SRS Citizen's Advisory Board

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Environmental Restoration Committee Meeting Summary

Aiken Federal Building, Aiken, SC
May 13, 2003

The Citizens Advisory Board (CAB) Environmental Restoration Committee held a meeting on May 13, at the Aiken Federal Building, Aiken, S.C. The purpose of the meeting was to discuss the F&H Seepage Basin Corrective Action Plan Strategy, SRS Deactivation and Decommissioning Program, and Taking the Initiative to Accelerate Cleanup. Those in attendance were:

CAB Members	**Stakeholders DOE**	**Contractors**
Perry Holcomb*	Karen Patterson	George Mishra, DOE
Harold Rahn*	Mike French	Teresa Haas, WSRC
Wade Waters	Lee Poe	Paul Sauerborn, WSRC
Leon Chavous*	Gerry Stejskal	Gerald Blount, BSRI
DeAnne Smoak	Rick McLeod	Angelia Adams, DOE
Murray Riley*	Richard Herold	Chuck Gorman, SCDHEC
Mary C. Drye*	Barry Shedrow	Ed McNamee, BSRI
		Jim Moore, WSRC
		Robert Baker, DOE
		Michael Chandler, WSRC
		Ron Beul, WSRC
		Philip Prater, DOE
* Members of the ER Committee		Jack Mayer, WSRC
		Jack Gelding, SCDHEC

Perry Holcomb, Chair, opened the meeting at 6:00 p.m. and welcomed those in attendance. Introductions followed.

F&H Seepage Basin Corrective Action Plan Strategy:
Ed McNamee stated that the objective of this presentation was to provide information to the CAB ERCommittee on the proposed Corrective Action Plan for the F and H Seepage Basins. He added that the phase II requirements were to evaluate the performance of phase I, reduce the mass flux of tritium into Fourmile Branch (FMB) by 70% and other constituents to Groundwater Protection Standards (GWPS), reduce the discharge of other constituents at the seepline to less than GWPS, evaluate the phase II CAP and submit phase III CAP.

Mr. McNamee addressed the F-Area Seepage Basin Testing Conclusions as being the following:

- The majority of the groundwater contamination is present in the aquifer within localized structural depressions on the top of the Tan Clay, which was derived from the Cone Penetrometer (CPT) characterization data.
- The upper portion of the aquifer, above the structural depressions, is highly flushed by the pump and treat process and contaminated the least evidenced by the CPT data.
- The highly contaminated portions of the aquifer within depressions in the Tan Clay represent a significant residual secondary source evidenced by CPT, seepline piezometers, and process history.
- The majority of the contamination seems to discharge to FMB through troughs connecting the depressions to the creek evidenced by the tree kill areas, seepline piezometer data, CPT characterization data.

Mr. McNamee stated the H-Area Seepage Basin Testing Conclusions as follows:

- Groundwater contamination is less widespread and severe than F-Area Seepage Basin evidenced by CPT characterization data, monitoring wells, and seepline piezometers.
- Contaminant concentrations in FMB (within the discharge area of H-Area Basins) are relatively close to drinking water standards evidenced by surface water data.
- Concentration within the aquifer has been impacted by injection (larger dilute plume), and ongoing releases from basin four evidenced by monitoring wells and CPT data.
- Significant residual secondary sources are not present in the aquifer evidenced by CPT data.
- The majority of contamination seems to discharge toward FMB through a shallow depression in the Tan Clay evidenced by CPT data.

In order to make significant steps toward achieving the initial Phase IIA permit goals the following should happen:

- The releases to the creek from FASB the secondary source in the aquifer must be contained (barriers across the troughs)
- The releases to the aquifer from HASB four must be contained (double barrier across the depression)
- The water that is released around and through the containment at FASB may require treatment to remove metals (base injection in the gate areas)
- At this time, treatment or an Alternate Concentration Limits/Mixing Zone (ACL/MZ) does not seem to be required at HASB (need for treatment or ACL/MZ may best be determined after containment.
- The phase I system operation should be concluded immediately for the following reasons
    - the phase I system is not compatible with containment approach to limit the transport of contaminants to the creek
    - spreads contaminants
    - no significant influence in FMB (like MWMF)
    - sufficient operation time for an effect

Mr. McNamee stated that based on calculations should the pump and treat be shut down and alternate plan accepted, a cost savings of approximately 320 million dollars could be realized over a thirty year period.

Mr. McNamee concluded by stating the CAP phase IIA remedy for both F and H Area Seepage Basins. The F-Area Seepage Basins Corrective Action Plan phase IIA remedy is as follows:

- Build a Funnel / Gate System
    - barrier across geologic troughs to contain the residual highly contaminated secondary source term
    - inject base at gates (gaps) in barrier (to achieve GWPS for metals)
- Monitor effects of remedy at gates, tree kill areas, and within FMB
- Conclude phase I system operations
- Plan modification to 2A remedy if needed, plan 2B remedy

The H-area Seepage Basins Corrective Action Plan phase 2A is as follows:

- Build containment walls
    - double barrier across geologic depression to contain the residual highly contaminated secondary source term
- Monitor effects of remedy at tree kill areas, and within FMB
- Conclude phase I system operations
- Plan modification to 2A remedy if needed, Plan 2B remedy

SRS Deactivation and Decommissioning Program:
Dave Freeman stated the purpose of his presentation was to give a description of the Integrated D&D Plan, its summary, content, timing, and the status of ongoing D&D at SRS. Mr. Freeman stated the Plan defines the appropriate end states for all facilities, waste tanks, and waste sites. In addition the Plan includes estimates of decommissioning costs, maps for area closures, implementation strategies, and the results will be used to develop cost and schedule to accomplish the defined end states.

Mr. Freeman presented definitions of terms pertinent to D&D work and they are as follows:

- Safe Shutdown
    - actions to safely shutdown a facility after operations
- Surveillance and Maintenance (S&M)
    - actions following operations and phased out during decommissioning to maintain the facility in a manner that protects workers, public, and environment
- Deactivation
    - actions following shutdown to reduce risk and maintenance costs
    - resulting condition can be safe storage
- Safe Storage
    - low risk/low cost condition of a facility following deactivation while awaiting decommissioning
    - not an end state, but may be an appropriate long-term condition

- Decommissioning
    - actions taken to place a facility in its final end state
- End State
    - final condition of a facility
    - two choices: demolition or in-situ disposal (in place closure/entombment)

Mr. Freeman stated that the current inventory of facilities breaks out as follows:

Nuclear	179
Radiological	39
Industrial	794
Total	1,012

The current contract negotiations (2003-2006) show 126 facilities in the Target Scope, and 133 in the Maximum Scope scenarios. Relative to process and strategy for the D&D program, the old strategy was to take facilities from operational states to safe storage by the year 2070 driven by funding. The new strategy is to take those facilities to in-situ disposal or demolition because of increased funding and new DOE direction for their sites.

Mr. Freeman stated that there is a defined set of criteria used in selecting projects which are to be either Deactivated to Safe Storage or Decommission to End State. Mr. Freeman also stated that SRS is not trying to create its own approach to D&D, rather it will use other proven DOE site successes to further develop the Cost estimating, D&D Strategies, and Contracting approaches. The D&D program will use a graded approach in dealing with its Nuclear, Radiological/Chemical and Other Industrial facilities at SRS, without disregarding any pertinent regulatory requirements.

Mr. Freeman stated that the schedule requires the following:

- Develop a Plan this Fiscal Year
- Issued the Revision 0 on April 30 for internal review
- Received internal comments by May 9
- Issue revision 1 for public review by May 20
- Solicit comments from the CAB

Mr. Freeman stated that although the D&D proram is moving along at a rapid pace safety is still foremost on the minds of all the workers never want to deviate from that mindset. As far as progress to date, Mr. Freeman gave the following:

- PMP Initiative – Demolish T, D and M-Area
- demolished 14 buildings, which reduced the footprint by 53,000 square feet
- shipped 80 of 143 truckloads of depleted uranium from M-Area to Envirocare of Utah for disposal
- conducted vendor forum for D&D subcontractors (101 people, representing 79 vendors)
- placed 7 subcontracts to remove 11 buildings

- D&D Program
- issued graded approach to decommissioning requirements
- issued revision 0 of the SRS integrated plan
- Other Significant Accomplishments
    - re-organized FDP from operations to project organization

Taking the Initiative to Accelerate Cleanup: Paul Huber began by identifying four main points:

- DOE has placed value in accelerating the end of the Environmental Management cleanup mission
- EPA and SCDHEC support the earlier cleanup of the site
- DOE, EPA, and SCDHEC are working together to achieve this objective
- A first opportunity is to look at the benefits of closely coordinating the ER and D&D program to close out whole areas of the site

Mr. Huber stated that in order to accelerate cleanup, teams were put into place to help assure success. The Executive team would establish the cleanup vision, endorse the process, and commit the resources. The management team would implement the cleanup vision, define the process, set metrics and monitor progress. The management team chartered three working teams as follows:

- Area Closure Team
    - Expand the use of plug-in Records of Decision (RODs)
    - Develop Area ROD protocols and templates
    - Coordinate with D&D completions
- D&D Team
    - Develop regulatory D&D concurrence process
- Closure Management Team
    - Set the detailed end state definition
    - Champion a comprehensive cleanup plan and the re-sequencing of the integrated Environmental Restoration (ER) and D&D schedule to completion
    - Establish mutually agreeable metrics for progress

Mr. Huber stated that this approach to Accelerated Cleanup would produce the following outcomes:

- A cleanup program that is more biased for action meaning earlier risk reduction
- An ER and D&D schedule to support deletion of whole areas from the National Priorities List (NPL)
- More cost-effective solutions considering whole-area advantages and reducing the number of decision documents
- Faster decisions that get the field cleanup started earlier
- A comprehensive cleanup plan that establishes a schedule to achieve closure decades earlier
- A Federal Facility Agreement (FFA) Appendix E schedule that reflects the acceleration agreement, the implementing actions, and reflects the progress metrics

- A comprehensive cleanup plan that would be fully supported by SRS stakeholders

Public Comments:
There were no public comments.

Mr. Holcomb adjourned the meeting at 8:00 p.m.

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