



SRS Citizens Advisory Board

Waste Management Committee

Meeting Summary

June 27, 2000
Holiday Inn
Beaufort, SC

The Waste Management Committee (WMC) met on Tuesday, June 27, 2000, at 2:30 p.m., at the Holiday Inn, Beaufort, SC. Attendance was as follows:

CAB Members

Wade Waters*
Georgia Leverett*
Ken Goad
Rebecca Gaston-Dawson*
William Lawrence*
Perry Holcomb*
Bill Vogele
P.K. Smith
Kathryn May
Brendolyn Jenkins
Murray Riley
Bill Adams
Jimmy Mackey
Beaurine Wilkins
Maria Reichmanis
Jean Sulc
Bill Willoughby
Karen Patterson**
Lola Richardson**

Stakeholders

Jim Laplander
Rick McLeod
John Phillips
Ed Saxon
Tony Tucker
Brandon Haddock
Howard Dawson
Lynn Waishwell
Bob Newman

DOE/Contractors

Gerri Flemming, DOE
Virgil Sauls, DOE
Ray Hannah, DOE
Julie Petersen, DOE
Clay Jones, WSRC
Mary Flora, WSRC
Paul Sauerborn, WSRC
Bruce Cadotte, WSRC
Helen Villasor, WSRC

Regulators

Keith Collinsworth, SCDHEC
Sandra Threatt, SCDHEC

*Denotes committee member

**Denotes absent committee member

Wade Waters opened the meeting by welcoming the attendees. Mr. Waters announced that the presentation on the "Disposal of Environmental Job Control Waste to E Area" was cancelled due to illness of the presenter. The topic will be rescheduled for another date.

Consolidated Incineration Facility (CIF) Draft Motion Review: Wade Waters opened the CIF draft motion review by stating that two draft motions had been prepared. The first motion addresses the formation of a CIF focus group, and the second, a path forward for CIF. Mr. Waters said that instead of the two motions, a better option would be to review only the focus group draft motion and use the other as a support document. Citing a budget presentation made to the CAB in February 2000, Mr. Waters said that if CAB members had looked more closely at the budget figures then, they would have not been surprised when they learned in March that DOE had made the decision to suspend CIF operations. In retrospect, Mr. Waters said SRS had a shortfall in funding, and approximately \$18 million had been taken away. Recognizing DOE's decision to suspend CIF operations, and the possibility that DOE-SR may not have full information regarding the future of incineration, Mr. Waters said the Waste Management Committee (WMC) decided the right thing to do now is to form a focus group to track and report on the activities surrounding incineration and the future of CIF.

Mr. Waters read excerpts from an article written by Jennifer Langston that appeared in the *Idaho Falls Post Register* on April 2, 2000. The article entitled, "The end of incineration? – Fresh from another incineration defeat, DOE forced to look at other alternatives", discusses the methods that environmentalists and watchdog groups used "to kill nuclear waste incinerators". Mr. Waters said that in view of the great deal of information the CAB will need to provide DOE with meaningful input in the identification and review process of alternative waste treatment methods and in the decision-making process on the future status/operations of CIF, a focus group is necessary. The focus group can track relative CIF issues and report back to the CAB on one of the most important concerns – SRS's PUREX waste stream.

Mr. Waters asked CAB and WMC member, Perry Holcomb to describe PUREX and its potential threat to SRS. Mr. Holcomb explained that PUREX is a chemical process that takes place in the F and H Canyons where plutonium and uranium is separated from fission products such as cesium 137 and strontium 90 and, from each other by solvent extraction. The resulting plutonium and uranium, two of the three principal SRS products, end up in relatively pure solutions.

To explain the operation of the PUREX solvent extraction process, Mr. Holcomb used the analogy of an oil and vinegar salad dressing that does not mix until shaken. The vinegar, or aqueous phase, would be the chemical solution of plutonium and uranium and fission products, and the oil, which is less dense, would represent the PUREX solvent. "In the early days of PUREX," Mr. Holcomb said, "the spent solvent retained more 'dobads', i.e., fission products, as well as more of the intensely-radioactive, alpha-emitting plutonium –238. Therefore, several thousand gallons were highly contaminated and posed a disposal/storage problem for SRS." Mr. Holcomb explained further that another large threat to SRS is that during incineration of PUREX at CIF, there is always the possibility of a line break. With no walls surrounding the facility, a line break would introduce alpha emitters (principally from the plutonium-238 content of the PUREX) to the atmosphere. Mr. Holcomb explained that the current 50:1 dilution of the waste solvent that takes place prior to burning is done so as to prevent a significant alpha-contamination incident if a line break were to occur.

Illustrating further his concern regarding DOE's apparent move away from incineration, Mr. Waters asked Rick McLeod, the CAB's technical advisor to explain the "blue ribbon" panel and the *Keep Yellowstone Nuclear Free* argument that evolved between a citizens group and DOE. The legal argument developed because of the proposed development and operation of a mixed waste incinerator at Idaho National Engineering and Environmental Laboratory (INEEL). Mr. McLeod said that in a legal agreement, DOE committed to the goal of identifying both regulatory and technological alternatives to incineration. As part of the agreement, DOE is establishing a "blue ribbon" panel of independent scientific experts to explore technological alternatives to incineration.

In discussing the draft motion, Mr. Waters noted that he was trying to provide CAB members with an idea of the serious impacts regarding suspension of CIF, the uncertainty of incineration as a complex-

wide treatment technology, and the threats posed if SRS is unable to dispose of its PUREX waste stream. Mr. Waters acknowledged that while he recognizes CIF is being shut down, he would still like to see it run and continue to burn PUREX in order to dispose of the legacy waste stream. Ray Hannah said that DOE's goal is to find an alternative technology and still be able to meet the Site Treatment Plan commitment to treat the PUREX by 2009.

Brendolyn Jenkins said that at the June 5, 2000 CIF Workshop, no one had an idea of any alternatives and now Ms. Jenkins was hearing of alternatives and asked where they were coming from. Ms. Jenkins also asked if DOE was talking about privatization. Mr. Hannah said that some of the alternatives the CIF Systems Team has been addressing could include bringing a small incinerator to SRS, bioremediation, and polymer stabilization techniques. Keith Collinworth said that if SRS had a volume of 35,000 gallons, with another 100,000 gallons still in the canyons that can't be classified as waste until used, burning at the current rate of 5,000 gallons a year, CIF could continue operating until 2005. When Maria Reichmanis asked if any of these technologies have been proven, Mr. Hannah said that the System Team initiated investigations into alternative treatment technologies only one month ago. Ms. Jenkins asked if the decision to suspend CIF operations was "set in stone" and requested a concrete cost analysis to determine how much money is actually being spent for suspension. Ms. Jenkins said that the second motion speaks to her question of shutdown and noted that in it, the CAB is asking for a reversal of the decision. Clay Jones told Ms. Jenkins that for those items that SRS manages, better numbers would be made available; however, alternative treatment methods cannot be estimated since there is no defined alternative yet.

In closing, Mr. Waters encouraged CAB members to read their packages of information carefully to learn more about the implications of the CIF suspension. Mr. Waters also noted that the CAB would be asked to vote on establishing the CIF Focus Group at its July 25, 2000 meeting.

Issues: Has a risk analysis been performed on the CIF suspension? Would repermitting the facility be more stringent in 2005? If the current permit is withdrawn by the South Carolina Department of Health and Environmental Control (SCDHEC) would the suspension then become a final closure operation?

Actions: Clay Jones is to provide Brendolyn Jenkins with numbers more closely related to the suspension of CIF operations. Rick McLeod to make minor corrections to CIF Focus Group draft motion.

Ship Low Level Wastes (LLW) to Nevada Test Site (NTS): Virgil Sauls presented an update on two presentations that had been made to the CAB in March regarding the shipment of certain LLW offsite. Since that time, the Waste Management Programmatic Environmental Impact Statement (WMPEIS) Record of Decision (ROD) has been issued and now allows for the shipment of LLW that are not economically or technically practical to dispose at SRS to offsite facilities – both DOE and commercial. Plans are underway to begin shipments to NTS for orphan LLW that do not meet the SRS Waste Acceptance Criteria (WAC). An estimated 200,000 cubic feet of LLW is scheduled to leave SRS for NTS. However, five years ago, SRS issued a site-specific EIS that addressed disposal of LLW at SRS because at that time there were no other options. SRS will now begin the process to issue another ROD on its preference to ship the waste offsite and include its own procedures as well as a program to satisfy NTS procedures. Before the ROD can be issued, an Environmental Assessment (EA) specific to SRS shipments to NTS has to be performed. Additionally, the NTS Waste Certification Program must be completed; waste profiles, waste certification, and shipping procedures must be prepared; SRS must prepare for a NTS audit; and a contract for transportation must be granted.

These wastes include tritium-contaminated debris from the decommissioning of 232-F. While the waste could be placed in the E-Area Vaults, it would be an ineffective method because valuable and expensive vault space would be used up. Since this waste also does not meet the E-Area Trench WAC limits, it can not be disposed in the E-Area Trenches. Another identified waste stream is the Iodine-129

contaminated resin and media (from the F&H Groundwater Treatment Facilities). Mr. Sauls said this waste could also be disposed onsite; however, the Iodine-129 levels of radioactivity are too high and would use up the radionuclide content for the vaults. The third waste stream scheduled for offsite shipment includes Iodine-129 Contaminated Effluent Treatment Facility activated carbon vessels. Several of the vessels can be disposed in vaults now, but not the total inventory because six vessels would use 24 percent of vault curie inventory limit. Because the size of the vessels (weight 45,400 lbs., 16 ft. high x 10 ft. diameter) presents shipping problems, consideration is being given to slurring the Iodine-129 into B-12 or B-25 boxes. Mr. Sauls concluded his presentation by providing the LLW to NTS schedule and said the first shipment will begin in April 2001.

When Perry Holcomb asked who had run the analyses of the Iodine-129, Mr. Sauls replied that a subcontractor had run them. Mr. Holcomb said that the Iodine-129 numbers should be closely scrutinized because low level Iodine-129 analysis is one of the most difficult radiochemical analyses to perform. Mr. Holcomb also asked if the waste materials in the Sealand containers were secondarily contained, which brought up the issue of containment during shipping.

Issues: Does the tritium-contaminated debris from 232-F that currently resides in Sealands need to be repackaged for shipment?

Actions: DOE to ensure that the lab samples of Iodine-129 are correct numbers. Mr. Sauls invited to present shipping waste to NTS topic to the full board on July 25, 2000.

Environmental Assessment (EA) for Shipment of SRS LLW/Mixed LLW to Commercial Vendors or DOE Sites for Treatment and/or Disposal: Virgil Sauls presented information on the EA that is being prepared for shipping SRS wastes to either commercial or any DOE facility since the PEIS originally did not cover commercial disposal facilities. The EA is required prior to start of LLW/MLLW shipments for treatment and disposal offsite. Mr. Sauls also provided the schedule, which is to:

- Prepare draft by June 27, 2000
- DOE-SR Review by July 11, 2000
- 30-Day Public Comment Period July 19 – August 17, 2000
- Approval of Finding of No Significant Impact (FONSI) by DOE-SR by September 8, 2000
- Copy and Distribute EA and FONSI by September 2000
- WMPEIS ROD No. 3 by December 2000

Issues: Possible slip of the National Environmental Policy Act (NEPA) date for the public comment period.

Actions: Request extension if necessary to allow CAB input to the EA. The WMC is to prepare a draft motion to provide as public comment for the EA. Mr. Sauls invited to present this topic to the full board on July 25, 2000.

Public Comments: Perry Holcomb expressed his opinion regarding a news item concerning President Bill Clinton and Secretary of Energy Bill Richardson's recent visit to the Ukraine. Mr. Holcomb said that during the visit, the United States had given the Russian government \$80 million to "ensure proper entombment of Chernobyl". Mr. Holcomb said this gesture made him angry and he hoped that the money was not coming from DOE's budget.

With no other public comments, Wade Waters thanked everyone for attending and then adjourned the day's meeting at 4:30 p.m.

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