



SRS Citizens Advisory Board

Environmental Remediation & Waste Management Subcommittee

Meeting Summary

July 22, 1996

Aiken, S.C.

The SRS CAB's Environmental Remediation and Waste Management (ER&WM) Subcommittee met on July 22, 1996, at 7:00 at the Stevenson McClelland Building in Aiken, South Carolina. Bill Lawless and Kathryn May, Co-chairs of the Subcommittee, opened the meeting with introductions. CAB representatives present included Mr. Lawless, Kathryn May, Deborah Simone and Lane Parker. Representatives from the Department of Energy (DOE-SR) included Charlie Anderson, Larry Ling, Karen Poore, Ray Hannah, and Tim Henderson. Kelly Way represented Westinghouse Savannah River Company (WSRC); Kent Fortenberry represented the Defense Nuclear Facilities Safety Board (DNFSB); Steve Hevel represented Bechtel Savannah River Inc.(BSRI). Representatives from SCDHEC included Leigh Ann Williams and Ann Ragan. Interns from Savannah River, Regina Exum and Keysha Herbin, also attended. Charlie Anderson was the Associate Designated Deputy Federal Official.

Mr. Lawless welcomed the attendees, announced the meeting agenda for the evening, and turned the meeting over to Kathryn May who briefly discussed the Tritium Health Effects Studies, (see attached slides). Ms. May pointed out that the National Institute for Occupational Safety & Health and the Consortium for Risk Evaluation with Stakeholder Participation are developing studies. A final report is expected in late 1998.

Mr. Lawless then turned the program over to Charlie Anderson for an update on Tank Closure (see attached slides). Mr. Anderson gave a quick status and schedule of Tank Closure. The final HLW Tank Closure Plan and the Environmental Assessment have been delivered to SCDHEC and EPA. SR expects to receive approval of the HLW Tank Closure Plan by July 31, 1996. Ann Ragan emphasized that DHEC has been reviewing the report as each draft has been delivered. The individual Tank 20 Closure Module will be delivered to DHEC by August 30, 1996. When questioned by Mr. Lawless, Mr. Anderson pointed out that a Closure Module will be done for each tank cluster. Mr. Lawless suggested SR consider developing a closure plan for a cluster of tanks when possible to cut down on the paper work.

Mr. Lawless also questioned the public reaction to such an aggressive schedule, i.e. pour grout by September 30, 1996, and close tank 20 by December 31, 1996. Mr. Anderson noted that SR did hold a public information meeting on the HLW Tank Closure Plan and that the Environmental Assessment was issued for public comment. Mr. Anderson explained that a

response document is being prepared and will be sent to all who commented on the HLW Tank Closure Plan or the Environmental Assessment.

Mr. Lawless pointed out that the Three Rivers Solid Waste Authority Regional Waste Management Center Environmental Assessment would be an excellent model to follow in terms of public participation. Ann Ragan emphasized that the Tank Closure Schedule is a much tighter schedule than the TRSWA Schedule. Mr. Lawless agreed the HLW Tank Closure initiative should not slow down but suggested Mr. Anderson look at the TRSWA initiative and consider this approach when doing public outreach. It would be possible to follow this model concurrent with and independent of SR actions with tanks. This could be done by sending out draft responses to the public questions and comments, letting the public review and comment further, revising the document, and publishing the results.

Mr. Anderson stated that SR has been working with the Nuclear Regulatory Commission and expects concurrence on the Incidental Waste Classification. Mr. Anderson also noted that SR is in the process of verification of the reducing grout formulation. Mr. Lawless questioned the purpose of "reducing grout", the different types of grout in the tanks; and the weight effect on the tanks. Mr. Ling explained the reducing grout, or "smart grout", will be poured into the tanks first and will chemically prevent migration of residual waste left in the tanks. Concrete low strength material (CLSM), an engineered backfill cement, will be poured next, and finally a high strength cement will be poured. No weight problem is anticipated. Transport lines to and from tanks will be cut and capped.

Ms. May and Mr. Lawless questioned the amount of residual waste left in the tanks and suggested the radioactivity in the waste be quantified and included in the closure plans. They also questioned the bonding capability of the grout with the waste.

Mr. Lawless asked for reactions from the scientific communities to the closure plans and schedules. Mr. Ling stated that most scientists are amazed that we have gotten this far this quickly. Mr. Anderson added that SR has been working with the NRC, EPA, and DHEC, and that they are supportive. He also noted other sites are interested in SR's work with and support from the regulators.

Mr. Lawless asked Mr. Anderson what outside groups had reviewed the HLW Tank Closure Plan and noted that Joel Massmann from the University of Washington is currently reviewing it. Mr. Anderson and Mr. Ling stated that all of the following groups and sites have worked with SRS on Tank Closure: EPA, DHEC, Nuclear Regulatory Commission, West Valley, Hanford, Idaho National Environmental Labs, Oak Ridge, and the DOE complex wide Technology Development Tank Focus Group. Ann Ragan added that early in the process, SR recognized there were no commercial industries with High Level Waste to compare to. Mr. Lawless asked Mr. Anderson to consider an Independent Scientific Peer Review of the Tank 20 document after it has been drafted to ensure SR does not overlook anything from a technical perspective.

Next Mr. Anderson showed a video of the waste being removed from the inside of Tank 20. Mr. Lawless emphasized the educational potential of the tape, and suggested that the tape be developed into an educational video. He also suggested High Level Waste take advantage of the

Internet, the "World Wide Web", SRS home page, DOE homepage, and local news stations to disseminate the "High Level Waste Story".

Mr. Anderson then asked if he could move on to new issues, and introduced a new alternative disposal method for saltstone. Construction of the present saltstone vaults cost about \$20 million dollars a vault. With the emphasis on cost effectiveness, Mr. Anderson outlined plans for an alternative disposal method, an engineered industrial landfill. These future landfill units, a total of 15 twelve-celled units will hold 13 million gallons of salt solution from ITP and ETF. The estimated cost of each landfill unit is \$3 to \$5 million. Under the alternative disposal method, there is a potential \$221 million dollar savings.

Ms. Ragan pointed out that the original vaults are overly designed and that these new vaults are more in line with commercial costs and designs. Ms. May asked for an explanation of where the cost savings were. Mr. Anderson pointed out that the costs of construction and concrete for the current vaults is very expensive. Costs of construction of new design engineered landfill units would be much less since earthen berm would be used instead of concrete.

When Mr. Lawless asked about water penetration, Mr. Anderson stated the clay capping and covering of the cells would remain the same as the capping and covering of the present vaults. Mr. Lawless also asked if the engineered landfill units would provide equivalent protection to the public. Mr. Anderson confirmed that they would be designed to ensure the same level of protection. The savings from the new cells could possibly be used for tank closure costs. The design involves a large bladder with earth berm around it. Saltstone would be poured into the bladder with a closure over this. However, Mr. Anderson emphasized that the plans are still in the preliminary stages.

A member of the public questioned the strength of this bladder as a container for the saltstone and Mr. Lawless inquired about the possibility of French drains. Mr. Anderson pointed out that there is a layer of clay under each bladder, the original design calls for drains between each vault, and SRS expects similar drains around the land fill design. The bladder material is exceptionally strong.

Mr. Lawless asked that the DOE make a presentation to the ER&WM subcommittee in August on these new engineered industrial landfills in time to present a motion to the full CAB in September. Mr. Lawless then asked for questions or comments and closed out this discussion.

Mr. Lawless briefly previewed future issues to be added to the ER&WM subcommittee agenda. Because of concerns from other organizations, the ER & WM subcommittee is going to examine the fish advisory. This issue will be examined in a Beech Island/SRS area subcommittee meeting. A subcommittee meeting to discuss the alternative storage for saltstone has been scheduled for Saturday, August 24, 1996, from 11:30 - 2:30, in the Town Hall building on Hilton Head Island.

Mr. Lawless then closed the meeting and thanked those attending.

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