



SRS Citizens Advisory Board

Combined Committees Meeting

Meeting Summary

May 22, 2001
Holiday Inn Midtown
Savannah, GA

The following were in attendance at the May 22, 2001, Combined Committee meeting held at the Holiday Inn Midtown, Savannah, GA.

CAB Members

David Adcock
Meryl Alalof
Nancy Ann Ciehanski
Beckie Dawson
Gerald Devitt
Ken Goad
Perry Holcomb
Brendolyn Jenkins
William Lawrence
J.G. Long
Jimmy Mackey
Karen Patterson
Maria Reichmanis
Murray Riley
Heather Simmons
Jean Sulc
Bill Vogele
Wade Waters
Carolyn Williams
Bill Willoughby

Stakeholders

Mimi Witherington
Lee Poe
Heather Holland
Mike French
Mildred McClain

Regulators

Keith Collinsworth, SCDHEC
Don Siron, SCDHEC

DOE/Contractors

Tom Heenan, DOE
Charlie Anderson, DOE
Howard Gnann, DOE
Julie Petersen, DOE
Rod Rimando, DOE
de'Lisa Bratcher, DOE
George Mishra, DOE
John Lindsay, WSRC
Clay Jones, WSRC
Teresa Haas, WSRC
Sonny Goldston, BNFL
Bernie Mayancsik, BNFL
Ed McNamee, BSRI
Bruce Lawrence, WSRC
Paul Sauerborn, WSRC
Donna Martin, WSRC
Helen Villasor, WSRC
Jim Moore, WSRC
Mike Schoener, MAS Consultants, Inc.

SRS CAB Members Sallie Connah, Mel Galin, Vera Jordan, and Lola Richardson were not in attendance.

The objective of the meeting was to hear a presentation on effective public outreach, 2002 – 2003 budget discussions, Old Radioactive Waste Burial Ground (ORWBG) Focus Group Final Report, Defense Nuclear Facilities Safety Board (DNFSB) 94/2000-1 progress, Americium Curium (Am/Cm)

project update, Salt Processing Focus Group update, Site Treatment Plan update and shipment of low-level waste (LLW) to the Nevada Test Site (NTS).

Mike Schoener facilitated the meeting. He stated that both Mel Galin and Lola Richardson were in the hospital and get well cards were circulated for signature. Karen Patterson, CAB Chair, stated that Walter Becker resigned from the CAB and the Board could appoint by acclamation a replacement. By voice vote, which was unanimous, the runner-up candidate Marty Stringer was appointed to replace Mr. Becker. Tom Heenan, DOE, presented Mr. Stringer with his appointment letter.

Effective Public Outreach

Dr. Mildred McClain, Citizens for Environmental Justice (CFEJ), reviewed the primary role of CFEJ which is to get regular people who don't normally participate in SRS activities to take an active role in decision-making. The CFEJ helps the people understand why their involvement is important. Dr. McClain reviewed the methods used to reach these people. She explained the success of the program over the years and encouraged the CAB to work with the CFEJ to improve the program.

Strategic and Long Term Issues (S<I) Committee Report

Bill Vogeles, Vice Chair of the S<I Committee, reminded everyone that the Stewardship Subcommittee would meet on June 12, 6:00 p.m. Locations for the videoconference are the Savannah River Ecology Lab, Fort Discovery, Augusta, and Savannah State, Savannah, GA.

Tom Heenan, DOE, provided an overview of the budget process, noting the site is currently focused on staying productive and completing the mission for 2001. Mr. Heenan explained that because of the change in administration, the transition period for this administration was compressed on the front end making it two months late. Mr. Heenan directed participants to the various pieces of correspondence related to the 2002 budget in their handouts. Mr. Heenan reviewed the budget resolution process noting the budget is in the process of negotiation.

A significant activity for SRS is the top-to-bottom assessment of the Environmental Management program to identify ways to reduce the costs and schedule for the program. The first phase will involve the managers and contractors at the sites. The second phase will involve the regulators and stakeholders and should be complete in August.

Karen Patterson volunteered to initiate a letter to Secretary Abraham to request that members of the SRS CAB and public be selected to participate on the teams for the Department reviews.

Mr. Heenan referenced the document *From Waste to Wilderness* by Robert H. Nelson. In reviewing the document, the members of the public and CAB at SRS seem to be in agreement with the document and Mr. Heenan pointed out various recommendations approved by the CAB that supported these ideas.

At this time in the budget process, the site is reviewing the many scenarios and remaining flexible. The budget process is on going with continuing negotiations.

Environmental Restoration (ER) Committee Report

Jimmy Mackey, ER Committee Chair introduced Lee Poe, technical lead for the Old Radioactive Waste Burial Ground (ORWBG) Focus Group (FG). Mr. Poe stated that what he is presenting was the culmination of a 2.5 year study by members of the ORWBG FG on the risks presented by the

ORWBG, and draws conclusions and makes recommendations on needed remediation of the ORWBG. The FG also reviewed SRS and regulator documents on planned remediation. Mr. Poe stated the goals of the FG were twofold:

1. Cleanup/remediation should be performed only if human health consequences and risk posed by the ORWBG are significant.
2. Remedial actions should provide significant improvement in human health and be cost effective.

As far as the objectives of the FG there were two:

1. To determine if ORWBG currently causes or will cause future health risks.
2. Identify risk migration if risk levels cause significant human health risks now or could cause them in the future.

Mr. Poe identified the following report status and plans:

- The report is now complete
- Copies of the report will be distributed to DOE, WSRC, SCDHEC, and EPA for technical accuracy review in the next several days
- Copies will be distributed to ER committee for information
- Technical accuracy and ER Committee comments will be returned to FG for consideration and incorporation by June 6, 2001
- Present the Final CAB Recommendation to the ER Committee at the June ER Committee Meeting (June 19, 2001)
- Issue Report on July 1, 2001
- Present Final CAB Recommendation at the ER Committee meeting July 23, 2001
- ER Committee presents proposed ORWBG Recommendation to the CAB for acceptance on July 24, 2001

Mr. Poe identified all the participants of the FG and the layout of the FG report. Mr. Poe stated that the FG report summary, conclusions and recommendation were as follows:

Summary

- No health effects to individuals from ORWBG contaminants released to water now or in the future
- Institutional Controls must be maintained
- No health effects from contaminants left buried in the ORWBG with Institutional Controls
- Institutional Controls eliminates the need for regulatory actions

Conclusion

- Institutional Controls are part of the Long Term Stewardship Program and the Land Use Control Assurance Plan. Needed controls for the ORWBG should be institutionalized soon.
- ORWBG does need some remediation. Needed remediation is not what is proposed by SRS.

Report proposed remediation is to

- stabilize and cover solvent tanks with low permeability clay soil cover

- develop and implement a land management concept to ensure minimal surface erosion and keeps deep-rooted plants and burrowing animals off the surface of the ORWBG

Recommendations

1. Establish a mixing zone for the ORWBG groundwater plume considering the controls provided active and passive institutional controls (IC).
2. Cease the current collection of tritium containing groundwater and irrigation of SRS forests ASAP
3. Develop IC for ORWBG and the area between ORWBG and FMB
4. Fill solvent tanks with grout and cover the portion of the ORWBG with low permeability soil to match the rest of the ORWBG.
5. Develop a land management strategy to minimize erosion, prevent deep-rooted plants from encroaching, and discourage burrowing animals and insects from bringing water to the surface.
6. Consider refining the groundwater transport calculations for Volatile Organic Compounds and other constituents of interest to be consistent with measured concentrations in the groundwater.
7. Do not excavate buried waste form the ORWBG.
8. Do not develop remedial actions (except to minimize immediate risks) until both active and passive IC's have been developed. Stewardship and land Use Control Assurance programs should establish future land use and needs for controls on the land

Perry Holcomb suggested that the parts of the FG final report specific to certain organizations on site be sent to those organizations for review. Mr. Poe indicated that the approach was to send the final report to Ed McNamee and he would handle that part of the circulation and responses. Jimmy Mackey stated that the report was outstanding and that the participants worked long and hard to the point to which it is today, however, he had a few issues to be resolved before taking the report forward to the ER Committee and the CAB.

Nuclear Materials (NM) Committee Report

Mr. Gnann, newly appointed Deputy Assistant Manager for Material and Facility Stabilization, reviewed the plutonium packaging and stabilization program plans that is to put both the plutonium metal and oxide into 3013 canisters. The systems will be installed in building 235-F with project completion in January 2007 and stabilization completion in June 2008. To satisfy a DNFSB request, the site is developing scope and estimate to use the FB-Line. The biggest drawback with using the FB-Line is that bad canisters could not be repaired. It was requested that a presentation be given at a future meeting on the storage of plutonium for mixed oxide fuel (MOX) as well as an overall plutonium update.

Americium/Curium (Am/Cm) Program

Mr. Gnann provided a second presentation on the status of the americium/curium (Am/Cm) program. He said DOE made a decision in 1995 in the Interim Management of Nuclear Materials Environmental Impact Statement (EIS) to vitrify the material in the F Canyon. At that time, SRS was making arrangements to send the vitrified material to Oak Ridge to store for programmatic purposes.

The current project to vitrify the Am/Cm is estimated to cost approximately \$129 million. It has been rebaselined, and as a result of major problems with the in-cell equipment, the costs have gone up significantly and the completion time is projected to extend beyond the milestone established in response to the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2000-1.

With the changes in cost and schedule, plus two other factors—DOE declaring the material excess and a new requirement that material be in a form suitable for a geologic repository—DOE is seriously evaluating a new option to stabilize the material. WSRC submitted a recommendation to DOE on May 1, 2001 to send the material through the high level waste system.

In this alternative approach, the Am/Cm would be directly transferred from F Canyon and stored in Tank 51 as feed for Sludge Batch 3 for the Defense Waste Processing Facility (DWPF). Mr. Gnann said this option looks more feasible because the Am/Cm can begin vitrification much earlier than 2005 and the cost is lower at only \$25 - \$50 million. The project would involve both tank farms and can be accomplished within current operations.

Mr. Gnann said the CAB was notified immediately of the potential change in project status. After reviewing the initial report, DOE sent a letter to WSRC authorizing the contractor to proceed with further study and development of the alternative. On May 21, DOE met with the DNFSB to discuss the HLW alternative and on May 30, the Energy Systems Acquisition Advisory Board will decide if work should be temporarily suspended on the current vitrification approach.

Jimmy Mackey, CAB, asked that DOE give an update on a monitor that was developed for the Am/Cm vitrification project.

Concerning the potential change in project status, Gnann said DOE was discussing the matter with the DNFSB. The DNFSB's concerns centered on whether the material should be labeled as excess and the relative risk of sending the material through the tanks farms instead of the canyons.

Gnann said the option of sending the material through the tank farms will be pursued further. An earlier start date for vitrification could also be achieved. The option was evaluated in an environmental impact statement in 1995 and if the path were favorable, DOE would issue an amended Record of Decision (ROD) to implement the option.

Bill Willoughby, CAB, said he did not believe DOE could meet an earlier vitrification date and complete all of the necessary National Environmental Policy Act (NEPA) requirements of conducting evaluations and offering public comment. Clay Jones, WSRC, pointed out again that the alternative was evaluated in a previous EIS.

Perry Holcomb, CAB member who worked at SRS for many years, said he believes the CAB should send a letter to Dr. Darlene C. Hoffman, Head of Heavy Elements Research at the University of Berkley to see if the Department would be interested in the Am/Cm and if she considered the material valuable.

Mike French, public, said DOE stated in an earlier meeting that a list of potential customers were asked if they were interested in the material. However, he did not know how the letter was phrased (i.e., would an organization have to pay for it)

Lee Poe, public, asked that DOE-SR provide a copy of the letter and the list of organizations receiving the letter. Poe said he is concerned that the Am/Cm cannot be recreated, but he also very concerned with the safety of the waste in the tank farms. He requested a copy of the Safety Analysis, stating that an earlier document was a Hazard Analysis and not as detailed. He also pointed out that the WSRC recommendation report sent to DOE contained 90% focus on safety of the canyons and canyon work and only 10% on the HLW system.

Gnann said DOE believes the material can be transported safety between the canyon and tank. He emphasized that DOE-SR has been and will continue to be up front and clearly communicate information to the DNFSB and the CAB.

Several CAB members said the material should be retrievable for future generations if a need is identified. Holcomb added that the original plan was to vitrify the Am/Cm in a glass more soluble than the DWPF glass and then to ship the material for storage at Oak Ridge.

At the end of the presentation, the attendees agreed to develop a list of questions to be forwarded to DOE for a response prior to the July 23-24 full CAB meeting. The NM committee took action to compile questions identified at the May 22 meeting and add additional if necessary. Questions and requests from the May 22 Combined CAB meeting are attached.

Administrative Item

Beckie Dawson, Vice Chair of the Administrative Committee, reported that the membership drive is approaching. She encourages all CAB members to solicit new interested prospective members. Each CAB member will be mailed five applications.

Waste Management (WM) Committee

Wade Waters opened the WMC portion of the Combined Meeting by noting two recent SRS successes that the CAB had taken part in. First, Mr. Waters cited the Spring 2001, SRS CAB *Board Beat* headline story on the engineered trench that is now operational at SRS. Mr. Waters said the CAB should feel extremely proud because its stakeholder involvement has enabled SRS to begin disposal of low-level waste with extremely low radioactive content in the engineered trench while still protecting the environment and the public. Secondly, Mr. Waters highlighted SRS's first shipment of transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico, which occurred on May 8, 2001. Mr. Waters noted that seven CAB members attended at the official Ship to WIPP media event and thanked them for taking time in their busy day to attend the event. Copies of photographs of the attending CAB members, signed by Mr. Tom Heenan were presented to the CAB members.

Mr. Waters also mentioned that a video of the Oak Ridge Site-Specific Advisory Board Waste Management Committee meeting of March 21, 2001 was available to anyone who wanted to view it. Because of a request made by Karen Patterson, CAB Chair and also a member of the Consolidated Incineration Facility (CIF) Focus Group, sites within the DOE complex that have incinerators are exchanging information in an attempt to better understand the issues surrounding incineration. Mr. Waters then introduced Sonny Goldston, who narrated a 12-minute video on the preparations for shipping TRU waste to WIPP. In the video, the attendees were able to see firsthand how the TRUPACT II reusable containers are safely loaded and prepared to meet Department of Transportation criteria for interstate shipping of SRS's TRU waste.

Salt Process Focus Group (SPFG) Update

Lee Poe presented an update on recent SPFG activities, which included the status of the technology selection for the processes to be used to process the salt solution; the Salt Process Supplemental Environmental Impact Statement (SEIS); and the Salt Processing path forward.

In discussing the technology development stages, Mr. Poe said it was important to disregard any reference to the word "eliminate" in his handout and instead substitute the word, "mitigate". Therefore, Mr. Poe said that by April 2001, high risk elements had been mitigated; in June 2001, research and development (R&D) was required to support conceptual design; and by 2004, R&D support for final design would be implemented.

Mr. Poe then reviewed the salt decontamination technologies being developed, which include the Crystalline Silicotitanate (CST) Non-elutable Ion Exchange, Small Tank Tetraphenylborate (TPB) Precipitation, and Caustic Side Solvent Extraction. Mr. Poe emphasized that technology is also

being developed for alpha removal, which would be applicable to all three technologies, however, he added that Direct Disposal is not being researched at this time. Charlie Anderson clarified that Direct Disposal would not require technology development.

Discussing first the mitigation of high-risk elements, Mr. Poe said that all high-risk elements (i.e., no show stoppers relative to process viability) development has been completed and the results are being evaluated. Technology development is proceeding to support the conceptual design of the plants for the alternatives, and technology down-select is scheduled for completion in June. On the SEIS, Mr. Poe said that the Draft SEIS was issued in March 2001 and public meetings were held May 1 and 3. The public comment period closed May 14, 2001. The Final SEIS is scheduled for issue on June 29, 2001, and the Record of Decision (ROD) is scheduled for issue on July 30, 2001. The Final SEIS will have a preferred alternative technology and the ROD will document DOE's decision on which technology has been selected for continuation for conceptual design.

Mr. Poe noted that members of the Salt Process Focus Group reviewed the Draft SEIS and prepared individual comments. The Focus Group then met and compiled consensus comments that were documented in a letter sent by Wade Waters to DOE on May 9. Mr. Poe said that because the Salt Process Focus Group considers the processing schedule important, the members are requesting DOE to provide a briefing to the Focus Group in 30 to 45 days rather than waiting for the Final SEIS to be published. The Focus Group believes that this expeditious response will provide members with a head start in understanding the DOE approach and also reduce the dialog needed to understand the approach.

In conclusion, Mr. Poe said that while the program is progressing satisfactorily, it is complex and involves a large number of different organizations. The R&D program also appears to be progressing according to schedule (i.e., all high-risk elements mitigated) and the date for the alternative selection has not slipped from June 1, 2001. However, Mr. Poe reiterated that the program is complex and has possibilities for schedule delays that may affect the final schedule and require shutdown of vitrification. Mr. Poe emphasized that DOE should continue to work aggressively to ensure that delays do not occur.

Site Treatment Plan Status

Bruce Lawrence began his presentation by introducing the Site Treatment Plan (STP) and providing the background of the regulatory-driven document. In addressing the Federal Facility Compliance Act of 1992, Mr. Lawrence said that government facilities are subject to Resource Conservation and Recovery Act (RCRA) fines; therefore, to provide compliance for ongoing storage of mixed waste (MW) all DOE facilities were required to prepare a STP. For SRS, the STP/Consent Order is signed by the South Carolina Department of Health and Environmental Control (SCDHEC) and contains milestone commitments for mixed waste (MW) treatment. An annual update of the STP is required, however, with SCDHEC approval, Mr. Lawrence said milestones can be and sometimes are modified as necessary.

To better explain how STP commitments work, Mr. Lawrence discussed the Defense Waste Processing Facility (DWPF) and said that SRS's commitment is to maintain canister production sufficient to meet commitment for removal of waste by 2028. DWPF is on target to meeting this commitment, assuming there will not be a change in the Salt Waste Processing schedule. To date, Mr. Lawrence said 1,103 canisters have been poured.

In his next example, Mr. Lawrence reviewed the STP commitments for the Consolidated Incineration Facility (CIF), which is currently in a suspension mode. CIF has completed processing 50 percent of SRS's non-PUREX waste; however, there is a proposed modification to complete processing of non-PUREX waste by June 2007. CIF is expected to process 50 percent of the PUREX waste by September 30, 2009 and totally complete PUREX processing by September

30, 2019. With CIF in a current suspension mode, SRS must make a decision to either operate the facility or close it by April 2002. It was noted that a study team is currently working on seeking alternative technologies to incineration; however, there is still much work to be done. In response to a question raised by Brendolyn Jenkins on how alternatives will be factored into the decision, Mr. Lawrence said that SRS would need to restart CIF if no viable alternate technology is found. When Meryl Alalof asked if the CIF issue would be prioritized into the budget, Clay Jones responded that the scenario was currently being worked.

Mr. Lawrence concluded his presentation by discussing the STP commitments on the Solid Waste Division's TRU projects. For example, SRS will submit a RCRA Part B modification by September 30, 2001 in order to initiate the construction of a facility to sort and repackage TRU waste within 90 days of approval; initiate testing within 12 months of approval and begin operations within 25 months of approval. Currently, Mr. Lawrence said that SRS is on target to meet these commitments.

Status of Low Level Waste Shipments to the Nevada Test Site

Bernie Mayancsik provided a status of shipping low-level waste (LLW) generated at SRS to the Nevada Test Site (NTS) for disposal. Ms. Mayancsik said the reason why SRS needs to ship waste offsite is because the LLW exceeds radioactivity performance assessment limits for disposal at SRS. The waste streams of concern include tritium and Iodine-129. Performance assessment limits are higher at NTS because of the drier climate and lower water table. Additionally, shipping the LLW to NTS provides SRS with better flexibility to better manage the use of SRS disposal facilities.

In order to send LLW to NTS, Ms. Mayancsik said a site must become a certified generator in order to dispose of waste at NTS. Ms. Mayancsik then explained the certification process, which began in April 2000 for SRS, and said that SRS just received notification from DOE Nevada Operations Office on May 15, 2001, that SRS was granted certification as a waste generator. Ms. Mayancsik said the first shipment of 232-F Facility decommissioning waste was being planned for early June 2001, pending receipt of the Record of Decision (ROD) to the SRS Waste Management Environmental Impact Statement (WMEIS). In the WMEIS, SRS could only dispose of its LLW onsite; however, with the approval of the Environmental Assessment for the Offsite Transportation of Certain LLW and Mixed Radioactive Waste from SRS for Treatment and Disposal at Commercial and Government Facilities, SRS now has the option to ship certain LLW offsite.

Wade Waters raised a question on when the ROD is expected to be issued. In response, Ms. Mayancsik said SRS was waiting for DOE-HQ to issue the ROD and that it could come at any time. Mr. Waters thanked Ms. Mayancsik for her presentation and asked that she come back to present the status of the LLW shipments to NTS to the full Board at its July 24, 2001, meeting.

Public Comments/Question

The following questions/issues were noted during the meeting.

- The Citizens for Environmental Justice (CEJ) meeting notices will be distributed to the Citizens Advisory Board (CAB) members.
- The Administrative Committee is to work with the CEJ on outreach.
- A letter will be sent to the Secretary of Energy requesting that the members of the CAB and Savannah River Site public be considered as members on the teams being formed by DOE-HQ to identify ways to reduce costs and schedule for the Environmental Management program. – Karen Patterson volunteered to develop the letter.
- A presentation explaining the storage of plutonium (Pu) for Mixed Oxide Fuel (MOX) was requested.

- An overall presentation on Pu was requested.
- A presentation on an Americium/Curium (Am/Cm) vitrification monitor was requested.
- Follow up on the site position of the latest Defense Nuclear Facilities Safety Board comments related to Am/Cm was requested.
- Will the National Environmental Policy Act (NEPA) process have an impact on the September 2001 Am/Cm decision date?
- What will happen to the dollars budgeted to remove contaminants from Am/Cm?
- The Nuclear Materials Committee will decide if a letter should be sent to Dr. Darlene C. Hoffman, Head of the Heavy Element Research Department at the University of California, to see if the university has a need for the Am/Cm inventory.
- Who did DOE send letters to soliciting the need for the Am/Cm inventory?
- A review or copy of the safety analysis associated with the Am/Cm project was requested.
- The Nuclear Materials Committee will develop a list of questions on Am/Cm to be submitted to DOE for the next Am/Cm presentation.

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