



SRS Citizens Advisory Board

Old Radioactive Waste Burial Ground Focus Group

Meeting Summary

July 12, 2000
Aiken Federal Building
Aiken, SC

The Citizens Advisory Board (CAB) Old Radioactive Waste Burial Ground (ORWBG) Focus Group met on Wednesday, July 12, 5:00 p.m., at the Aiken Federal Building, Aiken, SC. The purpose of the meeting was to consolidate the comments on the draft Independent Scientific Peer Review (ISPR) report, review environmental impacts from the interim action on the SW plume, response to CAB Recommendation #106, Intruder Analysis in the Performance Assessment (PA), difference in the intruder analysis for the PA and the Corrective Measures Study/Feasibility Study (CMS/FS), and review the path forward. Those in attendance were:

CAB Members

Jimmy Mackey
Bill Willoughby

Stakeholders

Lee Poe
Jerry Devitt
Bill McDonell

DOE/Contractors

George Mishra, DOE
John Gladden, WSRC
Tim Jannik, WSRC
Ali Simpkins, WSRC
Patricia Lee, WSRC
Don Toddings, WSRC
Elmer Wilhite, WSRC
Gerald Blount, WSRC
Jim Moore, WSRC

Note: Gene Rollins attended via use of the speakerphone.

Jimmy Mackey, Administrative Lead, welcomed those in attendance and asked them to introduce themselves. Mr. Mackey turned the meeting over to Lee Poe, Technical Lead.

Consolidated Comments on the ISPR Draft Report: Mr. Poe asked Mr. Mackey if he would write the comments from the Focus Group members on the flip chart. Mr. Poe then asked the members of the group for comments on the ISPR draft report. Comments were received in writing from three individuals. They were Lee Poe, Julie Corkran, Environmental Protection Agency, and Patricia Lee, Environmental Analysis, WSRC.

Comments recorded on the flip chart were:

1. Page 4 – (Item 4 from Julie Corkran's comments) To improve clarity, the phrase "source of origin" in the Summary should be amended. Source and origin are synonyms and the phrase at the bottom of page 4 does not make sense as it stands.

2. Page 11 – There are seven locations where a dot (●) is used. Example: ● t₀. An explanation needs to be made for the dot, i.e., what does it mean?
3. Page 13 – 14 – Need explanation of comparability of assumptions for calibrating tritium in Fourmile Branch (FMB).
4. Page 17, Figure 6 – There is a storage issue in the saturated/unsaturated zones. The model doesn't take into consideration the storage issue.
5. Page 18 – Suggest the last sentence that starts "This suggests that the 3M source inventory and/or the Kd=0 value...." be deleted.
6. Page 19 – (From Lee Poe's comments) Provide a reference showing degradation time of VOC in the bottom paragraph on page 19 to help support the 100 year assumption.
7. Page 20 – (From Patricia Lee's comments) The first paragraph of the discussion mentions a 10 mrem/year EPA requirement. The applicable EPA drinking water standard is 4 mrem/year according to 40 CFR 141. Define your basis for the 10 mrem/year.
8. Page 21, Table 3 – (From Patricia Lee's comments, page 2, bottom number 1. Also from Lee Poe's comments forth bullet down on page 2.) Specify study periods and provide clarification on column 5 and 6. Clarify peak concentrations.
9. Page 21, Table 3 – Add column showing the drinking water standard.
10. Page 22 – Add statements to put numbers in perspective.
11. Health effects and risk were left out.
12. Page 23 – (From Patricia Lee's comments, page 3, number 2) What is the relevance of table 3A inhalation factors?
13. Page 27, Table 4 and 5 – (From Lee Poe's comments, page 2, third to last bullet) Delete the line "Across from Vogle Plant (SR)".
14. (From Patricia Lee's comments, page 2 top paragraph) Doses could increase with other pathways such as fish consumption.
15. Page 27 and 28, Tables 4 and 5 – Need the same information for non radioactive COI's as given in Table 4 and 5.
16. (From Patricia Lee's comments, page 1 first paragraph under Overall) Results of estimates are not presented so not possible for a competent review.
17. Page 30, Acknowledgement – Greg Flach should be included, note spelling. Lee Poe (CAB) should be Lee Poe (CAB Focus Group Technical Lead).

Mr. Poe reviewed the tasks from the ISPR scope of work that were not included in the report. The two items that Mr. Poe felt should have been included in the report were the potential impacts from other pathways, i.e., fish consumption, and the latent cancer fatalities. Both of these items were included in the comments from Mr. Poe.

Environmental Impacts from the Interim Action on the SW Plume: Ali Simpkins, Savannah River Technology Center, presented the tritium irrigation dose calculations. The initial calculations of the irrigation of tritiated water were done at a high level. These calculations were refined using detailed input. LADTAP XL© was used to calculate the aqueous dose to the offsite maximally exposed individual (MEI) and population for routine aqueous releases. MAXDOSE-SR was used for atmospheric dose calculations and MEI and POPGASP was used for the atmospheric dose calculations for the population. The onsite population dose was hand calculated using onsite populations data and sector arc concentrations. The results were:

Receptor	Tritium Released to the River	Tritium Release to the Atmosphere (Irrigation)
Onsite Worker	NA	0.06 mrem
Onsite Population	NA	0.2 person-rem

Offsite MEI	0.02 mrem	0.007 mrem
Offsite Populations	0.5 person-rem	0.3 person-rem
Total Population	0.5 person-rem	.5 person-rem

Note the 'Tritium Released to the River' was NA for the onsite worker/populations because they don't drink or get into the water.

The results were the same for the dose from either tritium released to the river or to the atmosphere for the total population.

Comparing the 1999 dose to MEI from liquid and atmosphere, irrigation removes 3000 curies (Ci) from the liquid source term and adds it to the atmosphere. For the total population dose (onsite plus offsite), there is 5% less dose with irrigation. However, the maximum onsite worker dose is 8% more with irrigation.

In responding to Gene Rollins' comments concerning the difference in dose numbers, the main reason for the dose not agreeing were the different locations used, different meteorological data used, and the CAP88 which has lower concentrations than the MAXDOSE-SR. Mr. Rollins responded that he was satisfied with the explanation of the differences.

It was noted that as the irrigation area increases, the calculations should be redone assuming the new area source.

Views on Closure of CAB Recommendation #106: Mr. Poe reviewed the background on CAB Recommendation #106, Resource Conservation and Recovery Act (RCRA) Permit Modifications for the Mixed Waste Management Facility at SRS. He stated the Focus Groups conclusion on the interim action is that the Environmental Assessment (EA) purpose and Need for Action is no longer correct (action is to reduce potential human health effects) and does not include impacts of atmospheric released tritium. In addition, the cost of interim action stated to be \$3-5 million, will not reap the benefit in reduced environmental consequences. The Focus Group feels that the cost should be significantly more and therefore the action should not be taken.

Mr. Poe felt the Focus Group recommendation on closure of Recommendation #106 should be that the CAB close it and the CAB agree to disagree that the action is needed, necessary or cost effective. He stated that the Focus Group would not spend any more time or effort on the subject, other than receiving periodic briefings of the effectiveness of this remediation action. The Focus Group plans on preparing a letter documenting the disagreement. The letter can be included as part of the closure of Recommendation #106.

Jerry Devitt was opposed to this view and will write a minority report. Mr. Devitt felt that the site had no choice but to proceed with the action because EPA was enforcing the EPA drinking water standard. The site had to comply.

The letter documenting the disagreement to be written by Lee Poe and the minority report written by Jerry Devitt will be sent to Jimmy Mackey, Chairman of the CAB Environmental Remediation Committee before the July 24 meeting. Mr. Mackey will include the closure of Recommendation #106 on the committee agenda for July 24.

Intruder Analysis in the PA: Due to the time factor, Elmer Wilhite was asked to postpone his presentation until the next meeting.

Difference in the Intruder Analysis for the PA and the Corrective Measures Study/Feasibility Study (CMS/FS): This will be postponed until after Elmer Wilhite's presentation.

Path Forward: Mr. Poe reviewed the path forward meetings and agendas as follows:

August 2

- ISPR Response to Comments - Dr. Ratib
- PA Intruder Analysis - Elmer Wilhite
- NAS/NRC/EPA Intruder Concepts - Gene Rollins
- Determine Approach for Intruder Analysis in Focus Group Work - All
- Preliminary Discussion on ORWBG Focus Group Final Report - All

August 30

- Proposed Mercury and Plutonium Concentrations in Year 2150 - Unknown
- Preliminary Discussion on ORWBG Focus Group Final Report - All
 - - Section Assignments

September 13

- Stewardship Comparison of Closed DOE Sites - Rod Rimando
- Review of Draft ORWBG Final Report - All
 - - Section Status

October 11

- Review of Draft ORWBG Final Report - All

Adjourn: With no other comments, Mr. Mackey adjourned the meeting.

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