



## **SRS Citizens Advisory Board**

### **Environmental Remediation and Waste Management Subcommittee**

#### **Meeting Summary**

October 28, 1999  
Ramada Plaza  
Augusta, GA

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#### **CAB Members**

Bill Lawless\*  
Karen Patterson\*  
Jimmy Mackey  
Murray Riley

#### **Stakeholders**

Mary Olson  
Susan Bloomfield  
Todd Crawford, Tech. Advisor  
Don Orth  
Jean Orth  
Sam Booher  
Lee Poe  
Frank Carl  
Steve Crook  
Bill Mareska

#### **DOE/Contractors**

Roger Rollins, DOE  
Helen Villasor, WSRC  
Sonny Goldston, WSRC  
Ken Crase, WSRC  
Dale Bignell, WSRC  
Gerri Flemming, DOE  
Elmer Wilhite, WSRC  
Gerry Stejskal, WSRC  
Maxcine Miles, DOE  
Marcia Birk, WSRC  
Sharla Barber, BNFL  
Bill Noll, DOE  
Paul Sauerborn, WSRC  
Dan Wartenberg, CRESP

#### **Regulators**

None

\* Denotes ER&WM Subcommittee Member

**Public Comments:** Jimmy Mackey opened the meeting by asking Bill Lawless to explain why Mr. Mackey would conduct the meeting. Mr. Lawless explained that his Board term was to expire in March 2000, and he wanted others on the Citizens Advisory Board to have an opportunity to chair the subcommittee in order for them to decide if they would want to run for a subcommittee seat in the January elections.

**Schedule Review:** Paul Sauerborn presented the latest ER/WM Subcommittee Matrix for review and comments relative to agenda items for upcoming subcommittee meetings.

*Issue:* None

*Action:* None

**Review of Pending Recommendations:** Mr. Mackey presented his findings on Recommendations 87 (Proposed Permit Modification Mixed Waste Management Facility at SRS under South Carolina Hazardous Waste Management Regulations and Resource Conservation and Recovery Act) and Recommendation 93 (Federal Facility Agreement Modification Feasibility Study Scoping and Primary Document Quality). He concluded that both Recommendations were lacking sufficient responses to move

from the "pending" to "closed" status. Mr. Mackey said he understood his ownership of these motions, and would continue to report on the status of the recommendations until closed.

*Issue:* When will EPA responses be received?

*Action:* Mr. Mackey will continue to follow and report.

Total Maximum Daily Loads (TMDLs): Bill Payne explained that EPA has proposed strengthening the TMDL requirements to restore the nation's waterbodies and that the current TMDL's are out for public comment until 1/20/2000. Mr. Payne explained that TMDL is the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards under section 303 of the Clean Water Act (CWA). The sum of allowable loads from point and non-point sources considers seasonal variation, includes a margin of safety, to ensure the waterbody can be safely used for its use classification. The CWA requires states to prioritize surface waters based upon how well they are meeting water quality standards. The issuance of the new regulation would provide for the following:

- clarification of many items in the existing regulations
- require more comprehensive lists from states
- require more specificity in methods used to develop the list of impaired waters
- require implementation plans for the impaired waters as part of TMDL

Mr. Payne referenced a web site that would provide the public with TMDL information: ([www.epa.gov/owow/tmdl](http://www.epa.gov/owow/tmdl)).

Mr. Payne noted that for South Carolina the new regulation will not change things much because the SCDHEC program already incorporates most of the new requirements. Additionally, there would be minimal enhancement due to effluent trading, and he noted that most water impairment in the state is due to non-point source pollution. The potential impacts to SRS are as follows:

- There will be a significant amount of controversy over TMDLs for the Savannah River due to it being the border for both South Carolina and Georgia.
- Biological, physical and radiological factors will be weighted more in future calculations than in the past.
- Impaired waters must continue to be prioritized as High, Medium and Low concern – SRS waters are medium
- Difficulty getting National Pollutant Discharge Elimination System (NPDES) Permits in impaired waters

In conclusion, Mr. Payne stated that there are no immediate impacts to SRS.

Karen Patterson, asked who sets the load flows for SRS waters, and Mr. Payne responded that SCDHEC sets those limits. Mr. Lawless indicated that we should explore the possibility of effluent trading, and asked that he be provided information on that topic. Mr. Payne stated that the information is available at the web site mentioned above or by calling him directly at his office (803) 725-3465. Lee Poe asked if there has been any action by South Carolina to investigate the clean up of arsenic in the soil which was used in agricultural activities in years past. Mr. Payne indicated that the State was considering that impact in regards to TMDL calculations for non-point source pollutants. Mr. Sam Booher stated it is his understanding that both Georgia and South Carolina were conducting water basin studies and that these studies look at TMDLs.

*Issues:* The viability of effluent trading for SRS.

*Action:* The ER/WM Subcommittee may consider a motion now or in the future on this issue.

Overview of the NESHAP: Sharla Barber presented an overview of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hazardous Waste Combustors. Ms. Barber's presentation centered around the Consolidated Incinerator Facility (CIF) and the Maximum Achievable Control Technologies (MACT) emission standards for a variety of Standard Industrial Classifications as directed by the Clean Air Act (CAA) of 1990. She noted that CIF must be compliant with the MACT standards by April 2003. Ms. Barber explained that the MACT process requires the selection of emission standards that impact health and the environment as follows:

1. Particulate Matter
2. Mercury
3. Semi Volatile Metals (Cadmium and Lead)
4. Low Volatile Metals (Arsenic, Beryllium, and Chromium)
5. Hydrochloric Acid and Chlorine
6. Dioxin and Furans
7. Carbon Monoxide
8. Total Hydrocarbons

The MACT process also requires an emission standard for each pollutant above and must be based on the best performing 12% of existing facilities, i.e. For Particulate Matter, the lowest emitters – 19 facilities (12% of 165 total) were used. In the case of new sources, the single lowest emitter is used. In summary, CIF achieves the following:

- Can meet the emission standards
- Will perform additional voluntary testing in 2000 to confirm compliance
- Administrative effort in preparing plans will be significant
- Training certification is not well defined in the rule
- Performance testing in 2003 is not consistent with the Site Treatment Plan schedule
- Both RCRA and (CAA) Air regulations are in effect until 2003

Ms. Barber pointed out that CIF is the lowest of three emitters in the State of South Carolina, in addition to the best 12% in the country. Mr. Lawless asked that this topic be placed on the meeting schedule for June of 2000.

Low Level Waste/Mixed Low Level Waste (LLW/MLLW) Program Area Integration Team (PAIT) DOE Complex Incineration Opportunity: Maxcine Miles explained options are being evaluated on how to better utilize incinerator operations in the DOE complex. Currently, DOE has three incinerators operational. In June 1999, a workshop was held and produced options ranging from:

- All three incinerators remain operational
- None remain operational and utilize a vendor
- One incinerator operational with the others shut down at varying times

From a total of twelve different alternatives, four alternatives plus the baseline were chosen by the PAIT for further analysis at a workshop held in August 1999. At the workshop the decision was made to evaluate these alternatives based on the following information:

- Operational Costs for each incinerator
- MACT rule compliance costs
- Waste volumes projected
- Stakeholder acceptance

Four PAIT alternatives would impact CIF as such:

- In all four options plus the baseline, CIF remains operational until 2030 and becomes MACT compliant
- In all four options, CIF accepts DOE complex wide waste (in baseline only CIF accepts SRS wastes)
- In one alternative, CIF would be upgraded to accept Polychlorinated Biphenyls (PCBs)

Some considerations for SRS Wastes from the PAIT alternatives are:

- SRS radioactively contaminated PCB waste treated via vendors in all alternatives except two
- In one alternative, LLW would not be burned at CIF
- PUREX solvent (spent organic solvent from the F&H Canyon separation process) treated at CIF in all alternatives

Ms. Miles stated that alternatives are being evaluated by generators via the LLW/MLLW PAIT based on facility utilization, cost and schedule, and regulatory acceptance. Ms. Miles concluded that all alternatives plus additional information from the Inspector General Report of the DOE incinerators, will be considered before a decision will be made.

Sam Booher asked if PCBs could be burned at CIF and Ms. Miles responded yes. Lee Poe expressed some concern about the alternatives and the implications associated with equity issues. Mr. Bill Lawless asked a why the Tennessee won't allow offsite waste to be treated at the Toxic Substances Control Act Incinerator (TSCAI) located at Oak Ridge. Bill Noll responded, that along with the WM PEIS Records of Decision for LLW and MLLW, there were other reasons involving funding for certain activities at Oak Ridge and accelerating/prioritizing of some activities at Oak Ridge, which have led to the decision to preclude offsite waste from being sent to TSCAI.

*Issue:* The ER/WM subcommittee is concerned with issues of equity; the burning of PCB at CIF; the progress toward meeting emission testing, operator training and certification; and, documentation requirements.

*Action:* The ER/WM subcommittee will develop a motion for the next full CAB meeting on November 16, 1999.

Mortality Patterns Among Workers at the Savannah River Site (SRS): Dr. Daniel Wartenberg from the Consortium for Risk Evaluation with Stakeholder Participation (CRESP) noted that the purpose of his study was to determine SRS worker risk of cancer mortality, and assess if risks might extend to the community. Dr. Wartenberg suggested that he would like to explore the possibility of a Mortality/External dose study in the future. The purpose of this presentation was to provide new results from his mortality study as requested by the CAB. Dr. Wartenberg provided the following conclusions:

- Overall, SRS workers have lower mortality rates than average Americans.
- Leukemia excesses in white males in the late 1960s has reverted to normal rates today.
- Prostate cancer is not in excess, although careful watching was suggested previously.
- Skin cancer among white females is unusually high and warrants further study.
- Breast cancer among males is unusual, but did occur.

Dr. Wartenberg recommended a further study to address dose-response analysis for cancers of concern, and to consider collecting additional information about skin and breast cancer deaths. He suggested screening individuals and to begin discussing merits and risks of screening for skin and/or prostate cancer for surveillance and early detection. Dr. Wartenberg stated that specific to the Tritium-Leukemia review his conclusions were as follows:

- Previous epidemiology does not provide evidence of a Tritium-Leukemia link
- Computerized tritium data not amenable for direct assessment

- Preliminary assessment results do not support the leukemia-tritium link. and (Data is incomplete and possibly non-representative)

Dr. Wartenberg recommendations are:

- Choose studies that make the most sense; accept the reasons for not performing a further study because it would become very labor intensive for an insensitive study.
- Wait for the results of the on-going NIOSH study.
- Computerize exposure data and perform a case control study.
- Begin to evaluate computerization of all SRS exposure data (which would be expensive but very useful).

Mr. Lawless asked how deaths were reviewed via the employee roster and Mr. Wartenberg stated that he used the national death roster. Lee Poe was concerned that the sample size used to conduct the study was too small. Mr. Wartenberg explained that the study took the sample size into consideration.

*Issue:* The ER/WM subcommittee is concerned that if they release CRESP from further study and pick up the study being conducted by NIOSH, that the pertinent SRS information may lack what the subcommittee wants.

*Action:* The ER/WM subcommittee is to decide on how to proceed and may present a motion for recommendation consideration at the CAB full board meeting November 16, 1999.

Summary of Health Studies of SRS Workers and the Surrounding Public: Ken Crase began his presentation by stating the following:

- "Health Studies" include a variety of activities by many groups to assess potential health impacts from operations at SRS on workers and members of the public.
- Early SRS worker health studies were performed by the SRS Contractor. Recent studies are overseen by NIOSH.
- The Center for Disease Control (CDC) now oversees public health studies.

Mr. Crase stated that there are five studies regarding public around SRS, the following two of which are still in progress:

- Savannah River Regional Health Information System (conducted for DOE by the Medical University of South Carolina)
- SRS Dose Reconstruction Project (CDC)

Mr. Crase indicated that there are more than twenty studies including SRS workers, nine of which are still in progress.

- Health surveillance of current DOE contractor workers (conducted by DOE)
- Leukemia Mortality Case-Control Study (4 DOE sites and one Navy site, by NIOSH)
- Exposure Assessment of Hazardous Waste/Cleanup Workers (by NIOSH)
- SRS Former Production Workers (for DOE by MUSC and University of South Carolina)
- SRS Former Building Trades Workers (for DOE by the Center for Protection of Workers Rights)
- Mortality Among Female Nuclear Weapons Workers (for NIOSH by University of New York)
- Mortality Among Chemical Laboratory Workers (by NIOSH)
- SRS Mortality Study Update (for DOE by CRESP)
- Lung Cancer Study (by NIOSH)

An interesting statistic was brought up by Dr. Wartenberg of CRESP was that the incidence of cancer is lower at SRS than off the site. Mr. Mackey asked if the older studies on operations employees was available for public consumption. Mr. Crase responded that those studies were conducted by the original contractor, DuPont and were on paper record and not on the computer, which would allow easy access.

*Issue:* None

*Action:* None

Jimmy Mackey asked for any other public comments. There being none the meeting was adjourned.

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