



## SRS Citizen's Advisory Board

### July 2001 Meeting Minutes

#### **SRS Citizens Advisory Board**

July 23-24, 2001  
Holiday Inn, Coliseum at USC  
Columbia, SC

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#### **Members Present**

|                     |                    |
|---------------------|--------------------|
| J.G. Long           | Karen Patterson    |
| Meryl Alalof        | Jimmy Mackey       |
| Nancy Ann Ciehanski | Karen Patterson    |
| Sallie Connah       | Maria Reichmanis   |
| Beckie Dawson       | Lola Richardson    |
| Gerald Devitt       | Murray Riley       |
| Mel Galin           | Heather Simmons    |
| Ken Goad            | Jean Sulc          |
| Perry Holcomb       | Bill Voegel        |
| Brendolyn Jenkins   | Wade Waters        |
| Vera Jordan         | William Willoughby |

#### **Ex-Officio Representatives**

Jim Brownlow, SCDHEC alternate  
Keith Collinsworth, SCDHEC  
Tom Heenan, DOE  
John Stockwell, EPA  
Camilla Warren, EPA

SCDHEC - South Carolina Department of Health & Environmental Control  
DOE - Department of Energy  
EPA - Environmental Protection Agency

Board member Carolyn Williams was unable to attend. The meeting opened with Tom Heenan serving as Designated Federal Official. Mike Schoener served as facilitator. The meeting was open to the public and posted in the *Federal Register* in accordance with the Federal Advisory Committee Act.

#### **Approval of the Minutes**

The Board approved the April draft meeting minutes with a minor clarification.

#### **Key Decisions Made During the Meeting**

#### **Recommendation 139-Yucca Mountain Supplemental EIS**

The SRS CAB recommended that DOE open Yucca Mountain on schedule and not allow any ongoing analyses to delay or impede this decision. The Board asked DOE to continue in-depth evaluations of priority issues regarding the scientific foundation for a positive Yucca Mountain site recommendation and also requested that DOE incorporate a surface aging area for commercial spent nuclear fuel into the surface facilities plan for Yucca Mountain. The Board also recommended that DOE conduct an in-depth investigation of a low temperature repository design, as an operating mode with optimum flexibility and that they consider only the Science & Engineering Report flexible design in the Final EIS and not address the viability Draft EIS design.

#### **Recommendation 140 – Old Radioactive Waste Burial Ground Focus Group Final Report**

In 1998, an SRS CAB focus group was formed to determine if there are any human health consequences and risk posed by the ORWBG and if so, would remedial actions proposed provide significant improvement in human health and be cost effective. The results of this three-year effort were provided in final report to the SRS CAB on July 16, 2001. Based on the work of the Focus Group and conclusions from and independent scientific peer review as well, the group concluded that there are no worker or public human health consequences due to ORWBG during active institutional control. The Focus Group provided seven specific conclusions and recommendations.

The SRS CAB supported all but one of the Focus Group conclusions to cease a phytoremediation project because the SRS CAB believes phytoremediation is an important technical experiment to treat tritium-contaminated groundwater. The SRS CAB supports the Site's commitment to minimize all radioactive releases to the Savannah River and therefore, recommended that DOE, EPA and SCDHEC review the Focus Group final report and incorporate the remaining six findings in the remedial actions of the ORWBG. The Board also requested that SRS develop an implementation plan and present it to the CAB by October 22, 2001. Two members submitted minority opinions.

#### **Recommendation 141-Consolidated Incineration Facility (CIF) Closure Schedule Alternatives**

The Board unanimously recommended that DOE-SR develop a plan that allows the CIF to remain a viable option until an alternative treatment technology is demonstrated and all the PUREX legacy waste has been treated. This plan must support a decision date of April 2002. The Board asked for an update regarding this plan and budgeting plans for the various scenarios proposed for CIF by October 22, 2001.

#### **Recommendation 142-Status of Low Level Radioactive and Mixed Waste Shipments**

A recommendation that SRS ship 13 large containers of low level waste to Nevada Test Site and 1,800 drums of mixed waste to a commercial site in Utah by September 30, 2001 or earlier if possible was adopted by a unanimous vote. The CAB also requested SRS identify the type and quantity of waste that needs to be shipped off-site in FY02 and present the anticipated time schedule to the SRS CAB by October 23, 2001.

#### **Agency Update**

Keith Collinsworth announced that the SCDHEC Commissioner Doug Bryant is retiring and will be replaced by Earl Hunter, Assistant Commissioner. Mr. Collinsworth also provided an update regarding the Comprehensive Monitoring Evaluation at the CAB's request noting that EPA had the lead on the inspection. Mr. Collinsworth said according to SCDHEC, SRS performed very well with no violations; not even housekeeping issues were found. From SCDHEC perspective, SRS is complying with all requirements in terms of hazardous waste, he said.

Tom Heenan announced that Ms. Jessie Roberson has been confirmed as the Department of Energy's Assistant Secretary for Environmental Management. He also announced that WSRC President Joe Buggy will retire effective August 1 and is being replaced by WSRC Vice President Bob Pedde. Dave Amerine will be WSRC Executive Vice President. Mr. Heenan also announced that DOE Deputy Secretary Bob Card visited SRS. Mr. Heenan noted Mr. Card was pleased with regulatory and public interactions. Mr. Heenan also provided the July Operations Update (see attached), which now includes a transuranic waste shipment measurement. He concluded with photographs of the first transuranic and low level waste shipments leaving SRS and a representation of the first mixed waste shipment scheduled for August 2. EPA did not provide an agency update.

#### **Facilitator Update**

Mike Schoener presented the current recommendation status report noting 19 recommendations are pending, 18 are open and 101 are closed. The Board is awaiting three responses from EPA, one from

SCDHEC and one from DOE. There have been eight status changes in the recommendation database since the April meeting, he said. Mr. Schoener also provided an update regarding the SSAB Groundwater Workshop to be hosted by the SRS CAB November 8-10, 2001 at the Sheraton Augusta Hotel. Jean Sulc, Education Chair is assisting Mike Schoener on the planning committee for the workshop. Mr. Schoener also presented the SRS CAB Self Evaluation Survey for 2001. The results of this survey will be shared during the October Board meeting.

### **Nuclear Materials Committee Report**

Ken Goad provided an update on Americium Curium noting responses from DOE to CAB questions posed during the May 22 Combined Committee meeting (see attachment). Jimmy Mackey noted a report regarding AmCm he had provided to Donna Martin, WSRC for distribution to the Nuclear Materials Committee. Board members discussed the unique nature of AmCm and the need for final disposition. It was noted that DOE had been invited to the next CAB meeting to provide an update.

### **Supplement to Yucca Mountain Draft EIS**

Ken Goad provided a draft motion on the Supplement to Yucca Mountain Draft EIS (see attachment). The committee motion recommended that DOE open Yucca Mountain on schedule and not allow any ongoing analyses to delay or impede this decision. It also asked DOE to continue in-depth evaluations of priority issues regarding the scientific foundation for a positive Yucca Mountain site recommendation and also requested that DOE incorporate a surface aging area for commercial spent nuclear fuel into the surface facilities plan for Yucca Mountain. The motion recommended that DOE conduct an in-depth investigation of a low temperature repository design, as an operating mode with optimum flexibility and that they consider only the Science & Engineering Report flexible design in the Final EIS and not address the viability Draft EIS design. Following discussion on clarification of the fifth recommendation and the political issues surrounding the opening of Yucca Mountain, Bill Vogeles moved the Board approve the motion and Wade Waters seconded. The motion passed with 21 members in favor and one abstention by Karen Patterson due to any perceived conflict of interest in regards to her employment with the contractor responsible for the EIS.

### **Environmental Restoration Committee Report**

Jimmy Mackey provided a briefing of the Old Radioactive Waste Burial Focus Group Final Report and presented the final recommendations of the Focus Group and ER Committee (see attached). In 1998, an SRS CAB focus group was formed to determine if there are any human health consequences and risk posed by the ORWBG and if so, would remedial actions proposed provide significant improvement in human health and be cost effective. The results of this three-year effort were provided in a final report to the SRS CAB on July 18, 2001. Based on the work of the Focus Group and conclusions from an independent scientific peer review as well, the group concluded that there is no worker or public human health consequences due to ORWBG during active institutional control. The Focus Group provided the following specific recommendations:

1. Cease the current collection of tritium-containing groundwater and irrigation of the forest as soon as possible.
2. Develop institutional controls (IC) specific to the ORWBG and the area between the ORWBG and Fourmile Branch by April 2002.
3. Fill the solvent tanks with grout to stabilize them and then cover this portion of the ORWBG with 2 to 8 feet of low permeability soil to match the rest of the ORWBG.
4. Develop a land management strategy to minimize erosion, prevent deep-rooted plants from encroaching, and discourage burrowing animals and insects from bringing waste to the surface.
5. Consider refining the groundwater transport calculations for Volatile Organic Compounds and other Constituents of Interest (other than tritium) in order to be consistent with measurements.
6. Do not excavate buried plutonium from the ORWBG.

7. Establish a mixing zone for the ORWBG groundwater plume during active and passive IC. Consider different mixing zones for active IC and for passive IC.

The ER Committee motion supported all but of the Focus Group recommendations except number 1 above because the SRS CAB believes phytoremediation is an important technical experiment to treat tritium-contaminated groundwater. Discussion revolved around why the committee disagrees with the Focus Group on ceasing the phytoremediation project. Jean Sulc responded that Beaufort Jasper Water Authority recipients would have objected to the recommendation as it stood. Bill Willoughby and Perry Holcomb both noted objections to the motion. The Board modified the opening statement of the SRS CAB recommendation noting support for the Site's commitment to minimize all radioactive releases to the Savannah River. It further recommended that DOE, EPA and SCDHEC review the Focus Group final report and incorporate the remaining six findings in the remedial actions of the ORWBG. The motion also requested that SRS develop an implementation plan and present it to the CAB by October 22, 2001.

Bill Vogle moved the Board adopt the motion as modified and Nancy Ann Ciehanski seconded. The motion passed with 22 members in favor and two opposed. Minority reports will be provided by Perry Holcomb and Bill Willoughby.

Jimmy Mackey also provided a brief trip report from the Environmental Restoration Technical End User Conference. He noted discussions with Gerald Boyd regarding the Subcontaminants Focus Groups and the need for stakeholder involvement. Tom Heenan gave a brief explanation of the conference and the need for technology sharing among end users. Typically, it was DOE and DOD participants sharing solutions as well as participants from EPA. Camilla Warren of EPA discussed EPA participants who attended the conference including Emergency Preparedness personnel and Project Managers.

#### **Education Committee Report- SRS Plutonium Program**

Dan Wood, WSRC, provided an overview of the SRS Plutonium Program (see attachment). He discussed the role of plutonium in the Environmental Management Program, the historical mission of SRS, plutonium inventories and the role of SRS in today's plutonium complex. He provided a description of SRS plutonium facilities and discussed completed and ongoing activities in the EM program. He described packaging and stabilization equipment and future SRS missions.

In response to CAB member questions, Mr. Wood explained the dangers of inhaling plutonium and why it deserves respect. He noted that the majority of plutonium is at Pantex, however SRS is one of two producing sites. SRS has produced 36 metric tons and Hanford 60 metric tons. No other site has the capabilities of SRS to assist with disposition, he said. He discussed disposition at SRS and why it will be disposed in several areas. Mr. Wood also discussed the F Canyon Purex Process and the FB Line Plutonium Process resulting in plutonium buttons.

Mr. Wood responded to questions regarding how plutonium buttons are kept from oxidizing, stating they are put into an inert atmosphere like helium, which has no oxygen to keep it dry. He explained that plutonium is not very mobile and if spilled would attach to dirt and stay there, unlike tritium. Plutonium is not much different than other heavy metals in terms of toxicity, but from a radioactive perspective causes safety concerns due to inhalation. Mr. Wood discussed the need to further reduce the risk and passed a sample of the double container used to package plutonium pellets, one pellet per container. He also discussed quality control checks on packaging.

Mr. Wood also responded to questions regarding filtration of releases of plutonium to air, plutonium inventories and plutonium shipments. He discussed future missions and agreements with Russia that drive the dual disposition strategy. He explained that the Mixed Oxide Fuel Fabrication Facility, Pit Disassembly and Plutonium Immobilization Programs are not an EM mission, however EM is challenged with safe storage and disposition.

### **Waste Management Committee Report**

Subcommittee Chair Wade Waters announced that two public scoping meetings will be held July 31 at the North Augusta Community Center for release of radioactive scrap metals. He also noted the CABs record regarding transuranic waste shipments to the Waste Isolation Pilot Plant. Tom Heenan commented on the CAB's influence in accelerating the transuranic disposal program.

Mr. Waters then presented the committee's draft motion regarding the Consolidated Incineration Facility Closure Schedule Alternatives (see attached). He discussed background information regarding the issue of whether to close or restart the facility. The motion recommended that SCDHEC and DOE-SR develop a plan that allows the CIF to remain a viable option until an alternative treatment technology is demonstrated and all the PUREX legacy waste has been treated. This plan must support a decision date of April 2002. It also asked for an update regarding this plan and budgeting plans for the various scenarios proposed for CIF by October 22, 2001.

Keith Collinsworth provided clarification regarding permitting of CIF. SCDHEC went beyond regulations to give SRS time to determine viable technologies, he said. Mr. Collinsworth explained that DOE would have to apply for an extension of closure of CIF with SCDHEC and could present this modification to the CAB. The Board modified the motion to provide the recommendation to DOE. Becky Dawson moved the Board adopt the motion as amended and Bill Vogeles seconded. The motion was adopted unanimously.

### **Low Level Waste Shipments to Nevada Test Site (NTS)**

Sonny Goldston provided a presentation regarding low level waste shipments to the Nevada Test Site (see attachment). Mr. Goldston explained that some LLW exceeds radionuclide performance assessment limits for disposal at SRS and these limits are higher at the Nevada Test Site due to the drier climate and lower water table. Shipping LLW to NTS allows SRS to better utilize its vaults and trenches for items they are unable to send to NTS or when it is less expensive to store onsite. Mr. Goldston discussed SRS shipping requirements and the shipment schedule. The first shipments consist of 232-F "old" tritium facilities demolition debris. Mr. Goldston showed photographs of shipments being loaded and exiting the burial grounds and discussed future waste forms planned for shipment.

Heather Simmons presented the committee's draft motion regarding the Status of Low Level Radioactive Waste Shipments (see attached). The motion recommends that SRS ship the 13 large containers of LLW to NTS and 1,800 drums of mixed waste to a commercial site in Utah by September 30, 2001, or earlier if possible. It also asked that SRS identify the type and quantity of waste that needs to be shipped off site in FY02 and present the anticipated time schedule to the SRS CAB by October 23, 2001.

Following discussion regarding the need for the recommendation, Mel Galin moved the Board accept the recommendation and Murray Riley seconded. The motion passed by a unanimous vote.

### **High Level Waste Program Update**

Larry Ling provided an update of the SRS High Level Waste Program (see attachment). Mr. Ling provided background information for new members and then discussed the Salt Processing Project Status, HLW tank space management and the Glass Waste Storage Building Alternative. Mr. Ling discussed the NEPA process for determining the preferred alternative for salt processing and discussed the proposed project approach. DOE plans to award two contracts through conceptual design to promote competition between contractors and should award these contracts by the end of the year. The pilot facility will be constructed during FY02. Ultimately, the Salt Processing Facility should be operating no later than 2010.

Mr. Ling discussed the aging SRS HLW tanks noting the four different tank designs and discussed leaks in Tanks 5 and 6 and subsequent camera inspections. He also showed photographs of leaks in both tanks. Mr. Ling discussed the HLW Evaporators noting problems with two evaporators. The 2F

Evaporator is currently operating well with a space gain of 80,000 gallons per month. Mr. Ling discussed the recovery of a former ITP Tank 49 to be returned to tank farm service this fall. Tank 50 is scheduled for return to tank farm service in August 2002. It is currently supporting the Effluent Treatment Facility.

Mr. Ling discussed the Glass Waste Storage Building Alternative noting that using storage units manufactured from depleted uranium trioxide to store DWPF canisters in lieu of constructing additional storage buildings was not cost effective. Other alternatives being considered include building modular units. Mr. Ling discussed canister production noting the site remains slightly ahead of schedule.

Mr. Ling concluded with the Federal Facility Agreement Removal Plan & Schedule noting that Tanks 17 and 20 have been closed.

Board members inquired about radioactivity of evaporators, whether benzene remained in the system and how it is contained, how HLW workers are protected, whether there have been leaks from the secondary containment tanks and the camera schedule for monitoring tanks.

### **Burning of Paper Pellets as Alternate Fuel**

Don Gordon, WSRC, provided an update regarding the burning of paper pellets as alternate fuel co-fired with coal in A-Area boilers (see attachment). Mr. Gordon discussed the composition of the pellets, which are shaped into cubes and consist of used office paper and cardboard. Other waste, such as food waste, hard plastics, tires and spray cans can not be used in paper pellets. Mr. Gordon described the paper pellet process. Mr. Gordon discussed regulatory options and discussed the chronology of the SRS request to SCDHEC for approval to burn paper pellets in the A-Area Boilers. The current status is SCDHEC does not want to go the Municipal Solid Waste route because the case-by-case limitations would allow less restrictive application of Standard 3 requirements and would set precedents they wish to avoid. SRS and SCDHEC agreed in principle that only paper, cardboard and plastic container bags would be compacted into paper pellets. This includes 95 percent of materials in questions. SRS must conduct a stack test to gather emissions data on co-fired operation and modify air operating permits for the A-Area Boilers. Waste management practices will also have to be modified for collecting paper, cardboard and all other materials. Mr. Gordon concluded that the proposed alternate fuel initiative makes good sense from an environmental and waste minimization/pollution prevention standpoint and SRS has agreed to comply with SCDHEC requirements and the regulatory process is nearly complete. Keith Collinworth provided the SCDHEC perspective of the paper pellet project noting that SCDHEC was agreeable with the project until SRS wanted to add plastics and other types of trash.

### **Strategic & Long Term Issues Committee Report**

Mel Galin noted the committee meeting held the evening prior and the fact that it was a roundtable discussion regarding issues for consideration by the committee. He noted the committee members who will be taking the lead on the various issues. He also discussed the need to have another presentation regarding the SRS planning process and how all the processes are integrated.

Mr. Galin discussed Long Term Stewardship (LTS) noting that guidance is forthcoming from DOE-Headquarters and that hopefully by October, we will have guidelines for future base-lining. He noted a LTS meeting July 31 in Grand Junction, Colorado and the fact that Wade Waters planned to attend and report back to the LTS Subcommittee. Jean Sulc provided a brief update on the activities of the Long Term Stewardship Subcommittee. She noted the committee's charter, the national guidance due in October, and the Subcommittee's endorsement of the Comprehensive Environmental Systems Management Approach. The Subcommittee plans to provide a letter to the S&LTI Committee regarding its endorsement of this approach.

Mr. Galin also discussed technology initiatives and deployment and how the CAB can gain a better understanding of this arena. He commented that a tour of SRTC will be scheduled as part of this effort to

become informed of these issues. Tom Heenan responded that he would ensure the proper contacts would be established to meet the CAB's needs. Jimmy Mackey noted the daunting task ahead in light of the numerous technologies being developed and deployed.

### **Budget Update**

Tom Heenan, DOE, provided a brief update on the budget process. He summarized several DOE responses to various stakeholders and discussed the Congressional mark-ups for FY02 noting that the House of Representatives had restored funding, however salt processing was not part of level funding. He explained the traditional budget process from House to Senate to Conference and the intricate nature of the government process unfolding. He stated that DOE-SR is proceeding with its programs to meet commitments and fully expects to execute all programs until directed otherwise.

Mr. Heenan also briefly discussed the EM top-to-bottom review stating the Secretary has determined it is not going to take decades and millions of dollars to cleanup the DOE complex. The complex as whole is looking at internally imposed requirements that cause the program to be more expensive than need be. The Secretary has asked contractors to come up with recommendations. WSRC has the lead in coordinating for all contractors, he said. He discussed another panel being formed to look at a more complex-wide approach and noted a procurement initiative for driving technology deployments. He concluded by noting the many ongoing initiatives to accomplish EM work more effectively.

### **Administrative Committee Report**

Lola Richardson reported the Administrative Committee met earlier during lunch and expressed interest in becoming more involved in outreach activities. She also noted that CAB membership solicitation began July 1 and ends August 31. She stated that 40 people had requested applications for membership. She also announced that the Administrative Committee will meet September 14, 2001, at the Savannah Rapids Pavilion to select 2002 membership candidates. She stated that any CAB members who want to attend this meeting should make the Board Administrator aware they plan to attend to ensure they receive information prior to the meeting.

### **Public Comments**

#### **Ruth Thomas, Environmentalist Inc.**

Ruth Thomas commented that she had submitted a letter a few years ago to the SRS CAB expressing interest in setting up a dialogue between the CAB and Environmentalist, Inc. to learn more about each other and help simplify subjects. She noted her organization's difficulty in attracting people to meetings. She stated she is on the CAB mailing list and receives more information than she needs. She also offered to answer questions about her organization. She stated her organization does not take positions for or against issues but rather takes a position on the decision-making process.

#### **Leslie Miner, Columbia, S.C.**

Leslie Miner stated she heard the CAB had improved over the years and requested information regarding funding cuts for the immobilization plant at SRS. She noted her concern over plutonium coming to South Carolina. (Ms. Miner was informed of the CAB's EM charter scope and the fact the Board does not make recommendations regarding Defense Program work.)

The meeting adjourned at 3:30 p.m. with Tom Heenan acting as Associate Deputy Designated Federal Official.

### **Handouts**

SRS CAB Agenda, July 24, 2001  
Operations Update, July, 2001  
Citizens for Environmental Justice Workshop Scheduled  
SRS CAB Recommendation Summary Report  
Nuclear-Material Related Action List from May 22 Combined Citizens Advisory Board  
Supplement to Yucca Mountain Draft EIS, Ken Goad, CAB  
Old Radioactive Waste Burial Ground Focus Group Final Report, Jimmy Mackey, CAB  
Savannah River Site Plutonium Missions, Dan Wood, WSRC  
Consolidated Incineration Facility (CIF) Closure Schedule Alternatives, Wade Waters, CAB  
Low Level Radioactive Waste Shipments to Nevada Test Site, Sonny Goldston, BNFL/WSRC  
Status of Low Level Radioactive and Mixed Waste Shipments, Heather Simmons, CAB  
SRS High Level Waste Program Update, Larry Ling, DOE  
Burning of Paper Pellets as Alternate Fuel, Don Gordon, WSRC  
Letter to Karen Patterson from Carolyn Huntoon, DOE, dated July 16, 2001  
Letter to Mr. R.J. and Ms. Nancy Ann Ciechanski from Mark Frei, DOE, dated July 10, 2001  
Letter to the Honorable Jim Hodges from Secretary Spencer Abraham, dated June 26, 2001  
SRS CAB Calendar  
SRS CAB NEPA Monthly Report  
CRESP II Fact Sheet

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