



## SRS CAB plays role in DOE success story

“What to do?” Several years ago, Department of Energy (DOE) officials began scratching their heads when they realized that the Savannah River Site (SRS) waste management facilities were not suitable for treatment and disposal of all types of waste, the cost to taxpayers to store waste was increasing, and eventually, SRS would run out of expensive vault disposal space.

“The ‘not so typical SRS problem’ needed a solution, but it was going to take determination and cooperation if SRS was going to manage waste inventories that had

shipment of SRS’s mixed low-level waste (MLLW) found a home at Envirocare in Utah.

Mr. Waters explained how the trilogy of shipments happened, but first he provided an explanation of the challenge. “At SRS, the Solid Waste Division (SWD) is managed by British Nuclear Fuels plc (BNFL) for the Westinghouse Savannah River Company, and is responsible for treatment, storage and disposal of radioactive wastes generated in processes associated with the past production of nuclear materials,” Mr. Waters said.



First TRU Waste Shipment to WIPP  
May 8, 2001



First LLW Waste Shipment to NTS  
July 11, 2001



First MLLW Waste Shipment to Utah  
August 2, 2001

no disposal path”, said Wade Waters, Chair of the Citizens Advisory Board’s (CAB) Waste Management Committee (WMC).

“As it turned out, the answer came to SRS in several forms,” Mr. Waters said, “including three significant ‘first’ offsite waste shipments in just one year!” The first shipment of transuranic (TRU) waste was sent to the Waste Isolation Pilot Plant (WIPP) in New Mexico; the first shipment of low-level waste (LLW) left SRS for the Nevada Test Site (NTS); and the first

The waste forms are varied. For example, TRU waste consists of clothing, tools, rags, residues, debris and other items contaminated with small quantities of radioactive elements – primarily trace amounts of plutonium. These radioactive elements are man-made and have an atomic number greater than uranium; hence, its name, Trans (beyond) uranium. With approximately 11,000 cubic meters of waste stored in culverts, drums and large containers, SRS had to find a safe and long-term storage facility for the waste.

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### Special points of interest:

- Three significant offsite waste shipments
- DOE continues to make steady progress with shipments leaving SRS on schedule
- SSAB national workshop to be held at SRS
- CIF Focus Group stays informed of future operations
- Focus Group concluded the ORWBG posed no human health threat

# SRS CAB plays role...

*(Continued from page 1)*

On May 8, 2001, SRS initiated shipments of this TRU waste to WIPP, a geologic repository in Carlsbad, New Mexico, which had been constructed specifically for the permanent disposal of TRU waste. As the media focused its attention on SRS's first shipment of 42 drums of TRU waste, CAB members joined in the celebration with DOE officials and other invited guests and waved at the special TRUPACT-II transporter as it crossed the site's boundary lines on its way to WIPP.

Next, the first shipment of LLW left SRS on July 11, 2001. Consisting of wastes such as demolition debris including metal, piping, ductwork, wood, plastic, paper and related material, the shipment reached the Nevada Test Site safely within a few days. In general, LLW is radioactive waste that is not classified as high-level waste, transuranic, spent fuel, or a by-product material. LLW usually contains small amounts of short-lived radioactive waste dispersed in large quantities of material; however, it does not contain Resource Conservation and Recovery



*First shipment of TRU Waste leaves the Savannah River Site on May 8, 2001*

Act (RCRA)-regulated hazardous waste.

Then, to complete SRS's trilogy of first offsite shipments in 2001, on August 8, the first load of treated MLLW left SRS for disposal at Envirocare in Utah. The MLLW shipment contained stabilized ash and blowdown from operations at the Consolidated Incineration Facility. The first shipment reached Utah safely, and another 44 shipments

were scheduled through the end of September. Mr. Waters said that he has learned that the treated MLLW is homogenous and well characterized by an analytical laboratory, which has been certified by the State of Utah.

"The SRS CAB is considered a large contributor to this waste management solution," Mr. Waters said. "Even before my appearance on the Board, the CAB was concerned because of the uncertainty associated with the start-up of WIPP; the potential for a high activity Pu-238 or Pu-239 accident during storage or treatment at SRS; and the likelihood of long-term storage of TRU waste at SRS after waste treatment," Mr. Waters said. In 1995, the fourth recommendation the CAB made to DOE addressed these concerns and

*(Continued on page 4)*



*South Carolina and Georgia residents from diverse backgrounds compose the SRS Citizens Advisory Board.*

## Recent Recommendations Highlighted

### **Salt Processing Alternatives Draft Supplemental Environmental Impact Statement**

The Board recommended that DOE select a preferred salt processing technology by July 1, 2001 and comply with the current NEPA schedule of having a Record of Decision available by September 2001. DOE responded that the salt processing alternative technology selection is a critical priority and remained on schedule for the June 2001 decision date, however the date for the Record of Decision was delayed. The Final Supplemental Environmental Impact Statement (FSEIS) for Salt Processing Alternatives is complete and was announced in the July 20, 2001 *Federal Register*. The FSEIS identified Caustic Side Solvent Extraction as the preferred salt processing alternative.

### **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.

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### **Old Radioactive Waste Burial Ground (ORWBG) Focus Group Final Report**

Based on the work of the ORWBG 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 endorsed all but one of these recommendations. Minority opinions were submitted by two CAB members. For more detail, see article on page 7.

### **Consolidated Incineration Facility (CIF) Closure Schedule Alternatives**

In a unanimous recommendation, the SRS CAB asked that DOE-SR develop a plan that allows the CIF to remain a viable option until an alternative treatment technology is demonstrated and all PUREX legacy waste has been treated. This plan must support a decision date of April 2002. The Board also requested updates and budgeting plans for the various scenarios proposed for CIF.

posed for CIF. DOE thanked the Board for its recommendations and agreed to provide an update in October regarding the plan to maintain CIF as a viable option until an alternative treatment for PUREX waste is demonstrated.

### **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 during the July CAB meeting. 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 late October. DOE agreed that continuation of the program to ship LLW and MLLW off site for disposal is an important part of an overall program to safely and cost effectively dispose of wastes. DOE will continue to ship LLW and MLLW to off site disposal facilities as long as it is the most practicable and cost effective method for disposal. DOE met the commitment for shipment as requested by the SRS CAB and will provide FY02 shipments by October 23, 2001.

## SRS CAB Mission Statement

The SRS Citizens Advisory Board (CAB) is a non-partisan group of individuals who are independent of federal, state and local government organizations as they relate to the mission of the CAB. The Board provides informed and timely recommendations to the U.S. Department of Energy (DOE), the Environmental Protection Agency-Region IV (EPA), and the South Carolina Department of Health and Environmental Control (SCDHEC) concerning decisions that affect SRS in areas of environmental restoration, waste management and activities related to these functions. Two important goals of the Board are to improve two-way communication with SRS impacted communities and to ensure that stakeholders are given an opportunity to become involved in the decision-making processes of DOE, EPA, SCDHEC, and SRS management.

## SRS CAB plays role ...

*(Continued from page 2)*

suggested then that DOE begin the process to expedite shipping TRU waste to WIPP. Since its inception, the CAB has now submitted approximately 14 TRU waste-related recommendations to DOE.

When WIPP began operations officially on March 26, 1999, the picture for the "Ship to WIPP" campaign began to change. Recognizing that SRS's TRU waste finally had a home, SRS officials started preparations for making the first shipment. "While I was not a member of the Board when initial work began on TRU waste to WIPP, I feel fortunate to have picked up the momentum from Bill La wless, a former CAB member. Witnessing the first shipment of TRU waste leaving SRS for WIPP," Mr. Waters said. "I can't begin to tell you the pride I felt as a CAB member in seeing a project that the CAB has been involved with come to fruition," he added.

But there is more to the story and it came in the form of three Records of Decision (RODs) to the SRS Final Waste Management (WM) Environmental Impact Statement (EIS). The

*"It took years of hard work and teamwork, and grew out of high-trust relationships..."*

WMEIS is the document that officially evaluated the approaches to and environmental impacts of managing five waste types at SRS, which includes the TRU, LLW and MLLW waste streams.

Once again, the CAB contributed to the process by supporting the Transportation Environmental Assessment (EA) decision to transport these waste shipments to offsite commercial and government facilities. But before SRS



*CAB members, DOE, BNFL, and WSRC officials celebrate the first TRU shipment to WIPP*

could send LLW and MLLW for disposal offsite, a final ROD was needed on the SRS Final WMEIS. In June 2001, the Assistant Secretary for Environmental Management signed the ROD, which permitted SRS to begin preparations for the successful trilogy of shipments of TRU, LLW and MLLW wastes offsite.

There is no question that this achievement is a success story for DOE, the SWD and the CAB. It took years of hard work and teamwork, and grew out of high-trust relationships, including SRS's stakeholders. Wade Waters said, "You can only achieve win/win solutions with win/win processes. In this case, the end and the means were the same." Shipments are expected to continue, and in its latest recommendation, the CAB asked for the practice to continue as long as it is the most practicable, cost-effective and equitable method of disposal for these types of waste.

DOE continues to make steady progress with shipments leaving SRS on schedule. However, on July 25, SRS did experience a delay in shipping LLW to the NTS. While preparing to load containers onto trucks in preparation for the shipment, workers noticed a small amount of liquid mercury on the ground near the seal of one waste con-

tainer. For SRS it is extremely important to ensure that waste not contain any liquid and that it be properly characterized. For this reason, this shipment of LLW to NTS was suspended until SRS could complete further characterization of the waste. With safety as its major driver, there is no question that SRS will continue to ensure the integrity of every shipment before leaving the site.

These safety precautions and focused attention that DOE makes toward offsite waste shipments shows that SRS is meeting its commitment to the people of South Carolina and the nation by taking another step forward toward ensuring the safe disposal of waste.

## Bi-annual SSAB Chairs meeting held

SRS CAB Chair Karen Patterson and Vice Chair Brendolyn Jenkins attended a bi-annual meeting of the Site Specific Advisory Board Chairs August 26-29 in Santa Fe, New Mexico. Hosted by the Northern New Mexico SSAB, the meeting included a welcoming reception, two-days of presentations and discussion among SSAB Chairs and a tour of Los Alamos. Participants received a message from recently appointed DOE Assistant Secretary for Environmental Management, Jessie Roberson via Gene Schmitt, Acting Deputy Assistant Secretary for Policy, Planning and Budget. Mr. Schmitt also provided presentations regarding the EM Top-to-Bottom Review and the DOE Budget. SSAB Chairs participated in round robin discussions about SSAB involvement in the budget process, the scope of the Boards and DOE responsiveness to Board recommendations.

## SRS CAB hosts National Groundwater Workshop

The Savannah River Site Citizens Advisory Board will be hosting a national Groundwater Workshop from Thursday, January 31 through Saturday, February 2. The workshop will be attended by representatives from DOE Site-Specific Advisory Boards (SSABs) across the nation, including SSAB members, regulators and invited guests. The workshop is the fifth in a series of SSAB national workshops. Previous workshops covered topics including low level waste, transportation and long-term stewardship.

The workshop will focus on four core topics: Technology, Regulations, Public/Community Involvement and Funding. The goals of the Groundwater Workshop are to improve stakeholder understanding of groundwater cleanup and technology issues, foster dialog among SSABs about common groundwater issues and concerns, and to provide joint recommendations toward resolution of those concerns. Participants will spend some time learning about groundwater issues across the DOE complex, but most of the work-

shop will be spent in break-out sessions and group sessions discussing issues and working towards the development of statements related to the core topics. These statements will be formally transmitted to senior managers at the Department of Energy for their consideration.

For more information about the Groundwater Workshop, check the web at [www.srs.gov](http://www.srs.gov) and click on "Environment" or contact Dawn Haygood at 800-249-8155 or Mike Schoener at 803-641-8166

## Is time running out for the Consolidated Incineration Facility?

In 2000, the Consolidated Incineration Facility (CIF) processed 3,156 gallons of PUREX solvent. This production schedule would have exceeded the DOE goal of 5,000 gallons by the end of 2000. However, DOE decided to suspend operations at CIF in order to provide funding for higher priority site missions. A study to determine an alternative treatment technology for CIF waste streams was initiated during the year; however, it was determined that if an alternative could not be found, it was expected that CIF would resume operations.



*Surveillance and monitoring are a safety requirement during the suspension of activities at the Consolidated Incineration Facility*

An agreement was negotiated with the South Carolina Department of Health and Environmental Control (SCDHEC) on the detailed clean-out requirements that were necessary in order to enter into the suspension of operations at CIF. This agreement also included a detailed Safety Assessment and Clean-out Strategy, and a Surveillance and Maintenance Plan.

Concerned by DOE's decision to place CIF in a suspension mode, the SRS CAB Waste Management Committee

formed a focus group in order to stay informed (through DOE/WSRC updates) on the future status/operations of CIF and the review of alternative waste treatment processes. The CIF Focus Group, whose members meet monthly, also needed a means of offering meaningful input (through peer reviews) in the identification and review process of

alternative waste treatment methods, as well as in the decision-making process on the CIF's future. Through the work of the Focus Group, the CAB has already submitted three official recommendations to DOE regarding its concerns about CIF.

By April 2, 2002, DOE must make a

*(Continued on page 6)*

# Members in the Spotlight



## Martin (Marty) Stringer

Marty is a high school vocational instructor in Columbia, SC and serves on the Board of Education. He served 20 years in the U.S. Army before returning to the Columbia area nearly ten years ago. Marty has served as a volunteer and mentor with the Columbia Urban League's Stop the Violence Youth Leadership Development initiatives and various other task forces for youth. Mr. Stringer is serving the unexpired portion of a two-year term previously held by Mr. Walter Becker who submitted his resignation earlier this year.

## ER TEC 2001 sharing valuable experience

The fourth Environmental Restoration Technical End User Conference—ER TEC 2001 was held July 17-19, 2001 at the Westin Peachtree Plaza, Atlanta, Georgia.

During the three days of activities, 240 attendees from 28 states shared technology deployment experiences that are being used around the world. Attendees from DOE, DOD, EPA, state regulatory agencies, and representatives from universities and industry participated. Equally important were the interactions at the exhibits, on tours and beyond the presentations to discuss ideas and reach mutual goals.

The opening address speaker for the conference was Gerald Boyd, Deputy Assistant Secretary, Office of Science and Technology, at DOE-HQ. Mr. Boyd, introduced by Tom Heenan, DOE-SR, had praise for SRS's efforts in technology development and deployment. Nationally, however, he called for a greatly increased research focus on cleanup methods.

The themes of the meetings were that we have real problems with real solutions. Natural remedies using phytoremediation and bioremediation were in the forefront of popular topics.



WSRC's Jim Kupar and Bill Rajczak answer questions raised by Jimmy Mackey, SRS CAB ER Committee Chairman on cost saving Deployments of New Technology at the Savannah River Site

## Is time running out ...

*(Continued from page 5)*

decision whether or not to restart CIF. If the decision for restart is made, a new operating permit will be required by SCDHEC. If the decision is made not to restart the facility, then the facility must be dismantled in 180 days according to the Resource Conservation Recovery Act (RCRA). If DOE should choose not to restart CIF it must also select a technology to treat the PUREX legacy waste. Additionally, in CAB Recommendation

141, "Consolidated Incineration Facility (CIF) Closure Schedule Alternatives, the CAB asked DOE-SR to 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. Since a technology has not been demonstrated, the cost of a proven technology is not yet known. The CIF Focus Group sincerely believes that it is unlikely a decision can be made by April 1, 2002; there-

fore, it is continuing to express concern over the disposition path for the SRS PUREX waste stream. *Stay tuned ...*

We're on the Web!  
[www.srs.gov](http://www.srs.gov)  
click on "Environment"

# Old Radioactive Waste Burial Ground Focus Group Final Report

In 1998, a small group of dedicated individuals formed the SRS CAB Old Radioactive Waste Burial Ground (ORWBG) Focus Group to determine if there are any human health consequences and risk posed by the ORWBG and if so, what remedial actions would provide significant improvement in human health in a cost effective manner. The results of this three-year effort were provided in a final report to the SRS CAB on July 16, 2001.

The Focus Group used the Corrective Measures Study/Feasibility Study prepared by Bechtel Savannah River Inc. as the basis for its evaluation. An Independent Scientific Peer Review (ISPR) was requested and approved by the Citizens Advisory Board to reevaluate the concentrations of contaminants migrating from the burial ground. Based on recent DOE statements concerning long-term stewardship and the maintenance for perpetuity of contaminated sites like the ORWBG, the Focus Group additionally evaluated the likelihood of active and passive institutional controls limiting the public's access to the area near the ORWBG. The Focus Group also examined the effectiveness of capping the burial ground, and adding vegetation to the cap for the specific purposes of controlling erosion and limiting the ability of deep-rooted plants, burrowing animals and insects to penetrate the clay cap.

Based on the results of the ISPR and the evaluations, the Focus Group concluded that the ORWBG posed no human health threat in the near-term or the long term. 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 (phytoremediation).
- (2) Develop institutional controls (IC) specific to the ORWBG and the area between the ORWBG and Four-mile 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.

On July 24, 2001, the SRS CAB voted to support all of the Focus Group conclusions except for number 1 above 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 Board members did not support this recommendation and provided minority reports addressing their concerns.

On August 7, DOE responded that it plans to work with EPA and SCDHEC and will consider the six remaining Focus Group recommendations during the final cleanup decision for the ORWBG. SRS has already addressed several of the Focus Group recommendations and others are planned to be addressed as part of future actions. An implementation plan was presented to the Board on August 28, 2001.

For a copy of the ORWBG Final Report, the CAB recommendation and minority reports or DOE's response, please contact 1-800-249-8155 or view these documents on the Board's website at [www.srs.gov](http://www.srs.gov) (Click Environment).

Members of the SRS Citizens Advisory Board are available at your convenience to provide

- A brief history of SRS,
- A description of the various environmental management programs, and
- Information about how the public can get more involved in important cleanup decisions

Is Your Organization Looking for Interesting Speakers?

Please call 1-800-249-8155 for more information



**SAVANNAH RIVER SITE  
CITIZENS ADVISORY BOARD**

Key criteria for Board membership includes a time commitment and the desire and ability to work towards better and informed recommendations.

To apply for membership to the Citizens Advisory Board, please call 1-800-249-8155.

*"Board Beat"* is published semiannually by the Savannah River Site Citizens Advisory Board. Content is provided by Board members and support staff. Please send your comments and suggestions to:

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**Upcoming 2001 - 2002 Board Meetings**

<b>November 13</b>	Combined Committee	Embassy Suites, N. Charleston, SC
<b>January 14-15</b>	Quarterly Full Board	Hilton Oceanfront, Hilton Head Island, SC
<b>February 26</b>	Combined Committee	Partridge Inn, Augusta, GA
<b>April 22-23</b>	Quarterly Full Board	DeSoto Hilton, Savannah, GA
<b>May 21</b>	Combined Committee	N. Augusta Com. Cntr, N. Augusta, SC
<b>July 22-23</b>	Quarterly Full Board	Adams Mark, Columbia, SC
<b>August 27</b>	Combined Committee	Holiday Inn, Beaufort, SC
<b>October 21-22</b>	Quarterly Full Board	Radisson, Charleston, SC
<b>November 12</b>	Combined Committee	Aiken Municipal Conf. Cntr, Aiken, SC

NOTE: Individual committee meetings will be held as required.

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