



SRS Citizens Advisory Board

Environmental Remediation Committee

Meeting Summary

August 22, 2000
USC-Aiken
Aiken, SC

CAB Members

Jimmy Mackey*
Maria Reichmanis*
Mel Galin
Brendolyn Jenkins
Wade Waters
Perry Holcomb*
Murray Riley*
Sallie Connah*
William Lawrence
Bill Willoughby
Jean Sulc

Stakeholders

Lynn Waishwell, CRESP
Russ Messick
Rick McLeod, Tech. to CAB
Lee Poe
Bill Lawless
Bill McDonell

Regulators

Julie Corkran, EPA
Jeff Joyner, SCDHEC
Julie Joyner, SCDHEC
Charles Gorman, SCDHEC
Crystal Rippy, SCDHEC
Joy Powell, SCDHEC
John Stockwell, EPA

DOE/Contractors

Gerry Stejskal, WSRC
Paul Sauerborn, WSRC
Ron Malanowski, WSRC
Thomas Johnson, DOE
Jerry Nelsen, DOE
Don Toddings, BSRI
Tom Treger, DOE
L.P. Singh, DOE
Kim Cauthen, WSRC
Chris Bergren, BSRI
Mike Griffith, WSRC
Bart Marcy, WSRC
Jim Moore, WSRC
Karen Taylor, WSRC
Ken Crase, WSRC
Becky Craft, DOE
Drew Grainger, DOE
Bill Maloney, WSRC

* Members of the ER Committee

Note: Kathryn May and Beaurine Wilkins of the ER Committee were unable to attend meeting.

Introduction:

Jimmy Mackey introduced himself and then asked for introductions.

Schedule Review:

Paul Sauerborn reviewed the schedule noting topics to be reviewed through the end of calendar year 2000, and requested any suggested addition.

Fish Advisory – Discussion:

Jimmy Mackey opened discussion on the SCDHEC fish advisory, noting that the ER committee was disappointed that their comments in CAB Recommendation 107 were too late for consideration and possible inclusion. Mr. Mackey asked Julie Corkran to clarify and she did by drawing a distinction between the SCDHEC fish advisory and the fish fact sheet. Ms. Corkran added that there was an outreach program for the fact sheet currently being developed by Savannah River Site (SRS). Joy Powell

from the SCDHEC Aiken office stated that the current 2000 advisory was not being distributed due to some changes being made and that the new final 2000 advisory should be out soon but did not have an exact date. Sallie Connah noted that in her opinion, there appeared to be several contaminants missing from the advisory, and suggested that they might be added in future editions of the advisory. Bill Lawless stated that since Recommendation 107 was late for consideration into the 2000 advisory, that SCDHEC come and present to the ER Committee and the CAB as to the current status of the advisory and explain how both could participate in future editions. Mr. Mackey endorsed that approach.

Government Performance and Results Act – Status:

Bill Maloney began his presentation by stating that the Government Performance and Results Act (GPRA) covers a vast amount of activities within the Department of Energy and that this presentation covers only the Resource Conservation and Recovery Act (RCRA) / GPRA. In 1992 the EPA determined the cleanup priority of all RCRA sites, some 1700 in the U.S. were considered to be high priority for an Interim Action (IA) and in South Carolina SRS is one of 34 high priority sites. In 1993 Congress passed the GPRA, which required all branches of Government to set goals and become more efficient. EPA set 4 major RCRA goals to be achieved by 2005:

- Permit 90% RCRA operating facilities
- Permit 90% RCRA post-closure of the facilities
- Control groundwater releases at 70% of the facilities
- Control human exposure at 95% of the facilities

To help track each states progress on meeting the national goals, EPA created 2 new corrective action Environmental Indicators (EI):

- CA725 Human Exposure EI
- CA750 Groundwater Release EI

SCDHEC began the initial EI determination of the SRS in August 1998, and found that the SRS groundwater was not under control, and is still evaluating the human exposure EI. EPA decided that SCDHEC should establish EI Interim Milestone Schedules, discuss them with the facilities and submit the schedules to EPA Region 4 by 7/1/2000 and that was delivered as requested on 6/30/00.

The current path forward is:

- SCDHEC finish determination for human exposure EI,
- SRS will submit indoor air quality information to SCDHEC by 9/30/00,
- SRS will continue remediation efforts per Federal Facility Agreement (FFA) and RCRA permit schedules,
- SCDHEC will review by 8/1 the Solid Waste Management Unit accessibility documentation to confirm that no additional actions are needed,
- Resolve remaining milestone schedule issues with SCDHEC in the area of stream posting, Creek Plantation posting, and Fish Advisory posting.

Dr. Corkran stated that following the FFA is the answer to GPRA for the Savannah River Site. Rick McLoed wanted to know what the cost impact to the site in order to comply with GPRA? Mr. Maloney stated that since we currently allow the FFA to be our GPRA vehicle, cost impacts to the site are minimal. However, should directions change, so will the associated costs.

Recommendation 31 Update Status of the River Water System (RWS):

Drew Grainger presented the status of the River Water System as it pertains to Recommendation 31. Mr. Grainger noted that the recommendation was written January 28, 1997, and that several actions have taken place since that time. Mr. Grainger noted some key milestones:

- Draft Environmental Impact Statement (EIS) was published in November 1996
- CAB Recommendation 31 received January 1997
- Final EIS published May 1997
- Record of Decision (ROD) signed December 1997, published in the Federal Register January 1998, which adopted a No Action Alternative and continue to operate the RWS but use a smaller more efficient pump. This was an economic decision in that the savings from shutting down the RWS was potentially offset by immediate CERCLA closure of the L-Lake bed and Steel Creek channel, and in addition would divert CERCLA funds and expertise from other higher risk sites at SRS.

Mr. Lawless asked when would the pumping stop in support of L-Lake? Mr. Grainger stated the pumping is planned in the FFA to be discontinued in 2007.

Mr. Poe stated that from his perspective, the recommendation should be closed. Mr. Poe suggested that DOE should return to the ER Committee in the near term and explain three areas of interest:

- the cost to continue to operate the pump
- explain what consequences would there be, if the lake were draw down was allowed to take place
- and how much time would it take to draw the lake down

Recommendation 102 Update – Tritium Health Motion:

Jerry Nelsen presented an update to CAB Recommendation 102 entitled Tritium Health Motion. Mr. Nelsen stated that the CAB Recommendation suggested four areas to be looked at:

- Continue to study the impacts of tritium on the health of workers at SRS
- Include in the study work history, lifestyle behaviors, and other exposures
- While the elevated cancer findings are apparently not work related, institute cancer education programs at SRS
- Re-institute the SRS database that ended in 1989 in order to collect worker mortality and incidence data for all causes along with safeguards to protect individual confidentiality.

Mr. Nelsen stated that DOE-SR had been in contact with DOE-HQ regarding the CAB requests. DOE-HQ indicated that at this time there was no funding earmarked for these specific requests. However Mr. Nelsen assured the Committee that there were other studies which would alert the site to any significant health changes at the site, at which time the site would take a closer look to insure a safe work place for all employees and surrounding communities.

Mr. Nelsen identified ongoing studies by the Consortium for Risk Evaluation with Stakeholder Participation (CRESP):

- Mortality, Black/White Workers: Manuscript in progress, which will compare overall mortality and racial differences in worker cancer mortality.
- Preparing a Cancer Case Control Studies: Study being completed at this time.
- Meta-Analysis Study: General mortality studies of radiation workers everywhere, which will synthesize results that focus on the same questions from many studies including other agencies and private industry. Manuscript is being prepared.
- DOE SRS Worker Cohort Study. Collecting exposure records from SRS at this time. This study may take a year or more to complete.

Mr. Nelsen noted the following studies in addition to those of CRESP:

- DOE SRS Former Construction Workers Medical Screening Program, conducted by DOE, Office of Health and Health Surveillance.

- DOE SRS Former Production Workers Medical Surveillance Program, conducted by the Medical University of South Carolina and the University of South Carolina.
- Case-Control Study of Leukemia Mortality, conducted by the National Institute for Occupational Safety and Health (NIOSH).
- Mortality among Chemical Laboratory Workers: Ongoing study by National Institute for Occupational Safety and Health (NIOSH).
- SRS Environmental Dose Reconstruction Project: Performed by Centers for Disease Control and Prevention (CDC)

Brendolyn Jenkins stated that there was little discussed relative to the probability that African-Americans were at a higher risk of cancer than other Races. Ken Crase stated there was probably not a large enough population in the analysis to determine a Race impact. Jimmy Mackey suggested that the Recommendation be closed with the assurance that CRESA would still be concluding their studies as requested in CAB Recommendation 7.

Old Radioactive Waste Burial Ground (ORWBG) – Independent Scientific Peer Review (ISPR) Final Report:

Lee Poe, Technical Lead, for the ORWBG focus group stated that the purpose of this briefing was to describe the findings of the ISPR analysis and the ORWBG focus groups use of the information. Mr. Poe informed the committee that the ISPR approach used SRS published information and CMS/FS input assumptions as appropriate. Mr. Poe also stated all members of the ISPR were involved and the report was a consensus report and the process used included periodic reviews held with the ORWBG focus group and SRS personnel. Mr. Poe indicated that the transport model selected by the ISPR was a horizontal-plane-source model. This model determines flow from the buried waste through the unsaturated zone, the water table, and the outcrop to the stream, and determines average seep concentration. The creek and river concentrations were determined by dilution using ten-year average measured stream flow.

Mr. Poe presented ISPR information relative to dose and human health determinations. Stream concentrations were converted to dose using standard EPA conversions and food and water consumption. The maximum committed effective dose equivalents (CEDE) at the seepage line is 51 millirem per year (mrem/yr) and expected to decrease to 5.4 mrem/yr by the year 2010. The Nuclear Regulatory Commission (NRC) and Environmental Protection Agency (EPA) have established limits to protect human health at 100 mrem/yr from all sources and EPA uses a limit of 10 mrem/yr for air and 4 mrem/yr for water.

During Mr. Poe's presentation Julie Corkran asked that she have time to state the EPA perspective on the issue. Mr. Mackey did not want to revisit information that had already been stated at previous meetings. Dr. Corkran proceeded with her explanation and added that the EPA must protect all resources. Bill McDonnell asked Dr. Corkran what resources she was referring to? Ms. Corkran stated that she was referring to the drinking water standards.

Perry Holcomb raised his hand and asked to comment on the ISPR report. Mr. Holcomb referenced the first sentence of the ISPR executive summary and said the report was "to provide an independent peer review of the CMS/FS", which he indicated was not addressed. Mr. Holcomb stated that the report said that Lee Poe supplied data saying the fraction of total tritium that reaches FM-6 that originated at ORWBG is 60% of the total tritium released on site. Mr. Holcomb stated that when he was working in the area, the number was 75%. Therefore, Mr. Holcomb believes the numbers provided by Mr. Poe may be inaccurate, and because the report said that Mr. Poe supplied data, the report was no longer independent. Mr. Poe stated that he had supplied information from the SRS Environmental Reports. Mr. Holcomb, also noted there were no error bars in any of the information therefore one cannot determine the accuracy of the data. Mr. Holcomb made note of the fact that at no time during the preparation of the data and materials associated with the ISPR did Science Applications International Corporation (SAIC) who worked on the CMS/FS have an opportunity to review the draft report which acknowledges there was

not peer review. In conclusion, Mr. Holcomb stated the CAB spent \$35,000 for a report but hardly an ISPR.

Brendolyn Jenkins expressed her concern that the report was not grammatically correct. Ms. Jenkins suggested that Mr. Holcomb's concerns warrant further examination. Also, Mr. Poe's name should not have been in the report as having supplied information, only the source documents should have been identified. SAIC should have had the opportunity to review the document, and Ms. Jenkins can only assume the assumptions in the report are appropriate. Ms. Jenkins said she would be interested in having EPA determine if their comments were addressed.

Mr. Mackey stated he was not satisfied with the executive summary, and that he had explicitly asked that it be tailored in laymen terms in order for everyone to have the opportunity to understand. Mr. Mackey stated that based on what he has seen to date on this report he would not vote to extend the existing contract for ERDA to continue on their effort. Ms. Jenkins stated that she felt the same as Mr. Mackey.

Mr Poe resumed the ISPR conclusions:

- No corrective action of any kind should be taken to remediate the tritium concentration in FMB
- Without the additional calibration, the ISPR team is unable to give definite recommendations on the other Constituents of Concern (COC).

Mr. Poe noted the current effort of the ORWBG focus group as follows:

- Received the report on 8/14/2000 and it is being evaluated
- Report will be a valuable tool for the FG in their deliberations of the effects of groundwater transport from the ORWBG now and in the future and will help the FG reach their final conclusions
- FG still plans to issue their report on health issues resulting from the ORWBG.

CAB ER Recommendation Review:

Maria Reichmanis reviewed the following CAB Recommendations for change in status: Recommendation 107 regarding the SCDHEC fish consumption advisories will be closed. However, the ER committee plans to develop a new recommendation in order to put SCDHEC on notice they would like to have input into the development of the 2001 advisory to be distributed in March 2001. Recommendation 102 has been satisfied by DOE response, so it will be closed. The ER committee will be asking CRESA to give an update in the near future on Recommendation 7, which addresses mortality studies at the Savannah River Site. Recommendation 31 Shutdown of the River Water System will move from open to closed. However, the ER Committee plans to explore the costs between the current pumping to supply L-Lake and the cost associated with shutting down the system, the draw down and clean up of L-Lake under the CERCLA process.

Public Comments:

Mr. Mackey asked for public comment. Lee Poe suggested that the CAB adopt a method to show the current status of all CAB Recommendations i.e. open, closed, pending, etc. be included below the agency response on the same page as the CAB Recommendation on the CAB WEB page.

Ms. Corkran made an observation that although the regulators were in attendance, that she was disappointed that DOE did not have better representation at the meeting, especially at the point where questions were being raised about the Old Radioactive Waste Burial Ground. Thomas Johnson from the DOE stated that there was DOE representation, however relative to ORWBG he stated that the one DOE representative recently had a heart attack and that the other was out sick.

Mr. Mackey thanked the attendees, and the meeting was adjourned.

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