundwater so as to reduce the spread of contamination to Fourmile Branch and its seep lines. Mr. McNamee stated that base injection is added to complement the barrier wall at F Area to reduce metal concentrations in the groundwater. Mr. McNamee stated that the base injection chemical is sodium hydroxide and the target zone is 10 feet above the tan clay. The objective of the sodium hydroxide is to raise the pH and reduce the mobility of the metals and radionuclides.

In conclusion, Mr. McNamee stated the following:

- Completed the barriers and base injection systems
- The barriers are impacting the groundwater levels
- The first injection campaign resulted in 18 million gallons of F Area base injection in the barrier area thus reducing the mobility of metals
- The second injection campaign, over 1 million gallons of base have been injected in the F area gates
- Time is needed for base to reach the seep line
- Waiting to measure the longer term effects

The following are questions and answers arising from the presentation.

- Rick Mcleod asked how the tritium migration was monitored, and Mr. McNamee stated the monitoring was done in the Fourmile Branch by pizometer.
- Lee Poe asked why we are seeing tritium, since the site no longer produces that product. Mr. McNamee stated that the monitoring is picking up the tritium, but at reduced concentrations.
- Lee Poe asked why they are not treating the tritium at the source within the closed basins using the base injection. Mr. McNamee stated they are looking into that as a possibility in the future.
- Lee Poe asked what authority directs this action. Mr. McNamee stated that this action is directed by a RCRA Corrective Action Plan.
- Mary Drye asked how much this removal action costs. Mr. McNamee stated the project cost is 8 million dollars.
- Lee Poe asked what will come of the old pump and treat systems. Mr. McNamee stated that the regulators are directing the systems remain in a standby mode until the end of 2006.

**Public Comment:**

None

**Adjourn:**

Perry Holcomb adjourned the meeting at 6:55 PM.