



SRS Citizens Advisory Board

Environmental Remediation & Waste Management Subcommittee

Meeting Record

April 16, 1997

Martinez, Ga.

The CAB ER & WM subcommittee met on April 16, 1997 at the Savannah Rapids Pavilion in Augusta, GA. Bill Lawless opened the meeting with introductions. Other CAB members present were Kathryn May, CAB ER & WM Co-chair, and Ed Tant. Walt Joseph, the SRS CAB facilitator, also attended. Attending from DOE-SR were Tom Treger, Nate Ellis, Mike Simmons, Joan Baum and Brian Hennessey. Brent Allen and Mihier Mehta attended from the South Carolina Department of Health and Environmental Control (SCDHEC). Attending from WSRC/BSRI were Coleman Miles, Harry Long, Howard Hickey, Dean Hoffman, Paul Huber, Chris Bergren, Charles Murphy, Gerry Stejskal, Casey Knapp, Kim Wierzbicki, Bill Rajczak, Helen Villasor, Anne Roe and Mary Flora. Public attendees included Vern Osteen, P.L. Nowacki, Dale Kemp, Steve Hevel, Trish McCracken and Russell Wyer. Stan Blacker, Michael Miller, Patricia Harrington, attended from the watershed remediation task team. Gerri Flemming attended as the Associate Designated Deputy Federal Official, ADDFO.

Coleman Miles, WSRC, presented the feasibility study scoping for the D Area Oil Seepage Basin which is located one mile from Four Mile Creek. Mr. Miles explained the basin was used from 1952 to 1973 for disposal of oils, solvents and debris and in 1975 the basin was backfilled. Mr. Miles said an interim action was performed in 1996 to remove drums and debris. Bill Lawless asked about the unit size and depth to the water table. Mr. Miles said the size of the soil media requiring remediation due to methylene chloride is focused in a 50 ft x 50 ft area and the depth of contamination is about 6 feet below grade, (The basin proper covers an area of about an acre). Groundwater contamination as depicted by Trichloroethene ranges in depth from about 15 feet to 40 feet below grade.

Mr. Miles explained the contaminants of concern are those chemicals which are above what is considered a safe level (Remedial Goal Option, RGO) and will therefore need to be remediated or cleaned up. These contaminants of concern are methylene chloride in the soils and benzene, methylene chloride, dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride in the groundwater. The objective of the remedial action for the soils is to prevent release of methylene chloride to the groundwater above the maximum contaminant level, MCL (which is a level considered protective of human health). The remedial action objective for groundwater is to attain MCLs for the contaminants of concern in the groundwater. Mr. Miles reviewed the five soil remediation alternatives and the six remediation alternatives for groundwater and their respective costs. Bill Lawless asked about the path forward. Coleman Miles noted that no

decision had been made yet and the final decision will be one of alternatives in the proposed plan. Bill Lawless said that since this was a scoping meeting a motion was not needed at this time, but after the proposed plan was prepared a motion may be required.

Mr. Miles also reviewed the Bio-vent system which was installed at the D Area Oil Seepage Basin during the interim action in 1996 to introduce nutrients to stimulate microbial action to cleanup the soils. He noted that so far this system had proved most successful. Ms. McCracken (private citizen) asked if other sites or industries were using the bio-vent technology. Mr. Miles said bio-vent was not a new technology and it had been used at other places.

Mike Simmons, DOE-SR, gave an update on the remedial plans for the SRL Seepage Basins. He noted that if the normal cleanup process was followed it would be past the year 2,000 before any field work could begin. Mr. Simmons said characterization efforts are 98% complete at the basins and the validated data is under review. One major concern which Mr. Simmons noted was the contaminated vegetation which is a hazard to animals. Mr. Simmons said DOE is looking at a two stage approach to the remediation: a removal action for the contaminated vegetation and interim action record of decision for the soils.

Mr. Simmons said they were also planning a "Focus Group" comprised of local citizens, regulators, and a member from the CAB to look at the remedial alternatives for the basins and provide input to the project. It was noted that anyone interested in participating in the SRL Seepage Basins focus group could contact Mary Flora. Bill Lawless asked about the schedule for the project. Mr. Simmons said the focus group would meet in early May. Mr. Simmons said the time required for the interim action depended on how much soil had to be dug up and whether they used soil washing or in situ vitrification and whether or not they used volume reduction techniques. But, in any case, by utilizing an interim action instead of a final action they saved having to prepare a whole suite of documents and they would probably be in the field by mid-summer to early fall.

Joan Baum, DOE-SR gave a presentation on Watershed Remediation and the Integrator Operable Unit Project. A watershed is the geographic area in which water, sediments and dissolved materials drain to a common outlet such as a larger stream or river. Ms. Baum explained that the site has been divided into six watersheds and that a drop of water which falls into a particular watershed will eventually go to the main stream that drains the watershed. That main stream has the potential to transport contaminants from waste units into the Savannah River.

Ms. Baum explained that the SRS could be divided into seven integrator operable units for purposes of evaluation and risk determination. An integrator operable unit (IOU) is the main stream in a watershed that collects (integrates) surface water and groundwater discharge and transports the water beyond the watershed. Ms. Baum noted that each IOU on the Savannah River Site contains many waste sites. The SRS IOU project will evaluate the IOUs at a rate of two per year to determine the risk to human health and ecological receptors. The first of these, the Savannah River IOU evaluation report was completed September, 1996. Ms. Baum said the IOU evaluation strategy included compiling existing data from the extensive site monitoring of water, sediments, and fish and screening the data against risk-based benchmark values to identify

the contaminants of concern. Current risk assessments are performed and future stream loading and risks determined by using contaminant transport modeling.

Ms. Baum discussed the results of the Savannah River IOU report and noted that minimal impacts were found from SRS contaminants in the Savannah River. She presented graphs showing some of the contaminants that exceeded risk-based concentration and noted that contaminants such as phosphates and mercury were mostly from other industries in the area. Ms. McCracken (private citizen) asked how it was determined that some contaminants were from other sources. Charles Murphy, WSRC, noted it was determined by comparison of the data collected upstream and downstream of the site boundaries. Mr. Brent Allen of SCDHEC also noted that the State tracks and publishes regional water quality data and these documents are available.

Ms. Baum noted that CAB Recommendation #28 had requested that a consensus on remediation objectives for SRS be established between the three agencies. The Recommendation #28 also called for cleanup goals and assumptions including land use, and the use of cost-benefit analysis. Ms. Baum displayed the cleanup evaluation documentation required by federal regulations for the Old F Area Seepage Basin project (one of 467 waste units at SRS) and noted that the documents on the table represented \$3.1 million dollars and six years worth of effort before actual remediation could begin. Ms. Baum noted that with tightening budgets, SRS was having to look at finding the more cost effective ways to deal with the cleanup in order to reach the DOE 10-Year Plan goals and focus cleanup on high risk sites. And she noted that much progress had been made toward reaching more cost-effectiveness, but additional efforts still need to be explored.

Ms. Baum said that in addition to ASCAD streamlining, Plug-in RODs, and removal actions that the CAB was familiar with, one new concept being studied for acceleration of cleanup (that was consistent with CAB Recommendation #28) was the Watershed Remediation Approach. This approach is being used at Oak Ridge and is based on considering an entire watershed system including sources, migration pathways, and receptors, and land use. By looking at an entire watershed and reaching consensus early on the cleanup goals for the larger area, this approach allows DOE and the Regulators to focus resources on the actual cleanup work.

Ms. Baum then described how Oak Ridge had applied the watershed remediation concept by dividing their site into five watersheds. For each watershed, Remedial Goals were established by evaluating various cleanup approaches. At one end of the spectrum was cleaning all soil, groundwater and surface water to "greenfields". At the other end of the spectrum, the goal was to clean only the water leaving the watershed by placing a water treatment plant at the outlet point of the watershed to treat the contamination at the point where it left the site. Ms. Baum explained that this was a simplified theoretical model, the purpose of which was to have the parties focus on what were feasible and achievable goals, and that focused on quickly addressing the highest risk sites. This approach adds perspective by addressing remediation of many units as part of one system. This also prevents excessive analysis of individual low risk units such as rubble pits and piles and focuses the remedial activity on the units which are major contributors to mobile contamination that can create a health or ecological risk.

Ms. Baum noted that some of the lessons learned from Oak Ridge had been compiled into an idealized watershed approach. This approach includes eight steps including early involvement of regulators and public in deciding remedial goals for the watershed, determining presumptive remedies and early actions, and providing management briefings and public meetings. She mentioned that this concept was new and required a lot of thought before it could be implemented at the Savannah River Site.

Bill Lawless asked what the regulators thought about the watershed remediation approach. Ms. Baum responded that the concept was new to SCDHEC, but the EPA Region 4 (who was not represented at the meeting) had some problems with the approach. She stated that one issue might be related to the Oak Ridge proposal to reduce the number of Records of Decision (RODs) for the Oak Ridge site (which has over 600 waste units) to five RODs--one for each watershed. She stated that was why the "Idealized Watershed Approach", developed as a lessons learned at Oak Ridge, included forming a core team including the regulators from the beginning of the process to manage all parties' concerns.

Bill Lawless said he would like to have a motion on the Watershed Remediation Approach, and requested that Ms. Baum present this information to Ann Ragan (SCDHEC) and Jeff Crane (EPA) for feedback, and suggested that it be discussed with EPA and SCDHEC at the next subcommittee meeting in May.

Brian Hennessey, DOE-SR, gave an overview of the Federal Facility Agreement (FFA) Implementation Plan (FIP). Mr. Hennessey explained the purpose of the FIP was to describe in cookbook fashion, the protocols to implement the day today activities of the FFA, a sort of Roberts Rules of Order for the FFA. The FIP is also used to describe the the overall ER management strategies and goals, clarify FFA concepts, but it is not intended to duplicate the FFA or NCP working level documents. Mr. Hennessey explained the FIP was first drafted in 1996 and is revised on an as needed basis. The FIP is used by the SRS representatives at EPA (Jeff Crane), SCDHEC (Keith Collinsworth), and DOE (Brian Hennessey) to track what they will be working on and it contains detailed protocols for document development, review and approval of ER documents such as work plans, RFI/RI reports, Baseline Risk Assessments, and CMS/FS reports so that the documents will be consistent.

Mr. Hennessey said the FIP also describes the development of site risk models which are used to assess risk and the selection of contaminants of concern, remedial action objectives, and remedial goals. Mr. Hennessey noted that there was a FIP Bin list which recorded new processes and protocols that were either under development or planned for development. These included a refinement of a specific/detailed early action strategy, and RCRA permit modification administrative requirement protocols.

Tom Treger, DOE-SR, gave a presentation on the SRS Management Action Plan which is a summary ER strategy document similar to an annual report and describes the progress made in the current year and the planned actions for the next year. Mr. Treger explained that the MAP was originally required by DOE-HQ and now is also used to provide the public with an annual summary of ER activities and as a program tool for DOE and SRS. Mr. Treger explained how the MAP and the FFA, FIP, and the Ten Year Plan were utilized and he noted that the FIP and

the FFA were really the consensus working level documents that the three agencies used to conduct their day to day business. Mr. Treger noted that DOE was continually looking for ways to do the remediation work better, faster, and cheaper.

Mr. Treger described the new revision of the MAP as a fresh look at where the ER program is now. He said approximately 75 specific and general comments provided on the 1996 MAP had been evaluated for incorporation and overall the MAP is more readable and succinct. He noted that they could not address 467 waste units in detail in a programmatic document such as the MAP (the units are listed in tables in the MAP along with the project status) . Mr. Treger said there was a new task group which had been formed. The focus of this task group was to develop tactical ER planning for the next 1,000 days or three years to see what activities are needed to better fulfill the Ten Year Plan vision and goals.

Mr. Treger discussed a handout of specific comments on the MAP and said that comments requesting discussion of F- and H-Area groundwater cleanup phase II were determined not to be appropriate for a programmatic-level document such as the MAP. Mr. Treger said DOE had and would provide additional updates on the F and H Area groundwater cleanup to the CAB. Mr. Lawless noted that one of the intentions of the CAB Recommendations had been to ensure consensus with the regulatory agencies on projects such as F & H Area groundwater cleanup.

Mr. Treger said there working level documents that focus on specific project activities and issues. He stated that reaching consensus is part of the regulatory process for each individual project. Each project has its own specific physical, technical, and regulatory conditions which are evaluated and considered by the three parties. Mr. Treger noted that DOE was the lead agency in developing the MAP, but that the regulators were provided copies for their review and their input was welcome. Copies of the MAP were provided to the subcommittee and offered to attendees. Comments on the MAP from the public are requested by July 1st and final comments from the subcommittee are requested by August 1st. Bill Lawless requested that a copy of the MAP be provided to the ISPR team, headed by Joel Massmann, and an update be provided in July.

The meeting ended at 9:00p.m.

Meeting handouts may be obtained by calling the SRS CAB toll free number at 1-800-249-8155.