BOARD BEAT

Savannah River Site Citizens Advisory Board

Spring Issue, 2010

The mission of the Savannah River Site Citizens Advisory Board is to provide informed and timely recommendations to the Department of Energy concerning decisions that affect SRS in areas of environmental restoration, waste management, and related activities.

A Message from the Chair

Manuel Bettencourt - SRS Citizens Advisory Board

I want to first welcome our newest member, Tabitha Barrett, who I got to know better at the Citizens Advisory Board (CAB) New Member Orientation on April 21, 2010. Please take the time to welcome her when you see her at the meetings.

Since our last newsletter, as the CAB Chair, I have attended various meetings, telephone conferences with the other sites, and the Nuclear Materials Committee Chair Judith Greene-McLeod (standing in for Vice Chair Don Bridges) accompanied me to the Site Specific Advisory Board (SSAB) Chairs meeting at Oak Ridge, TN. At the SSAB Chairs meeting, we shared with other Chairs our top three issues that we identified as: Liquid Waste; Plutonium Consolidation Planning; and the Implications of the Lack of an Approved Geological Repository at Savannah River Site (SRS). Also, the Vice-Chair wrote a two-page letter answering a Vermont citizen's concerns about possibly moving to the Central Savannah River Area with SRS so near. This letter has been expanded into an open letter to all concerned members of the public on page 9.

Rather than further expound on any of these activities, I would like to direct your attention to the article on page 12 about the Waste Management 2010 Symposium, which I attended in March and was privileged to present a paper on the development and use of our CAB's Waste and Material Flow Path Graphic.

I would like to thank all of the CAB members, Department of Energy-Savannah River Site's federal and contractor personnel, the support team staff, and members of other volunteer groups and concerned citizens for their continued involvement in our activities as they relate to keeping the workers at the Site and the citizens of the area safe.

Manuel Bettencourt

IN THIS ISSUE

Welcome New and Returning Board Members

In March, the Board welcomed its newest member, Tabitha Barrett, to the table and congratulated returning members on their continued participation with the Savannah River Site (SRS) Citizens Advisory Board (CAB).

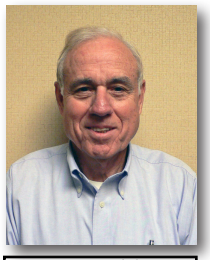
Tabitha Barrett

Tabitha Barrett resides in Barnwell, SC, and is a member of the Substance Abuse Free Environment team in Aiken, SC; the National Association of Social Workers; and the South Carolina Association of Prevention Professionals and Advocates. She is employed by the Aiken Center for Alcohol and Other Drug Services.

In April, Ms. Barrett attended the New Member Orientation along with CAB Chair Manuel Bettencourt, and current Board members, Marolyn Parson and Emile Bernard. During the Orientation, presentations were given by Mr. Bettencourt, Tina DiFranco of Operations Security (OPSEC), Gerri Flemming of the Department of Energy - Savannah River Operations Office, and the CAB Support Team.

Topics included a brief history of the Site and the CAB, and the activities and processes of the CAB. As Ms. DiFranco gave a presentation on Site security issues, she provided a number of reminders on Site Security, such as classification, OPSEC policies, and identity theft.

Ms. Barrett joins other citizens of the CAB from Georgia and South Carolina in the mission of providing recommendations and advice to the Department of Energy on environmental restoration, waste management, and related activities at the Savannah River Site.



Donald Bridges

Madeleine Marshall

Judith Greene-McLeod

Edward Burke

Elizabeth Skyye Vereen

Kuppuswamy Jayaraman

Kathe Golden

Alex Williams

Denise Long

Returning CAB Members

DOE is Currently Seeking Citizens, Just Like You!

The Savannah River Site (SRS) Citizens Advisory Board (CAB) is composed of 25 individuals from South Carolina and Georgia. Board members are chosen to reflect the cultural diversity of the population in the Savannah River Site's general area. Members may serve up to 3 two-year terms, for a total of 6 years, and represent private citizens, the business world, academia, local government, environmental, and special interest groups.

Citizens interested in applying for membership to the CAB are not required to have any special skills or extensive knowledge of SRS. The general requirement as a volunteer is to have a willingness to attend meetings and learn about the plans and activities of the Site, and provide advice and recommendations from the public's perspective.

The Department of Energy values the input from the SRS CAB and endeavors to incorporate recommendations early in the planning process.

To apply, visit **www.srs.gov/general/outreach/srs-cab/srs-cab.html**, complete an application, then print and mail to the address provided.

DOE Appoints New Co-DDFO to Assist Current Co-DDFO in Oversight of the CAB

Doug Hintze

Karen Guevara

The Citizens Advisory Board (CAB) would like to welcome Mr. Doug Hintze on his appointment as he joins Ms. Karen Guevara as the newest Co-Deputy Designated Federal Official (DDFO), to work in collaboration at the table with the CAB and state and federal regulators. He replaces Mr. Terry Spears, who completed the two-year DDFO rotation.

Under the Code of Federal Regulations article 102-3.120, and the Federal Advisory Committee Act 10(e), each Federal Advisory Board is required to have a DDFO who will conduct and/or oversee CAB meetings, and provide periodic reviews to evaluate procedures and ensure compliance with established policies.

Doug Hintze is an Assistant Manager for Integration and Planning, overseeing contractor and federal strategic planning and integration of Department of Energy (DOE) Office of Integration and Planning.

Prior to joining DOE, Mr. Hintze served 9 years with the U.S. Navy, and is a Reserve Naval Officer.

Mr. Hintze holds an M.B.A. from Virginia Tech and National Security/Strategic Studies from the U.S. Naval War College. Mr. Hintze resides in Grovetown, GA with his wife and four sons.

"P-Reactor Disassembly Basin Project Moves One Step Closer to Final Decommissioning"

SRS Rad workers testing Disassembly Basin evaporators

American Recovery and Reinvestment Act funding has moved the Department of Energy (DOE) one step closer to closing the P-Reactor facility at the Savannah River Site (SRS). With the installation of six evaporator units, SRS can begin removing 4.6 million gallons of water from the 105-P Reactor Disassembly Basin.

"The safe startup of the Disassembly Basin evaporators marks another milestone for this history-making Recovery Act Project," said Ray Hannah, the DOE Federal Project Director of the P-Reactor Project. "Removing the water from the Disassembly Basin and readying it to be filled with grout are important steps in decommissioning this Cold-War relic."

Six fuel oil-fired evaporators were installed in the Disassembly Basin's Transfer Bay, and started up on April 7, 2010. An additional 4 evaporators were installed in the Monitor Pin Room area of the basin, and came online in mid-May. The work is being performed by Savannah River Nuclear Solutions (SRNS), with a staff of seventeen operators and radiological control staff. The cost was more than $18.4 million.

Once fully operational, the evaporators will remove 4.2 million gallons of water, a process that is expected to be completed in mid-October 2010. The remaining 400,000 gallons will be removed after a shielding layer of grout has been installed in the bottom of the basin.

Once completed, the P-Reactor Disassembly Basin will be one of the first production reactors in the DOE complex to achieve *in situ* decommissioning, meaning the reactor buildings are sealed and left intact. Approximately 117,000 cubic yards of grout will fill below-grade portions of the reactor building and the Disassembly Basin as part of the decommissioning.

The Disassembly Basin evaporators and the evaporation process are part of the SRS Recovery Act Project's scope to reduce the environmental cleanup footprint of SRS by more than 50% by September 2011.

The P-Reactor and its Disassembly Basin began operation in 1954. The basin water cooled irradiated nuclear material targets and spent nuclear fuel while providing a radiological shield to workers at the facility. P-Reactor facility was shut down in 1988.

Additional information on the DOE Office of Environmental Management and SRS can be found at www.em.doe.gov or www.srs.gov. For more information about the SRS Recovery Act Project, please visit www.srs.gov/recovery

Savannah River Operations Office. (2010). *With ARRA Funds, P-Reactor Disassembly Basin Project Moves One Step Closer to Final Decommissioning* (SR-2010-15). Aiken, SC: U.S. Department of Energy. Retrieved from http://irmsrv02.srs.gov/recovery/with-arra-funds-p-reactor-disassembly-basin-project-moves-one-step-closer-to-final-decommissioning

CAB Members Express Appreciation to Former SRS Site Manager for Lending An "Ear"

Dear Mr. Allison,

Upon the occasion of your reassignment, this letter is to express the deepest appreciation of the SRS Citizens Advisory Board for the extraordinary support, assistance, and interest you have shown in the work of this Board. You can be proud that your personal interest and involvement have contributed so directly to the success of this Advisory Board.

Your tenure as the Savannah River Site Manager has been so long that all of the present Board members have served under your leadership and guidance, so we've never known a time of less than superb support from the Department of Energy - Savannah River Operations Office.

What a great job you've done! You've provided us with the finest technical resources, outstanding administrative support, and above all, the personal attention and involvement of you and your senior staff. You've listened to our concern and input, and you have dealt with our issues in a straightforward manner. In our judgement, you have made an honest and heartfelt effort to use the resources of the Site to maximize benefits for the Site, the local community, and the taxpayers. You are to be commended for being a good steward.

We extend best wishes for your continued success in your future endeavors. And don't forget, we'd like to "hear" from you in the future. God bless you.

Sincerely,

Manuel Bettencourt, Chair
Donald Bridges, Vice Chair
SRS Citizens Advisory Board

Jeff Allison Receives "Attentive Ear" Award from CAB

Jeff Allison & CAB Members at the March 2010 Full Board Meeting

PUBLIC COMMENTS

SEE WHAT THE PUBLIC IS SAYING ABOUT SRS. WOULD YOU LIKE TO MAKE A COMMENT ABOUT SRS OR THE CITIZENS ADVISORY BOARD? SHARE YOUR COMPLIMENTS AND VOICE YOUR CONCERNS ON OUR PUBLIC COMMENTS BOARD.

BELOW ARE SOME SAMPLE COMMENTS.

WHAT IS THE STATUS OF THE "SPENT FUEL STANDARD" GUIDELINE CREATED BY SRS IN RESPECT TO DISPOSING OF SRS PLUTONIUM IN WIPP? - TOM C.

WHAT ENVIRONMENTAL RESEARCH IS BEING CONDUCTED AT SRS? HOW WILL IT BE USED? - LIZ G.

IN 2008 I WAS ABLE TO PARTICIPATE IN COMMITTEE MEETINGS, BUT THIS PAST YEAR (2009) ALMOST ALL COMMITTEE MEETINGS TOOK PLACE IN AIKEN. I HOPE IN 2010 A FEW COMMITTEES COULD MEET IN AUGUSTA OR NORTH AUGUSTA SO THAT I CAN CONTINUE PARTICIPATING.
-SAM B.

IT APPEARS THERE IS NO RUSH TO GET [DEPLETED URANIUM] OFF SRS, BEYOND WHATEVER RECOVERY ACT FUNDS MIGHT BE USED FOR THE JOB.
- SCEAGLE EYE

SEND US YOUR THOUGHTS, COMMENTS, & COMPLIMENTS TO SRSCITIZENSADVISORYBOARD@SRS.GOV WITH "PUBLIC COMMENT" IN THE SUBJECT LINE, OR CALL US AT 1-800-249-8155.
PLEASE INDICATE IF YOU WOULD LIKE TO RECEIVE A RESPONSE TO YOUR COMMENT.

YOUR COMMENTS MAY BE USED IN OUR NEXT NEWSLETTER OR POSTED ON THE CAB'S WEBSITE AT:
WWW.SRS.GOV/GENERAL/OUTREACH/SRS-CAB/SRS-CAB.HTML

Army Corps of Engineers Presents to CAB

By: Judy Greene-McLeod, CAB Member

Col. Edward J. Kertis
Army Corps of Engineers

The Savannah River was the perfect setting for a presentation by Colonel Edward J. Kertis, Commander of the Savannah District of the Army Corps of Engineers, to the Citizens Advisory Board (CAB) during the November 16-17, 2009 Full Board meeting in Augusta, GA. Col. Kertis gave an entertaining and informative talk about the storied history of the Corps, including its formation just two days after the Continental Congress first met, why it was established as (and still is) part of the U.S. Army, where it gets its authority, and what its responsibilities are.

This presentation was requested by the CAB's Strategic and Legacy Management Committee after a talk by Ben Gould, Department of Energy-Savannah River Operations Office on the effects of previous drought conditions on the Savannah River Site. Discussion of the on- and off-site effects of record-low water levels in the Savannah River and its three reservoirs upstream from Augusta highlighted the complexity of the issue and resulted in the committee chairs requesting more information on this timely topic.

Col. Kertis explained that the General Survey Act of 1824 and the Rivers and Harbors Act of 1899 gave the Corps their initial authority over all navigable waters of the U.S. Part of his current purview includes water resource planning for the Ogeechee, Altamaha, and Savannah Rivers. More recent federal laws, such as: the Fish and Wildlife Coordination Act of 1934 the Clean Water Act of 1977, the Water Quality Act of 1987, and the Endangered Species Act of 1973 guide the prioritization of water use in public waters. He is responsible for coordinating a balancing act between the needs of wildlife, industry, municipalities (who get their drinking water from the Savannah River), recreational users, concessionaires (whose livelihood may depend upon the water levels in the reservoirs), and hydropower generation (sometimes to prevent impending brownouts) to name a few. Col. Kertis' statement that "What you see depends on where you sit" definitely applies to water resource planning and distribution. His audience came away with a fresh appreciation of the difficulties in the allocation of an unpredictable natural resource that most residents of the Southeastern states have long taken for granted.

CAB Attends SRS Biomass Plant Groundbreaking

by: Manuel Bettencourt, CAB Chair

Official Groundbreaking of the Biomass Cogeneration Facility

The groundbreaking ceremony of the new Biomass Cogeneration Plant was an eagerly attended event with about 200 guests representing local, state, and national government agencies, industries, and various volunteer organizations.

The new plant will use biomass material instead of the coal, which has been used since the 1950s. There are thirteen contractors in the Southeast ready to supply the material which has previously been considered waste, primarily as a result of logging operations. It is considered a "cogeneration" plant because it will produce both heat (in the form of steam) and electricity for the site. If excess electricity is produced it will be put in to the electric energy grid and sold back to South Carolina Energy and Gas.

The keynote speaker was Secretary of Energy, Steven Chu. Also in attendance were a number of special guests celebrating this significant event, including U.S. Representatives John Barrow of Georgia; U.S. Representatives Gresham Barrett, James Clyburn, and Joe Wilson of South Carolina; South Carolina Governor Mark Sanford; and U.S. Senator Lindsey Graham of South Carolina. George Sakellaris, CEO of Ameresco (the lead contractor) was also present.

Representative Clyburn made the point that 50% of South Carolina's energy needs are supplied by nuclear energy, so it was appropriate that they were at the Savannah River Site, the original hub of nuclear activities in the state, taking this new step toward cleaner energy. He stated that the biomass plant equals efficient, effective production of energy.

Senator Graham commented that with $34 million saved per year in energy efficiency, this plant represents change that will lead to a cleaner planet, and needs to be embraced.

Secretary Chu reported that this was not the only use of American Reinvestment and Recovery Act (ARRA) funds for the creation of clean energy in the state. He explained that $45 million in ARRA funds would be used to create an experimental wind turbine farm off the South Carolina coast. (Savannah River National Laboratory is involved in this project, particularly as it relates to the design of the 60-foot tall airfoils which will be used by the turbines).

Secretary Chu also emphasized that we need to take advantage of the cleaner coal which makes up one-quarter of our reserves, and that he had visited China three times in the last two-and-a-half years, where they are making great strides in creating clean energy. He closed, stating the U.S. needs to be a leader in exporting clean energy technology.

Above: A Biomass Cogeneration Plant

Below: Potential biomass fuel sources, including: forest residue, recycled wooden pallets, and recycled tires.

HIGHLIGHTS OF RECOMMENDATIONS

Recommendation 266
Enriched Uranium Disposition
(Adopted September 9, 2009)

The Savannah River Site's (SRS) ongoing Enriched Uranium Disposition (EUD) Project involves the processing of Highly Enriched Uranium (HEU) and aluminum-clad spent nuclear fuel recovered from the national Spent Fuel Program (SFP). The SFP also plans to trade with Idaho National Labs (INL) such that SRS will receive aluminum-clad fuel in exchange for sending the spent fuel it cannot process to INL.

The SRS Citizens Advisory Board (CAB) recommends that the Department of Energy (DOE):
1) Provide a schedule of the activities necessary to complete HEU processing by 2019.
2) Provide specific sub-schedules and supporting information for shipments of aluminum-clad spent fuel to SRS.
3) Provide the critical paths and interfaces with other processes for each of the sub-schedules requested.

DOE RESPONDED that it was conducting an alternative analysis regarding the disposition of excess non-pit plutonium and spent nuclear fuel, and the outcome of the analysis should address the recommendation. DOE-SR stated that once the studies are approved, a nuclear material processing road map would be developed which would illustrate the overall processing schedule for the EUD Project. In addition, a nuclear materials system plan (similar to the Liquid Waste Disposition System Plan), will be developed. The proposed road map and nuclear materials system plan is estimated to be completed in May 2010.

Recommendation 267
Speed-up Stimulus Budget "Burn Rate"
(Adopted September 9, 2009)

The Savannah River Site has been allocated substantial stimulus funding under the American Recovery and Reinvestment Act (ARRA) to accelerate cleanup activities. The period of performance for funding is scheduled from March 22, 2009 until September 30, 2011. In DOE's presentation to the CAB on July 28, 2009, it was noted that SRS was on day 111 of the period of performance, or 12.2% of the total time available, but only 4% of the funding had been obligated. These percentages indicate that the spend-out at SRS is running below a straight-line spend-out, and may effect future funding.

The SRS CAB recommends that DOE:
1) Explain and justify deviations from the DOE-SR ARRA spending plan.
2) Compare the percentage of stimulus funds obligated to the percentage of ARRA period of performance time elapsed.
3) Report how the lead contractor plans to improve its spend-out rate.
4) Report on operational efficiencies achieved by the contractor and any dollars saved to date.
5) Report a strategy to address the possible shortfall in the budget to keep the Tank 48 project fully funded.
6) Keep the SRS CAB informed about the results of the ARRA investigation by the DOE Office of Inspector General (OIG).

DOE RESPONDED that:
1) The ARRA spending plan represented an even spread of funds over the initial ARRA planning period. It did not represent how the work would be

HAVE A SEAT WITH US ONLINE AT THE ROUND TABLE

Citizens Advisory Board (CAB) committee meetings are now streamed live online. Thanks to the new RoundTable panoramic webcam, you can see the entire meeting room simultaneously. You can chat with other virtual attendees, submit comments to the Board, and have access to all of the presentations from the comfort of your own home!

To join an online meeting, visit the CAB's website at www.srs.gov/general/outreach/srs-cab/meeting_schedules.html Then, scroll down to the date of the meeting you wish to view, and click on the blue "Join the Live Online Meeting!" button for that meeting.

HIGHLIGHTS OF RECOMMENDATIONS

Executed or costed. As the work plan is finalized, a spend profile will be developed and a presentation of cost performance will be provided.
2) DOE agreed to provide comparisons with the total ARRA appropriations.
3) "Lessons Learned" are available On the CAB's website at www.srs.gov/general/outreach/srs-cab/recommendations_2009.html, and contributed to the early slow-down of work and under-spending of ARRA funds. These steps were necessary to maintain a level of operational safety awareness and control.
4) DOE-SR agreed to report on the contractor's implementation of operational efficiencies and their associated cost savings and avoidances.
5) DOE-SR stated that it was committed to the timely recovery of Tank 48 for general tank farm service, and agreed to provide the strategy to maintain progress towards this goal including the status of the Tank 48 Treatment Project.
6) DOE-SR explained a point of clarification, that the OIG was conducting an inquiry, not an investigation, and would make a determination on the public releasability of the outcome of its inquiry after the inquiry has been concluded.

Recommendation 268
Continuation of SRS Superfund Job Training.
(Adopted November 17, 2009)

The U.S. Environmental Protection Agency (EPA) awarded a contract in 2008 for the Technical Assistance Services for Communities. The Job Training Initiative (JTI) tasks were to recruit, evaluate, teach, train, and prepare underserved citizens for full-time employment at SRS. As used by EPA, "underserved" connotes disadvantaged, disabled, or "not work ready." As a result of this initiative, 16 formerly underserved citizens have secured full-time employment at SRS and three others will be hired, pending receipt of their High School General Equivalence Diplomas.

The SRS CAB recommends that DOE:
1) Continue the work initiated by the JTI team by supporting EPA as it funds additional job training for a new group of underserved citizens.
2) Fund a similar program modeled after the EPA program; alternatively, work with EPA to expand the JTI program and fund it jointly by EPA and DOE.
3) Take steps to increase participation in this initiative Site-wide among SRS contractors.
4) Take steps to assure workers hired under this program will receive consideration for long-term employment after the ARRA funds terminate at the end of FY 2011.
5) Report back to the SRS CAB on the status by June 2010.

DOE RESPONDED that:
1) DOE-SR and the EPA are committed to a second iteration of the JTI at SRS in 2010.
2) Funding is currently available.
3) DOE will give all Site contractors the opportunity to participate in the program and will seek input to identify workforce needs and customize the training curriculum to build around those needs.
4) All steps will be taken to assure workers hired under this program will receive consideration for long-term employment.
5) DOE and EPA plan to report back to the CAB.

CAB Encourages Potential New Residents and Responds to Common Misconceptions about SRS

SRS Citizens Advisory Board,

In the future, my wife and I are looking to relocate down south, possibly in the Aiken area. While researching the area I realized that there is a government facility, the Savannah River Site, located nearby. I did some research on the internet about the facility, and it appears to be a storage/shipment facility for radioactive material. Is there any information that you can share with me about the operation of this site?

At this point I'm not that comfortable moving to an area where radioactive material is stored. According to the internet sites, the material was/is used for making weapons. Any information would be helpful in our decision to relocate to the Aiken area.

Thank you for your anticipated cooperation regarding this matter,
Mr. W.

Dear Mr. W.,

You recently wrote a letter of inquiry about living in the Aiken area and expressed concern about the proximity to the Savannah River Site (SRS) - a Department of Energy (DOE) facility.

I am a member of the SRS Citizens Advisory Board - a group of 25 private citizens from the SRS general area who provide input to the DOE on the Site's environmental cleanup activities relative to both the Site's progress and priorities of cleanup. The Citizens Advisory Board has been in existence almost 20 years and has a distinguished record of significant and meaningful input to the DOE. The Board has numerous meetings throughout the year, all open to the public, where information on the Site's operations is provided and input from the public solicited. Membership drives are conducted annually and are open to all citizens who have an interest. I will, therefore, respond to you from that perspective.

The Savannah River Site dates back to the early 1950s and for most of its history produced special nuclear materials (primarily plutonium and tritium) for the nation's nuclear weapons program. With the end of the Cold War in the early 1990s, production at the Site ceased, and the Site has been in a cleanup mode since the mid-1990s. The major focus of the Site's operations now is to safely dispose of the Site's legacy waste. The Site has a number of major programs underway to dispose of certain nuclear materials and nuclear waste. The projected schedule is that Site waste operations will extend to the year 2030.

The Savannah River Site has been a very good neighbor to the surrounding communities, which include Aiken and Augusta. For the most part, the Site provides a source of upscale, high technology jobs to the area, and has had very little environmental impact to the surrounding areas. For most of its history, SRS has been the safest operating plant in the state of South Carolina and has never had a nuclear-accident related death in its 60 years of operation. Scientific studies over the years have also shown that Site workers and the surrounding area citizens are generally in better health than the average citizen in South Carolina.

There is a significant environmental cleanup effort at the site. The environmental cleanup is done with regulatory oversight including DOE Headquarters, the U.S. Environmental Protection Agency, the South Carolina Department of Health and Environmental Control, the Georgia Department of Natural Resources, and the SRS Citizens Advisory Board.

The area around the Savannah River Site is an attractive and safe place to live, and we recommend the area in the most enthusiastic terms. The SRS Citizens Advisory Board is pleased to have been a part of the Site's successful cleanup effort.

More information about the activities of the Citizens Advisory Board and the Savannah River Site can be found on our website at http://www.srs.gov/outreach/general/srs-cab/srs-cab.html. I hope the this letter will allay any concerns you may have had about the general area. We extend best wishes to you as you deliberate living in the area.

Thank you,

Manuel Bettencourt
SRS CAB Chair

CAB Members Tour the "Back End" of SRS' Liquid Waste Processing

by: Art Domby, CAB Member

On February 23, 2010, the SRS Citizens Advisory Board (CAB) members toured several areas within SRS that store, treat, and process radiological liquid waste produced since the federal government first began producing nuclear material for national defense at SRS in 1953. Members toured the facilities and learned about the environmental management activities associated with the "back end" of the liquid waste cycle. This included the operational steps in waste tank cleaning and closure; the treatment of the liquid waste in those tanks; the processing of the treated liquid waste into stable waste destined for eventual disposal; and the onsite disposal of a portion of the treated and processed waste in the Saltstone Facility.

The group received a short, verbal history of SRS, including a refresher on the historic separation of nuclear materials in F-Canyon and H-Canyon, the various waste storage tank designs, and the progress made in developing technologies to treat the liquid waste. Members were told that 2 of 51 tanks have been closed, with a goal of closing 22 tanks in the next eight years. This accomplishment would represent a significant reduction in the radiological waste inventory in South Carolina and would leave the remaining inventory in "compliant" tanks, which have secondary containments. Members learned that the "salt" portion of the liquid waste represents the larger volume of waste, which is about half of the radiological inventory. The "sludge" portion of the liquid waste has a much lower total volume, but has the greater amount of radiological constituents.

Members visited the H-Canyon "Tank Farm", and learned that current treatment methods for the salt portion of the liquid waste involves the removal of one group of compounds, called actinides, by chemical treatment and filtration, followed by the physical removal of a radioisotope (cesium) by centripetal contactors, referred to as the Actinide Removal Process/Modular Caustic Side Solvent Extraction Unit (ARP/MCU) process. Overly simplified, these methods "strip" much of the radiological activity from the liquid waste. After ARP/MCU processing, the treated waste that has been stripped of radiological activity is returned to a waste tank. This waste stream will then go to the Saltstone facility for solidification into a cementous grout. The highly concentrated radionuclide waste stream is transferred in relatively small batches of 500 gallons to the Defense Waste Processing Facility (DWPF) to be turned into glass. A process called "vitrification."

The ARP/MCU processing approach is an "interim" step for the next few years, while the much higher-volume Salt Waste Processing Facility (SWPF) is being constructed.

As the group was led on a walkthrough of the DWPF, they were briefed that the facility was built in the early '80s and began operation in 1996. Since the startup, the facility has processed the highly radioactive waste from the sludge portion of the liquid waste and more recently has begun processing of the highly-concentrated radiological salt waste from ARP/MCU, as well. The DWPF immobilizes sludge and salt waste in glass that is poured into large stainless steel containers where it solidifies as it cools. This process makes the waste more stable. To date, the DWPF has produced over 2300 canisters of vitrified radiological waste. The canisters are stored for eventual disposal. Two Waste Storage Buildings were designed with extensive radiological shielding in anticipation of increased radiological dose rates.

CAB Members at the Defense Waste Processing Facility

Members were driven past the SWPF construction site. Like the DWPF, eventually the SWPF will be connected by piping to the Tank Farms and to the Saltstone Facility. The SWPF is designed to process 3.75 million gallons of salt solution in its initial year of operation and 6 million gallons per year, thereafter.

Finally, the group was driven by the Saltstone Facility, which receives the generally lower radiologically-active, treated waste from the Tank Farms, ARP/MCU and, in the future, from SWPF and produces grout-like material which is placed into concrete vaults and tank-like disposal cells. This Facility is transitioning from rectangular vaults to new, circular disposal cells of 2.9 million gallons capacity; the first two disposal cells are currently under construction Eventually, 64 disposal cells will be constructed to serve as the disposal site for the low-activity waste.

The tour increased the Board members' understanding of liquid-to-solid waste processing by following the processing sequence of steps from waste removal and pretreatment at the tank farms; Treatment through the ARP/MCU, SWPF, and DWPF; and finally to the Glass Waste Storage Buildings to await disposal onsite at the Saltstone Facility.

"Recovery Act Moves Tank 5 Closer to Final Closure"

Thanks to American Recovery and Reinvestment Act funding, one more radioactive liquid waste tank at the Savannah River Site (SRS) has moved closer to final closure.

Savannah River Remediation (SRR) safely completed its first Recovery Act project on March 15, 2010, which required refurbishing an internal purge ventilation system as well as removing and replacing a fifty-foot long mixing pump located within the 750,000 gallon radioactive liquid waste tank. As many as 50 Recovery Act workers were involved in the $1.4 million project.

"This project is an example of Recovery Act funding making a difference, providing jobs, and progressing site cleanup," said Jack Craig, DOE Acting Manager for SRS.

SRR's Recovery Act Program Manager, Mark Schmitz, praised the Tank 5 project completion saying, "The Recovery Act at SRS is enabling SRR to rapidly and operationally close waste tanks.

Planning and preparation for the project began in October 2009, and the work itself was performed in December and January during some of the worst winter weather ever experienced in South Carolina. Despite the conditions, the well-trained team of employees working on the project completed the effort safely and effectively.

After completing this project and other tank system modifications, the next step towards closing Tank 5 can occur later this year.

Constructed in 1953 and placed in service in 1959, the Department of Energy is working to close the 51 waste tanks at SRS as part of DOE's commitment to safely cleanup the Savannah River Site.

Savannah River Operations Office. (2010). *Recovery Act Moves Tank 5 Closer to Final Closure*. Aiken, SC: U.S. Department of Energy. Retrieved from http://shrine06.srs.gov/InSiteApp/assets/xml/articles/8.xml

The Outlook for an Energy Park at SRS

submitted by: Andrew Grainger, DOE

On April 15, 2010, the Department of Energy - Savannah River Operations Office (DOE-SR) conducted a workshop on the potential use of the Savannah River Site (SRS) for the development of energy technologies that would address America's energy security, climate change, and economic challenges. Around 25 members of the public attended along with a number of SRS contractors and representatives of the Environmental Protection Agency and the South Carolina Department of Health and Environmental Control. Presentations by Karen Guevara, Assistant Manager for Closure Project at DOE-SR, Jim Antizzo of the DOE Office of Environmental Management (EM), and Mike Navetta of Savannah River Nuclear Solutions were followed by lively questioning and discussion.

Ms. Guevara discussed the mission of the EM organization, the SRS landlord, as one of environmental cleanup that will result in a substantial footprint reduction. Portions of SRS, including infrastructure in excess of continuing mission needs, could be made available for energy projects. While DOE does have a well established process for transferring property for economic development, it lacks policy or legislation validating the use of SRS for energy park purposes. While other DOE sites have transferred property, none of these transfers has been the result of a coordinated effort to use surplus DOE resources to further energy security and climate change goals.

Possible outlooks for an Energy Park at SRS

Still, there is a good deal of interest in the Energy Park concept at SRS, DOE-Headquarters, and at DOE communities across the country. Kristina Johnson, Under Secretary of Energy, has directed staff to prepare a Charter for an Energy Parks Task Force, which would include representatives from DOE's "energy" organizations such as Nuclear Energy, and Energy Efficiency and Renewable Energy. Similarly, the Energy Communities Alliance has recommended a cross-cutting office at the Secretarial level to provide leadership. Recently the Environmental Management Advisory Board has recommended that EM sites survey their physical assets that could be useful energy parks.

DOE-SR believes the development of an Energy Park will be guided by the SRS Strategic Plan, the Site's infrastructure capacity, and existing facilities, capabilities, and locations. Existing facilities could serve as the core of an SRS energy park, utilizing waste heat, carbon dioxide, and other by-products of current missions. The Three Rivers Municipal Solid Waste Authority Landfill, biomass cogeneration facilities in A-Area and under construction near F-Area (the Ameresco facility), and the Hydrogen Center of Excellence are examples of such facilities.

At the conclusion of the energy park workshop, DOE-SR made a commitment to keep the public informed as Energy Park activities proceed using the SRS Environmental Bulletin, the DOE-SR Office of External Affairs website, and updates, such as the Energy Park workshop, as needed. Ms. Guevara will provide an Energy Parks presentation Parks at the Citizens Advisory Board's July 2010 meeting at the North Augusta Municipal Center in North Augusta, SC.

CAB Chair Presents at 2010 Waste Management Symposium

by: Manuel Bettencourt, CAB Chair

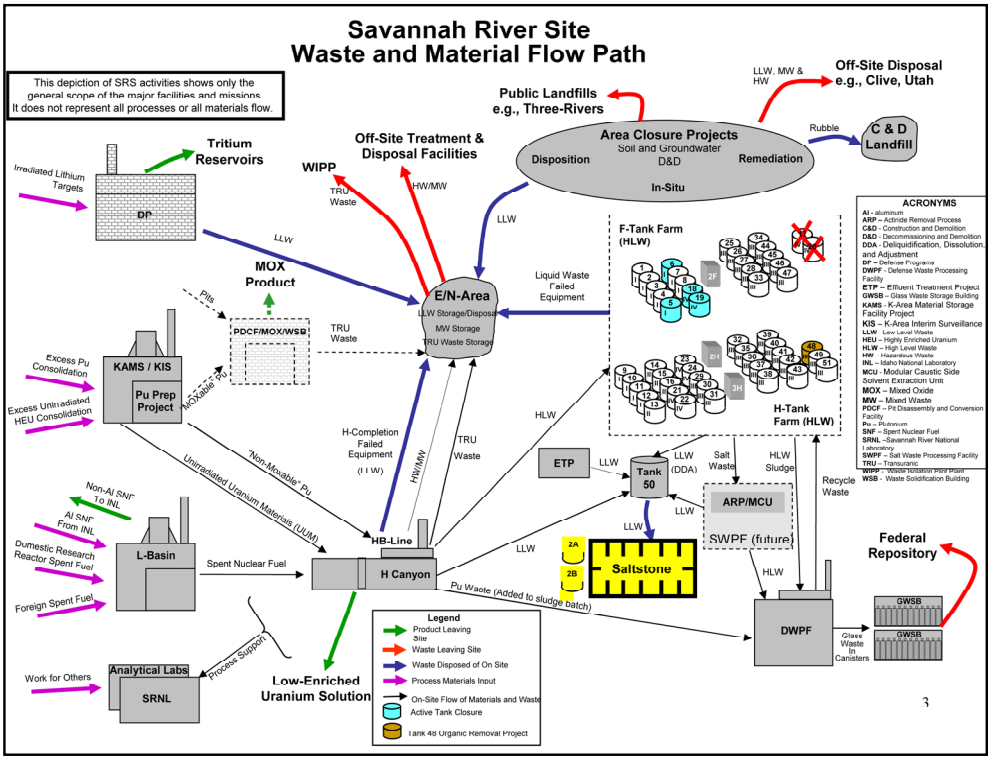
On March 8, Manuel Bettencourt, Citizens Advisory Board (CAB) Chair, attended the 2010 Waste Management Symposium in Phoenix, AZ. This was the 36th year for what is widely regarded as the premier international conference for the management of radioactive material. The Symposium covered 3-1/2 days, and included 89 breakout sessions, hundreds of presentations, and numerous displays covering a vast array of topics representing every major government and private organization in the nuclear waste industry.

The keynote speakers included Assistant Secretary of Environmental Management, Dr. Inés Triay of the Department of Energy (DOE), Dr. Wang Ju of the China National Nuclear Corporation, and Bruce Stanski of the Fluor Government Group. A total of seven Site Specific Advisory Board (SSAB) members attended, representing four DOE sites. Three of the SSAB members, including Mr. Bettencourt, gave presentations during breakout sessions.

Approximately 30 people attended Mr. Bettencourt's oral presentation on his paper, "Educating Volunteers, Stake-holders, and Workers: Use of Input-Output Analysis Graphics at Savannah River Site (SRS),"

Dr. Wang Ju, Dr. Inés Triay, Mr. Bruce Stanski

Manuel Bettencourt, CAB Chair



The SRS Process Overview Chart is displayed at each CAB meeting.

The presentation covered how stakeholders and the public face a steep learning curve when trying to understand a macro view of what is happening at waste generating sites. Input-Output Analysis presented graphically can help in this process. The CAB's "SRS Process Overview Chart" (shown below) demonstrates how such a tool can be developed and used by any waste generating site to better educate its stakeholders, the public, and its employees on site processes and how they inter-relate. Also discussed were procedures for updating the graphic and its use at the CAB's Full Board and Committee meetings.

The result of analyzing the inputs, processes, and outputs at any site, and expressing the process overview graphically can result in a better educated public and workforce, and make for more meaningful communication between the stakeholders and site staff. Such analysis allows people to see the whole picture, and understand how the micro view they are seeing fits into the macro view of waste generating sites.

Information about the Symposium can be found online at www.wmsym.org

"Teamwork Avoids Shut Down of Waste Processing at SRS"

An interruption in wastewater processing operations at the Savannah River Site (SRS) was avoided this past November thanks to quick actions by Savannah River Remediation (SRR) employees, teamwork from several SRR work groups, and the safe performance of a detailed recovery plan.

A degrading interior wastewater sump in the evaporator system of the Site's Effluent Treatment Project (ETP) was discovered during a facility inspection. The ETP treats on-site low-level radioactive wastewater before the treated water is released to on-site streams and eventually the Savannah River. The sump serves as a collection point for the ETP process, which receives water from several of the Site's facilities including both tank farms, H Canyon and Tritium facilities, and the Savannah River National Laboratory. A second interior sump serves as an overflow from the first sump; however, both were found to be deteriorating and in need of repairs.

If the ETP is not in operation, storage tanks can accommodate up to 15 days of wastewater before other SRS facilities are impacted, according to Ronnie Salmon, ETP Operations Manager.

"The inspection showed no materials had leaked to the environment, but it indicated we needed to replace the deteriorating concrete liner in the sumps with a stainless steel liner. Due to the operations schedule, we knew we had to make the repairs quickly," Salmon said. "This outage resulted in the biggest lockout of systems (194 separate components had to be taken out of service) we have ever experienced. Getting the plant back into operation was crucial to the Site's operations.

On November 3, 2010 the clock began ticking. A war room was assembled with representatives from many SRR teams, including: engineering, maintenance, operations, radiation control, construction, design, and environmental. A thirteen-person team developed a recovery plan, and its implementation began.

"The ETP is a small plant compared to other SRS facilities, but the role it plays is extremely important," Salmon said. "It is equipped with redundant systems allowing it to function 24 hours a day, 7 days a week, and employs 24 people.

Approximately 50 employees from other SRR organizations were brought in, and worked around the clock for 17 days. The repairs were completed on November 21 and the ETP was placed back into service on November 27 without any disruption to Site operations.

"We had no safety issues, no injuries, no chemical exposures, and no operational issues," Salmon said. "It was a very good team effort; very well organized. The work was completed without incident and safely. It is a testament to how people can come together quickly and work safely in coordination for a common purpose."

Kevin Smith, SRR Manager of Safety and Health Programs, called the quick response and teamwork an excellent illustration of the value SRR places on its strong safety culture.

"If safety were merely a priority for SRR, shortcuts could have been taken to expedite the completion of the work, but at a greater risk to the workers and the environment," Smith said. "However, since safety is a core SRR value, complex hazardous work was performed on schedule and without undue risk to personnel or insult to the environment.

Workers don personal protection equipment to replace the sump liners.

The Effluent Treatment Facility up and running

Savannah River Operations Office. (2010). *SRR Team Work Avoids Shut Down of Waste Processing at SRS*. Aiken, SC: U.S. Department of Energy. Retrieved from http://shrine06.srs.gov/insiteapp/assets/xml/articles/8.xml

Mentoring Program Assists New Board Members

by: Stan Howard, CAB Member

Stan Howard

The Citizens Advisory Board (CAB) provides assistance to new Board members by pairing them with experienced members as their mentors. Mentors provide answers, encouragement, and assistance with the policies, procedures, and customs of the CAB to their mentees. The complexity and detail of CAB workings can be daunting to those new to the CAB.

Mentors are encouraged to use their best mentoring techniques, and are assigned early in the term to facilitate interaction quickly. Participant feedback has been instrumental in helping new members gain familiarity with the CAB. The mentoring program helps each of us feel more comfortable in expressing concerns while it also helps perpetuate the CAB's spirit of cooperative and open discussion. CAB members have diverse backgrounds and experiences, and are encouraged to join discussions early on. Through this interactive exchange of ideas and opinions, the interests of those in the Savannah River Site's general area are well represented.

New Technical Advisor Joins the SRS CAB Support Team

Bill Brizes

In January, the Savannah River Site (SRS) Citizens Advisory Board Support Team introduced its newest team member, Dr. Bill Brizes, to the CAB. As the Technical Advisor, Dr. Brizes will aid the CAB in their development of Recommendations to the Department of Energy-Savannah River Operations Office.

Dr. Brizes holds a Ph.D. and a B.S. in Metallurgical Engineering from the University of Pittsburgh and Case Institute of Technology.

Dr. Brizes spent most of his technical career working in nuclear-related fields. Some of his work experiences include: the Nuclear Rocket Engine; fuel for the Fast Flux Test Facility at the Hanford Site in Washington; the Clinch River Breeder Reactor at the Oakridge Site in Tennessee; and the process used at SRS to safely remove and store tritium.

Dr. Brizes is married with two sons, and resides in Aiken, SC.

CAB Plans Return of Speakers Bureau Public Outreach Program

Art Domby

On March 22, 2010, at the Full Board meeting in Charleston, SC, CAB member Art Domby gave a presentation on the return of the SRS CAB Speakers Bureau. Mr. Domby's presentation covered elements of the program, such as participation, training, and the information to be provided.

The Speakers Bureau will be a means for Citizens Advisory Board (CAB) members to share information on the CAB and the Savannah River Site (SRS) with the public. The information to be covered is the history of SRS and its current activities, including environmental management and the production and safekeeping of nuclear materials; the actions and purpose of the CAB; and an invitation to join. Participants would be given training in effective public speaking, and potentially paired into teams.

Board Members suggested a number of possible community groups and public venues that may be interested in the Speakers Bureau, such as public schools, public libraries, college campuses, environmental organization meetings, and public meetings.

Mr. Domby then gave a mock-presentation to the Board to illustrate how presentations would be given to the general public.

To see further developments of the Speakers Bureau, please visit the CAB website at www.srs.gov/general/outreach/srs-cab/srs-cab.html

The CAB is Going Green!

We are currently updating the Savannah River Site Citizens Advisory Board public mailing list. We would love to keep you current with the CAB's activities and meetings.

Effective May 14, 2010, notifications and the *Board Beat* (except at committee meetings) will be sent by way of email. Please send us your name, email address, and other information at srscitizensadvisoryboard@srs.gov with "Go Green" in the subject line; or call us toll free at 1.800.249.8155.

Savannah River Site Citizens Advisory Board

Key criteria for Board membership includes a time commitment and the willingness to study the issues and work toward clear, implementable recommendations.

To apply for membership to the Citizens Advisory Board, please call 1.800.249.8155, or visit the CAB website and complete an application at:
http://ww.srs.gov/general/outreach/srs-cab/srs-cab.html

The *Board Beat* is published semiannually by the Savannah River Site Citizens Advisory Board. Content is provided by Board members and support staff. Please call, mail, fax, or email your comments and suggestions to:

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2010 Full Board Meetings

January 25-26
Crowne Plaza
130 Shipyard Dr.
Hilton Head, SC 29928
843.842.2400

March 22-23
Embassy Suites Columbia
200 Stoneridge Dr.
Columbia, SC 29210
803.252.8700

May 24-25
The Mulberry Inn
601 East Bay St.
Savannah, GA 31401
912.238.1200

July 26-27
North Augusta
Municipal Center
100 Georgia Ave.
North Augusta, SC 29861
803.441.4290

September 27-28
Francis Marion Hotel
387 Kings St.
Charleston, SC 29403
843.722.0600

November 15-16
DoubleTree Hotel
2651 Perimeter Pkwy.
Augusta, GA 30909
706.855.8100

Back Row: Emile Bernard - Cleveland Latimore - Lee Harley-Fitts - Alex Williams
Kuppuswamy Jayaraman - Judith Greene-McLeod - Tabitha Barrett - Ric Castagna
Middle Row: Madeleine Marshall - Rose Hayes - Don Bridges - Arthur Domby - Marolyn Parson - Ed Burke
Front Row: Denise Long - Sarah Watson - Stanley Howard - Ranowul Jzar - Manuel Bettencourt - Kathe Golden
Joseph Ortaldo - Gerald Wadley
Not Shown: Elizabeth Skyye Vereen - John Snedeker