SRS Citizen's Advisory Board

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Environmental Remediation Committee

Meeting Summary

January 17, 2001
Aiken Federal Building
Aiken, SC

CAB Members	Stakeholders	DOE/Contractors
Maria Reichmanis*	Jerry Devitt	de'Lisa Bratcher, DOE
Charleen Townsend	Rick McLeod	Ron Beul, BSRI
Perry Holcomb*	Bill Bengston	Paul Sauerborn, WSRC
Jimmy Mackey*	Mike French	Dean Hoffman, WSRC
	Bill Greenaway	Rod Rimando, DOE
	Lee Poe	James DeMass, DOE

Regulators

Charles Gorman, SCDHEC

*** Members of the ER Committee**
Note: Beaurine Wilkins, Sallie Connah, Murray Riley, William Lawrence, and Katherine May of the ER Committee were unable to attend meeting.

Introduction: Maria Reichmanis introduced herself and stated that Jimmy Mackey would be attending the meeting by phone hook-up.

Schedule Review: Paul Sauerborn reviewed the upcoming meeting on February 27th and the topic will be WSRC Budget, and requested any suggested addition be sent to him for possible inclusion.

Revised TMDL for Mercury in the Savannah River Basin: Gene Laska introduced himself to the attendees and stated that he was speaking in lieu of Bill Payne due to a death in Mr. Payne's family. Ms. Reichmanis asked that all questions be held to the end of the presentation. Mr. Laska presented the developments surrounding the Current TMDL for Mercury in the Savannah River. In February of 2000, the Water Quality Target of 1 part per trillion (ppt) was imposed in the National Pollutant Discharge Elimination System (NPDES). At that time no data from the Savannah River had been used in that development and air sources of mercury were not a part of the TMDL. The risk was based on the Food and Drug Administration Action Level of 1 part per million in fish tissue. And the TMDL was based upon Georgia lawsuit but applied equally to both Georgia and South Carolina. In December 2000 the Revised TMDL allowed a water quality target of 2.83 (ppt) and gave two options to the permittees: 1.) an end of pipe limit of 2.83 (ppt), or 2.) No change in limits if agreed to implement a Mercury Minimization Plan. In this ruling actual Savannah River data was used to develop the TMDL, as well as air sources of mercury. The risk was based upon the National Academy of Sciences endorsed reference dose of .23 parts per million in fish tissue.

The TMDL was based upon the Georgia lawsuit and applied to Georgia and South Carolina similarly and the point of compliance is the middle of the Savannah River.

Mr. Laska further explained the impacts to Georgia and South Carolina as follows:

- **<u>For Permittees who already have Mercury limits:</u>**
  - **end of pipe (EOP) limits of 2.83 ppt, or**
  - **EOP limits same as now, plus**
  - **Develop and implement a Mercury Minimization Plan (MMP)**
  - **"Upon permit renewal, a water quality based effluent limit for mercury will be established that reflects feasible achievable removals that can be accomplished through implementation of the mercury minimization measures."**
- **<u>For Permittees who do not now have Mercury limits:</u>The following applies to "Major" facilities, and to "Minor" facilities with "high potential" for significant concentrations of Mercury**
  - **EOP limits of 2.83 ppt, or**
  - **Characterize effluent using new mercury method**
  - **If above 2.83 ppt, develop MMP**
  - **Implement MMP**
  - **Accept lower limits during permit renewal based upon MMP**

Mr. Laska concluded his presentation by identifying potential impacts to SRS as follows:

- **Will need to choose option to do MMP**
- **Will cost hundreds of thousands of dollars, or more, to do research and implement plan**
- **May require additional treatment at several outfalls in future costing millions of dollars**
- **Point of compliance could be a major issue for South Carolina dischargers**
- **South Carolina will eventually do their own mercury TMDL**

Mr. Mackey stated that it is his opinion that based on the new Government Administration the current ruling on TMDL may be adjusted. Rod Rimando asked if both S.C. and Ga. would have to agree on a MMP. Mr. Laska said that issue is still to be determined. Mr. Mackey also asked what was the current EOP limit for outfalls at SRS. Mr. Laska replied that it was 13 ppt. Mr. Laska noted that the SRS is in the process of constructing an air deposition station and that the current air models indicate that both wet and dry deposition appear to be coming from some place other than SRS. Lee Poe stated that from his perspective no standard should be set without drawing a cost relationship to human health risk. Perry Holcomb stated that if the compliance limit were set at 2.83 ppt and the reading at the outfall were 2.84 ppt there is no instrumentation that he is aware that can detect with any validity at that level. Mr. Laska stated that there is a lab being used that can read to extremely low limits (less than 1ppt) and the per sample cost is between $100 and $150.

Ms. Reichmanis proposed a comment letter to EPA on the proposed revised TMDL and the attendees agreed to additional review and comment between the meeting and close of business 1/19/01. She noted that the EPA deadline for comment was 1/22/01 and apologized for the required short turn-around.

<u>FY2000 ER Cost Savings Accomplishments:</u> Dean Hoffman, Program Manager in the Environmental Restoration (ER) Division at SRS presented Fiscal Year 2000 ER highlights and cost efficient approaches to clean-up. Mr. Hoffman stated that over 50% of the ER units are in the remediation phase. Mr. Hoffman noted the following statistics for FY 2000 accomplishments:

- **Completed remediation actions at 17 sites bringing total completed sites to 244 of 515**

- **17 ongoing field projects; 12 months of sustained operations at F&H Groundwater Treatment Units; 3 radioactive basins grouted**
- **9 groundwater remediation systems operating; 106 regulatory milestones; completed 82 ahead of schedule**

In terms of cost efficiency factors Mr. Hoffman noted:

- **Improved communications with the regulators (Timeout Benefits)**
- **Encourage deployment of innovative technologies**
- **Working to streamline document process**
- **Use natural remedies where possible**
- **Deploy innovative technologies**

Mr. Hoffman explained the evolution of technology at SRS from its initial efforts using muck and truck and clay capping, and pump and treat to more natural processes and innovative approaches. Mr. Hoffman noted phytoremediation, bioremediation, soil solidification and monitored natural attenuation as good examples.

As far as additional scope achieved in FY 2000, Mr. Hoffman gave the following:

1. **Use of Natural remedies such as phytoremediation at the Mixed Waste Management Facility, and the use of monitored natural attenuation for solvents at different locations on site.**
2. **Streamline Remedial Investigations and Feasibility Studies (RI/FS) Documents demonstrated by multiple project i.e. R, K, L, C, P Areas and Central Shops.**
3. **Deployment of Innovative Technologies such as Dynamic Underground Stripping (DUS), Soft Side Lift Liners, Purge Water Management System, Soil Vapor Extraction, Radiological Contaminated Soil Stabilization, and Recirculation Wells.**
4. **Operational Savings by reduced chemical usage at the F&H Area Groundwater Treatment Units.**

Mr. Hoffman concluded his presentation by identifying future technology opportunities as:

- **Additional use of natural remediation**
- **Long-term monitoring**
- **Non-invasive solvent characterization and treatment**
- **In situ tritium treatment**
- **Long-term covers**

Mr. Poe, Mr. Holcomb, Mr. Mackey, Ms. Reichmanis and others gave supporting words to a job well done by the ER organization. Ms. Reichmanis proposed a letter of commendation which all supported with little comment.

<u>Public Comments:</u> There were no public comments. Ms. Reichmanis thanked the attendees, and the meeting was adjourned.

For copies of meeting handouts call 1-800-249-8155.