Focus Group Evaluates ITP Replacement Process

In January 1998, DOE determined the In-Tank Precipitation Process (ITP) to separate radioactive cesium and some transuranic elements out of the liquid High Level Waste (HLW) was not viable. The ITP had been developed and engineered to remove Cesium-137 from the HLW salt solution to allow it to be vitrified in the Defense Waste Processing Facility (DWPF). SRS immediately began a search for a replacement for this function. A Salt Disposition Team was formed to determine a suitable replacement process. In April 1998, during a briefing of the Environmental Restoration and Waste Management (ER&WM) Subcommittee of the SRS Citizens Advisory Board (CAB), DOE requested the CAB participation in the replacement selection process. The ER&WM Subcommittee decided that a citizen Focus Group should perform this function. The Focus Group was to interface with HLW personnel to promote greater stakeholder involvement with SRS’s selection of a replacement process for the ITP. A Focus Group of citizen stakeholders was formed and six stakeholders were selected/volunteered to serve on this Focus Group.

The charter for the Focus Group was as follows:

- Interface with HLW personnel on the replacement ITP selection process to promote greater stakeholder involvement
- Look at process being used for narrowing alternatives
- Understand the assessment method used
- Review the risk process used,
- Study and evaluate the final alternatives

The Focus Group met with the SRS Salt Disposition Team to understand the process they were using to winnow the number of alternatives and make a final decision on what the ITP replacement should be. In addition, the Focus Group, using information developed by the Salt Disposition Team, evaluated the four replacement alternatives to see if the selection process missed any key components that the Focus Group considered important.

The Focus Group was pleased that the Salt Disposition Team had considered the long list of possible ideas and retained the elements of all the good ideas in the alternatives evaluated. The Focus Group reaction was very positive to the process used. The Focus Group was impressed with the completeness and amount of detail used by the Salt Disposition Team to select the top four candidates’ processes. "We concluded that the methodology used was very good, appropriate for its intended use and applied impartially to all of the alternatives," said Karen Patterson of the focus group.

continued on page 2...
Members of the Oak Ridge and Pantex Site Specific Advisory Boards joined the SRS CAB in September 1998. Oak Ridge Chair Bill Pardue and members Charles Washington and Randy Gordon attended to learn more about SRS CAB subcommittee and full Board operations. Noting the importance of intersite interactions, the Oak Ridge Chair expressed his thanks for an informative and beneficial exchange during the SRS CAB September Board meeting held in Augusta, Ga.

Seven members of the Amarillo, Texas-based Pantex Board also visited with the SRS CAB. Six staff members and site representatives attended as well. Pantex Co-Chair Sidney Blankenship noted how impressed Pantex members were with the timeliness and professionalism of SRS CAB members as well as the civility and thoughtfulness of deliberations.

Board representatives from both sites joined SRS CAB members in two separate tours of SRS, subcommittee meetings and full Board discussions during the three-day meeting.

The Focus Group did identify several concerns:
- The Evaluation Criteria did not include a clear measure of public and political acceptance of the alternatives. The Focus Group judged public and political acceptance to be important enough to affect project scheduling and costs. The Group felt that this criteria should have been included as an element in the evaluation process.
- More consideration should have been given initially to the auxiliary waste streams (solid waste, liquid waste, and gaseous waste) generated by the alternative process as these secondary waste streams will affect costs, facility size, etc.

During the in-depth review of the four final alternatives, the Focus Group made several specific recommendations which were considered by SRS in making their final recommendation on the replacement process. Those recommendations were used as part of the final selection process. The Focus Group documented their findings in a report to the ER&WM Subcommittee and SRS in early October 1998. This completed the work of the adhoc Focus Group and it was disbanded. SRS commended the Focus Group for its support and positive contributions to the selection process.

In November 1998, WSRC announced completion of this selection process and provided a recommendation to DOE to continue with preliminary design on two of the final four processes. DOE plans to prepare an EIS on the selection of a replacement for the ITP process as conceptual design proceeds. Further plans for this EIS will be announced soon.

Article contributed by Wade Waters, member of the SRS CAB and ITP Focus Group.

Giavanni Middlebrook of the Richmond County Alternative School won the CAB-sponsored essay contest on his role in protecting the environment. Walter Ashley won second place. Both were awarded certificates and passes to Fort Discovery in Augusta, Ga. at the September 1998 SRS CAB meeting.

"If we as people would make a real effort to preserve our environment, the earth would be a better place for many years to come."

Giavanni Middlebrook
Richmond County Alternative School
Since the last publication of this newsletter, the following recommendations have been initiated by the SRS Citizens Advisory Board:

**Remediation of F-Area Retention Basin**
Recommend a low-permeability cap for the basin, continued groundwater monitoring and grouting the inside of the pipeline. This is less extensive remediation than currently proposed by SRS.

**Recommendation on the Draft Surplus Plutonium Disposition Environmental Impact Statement**
An agreement with DOE that SRS is a reasonable site for some or all of the proposed missions within the EIS.

**Pilot Programs for Simulated Oversight of DOE facilities by the Nuclear Regulatory Commission**
A recommendation that NRC regulation be carefully addressed to weigh the benefits or possible disadvantages thereof.

**Political, Regulatory, and State Equity Issues and Treatment, Storage and Disposal of Defense-Related Nuclear Wastes and Materials**
Concerned that DOE, the States, and regulators seem reluctant to actually confront issues and make decisions, the SRS CAB presented its position and recommendation to begin implementation by working on one action—bringing West Valley vitrified high level waste to SRS.

**Savannah River Laboratory (SRL) Seepage Basins Disposal Of Contaminated Vegetation And Soils Remediation Alternative**
A recommendation that DOE, EPA and SCDHEC resolve issues with the remediation of the SRL basin soils and vegetation and report to the CAB the preferred alternative before the public comment period begins and provide a revised remedial schedule.

**Fiscal Year 2000 Funding Requirements**
A recommendation to provide sufficient funding in FY2000 for the technical programs needed to assure successful stabilization of Americium/Curium solutions; that funding for the new Plutonium Storage Project and the Actinide Packaging and Storage Facility be protected; that sufficient funding be provided for high level waste tank supernate processing upgrades and that if funds are not available, DOE-SR make a strong effort to fit these items into the approved FY2000 funding level.

**Disposal of Low-Level Radioactive Waste from SRS CERCLA Site in Trenches of SRS Low Level Waste Disposal Facility**
A recommendation that EPA Region-IV and SCDHEC determine under what conditions they would approve disposal of CERCLA wastes (that meet the appropriate waste acceptance criteria) in an SRS-operated, DOE-regulated waste disposal facility, and particularly if they would approve disposing of CERCLA soils in the E Area trenches.

**SRL Seepage Basin Contaminated Soils Disposal**
The Board recommended that SRS enact the preferred alternative of shipping contaminated soils from the SRL seepage basins to Utah and backfill to the original grade even though the CAB does not believe this is the most efficient, cost effective option. The CAB did not want to further delay a cleanup action at this unit.

**Selection of HLW Salt Disposition Alternatives**
The Board reviewed the focus group report of the replacement process for the ITP process and agrees with its recommendations and observations. The CAB concluded that the process developed and used by the Salt Disposition Team for evaluating the alternatives was well developed, comprehensive and detailed, and that it was fairly and consistently used.

**Risks and Funding**
The CAB requested that DOE prepare a priority list based strictly on health and safety risks to workers, the public and the environment along with the traditional list prepared under the budget system and a justification for differences between the two lists.

**Waste Management Programmatic EIS - Low Level and Mixed Low Level Waste**

**National Academy of Sciences Study of Treatment Options for SNF**
The CAB recommended that DOE give its most careful consideration to the findings in a National Academy of Sciences Report on alternate technologies for managing spent nuclear fuel. The Board also requested a detailed description of how DOE considered the report.
High level waste consists of spent fuel from commercial nuclear reactors, spent fuel from the naval nuclear propulsion program, and liquid chemical waste from fuel and target reprocessing associated with weapons production. Most of the current inventory of HLW in the United States has resulted from DOE activities and is a mixture of chemical and radioactive waste in liquid form stored in underground tanks. The Savannah River Site had 51 underground HLW storage tanks, until recently when two were emptied and closed as part of site cleanup efforts.

DOE is proceeding with plans to treat HLW by processing it into a solid form that cannot be readily dispersed into air, groundwater, or surface water. This process is called vitrification, which simply speaking is the process of mixing the waste with silica sand and heating it to a very high temperature so that when it cools, it is in the form of glass. When DOE’s existing inventory of HLW is vitrified, the vitrified material will fill an estimated 21,600 canisters. Production of canisters has already begun at the West Valley Demonstration Project in New York and at the Defense Waste Processing Facility at the Savannah River Site, and is planned at both the Hanford Site and at the Idaho Chemical Processing Plant. Eventually, the canisters are to be stored in a high level waste repository. The Yucca Mountain Site in Nevada is currently the only site being considered for use as a high level waste repository.

The Savannah River Site currently has approximately 152,000 cubic meters of HLW that will result in the generation of approximately 5,700 canisters of HLW. The Savannah River Site’s Defense Waste Processing Facility, which stabilizes high-level liquid radioactive waste in a durable glass form, has poured more than 525 canisters since radioactive operations began in March 1996. These canisters are temporarily being stored at SRS in the Glass Waste Storage Building. It is expected to take 20 to 25 years to turn the entire site inventory of high-level waste into glass.

NEXT ISSUE: The three phases of waste management: storage, treatment and disposal.

<table>
<thead>
<tr>
<th>Site</th>
<th>HLW Volume (m³)</th>
<th>Estimated Total Number of Canisters to Be Generated</th>
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<tbody>
<tr>
<td>Hanford</td>
<td>213,000</td>
<td>15,000</td>
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<tr>
<td>INEL</td>
<td>10,400</td>
<td>1,700</td>
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<tr>
<td>SRS</td>
<td>152,000</td>
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<tr>
<td>WVDP</td>
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<td>340</td>
</tr>
<tr>
<td>Total</td>
<td>378,000</td>
<td>21,600</td>
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</tbody>
</table>

Seventy canisters of high level waste have been vitrified in FY99 at SRS, as of 1/20/99.

Government operations from 1944 until the present have generated approximately 357,000 cubic meters of HLW, and it is estimated that another 21,000 cubic meters will be generated in the future. The HLW is located at Hanford (63%), Savannah River (33%), Idaho National Engineering Laboratories (3%) and West Valley (<1%). Although the Hanford Site has the largest volume of HLW, the level of radioactivity of the material at the Savannah River Site represents about 56% of all of the HLW radioactivity in the DOE complex, compared to 36% at Hanford.
The Nevada Test Site Citizens Advisory Board sponsored a Low Level Waste (LLW) Seminar in August of 1998. Approximately 50 participants representing ten Site-Specific Advisory Boards (SSABs) attended the two-day seminar. Although technical support personnel, observers and DOE staff were also in attendance, actual participation in the seminar was limited to the SSAB members. Brendolyn Jenkins, Karen Patterson and Bill Lawless represented the Savannah River CAB. Mike Schoener attended as a facilitator and Sonny Goldson (BNFL) and Virgil Sauls (DOE-SR) provided technical support.

The purpose of the seminar was to establish communication among SSAB participants so as to facilitate a continuing dialogue, obtain information on the LLW status and issues, discuss the barriers associated with the DOE decision making process and formulate suggestions for overcoming the barriers.

These barriers and solutions were grouped in one of five different areas: economic considerations, environmental/safety considerations, equity/inter-state/environmental justice considerations, system-wide considerations, and transportation considerations. At the completion of the seminar, the participants had identified 17 broad-based suggestions in the five areas. These suggestions were prioritized by the participants on the basis of importance to solving LLW problems, and supportability by the SSABs.

Due to time constraints, the wording of the 17 suggestions was somewhat broad and vague. However, they did identify common areas of interest for the SSABs that could warrant future activity in the form of specific recommendations. The Savannah River CAB held a workshop in conjunction with its November meeting to review and categorize the 17 suggestions from the seminar. The SR CAB agreed with about 1/3 of the suggestions as written, modified another 1/3, and disagreed with the other 1/3. The SR CAB results were sent to the Nevada CAB to be included with other SSAB review results. The combined results will be used to identify areas of common interest and potentially the development of more detailed recommendations.

As a result of the DOE presentations, Brendolyn Jenkins made a recommendation that the SSABs should review the six options for dealing with LLW in response to the Waste Management Programmatic Environmental Impact Statement (WM PEIS), and provide specific recommendations to DOE regarding those options. Although this recommendation was agreed to by the seminar participants, most SSABs have decided not to provide this input because of concerns with the WM PEIS itself. The Environmental Restoration and Waste Management Subcommittee of the CAB held several public meetings to review the options. The resulting ranking of the options was reviewed and approved at the November meeting of the SR CAB.

The seminar began with DOE making presentations on the status of the LLW program, options for LLW disposal, the performance assessment process, and LLW transportation issues. The seminar attendees worked through lunch, visited SSAB displays and continued to share information. After lunch, a representative from each SSAB presented an overview of the respective site’s LLW program and their concerns related to the program.

The remainder of the seminar was spent in small-group breakout sessions and plenary sessions to discuss the barriers related to DOE’s decision making process and identify potential solutions.

Although the various SSABs have participated in national forums and discussions in the past, this is the first time the SSABs from across the DOE complex met as a group for the sole purpose of discussing a particular issue. Getting a large group of people with very diverse opinions together to discuss a single topic can be very challenging, and this seminar was no exception. Overall the feedback from the seminar participants was positive and it was agreed that future seminars of this type will continue. The Fernald Citizens Advisory Board will be hosting a seminar on transportation issues in the Spring of 1999.
Process Retreat

Members of the Savannah River Citizens Advisory Board participated in a process improvement retreat on Friday, January 8 and Saturday, January 9. The retreat took place at the Middleton Inn in Charleston, SC. Board members as well as ex-officio members from the Department of Energy (DOE), Environmental Protection Agency (EPA) and South Carolina Department of Health and Environmental Compliance (SCDHEC) all attended. The Board Facilitator, Mike Schoener coordinated the activities.

The retreat began Friday evening with a dinner, an overview of activities and completion of a confidential survey by the participants. The results of the survey were presented to the participants on Saturday morning. The participants were divided into red, green and blue teams to discuss Organizational Structure, Recommendation Process, Meetings, Membership Involvement, Agency Interactions and Outreach Activities. After small group discussions, all of the participants got together to discuss the ideas and agree on suggestions for improvement. A number of suggestions were made as a result of the retreat. Some of the suggestions will require additional discussions prior to implementation; others were agreed on at the retreat.

Several major outcomes included:

- potential restructuring of issues-based subcommittees
- fixed subcommittee meeting schedules
- more stringent attendance requirements
- development of an outreach plan

A plan and schedule is being developed to implement the changes, and discussions will continue at future CAB meetings.

For additional information on the process retreat, contact Mike Schoener at (803) 641-8166.

Member Spotlight

Arthur Belge
Arthur is a health physics technician with Georgia Power Company at Plant Vogtle in Waynesboro, Ga. He holds an B.S. with a major in microbiology. Mr. Belge has basic and intermediate health protection training and has studied industrial and personnel management. He resides in Martinez, Ga.

Ken Goad
Ken is a board member for the Commission of Higher Education, South Carolina, Trustee South Carolina Research Authority, and the ASME-N0A-1 National Standards. He chairs the South Carolina Technical & Vocational Board and holds a degree in zoology. Ken is vice-chair of the Nuclear Materials Management Subcommittee. He resides in Aiken, SC.

Lola Richardson
Lola is a college professor in the English Department of a historically black college. She holds a B.A. in English and a M.A. in Reading and an Ed. D. in Education Administration. She is actively involved in her neighborhood association and several women organizations. Dr. Richardson lives in Augusta, Ga.

Ed Tant
Ed has retired from his job as Deputy Director of the Charleston Naval Supply Center Fuel Department. His primary duties included providing fuel and defueling services to military vessels and helicopters for the U.S. Navy, Coast Guard and Army as well as to foreign military ships docking at the Charleston Naval Base. Ed resides in North Charleston, S.C.

Rebecca Gaston-Witter
Rebecca is a retired middle school teacher who holds a B.S. in Social Studies, a M.S. in Elementary Education and a degree in Public Administration. She is actively involved in several organizations and other after school programs and serves on the Board of Trustees of her church in Savannah, Ga.

SRS CAB Hosts National Meeting

The SRS Citizens Advisory Board hosted a national meeting of the Department of Energy’s Site Specific Advisory Board Chairs on Feb. 16-18, 1999. The three-day meeting included a tour of SRS; a 1-1/2 day Chairs meeting and a training course on “Environmental Laws & Regulations.” Chairs from twelve citizens Boards, Board administrators and Federal Coordinators participated in the meeting held at the Sheraton Hotel in Augusta, Ga.
SRS to Manage Surplus Plutonium Disposition

In December 1998, SRS was named as the preferred site for building and operating a pit disassembly and conversion facility, a decision welcomed by the SRS Citizens Advisory Board. SRS will now be responsible for all activities related to the disposition of surplus weapons plutonium. Already the preferred site for mixed oxide fuel fabrication and plutonium mobilization, co-locating the pit disassembly facility at SRS provides substantial savings to the Department of Energy. Current plans call for construction in 2000-2004 with operations commencing in 2005. The SRS CAB noted in a July 1998 recommendation to DOE that choosing an alternate site for the pit conversion mission would have created a new plutonium processing site within a system endeavoring to consolidate operations and would have ultimately increased the amount of environmental cleanup required.

SRS to Prepare EIS for Closure of High-Level Waste Tanks

The Department of Energy issued a notice of intent to prepare and environmental impact statement on closure of its high level waste tanks at SRS. DOE proposes to close these tanks to safely protect human health and the environment by removing residual waste from the tanks to the extent feasible and then filling them with a reducing grout and structural material that will bind up any remaining residual waste and prevent the tanks from collapsing. Public scoping meetings held in North Augusta and Columbia, S.C. in January 1999 were attended by approximately 60 citizens who were asked to provide comment on the scope of the EIS.

On January 26, the SRS CAB questioned the need for an EIS on high-level waste tank closure. With the successful closure of Tanks 20 and 17 in 1997 and no evident impact on worker safety, public health or the environment, the SRS CAB suggests there are other avenues at significantly less cost available under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) to address any concerns related to tank closure. The Board recommended that DOE cancel plans to conduct an EIS. However, if plans continue, the Board suggests that DOE devote the minimum amount of funds and time to complete the EIS by December 1999 and assure that EIS data and conclusions feed into the CERCLA process to save time and costs.

SRS CAB Performance Receives Positive Evaluation

DOE-Headquarters initiated a study of its twelve site specific advisory boards to evaluate their effectiveness in 1998. Two researchers from the Pacific Northwest National Laboratory conducted the program evaluation through a series of site visits and extensive interviews. The purpose of the study was to identify key factors affecting SSAB performance; describe ways in which each SSAB operates in relation to these factors and provide a basis for SSABs to learn from each other.

Five factors emerged as exerting a strong influence upon the effectiveness of the Boards:
- Community context
- Board composition
- Internal process and functions
- Public engagement
- DOE and regulator engagement

The SRS CAB portion of the SSAB Evaluation noted several key observations. Researchers remarked on the shared sense of purpose, pride in the board, camaraderie and sense of family exhibited by SRS CAB members. They noted good processes and an effective, experienced Chair that models respect for all members, ensuring their opportunity to contribute to the functioning of the Board. DOE-Savannah River commitment was also discussed. The Board is a high priority for DOE and responsiveness and support are very strong at SRS. Key issues raised included a need for greater public involvement in SRS CAB activities; concern that an anti-nuclear activist viewpoint is missing; and concern that a small subset of members bear the technical work load.
Upcoming 1999 Board Meetings

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<th>Date</th>
<th>Location</th>
<th>City</th>
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<tr>
<td>March</td>
<td>22-23</td>
<td>USC-Aiken</td>
<td>Aiken, SC</td>
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<tr>
<td>May</td>
<td>24-25</td>
<td>Hilton Savannah DeSoto</td>
<td>Savannah, Ga</td>
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<tr>
<td>July</td>
<td>26-27</td>
<td>Adam's Mark Hotel</td>
<td>Columbia, SC</td>
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<tr>
<td>September</td>
<td>27-28</td>
<td>Savannah Rapids Pavilion</td>
<td>Evans, Ga.</td>
</tr>
<tr>
<td>November</td>
<td>15-16</td>
<td>Sheraton Charleston Hotel</td>
<td>Charleston, SC</td>
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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 semi-annually 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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