Meeting Minutes
SRS Citizens Advisory Board – Combined Committees Meeting
Augusta, GA
July 23, 2012

Monday, July 23- Attendance:

CAB
Thomas Barnes
Artisha Bolding
Dr. Donald Bridges
Ed Burke
Louie Chavis
Mary Davis
Robert Doerr
Kathe Golden
Dr. Rose Hayes
Nina Hazen
Stanley Howard
Travis Johnson
Cleveland Latimore
Clinton Nangle
Dr. Marolyn Parson
Dr. William Rhoten
Dr. Paul Shieh-***Absent***
Earl Sheppard
Harold Simon
John Snedeker
George Snyder
James Streeter
Ed Sturcken-***Absent***
Sarah Watson

Agency Liaisons/Regulators
Shelly Wilson, SCDHEC
Kim Newell, SCDHEC
Van Keisler, SCDHEC
Thomas Rolka, SCDHEC
Heather Cathcart, SCDHEC
Gregg O'Quinn, SCDHEC
Michael Spradlin, SCDHEC
Mary Bright, SCDHEC
Rob Pope, EPA

Contractors
Gene Rhodes, SREL
Judy Greene-McLeod, SREL
Stuart MacVean, SRR
Nancye Bethurem, SRR
L.T. Ling, SRR
R. Campbell, SRR
Bob Petras, SRR
Paul Sauerborn, SRNS
George Wingard, SRARP
Caroline Bradford, New South
Erica Williams, V3
Ashley Whitaker, V3
James Tanner, V3
Kole Helvie, V3

DOE
Dr. Dave Moody, DOE-SR
Pat McGuire, DOE-SR
Terry Spears, DOE-SR
Doug Hintze, DOE-SR
Bill Taylor, DOE-SR
Gerri Flemming, DOE-SR
Rich Olsen, DOE-SR
Maxcine Maxted, DOE-SR
Karen Hooker, DOE-SR
Karen Guevara, DOE-SR
Jeff Carswell, DOE-SR
David Hoel, DOE-SR
Chris Upshaw, DOE-SR

Stakeholders
Tom Clements
Rob Pavey
Karen Patterson
Nancy Bobbitt
Joe Ortaldo
Clint Wolfe
Becky Craft
Ernie Chaput
Liz Goodson
Walt Joseph
Paula Joseph
Rick McLeod

The CAB's facilitator, Erica Williams, V3 Technical Services, welcomed everyone to the meeting and reminded them to sign-in. She reviewed the Meeting Rules of Conduct and invited CAB Chair Donald N. Bridges to say a few words.

Chair Bridges welcomed everyone and thanked the CAB Support Team for the meeting arrangements. He commented on the new CAB notepads and pens that were passed out at the meeting. He said after the two days of meetings there would be a tour on Wednesday for the CAB. He then spoke about a position paper and recommendation, brought forward by CAB member Ed Burke, which the CAB would discuss but not vote on. He said he likes this method, and wants as much recommendation discussion, and reflection, as possible. He said the CAB represents the public and he asked the board members to keep that in mind while discussing topics and making recommendations.

Ms. Williams stated a public comment period would be provided at the end of the day, but if the public wanted to comment during the recommendation discussions, they could do so, but to come up to the microphone.

Facilities Disposition & Site Remediation (FD&SR) Committee Overview- Marolyn Parson, Chair

CAB member Parson listed the FD&SR Committee members, and stated the focus of the committee. She gave a status of FD&SR Recommendations, stating the committee had two open recommendations-279 and 285. She briefly discussed these recommendations, including any DOE-SR responses. She said 285 is a joint recommendation

with the Strategic & Legacy Management (S&LM) Committee, and that it was decided to wait to close the recommendation until certain actions were taken. She invited CAB member Harold Simon, Chair of the S&LM Committee, to highlight the discussion within his committee that moved them to wait to close Recommendation 285.

CAB member Simon said that when the S&LM Committee met to discuss the recommendation response, they decided they needed additional information before making a decision to close the recommendation. He said they want to leave it as "open" until additional information is received; he said perhaps at the next committee meeting they will have that information and it can be discussed.

CAB member Parson spoke about the brief presentation Doug Hintze, DOE-SR, gave at the last Full Board meeting concerning Recommendation 285. She said she wanted to ask Shelly Wilson, South Carolina Department of Health and Environmental Control (SCDHEC), and Rob Pope, the Environmental Protection Agency (EPA), if the proper funding was restored. She asked if they were satisfied with the funding that has been restored.

Shelly Wilson, SCDHEC, thanked CAB member Parson for asking, and said the funding is still in progress and has not been finalized, but she does not anticipate any problem with it. She said that given that the funding had not been finalized yet, she was happy with how the progress was going.

Mr. Pope was not in attendance yet, but CAB member Parson said she would ask him about his satisfaction as well.

CAB member Parson said the committee had one pending recommendation, 283. She summarized what the recommendation was asking for, and stated a response was received from DOE-SR on January 16; she said the FD&SR Committee has decided to not close the recommendation yet as there are many projects going on within DOE that will impact the recommendation. She said DOE-SR should be updating the CAB on its progress with external websites soon, preferably in the August committee timeframe. She said if they don't get a response or update, the committee will take other actions and will give their response to DOE's response to the recommendation.

She spoke briefly about the June 19 committee meeting, listing who was in attendance; she said she felt there were enough people in attendance to have a good discussion on the issues. She continued that two presentations were given at the meeting; she provided a brief overview of these presentations. She then stated the same presentations would be given during the next day's meeting. She stated the committee discussed alternative committee meeting times at the June 19 meeting, and the FD&SR Committee would be willing to pair up with another committee in order to have two committee meetings in one day, but would have to hold its meeting during the later time slot due to committee member schedules. She announced the next FD&SR Committee meeting would be held on August 21, and encouraged everyone to either attend in person or online. She said the online meeting option is a good way to participate. She then listed the proposed presentations for the August 21 meeting.

PRESENTATION: Savannah River Ecology Laboratory (SREL)-FY12 Update- Dr. Olin E. Rhodes, SREL

Dr. Rhodes began his presentation by stating the presentation objectives. He reviewed a brief history of SREL, stating in 1951when the Atomic Energy Commission had concerns about the environmental impacts resulting from SRS construction and operations, Dr. Eugene Odom, from the University of Georgia, started SREL. He said SREL was established as a permanent lab at SRS in 1954, and the current lab facilities were established in 1977. He then reviewed the SREL mission.

He continued by discussing SREL's research programs, stating more than 3,209 peer-reviewed scientific publications and 62 books from research efforts have been produced to date. He then reviewed the SREL Education Programs, stating more than 400 theses and dissertations have been produced, and SREL graduate students have received more than 125 awards. He said more than 650 undergraduates, representing all 50 states, have participated in SREL-sponsored research.

Dr. Rhodes discussed the SREL Environmental Outreach Program, stating it integrates SREL research into presentations for the general public, provides hands-on classroom and field expertise for students, and conducts educator workshops. He said that in 2011, SREL reached more than 33,000 people by providing 342 talks, 65 public tours, 15 exhibits at local or regional events, and 29 "Ecologist for a Day" programs at local schools.

He reviewed SREL in FY12 by providing employee numbers, which totaled out to 67. He listed the areas they work in, including facilities & research areas.

CAB Chair Bridges asked what the max employment numbers were. Dr. Rhodes said he didn't know the max level of employment, but he looked at the year 2005 where there were 250 employees. He said there is a difference in the budget then and today.

Dr. Rhodes reviewed the disciplinary expertise of the employees at SREL. He said there is a mix of different disciplines because that is what is necessary at SRS; he explained that the problems at SRS are complex and require complex interdisciplinary teams to "tackle" them. He also reviewed the current research areas at SREL. He then referred to a graph of recent budget history from FY05 to FY12, showing where funding comes from. He provided a brief overview of the FY12 SREL budget, highlighting DOE projects as well as other projects. He said the total budget in FY12 was $3.5 million.

He listed significant events that took place in FY12 for the University of Georgia (UGA) and DOE, and addressed challenges for FY13.

CAB Chair Bridges asked Dr. Rhodes if SREL's facilities were adequate, and if the work that needed to be done could be done with the existing facilities. Dr. Rhodes said they are getting the work done. He said on the "challenges" slide, he noted he wrote "major infrastructure needs," but that may have been the incorrect term. He stated SREL's infrastructure needs, as relevant to the Site, are small. He said they have a few things that will probably come along in the next few years, such as roofing and HVAC, but as for the laboratory space and specialized facilities, he feels "pretty good" about them.

Dr. Rhodes continued by speaking about the challenges in FY13, reviewing the work scope, aging facilities, the replacement or upgrading of expensive scientific equipment, maintaining unique SREL facilities and capabilities, and increasing the funding level.

CAB Chair Bridges asked how often SREL uses the UGA Conference center, and asked if the lab does a "comfortable level" of public outreach. Dr. Rhodes said the conference center is used in several ways, including other tenants that rent the space, although that policy may be changed in the future. He said SREL uses it for many of its programs and students are out there at least twice a week during the school year. He said public outreach is at a comfortable level for the funding SREL has. He said when it comes to public outreach there are multiple stakeholders. He said when he says they could expand outreach, he is referring to audiences other than the local area who "need to hear the story" of SREL and the work that is done there.

Dr. Rhodes then spoke about future directions, which include enhancing graduate education, radioecology, remediation and restoration, and SRS Strategic Initiative support. He showed photos, stating SREL works to enhance graduate training using SRS as a living laboratory. He also showed a graphic depiction of long-term surveillance and monitoring R&D. He summarized his presentation by stating SREL has a diversity of expertise available to address ecological issues at SRS, additional funding is still needed to bring the lab to its full potential, UGA has reinforced its commitment to keeping the lab open, DOE-SR and NNSA are investing in SREL, and SREL will continue to support the development of radioecology, invest in graduate education, and will continue to support and participate in SRS Strategic Initiatives.

CAB member Bill Rhoten asked Dr. Rhodes to discuss programs for minority and female students who are being recruited into both the graduate and non-graduate programs. Dr. Rhodes said that because he works with UGA, that is a high priority. He said the university has stated policies in place. He said one of the things he hopes to do, that he was successful doing at Perdue University, is going after funding from the Department of Education. He said they have Graduate Assistantships in areas of national need, and they do this in underrepresented areas or disciplines in ecology. He said he plans to go to the Department of Education and obtain funding for the area of radioecology. He then said he is looking at future ways to attract underrepresented groups into particular fields that are underrepresented, like ecology and radioecology. He said one way to do that is to partner with funding agencies that target those types of things. He continued that day-to-day management of the laboratory follows the rules and regulations for recruitment at UGA.

CAB member Rose Hayes said if she understood Dr. Rhodes correctly, there are no degree programs for radioecology in the U.S. She said she assumes that since he is striving to set up these programs that there is a body of knowledge that can be pulled from. She asked where this knowledge is based-is it at European universities or somewhere else? Dr. Rhodes said if you were to look across the U.S., there are radioecologists on faculty at universities. He said the National Center for Radioecology, through the National Lab, reached out to a number of the more prominent programs and pulled them together so that SREL now has "key partners." He reviewed programs at several universities in the U.S., saying these programs will come together in August for a workshop on what's next in radioecology. He said it is unclear at the moment on how the graduate programs will partner, but he noted that SREL is working with the University of South Carolina-Aiken about exploring the possibility of a radioecology minor at the university. He said this is something that will start recruiting students to the area and will allow for more internships at SRS.

Strategic & Legacy Management (S&LM) Committee Overview-Harold Simon, Chair

CAB member Simon listed the members of the S&LM Committee, and reviewed the focus of the committee, as well as its specific areas of interest. He spoke about the S&LM 2012 Work Plan, stating it is created in February of each year. He continued that the last S&LM Committee meeting was June 5, and reviewed the agenda from that meeting. He said his committee spoke about the proposed committee meeting schedule change, stating the S&LM Committee decided the following during its last meeting: the S&LM Committee will meet on the second and fourth Tuesday of the month, with the first committee meeting 3:30 to 5 p.m., and the second committee will meet 6 to 8 p.m. He said they recommend that they wait to make the schedule change until the beginning of the next year (February 2013).

He then reviewed S&LM Committee recommendations, stating that 285 is "pending," and then spoke about Recommendation 288, stating it is "pending" but it has received a response and the committee will review this response at its next committee meeting on August 7. He reviewed Recommendation 289, stating it was "pending," but they have received a response and will be reviewed at the next committee meeting as well.

CAB member Simon said the next S&LM Committee meeting would he held August 7, at the DOE Meeting Center in Aiken. He encouraged everyone to attend either in person or online.

PRESENTATION: SRS History: The Cold War Years-
Paul Sauerborn, Savannah River Nuclear Solutions (SRNS)

Mr. Sauerborn spoke about the safety culture, saying they have been working safely since the 50s. He then spoke about the SRS Cold War Historic Preservation Program, reviewing what its purpose is and what it does. He said this program was driven by the National Historic Preservation Act of 1966 which requires federal entities to care about their historic resources. He said the program covers history, artifacts, and the built environment from 1950-1989. He spoke briefly about the 315-M Curatorial Facility, showing a photo of the facility. He said the building the Curatorial Facility is housed was about three days from being demolished, but was saved as part of the Asset Revitalization Initiative. He said the building has been modified to house, manage, and preserve thousands of artifacts identified at SRS.

He said Cold War History covers everything from Site Selection to shut-down and the change of contract in 1989. He referred to a photo captioned "Robin, walking robot c. 185," giving a brief history of it. He said that robot was sent to NASA, who did some studies and then sent the robot back to SRS.

Mr. Sauerborn spoke about "SRS at 50," a book written by DOE, that has a lot of photography and information about SRS. He then reviewed Site chronology, concerning construction and production, listing some significant dates and events. He said six Thematic Studies have been completed and another would be started the next year.

Mr. Sauerborn then invited Carolyn Bradford, New South Associates, who works as a curator for the Cold War History Preservation Program, to give a brief talk on featured artifacts. She said she manages 5,000 artifacts currently, but expects to have more than 10,000 after everything has been collected. She said is currently at 80 percent of her storage space. She then spoke briefly about "Triple 7," or building 777-M, stating it was built to test

the fine points of reactor physics before the reactor went online. She said it contained several different test reactors, and that graphite, heavy water, and pressurized reactors provided different measurements. She said this building was used before the technology needed to perform computer-simulated tests was developed. She spoke about the Standard Pile (SP), which was a graphite reactor that was used in uranium fuel elements. She then reviewed thimbles for gold pins, stating gold pins were used for measuring the neutron flux at any given point, and could provide detailed point data. She then cued a movie concerning the P-Reactor at SRS.

PRESENTATION: SRS Heritage Foundation-Walt Joseph, Heritage Foundation

Mr. Joseph spoke about the SRS Heritage Foundation, stating he would address what the SRS Heritage Foundation is, what it has been doing, where it is going, and why it is relevant to the SRS CAB. He said the SRS Heritage Foundation was originally formed with the Citizens for Nuclear Technology Awareness (CNTA) when decontamination and decommissioning (D&D) started at SRS and there was a fear that important historical items would disappear; eventually, the two organizations separated due to diverging interests. He continued that the Foundation was founded in 2005 and is a 501(c) non-profit. He said the mission is to preserve and interpret heritage of SRS, and its objectives include educate the public about heritage at SRS, commemorate sacrifices and achievements that helped win the Cold War, inspire young people to pursue careers in science, technology, engineering, and math, and boost the economy through heritage tourism.

He said the SRS Heritage Foundation is the consulting party per the National Historic Preservation Act (NHPA), and has helped negotiate agreements with DOE and the state historic preservation office. He said out of the Foundation's negotiations came the Cultural Resources Management Plan, which includes procedures to preserve artifacts, a curator, and a Curation Facility. He then showed a photo of the Test Reactor Control Room and of the Curation Facility.

He then spoke about a proposed SRS Heritage Center, stating that most DOE sites have a museum or visitor center. He said there was a DOE Letter of Intent in 2005 for the use of Building 742-A, and based on this Letter of Intent the Foundation raised money and funded a preliminary architectural and exhibit design that was created in 2007. He stated the costs turned out to be fairly high, and they realized they would need federal funding so they went to their congressional delegates and was assured they would get earmarked funding; however, the political climate has changed, and does not seem to be getting better soon, so federal funding is currently unlikely.

Mr. Joseph said they have been working for many years on developing an Ellenton Heritage Trail, which will be a walking tour open to the public of the former community of Ellenton. He said Ellenton was one of the many small, rural SC towns that were displaced by SRS. He said they started planning in 2006, received a DOE Letter of Intent in 2007, and a Site Use Permit in 2010. He said they expect a lease agreement in 2012. He said they are working with the SR Archaeological Research Project to develop tour materials and a business plan.

He then spoke about the video "Displaced," which was funded by the SRS Heritage Foundation, providing a synopsis of the movie and showing photos from the movie premiere in Aiken. He discussed the Neutrino Celebration, which was an all-day event to "Celebrate Detection of Neutrino at SRS," on August 2, 2010. He said it increased awareness of SRS scientific contributions. He also discussed a "Celebration of 60 Years of Environmental Science at SRS," which had events on August 19-20, 2011. He said there were participants from University of Georgia (UGA), the Savannah River Ecology Laboratory (SREL), the Savannah River National Laboratory (SRNL), the United Stated Forestry Service (USFS), and the University of South Carolina Aiken (USCA). He said there was a symposium, exhibits, and live animals, and there were more than 300 attendees. He showed photos of the celebration.

He then provided a list of exhibits and talks the SRS Heritage Foundation provides, including the New Ellenton Atomic City Festival, the North Augusta Arts and Heritage Days, the Aiken County Historical Museum, on-site exhibits at SRNL and the Central Training Center, and numerous talks to SRS employees, churches, and civic groups. He then listed current activities, stating there are video interviews in preparation for the "Origins of SRS" film, and they would be a sponsor of the Road Scholar Visit with USCA.

Mr. Joseph stated that the SRS Heritage Foundation has a "handshake agreement" for a building in downtown Aiken, to be used as the SRS Heritage Center, but they can't disclose until the year's end. He said fundraising for renovations and exhibits has begun, and the exhibits will include things such as Atomic Science 101, the History of SRS, and current research at SRNL, SREL, etc. He then showed a diagram of the "SRS Story," and a photo titled "Guard House Rendering." He said Dr. Moody, SRS Manager, sent a letter on April 30, 2012 that proposed space for a Foundation Museum & Visitor's Center in the potential expansion of the research park adjacent to SRS. He said there is no time scale involved, but the fact that is included in the planning process is a step in the correct direction. He added that Dr. Moody has proposed the development of a reactor visual tour.

He said the SRS Heritage Foundation has a history with the CAB and supports many of the same things. He said the CAB has endorsed the Foundation over the year, and individual CAB members have been involved with the Foundation. He said they welcome opportunities to interact with the CAB and plan to be worthy of continued CAB support.

CAB Chair Bridges asked if funding was needed for the proposed Heritage Foundation site in downtown Aiken. Mr. Joseph said they plan to raise enough funding, or business money, to not have to need any tax-funded money for building renovations or installation of exhibits.

PRESENTATION: Savannah River Archaeological Research Program (SRARP) - George Wingard, SRARP

Mr. Wingard first defined what the SRARP is, and what it does at SRS. He also defined archaeology as "the scientific study of people from the past through the things they made and used." He said as a result of federal and state laws and regulations, the South Carolina Institute of Archaeology and Anthropology/SRARP began in 1973 in a phased approach to archaeological compliance on and around SRS. He then reviewed the Antiquities Act of 1966 (Section 3) and its impact. He defined the SRARP's three-fold mission as: cultural resource management, research, and education. He said the primary mission of the SRARP is to ensure that DOE remains in compliance with the federal laws regarding archaeological and other cultural resources. He said the SRARP conducts regular archaeological surveys of SRS, and works closely with the United States Forest Service-Savannah River (USFS-SR) to ensure that compliance in areas that have been slated for logging activities.

He began reviewing the three components of SRARP's mission, first reviewing cultural resource management. Under cultural resource management, Mr. Wingard listed site use, timber compartment surveys, and curation. He then reviewed the area of research, listing the following: Carolina Bay research, the Mississippian Project, the Bartley Site in Beech Island, Catherine Brown's cow pen, the Bush Hill Plantation, a community history project, and volunteering. He next reviewed the area of education, listing such items and activities as exhibits, Summer Archaeology Camps, and outreach programs for schools.

Mr. Wingard showed a photo taken at Cassel's Longstore, on November 29, 1950, which was the day after the Atomic Energy Commission made the announcement that the area SRS was built on was going to be purchased and town residents would be displaced. He stated that nearly 7,000 people moved out of the area needed to construct SRS, and the following towns and hamlets were named as needing to be vacated: Dunbarton, Hawthorne, Denora, Greenland, Sleepy Hollow, Leigh, Meyers Mill, Robbins, and Ellenton. He said Snelling and Jackson were going to be in that footprint originally. He stated they also had to move more than 130 cemeteries during the construction of SRS and 35 cemeteries remain within the Site boundary today. He then showed several photos.

He then showed an artifact, the "Dave Vessel," which is an alkaline-glaze stoneware vessel made by the Potter Dave, who was a slave in the 1800s. This vessel is dated "1862."

Recommendation Discussion

Strategic & Legacy Management (S&LM) Committee:

"SRS Asset Revitalization Initiative"
CAB member Bob Doerr thanked CAB Chair Bridges for the original idea for the recommendation. CAB member Doerr then reviewed the research he and CAB member James Streeter conducted in order to write the recommendation. He said he thinks the CAB should understand the Asset Revitalization Initiative (ARI). He said the recommendation asks for DOE to educate the entire CAB about the ARI so it can all participate in ARI initiatives at SRS.

CAB member Streeter read aloud the recommendation, which can be found on the CAB's website at cab.srs.gov, and attached to this document.

CAB member Harold Simon opened the recommendation for discussion.

CAB Chair Bridges asked them to explain what they were driving at with the item number two on the recommendation. He said it seems impractical to ask DOE to tell the CAB something before it tells DOE-HQ. CAB member Doerr said he and CAB member Streeter see that as a sharing of information, and that the whole point of the recommendation was to educate the committee about what ARI is about. CAB member Simon said they are asking them to present the information to the CAB before submitting to DOE, but encouraged CAB Chair Bridges to let them know if he had a better recommendation or information that could improve the recommendation. CAB Chair Bridges said he would add wording such as "early as practical." He said for DOE to tell a third party something before they share it with DOE doesn't sound right to him. He asked Pat McGuire, DOE-SR and CAB Designated Deputy Federal Official (DDFO) for his input.

Mr. McGuire said it sounds like what they're trying to do is require DOE-SR to request input from the CAB before finalizing anything. CAB member Simon said that is correct and said they would make a revision. CAB member Streeter said they surmised the task force is at an executive level, so the only way for the CAB to receive info would be for the DOE-SR to brief the CAB before anything went to the executive task force. He said there is no task force at the lower level. CAB Chair Bridges asked Dr. Dave Moody, SRS Manager, to comment on how item two "struck" him. Dr. Moody said in some cases the CAB will find him between a "rock and a hard place." He said the ARI is in transition, and how it moves forward will change. He said he just asked Helen Belencan, DOE-SR, to pick up the responsibility for the ARI and to report to him. He stated there would be a forum where they can update the CAB regularly, but he agrees with CAB Chair Bridges in that if the CAB expects DOE-SR to relay information to the CAB, before reporting to DOE-HQ, it will be problematic. CAB Chair Bridges suggested they change the wording to "as early as practical." He said DOE isn't going to tell the CAB anything before it tells its boss.

Mr. Doug Hintze, DOE-SR, said there are 12 Strategic Initiatives, with item six being on ARI. He said they are scheduled to give the CAB a briefing on each of the 12 initiatives throughout the year. He said that during the next Full Board meeting, held in September, he would be giving an update on where DOE-SR stands with all 12 Strategic Initiatives, and in October, there would be a specific presentation just on Strategic Initiative six, which covers the ARI. He said Ms. Belencan is the team champion for the Strategic Initiatives. He said the recommendations are coming through the team at HQ, so it will be hard to sort out DOE-SR's recommendations from those coming from the DOE team.

CAB member Rose Hayes said she is "uncomfortable" with item two of the recommendation. She said she doesn't believe the CAB has been tasked with, or has the authority, to suggest to DOE-SR that the CAB should be a filter for whatever it is DOE-SR is going to talk to DOE-HQ about. She said the CAB supplies recommendations and serves as a conduit to the community. CAB member Simon said recommendation item number two would be revised and resubmitted for review the next day.

CAB member Nina Hazen asked if item number two was necessary when they had the wording in items number three and four. CAB member Doerr said item number two can be revised or items number two and three can be combined.

Mr. McGuire said when the CAB has passed recommendations in the past where it asked DOE to keep it informed of a particular activity or project, it asked DOE to supply the CAB with periodic updates. He said it sounded like that is what items two-four of the recommendation were asking.

Abstract Presentation: Nina Hazen, CAB

CAB member briefly Hazen presented her abstract for a paper she plans to write for the 2013 Waste Management Symposia. The abstract is attached to this document.

Administrative & Outreach (A&O) Committee Update- Kathe Golden, CAB

CAB member Kathe Golden said a reelection would take place the next day for the CAB Vice Chair; this special election was necessary because Jerry Wadley, the former CAB Vice Chair, retired from the Board with six months still left in his term. She then read aloud all CAB members who would need to reapply for the next membership term. She instructed them to fill out an application by Aug. 15, and said there were applications available at the table. She then listed the members of the A&O Committee.

She then pointed out two handouts on the CAB table-a Speakers Bureau presentation and a survey on the Speakers Bureau. She said the presentation has been worked on for a long time and was now ready for CAB critiques. She encouraged everyone to fill out a survey with comments and suggestions. She asked them to turn in the surveys by the next day. She said there would be a training session with the Speakers Bureau program for CAB members; she instructed anyone who wanted to be trained to present the Speakers Bureau presentation to write so next to their name. CAB member Ed Burke asked if the presentations would be given during work hours, and would the training be outside of people's normal working hours. CAB member Golden said the committee would consider the training to be outside of normal working hours, but nothing was planned yet.

CAB member Cleveland Latimore read through the presentation, reviewing each slide. He reminded them to fill out a survey, but there would be no questions taken about the presentation that day. He said the presentation had been approved and was ready to be presented, pending CAB input.

Nuclear Materials (NM) Committee Overview-Rose Hayes, CAB

CAB member Hayes listed the members of the NM Committee, and summarized what the committee focuses on. She said the NM Committee has a very active Work Plan, and said the NM Committee has been very interested in the topic of Yucca Mountain, and it's withdrawal of license by DOE, and the Blue Ribbon Commission's (BRC) final recommendation. She said the committee has three open recommendations, but there has been a response from DOE on all three; these recommendations consisted of 280, 281, and 282. She stated the NM Committee had two pending recommendations; these recommendations consisted of 286 and 287. She said the Committee has received a response from DOE for Recommendation 286; she reviewed it briefly, and stated the response indicates that DOE agrees with the recommendation, but the response is contingent on the BRC determinations. She said there would be two presentations the next day from the NM Committee. She announced the next NM Committee meeting as August 28, at the DOE Meeting Center in Aiken.

Waste Management (WM) Committee Overview-Ed Burke, CAB

CAB member Burke reviewed the mission of the WM Committee, and listed the members of the committee. He said the WM Committee has one open recommendation, 269, which he said was "ongoing" and would continue to be open. He stated the WM Committee had two items under consideration. He said the WM Committee has a recommendation and a Position Statement it is working on. He said they are both addressing the interim storage of wastes at SRS, including TRU waste or wastes that were sent to SRS. He said much of this material was to go to Yucca Mountain for final disposal, but that has changed since Yucca Mountain has been taken out of the equation as an option for final disposition. He continued that the WM Committee is trying to address where SRS should fall in the overall topic of nuclear wastes. He said he believes there is a change in what could happen at SRS as a result of the decision about Yucca Mountain. He said they would talk in detail about this recommendation and position statement at the next WM Committee meeting on August 14. He asked the CAB members to make comments on the

printed handouts of both documents and give it to him by the Friday before that meeting. He said the proposed recommendation, to be discussed Aug. 14, was titled, "The Desire of the SRS CAB to Not Have Wastes Brought to SRS for Interim Storage." He then spoke briefly about the proposed Position Statement, "Receipt of Nuclear Materials, Spent Nuclear Fuel, and Nuclear-Related Wastes at SRS."

He then spoke about an article that ran in the Augusta Chronicle in June. He read aloud parts of the article. He said there is a discussion going on about wastes at SRS, and he said the CAB should develop a consensus on this topic.

Recommendation Discussion

"Development of SRS Canisters Shipping Facility and Shipping Cask"

CAB member Hayes briefly reviewed the recommendation, reading over the items being requested by the CAB. She said this recommendation would give DOE a "head start" so when there is an interim or permanent storage site designated, there would have been advance preparation for getting the material off of SRS, as the federal government has committed to doing for several decades.

CAB member Burke asked Mr. McGuire, DOE-SR, what the cost would be for the development of the shipping container. Mr. McGuire said he didn't know yet. Dr. Moody, SRS Manager, said it would be advantageous to have two shipping casks-one that is lighter and can go by road, if possible, and a slightly heavier one that could go by rail, but nothing like the used fuel shipping casks, which are very big and costly. He said the development of the pair, which would have to be tested, would take about five years and would cost around $10 million. He said that is probably more expensive than they can handle at the moment.

CAB member Hayes said this recommendation was developed in lieu of a recommendation asking for no materials to be brought to SRS. She said she feels like the two recommendations are not mutually exclusive and the CAB can do both. She stated to Dr. Moody that they have been told there would be a Path Forward eventually, so it really is a case of "spend the money now, or spend it later." Dr. Moody said that just because DOE does not have it currently planned in its budget doesn't mean that it's not advantageous overall for the Site and the surrounding communities to move forward in this direction. He said he would not let the budget hinder the CAB. He said that just like with the Enterprise SRS, DOE is going to be forward the best it can under the tight budget situation, so he would not let the budget situation with DOE deter the CAB from making a recommendation it thinks make sense.

Karen Patterson, public, said she liked the recommendation, and she doesn't care if the DOE or the government has the money for it. She said they have to do it and will have to find the money to do it. She recommended the CAB consider making sure the facility to get rid of High Level Waste (HLW) canisters also has the ability to load Spent Fuel canisters. She said they have spent fuel that is going to have to leave, and if they could get two kinds of wastes out of SRS with one facility it would lower the cost overall. CAB Chair Bridges said the body of the recommendation says if they don't process the fuel through H-Canyon, they should assess whether or not the facility should be expanded to include provisions for spent nuclear fuel (SNF) or for the canister. He said it is not in the requested items within the recommendation, but it is in the body of the document. Ms. Patterson said she would list it in the items requested within the recommendation to make sure DOE addresses it.

CAB Chair Bridges asked Mr. McGuire what his views were on the extent facilities are required to ship fuel offsite. Mr. McGuire stated that as part of the Enterprise SRS initiatives, DOE is evaluating disposition paths and closing the backend of the fuel cycle, and that includes direct disposal of SNF. He said one of the questions that come up is if a "drying facility," which can be used to dry fuel, could be used for aluminum-based fuel. He said there is going to be an investment in facilities, no matter if they modify existing facilities to provide capabilities or create new a stand-alone facilities, etc. He said there are a number of things that go into it, and they are just starting to evaluate those alternatives.

CAB Chair Bridges said he wouldn't object to stating "consider spent fuel as a part of the shipping facility capability." CAB member Hayes said she was fine with adding that to the recommendation. She said she would work with CAB Chair Bridges on the edit after the meeting to bring forward the next day for comments.

Public Comments

Tom Clements, Alliance for Nuclear Accountability (ANA), commented that there was a comment from the S&LM Committee, during its last meeting, about one of its focuses being Small Modular Reactors (SMR). He said there was a presentation from DOE talking about South Carolina Electric and Gas being interested in SMRs to replace coal-fired plants. He said DOE's goal is to have a SMR by 2022. He said after that meeting, he went and looked at the integrated resource plan of South Carolina Electric and Gas, which was filed recently. He said this plan looks into the next 15 years on what its energy situation will be, and what the generator sources will consist of. He stated there is no mention of SMRs in that plan. He said he was stunned to see that, and has done a filing with the Public Service Commission asking that this plan be amended to reflect if the company actually is interested in SMRs. He said one of the officials in the company has been talking about SMRs, but it is not in the plan. He said something funny is going on, and he hopes the Public Service Commission requires them to update their integrated resource plan.

Mr. Clements then stated that in past meetings, it has been said that the first "waste plutonium (Pu)" shipment to the Waste Isolation Pilot Plant (WIPP) would take place at the end of June. He said he has been asking since 2011 if the paperwork at Carlsbad and the New Mexico environment department was actually in order so the shipment could take place. He said on July 10, the Carlsbad Field Office rescinded what is called a "waste stream profile form," which is related to shipment from SRS of the material. He said SRS has said the earlier projected June timeframe for the first shipment was extremely ambitious for this first-of-its-kind shipment and it is anticipated that the shipment will take place in the fall of 2012. He said he is pointing out the delay and he thinks it is important that it be demonstrated and that DOE do it right. He said he isn't sure why they didn't get the paperwork in order, but he is trying to find out about that. He said there would be a meeting about the MOX plant, held by the Nuclear Regulatory Commission (NRC) at the Hydrogen Center the next day at 2 p.m. He said he would be leaving the CAB meeting to attend. He briefly reviewed what the meeting topics would consist of, including schedule adjustments to the MOX construction and the receipt of faulty stainless steel pipe. He said there was a statement from MOX stating they didn't know if any of the faulty pipes had been installed.

He stated the Surplus Plutonium Disposition Supplemental Environmental Impact Statement (SPD Supplemental EIS) has been released after many years. He said it would be noticed on Friday in the Federal Register. He spoke briefly about the EIS. He then said that CAB member Burke's recommendation about no more material coming to SRS is a sound one and community members would support it.

Ernie Chaput, Economic Development Partnership, said he came to the meeting to discuss the recommendation on interim storage. He commented on the Speakers Bureau presentation, stating that on slide five the Site's mission should include NNSA activities. He then stated that someone said that long-term storage is the same as disposition, and he strongly disagrees with that statement. He said disposition is an "ultimate place," with no further human intervention required. He stated there are distinct differences between long-term storage and ultimate disposition. He said if the CAB does not have a definition, or two definitions, of those actions, it needs to acquire them. He then commented on the recommendation dealing with interim storage, stating that given the history of the BRC, most people think of interim storage in the context of commercial SNF. He said the Economic Development Partnership believes there is little or no benefit to the local community, or the region, associated with an interim storage-only commercial SNF mission at SRS. However, he said they do believe there could be benefits to the local community and region associated with a larger "backend of the commercial nuclear fuel cycle" mission located at SRS. He said a backend cycle would most likely include some form of interim storage, but will also include other activities of potentially greater benefit. He said he believes it is premature for the CAB recommendation to opt out of interim storage at SRS, if the interim storage is part of a larger program. He said that decision should be made when more is known of the full scope of a larger program and they have had the opportunity to identify and evaluate it. He said his recommendation is for the CAB to limit its desire to discourage interim storage for commercial SNF to any program which is 1.) Interim storage-only, and 2.) Does not have associated activities with local or regional benefits.

Rick McLeod, SRS Community Reuse Organization (SRSCRO), said he was the technical advisor for the CAB during 1999-2008. He said Mr. Clements is correct when he said no one knows what the consensus means, and he doesn't want the CAB to get the wrong impression from the Augusta Chronicle article CAB member Burke cited earlier. He said sometimes reporters don't get every nuance correct when writing an article. He said no decisions have been made and they don't want to come out and say "we want interim storage" when they don't know the

positions or aspects surrounding it. He said that is why they are conducting a study. He said it started with a tier one group, but the CAB needs to be involved in perhaps a tier two or later group, and SCDHEC needs to be involved as well. He suggested the CAB wait to make any decisions until after they have seen all the nuances involved in it. He said they should look at the entire process that Mr. Chaput spoke about.

Joe Ortaldo, public, recommended they all read the Position Statement paper that CAB member Burke put together, and jot down what information they need to make a decision. He said he thinks it is a little premature to make a hard decision.

Clint Wolfe, Citizens for Nuclear Technology Awareness (CNTA), commented that he wanted to second Mr. McLeod's remarks about the study that is going on. He said CNTA is supportive of that study, and they would like to find out the pros and cons of any particular proposal that comes along. He added that SRS, and the surrounding area, has the assets, talents and experience to be a major player in solving the Nation's spent fuel cycle issues. He said he would hate to see them opt out of those when they really owe it to the taxpayers to use those resources the best they can to solve the Nation's problems. He said they should wait to see what the whole story looks like.

Karen Patterson, public, said she agrees with what everyone else said.

Mr. McGuire, DOE-SR, asked the CAB to make sure it was defining waste, and to use its Research Associate Kole Helvie, when writing its recommendations.

CAB member Parson asked CAB member Burke if his Position Statement had been shown to the Executive Committee. CAB member Burke said no. CAB member Parson then referred to the CAB's Internal Processes, and stated anyone can write a Position Statement, but it must be vetted through the Executive Committee first and then if it is improved, it goes to the Full Board. She said they need to use the process outlined in the Internal Processes. CAB member Burke said the intent was not to bring the statement to a vote, but was to get input from the CAB and then the next draft being worked on at the Aug. 14 meeting. He said he is trying to get more CAB members involved. CAB member Parson said she believes that discussion at a committee level takes place after the Position Paper is assigned to an issues-based committee. She said that is the time where there is discussion. She according to the CAB's procedures, it goes to the Executive Committee first, then to the issues-based committee, and then it is discussed at a committee level.

CAB Chair Bridges closed the meeting.

~Meeting adjourned

Meeting Minutes
SSR Citizens Advisory Board-Full Board Meeting
Augusta, GA
July 24, 2012

Tuesday, July 24- Attendance:

CAB
Thomas Barnes
Artisha Bolding
Dr. Donald Bridges
Ed Burke-***Absent***
Louie Chavis
Mary Davis
Robert Doerr
Kathe Golden
Dr. Rose Hayes
Nina Hazen
Stanley Howard
Travis Johnson
Cleveland Latimore
Clinton Nangle
Dr. Marolyn Parson
Dr. William Rhoten
Dr. Paul Shieh-***Absent***
Earl Sheppard
Harold Simon
John Snedeker
George Snyder
James Streeter
Ed Sturcken-***Absent***
Sarah Watson

Agency Liaisons/Regulators
Shelly Wilson, SCDHEC
Kim Newell, SCDHEC
Van Keisler, SCDHEC
Heather Cathcart, SCDHEC
Gregg O'Quinn, SCDHEC
Michael Spradlin, SCDHEC
Mary Bright, SCDHEC
Scott Simons, SCDHEC
Rob Pope, EPA

Contractors
Gene Rhodes, SREL
Judy Greene-McLeod, SREL
Stuart MacVean, SRR
Nancye Bethurem, SRR
L.T. Ling, SRR
R. Campbell, SRR
Tom Crouse, SRR
Paul Sauerborn, SRNS
Mtesa Wright, SRNS
D.M. Dimmick, SRNS
R. Kim Cauthen, SRNS
Steve McConnell, SRNL
Steve Sheetz, SRNL
C. Hansen, Parsons
Erica Williams, V3
Ashley Whitaker, V3
James Tanner, V3
Kole Helvie, V3

DOE
Dr. Dave Moody, DOE-SR
Pat McGuire, DOE-SR
Terry Spears, DOE-SR
Doug Hintze, DOE-SR
Bill Taylor, DOE-SR
Gerri Flemming, DOE-SR
Rich Olsen, DOE-SR
Maxcine Maxted, DOE-SR
Karen Guevara, DOE-SR
Jeff Carswell, DOE-SR
David Hoel, DOE-SR
J.M Ridley, DOE-SR
Maatsi Ndingwan, DOE-SR
Angelia Adams, DOE-SR
Adam Taylor, DOE-SR
Vickie Wheeler, DOE-SR
Sherri Ross, DOE-SR
Donell Jenkins, DOE-SR
Ben Gould, DOE-SR
Chuck Borup, DOE-SR

Stakeholders
Tom Clements
Karen Patterson
Nancy Bobbitt
Joe Ortaldo
Ernie Chaput
Liz Goodson
Regan Voit
Bobbie Paul
Sam Booher

CAB Chair Bridges open the meeting, and Erica Williams, Facilitator, reviewed the day's agenda and reminded everyone of the Meeting Rules of Conduct. She instructed all CAB members to turn in their Speakers Bureau surveys, to turn in completed applications if they were up for reappointment, and informed the meeting attendees of the public comment periods planned throughout the day. She then led the meeting in the Pledge of Allegiance.

CAB Chair Update-Donald N. Bridges, CAB

CAB Chair Bridges welcomed everyone to the meeting. He gave a brief update on CAB membership, stating member Gerald Wadley, who was serving as Vice Chair, resigned due to time conflicts. CAB Chair Bridges informed the CAB there would be a special election held that day for CAB Vice Chair. He then reminded everyone to reapply to the CAB if their term was up, and said there were at least three vacancies on the Board. He said all of the committees had held a committee meeting in the past month, and stated the Executive Committee had a new recommended meeting schedule to present to the entire CAB. He said having four meeting a month has not turned out as well as the CAB originally thought, and stated they are thinking of changing the schedule to two meetings per

month, with joint meetings, and the times would be 4-6 p m. and 6-8 p m. This would start in February 2013.

He continued by speaking about the Site Specific Advisory Boards (SSABs), stating there are eight boards that make up the SSABs. He said he attended a teleconference on June 6; he said they spoke about the budget, which would be seeing slight cuts. He reviewed a letter from the Northern New Mexico SSAB to Environmental Management (EM), stating its position on the use of WIPP for some of the wastes that are being suggested. He then stated the CAB needed to follow-up on a SSAB product from the last Chairs' Meeting. He stated the next SSAB meeting would in Washington, D.C., on October 2-3. CAB Chair Bridges reviewed a joint letter, from the CAB and the other advisory Boards, to EM, which was a product from the April Chairs' Meeting. He read over the letter and stated the CAB must vote on whether to sign the letter or disagree with the letter. He opened the floor for a vote; the letter was approved by the CAB, with no opposition and one abstention.

He spoke about the "EM HQ News Flash", which came out on July 2, 2012. He said it had an article titled, "Advisory Board Makes Valuable Contribution to EM," and it mentioned all eight SSABs. He explained that it highlighted an accomplishment from every Board; he reviewed the article, highlighting the contributions from the different Boards, including the SRS CAB.

He gave an update on Paducah, stating the Site is in "uncertain operational status." He said 1,200 workers are involved in uranium enrichment, and the plant was projected to close in May 2013. He stated that according to the Weapons Monitor Complex, Paducah is now scheduled to continued operations until summer 2013, which is a one-year extension. He said there would be a workshop on July 31-August 1 to "explore options." He said the workshop would include information on topics such as commercial interest in enriching uranium beyond 2013, and use of any Paducah facilities for any operations.

CAB Chair Bridges then made a few comments on the CAB's newsletter, *The Board Beat.* He said he received a very nice letter from a member of the public on the newsletter, and he thanked the CAB Support Team for its hard work. He then spoke about the Environmental Justice Program, stating many CAB members have been attending meetings. He briefly reviewed the ARI Program, stating the purpose as "to facilitate a discussion among DOE nonprofits, tribal nations, the private sector and other stakeholders to identify reuse approaches and to explore opportunities to reutilize assets for beneficial purposes." He said there was a workshop in Oak Ridge on June 13-14, and the CAB was looking forward to feedback.

He stated his "emphasis for the year," which included focusing on getting more input from each CAB member, gaining more public involvement, and providing more recommendations to DOE. He told everyone in attendance, including the CAB and the public, to advise the Board of their interests.

CAB Chair Bridges asked if anyone had any edits or corrections to the May Full Board meeting minutes. There were none and the meeting minutes were approved.

Agency Updates

Dr. David Moody, SRS Manager-Department of Energy-Savannah River (DOE-SR)

Dr. Moody thanked the CAB, the public, and DOE staff for attending and making the time for the meeting. He said DOE-SR and Wackenhut received the Federal Aviation of the Year award, which is an award for Sites with less than 20 aircrafts. He said there were 23 competitors and said it was the fourth time out of 11 years that SRS has won; he added that the Site has two helicopters. He said DOE just held a Teaching Radiation Energy and Technology (TREAT) workshop at USC-Aiken, which provides education and training to 25 middle school math and science teachers. He said there would be a second TREAT workshop in the fall targeting communications.

He spoke about waste tank cleanup and closure, stating SRS is about 99.9 percent completed in grouting Tanks 18 and 19. He said they have added more than 3 million gallons of concrete grout to fill the tanks, which is enough to fill five Olympic-sized swimming pools. He said they are on track to be complete in September and the formal celebration is scheduled for October 1. He said Tanks 18 and 19 are the first tanks closed since 1997. He said Tank 18 was put into service in 1959 and Tank 19 was put into service in 1961, with both receiving wastes until the 80s.

Dr. Moody discussed a Nuclear Manufacturing Initiative, stating it was a spin-off from the Enterprise SRS. He said one of things DOE has observed, with all of the nuclear construction projects in the country, is that they have not exercised that infrastructure for 40 years. He said while some of the manufacturers have a nuclear quality program, they have to "blow the dust off of it" when they engage them to manufacture something. He said DOE has authorized SRNS to enter into a mentor-protégé agreement with a small manufacturing company. He said they would transfer their equipment offsite and work with them to utilize a historically under-utilized business, or Hub, zone. He said SRNS would provide the oversight for that program, helping them grow into a quality manufacturing program. CAB Chair Bridges asked what they would be manufacturing. Dr. Moody said currently the Site builds, for its own use, about $5 million worth of equipment, so that equipment will go over there and they will work on that. He said when they look at storage vessels they would be able to bid on those vessels, etc. He said they would even be able to bid on projects at other places, such as Plant Vogtle. He said the economics of the program isn't great for DOE in the first five years or so, but after that the Site will start saving several millions of dollars per year as that small business progresses.

Dr. Moody then gave a safety tip, by reminding everyone to be careful to stay hydrated and cool in the hot weather, and to make sure their pets are taken care of as well.

CAB Chair Bridges stated there was a number of "pretty striking" items popping up in the Weapons Complex Monitor. He said he read that the TRU Program is being pushed back because of an inability to get shipping containers. He asked Dr. Moody to explain. Dr. Moody said DOE designed a very large shipping container and the manufacturer of that has "suffered the ails" of the nuclear manufacturing industry and has not been able to deliver the containers with sufficient quality. He said even some that had been constructed had to be sent back to be corrected. He said they currently have two containers and by early fall they should have all five. CAB Chair Bridges asked if they would miss any commitments or scheduled due dates. Dr. Moody said they would have loved to have finished all of the shipments by spring 13, but because of the limits of TRU-PAC III shipments they can do per week, they are going to run through FY13 with the shipments. He said the major commitment is to have all the materials repacked and ready for characterization by the end of the calendar year and that will be met. CAB Chair Bridges said he also read in the Weapons Monitor Complex that there are many problems with the Salt Waste Processing Facility (SWPF). He asked Dr. Moody for clarification. Dr. Moody said the impact of the delay of the 10 vessels is now quantified now that they have arrived. He said Parsons was able to compute its estimate at completion, and informed DOE it would need an additional $400 million; this would see an increase of $1.37 to $1.8 billion to complete the project. He said DOE was in the process of getting an independent cost and schedule review on the budget increase request completed that week, and on the basis of that independent confirmation of Parson's numbers, they will initiate change control at DOE-HQ to request the funding and will begin negotiating the contract with Parsons. Dr. Moody said there will be a delay, but they're trying to mitigate the delay with other actions they are taking. He said he couldn't elaborate on the delay before the cost and schedule review was completed.

CAB member Burke asked if there are commitments to the state of South Carolina concerning the opening of SWPF, and if there would be any penalties for not meeting the commitment. Dr. Moody said there are commitments and there is the potential for penalties, but DOE looks forward to negotiating with the state of South Carolina concerning a Path Forward. Shelly Wilson, South Carolina Department of Health & Environmental Control (SCDHEC) commented that there is a commitment in the Salt Stone Permit for the startup of SWPF and the reason it is in the permit as an enforceable milestone is because SCDHEC feels strongly about the startup of SWPF because it is crucial in the ability of the Site to start working down the large volume of High Level Waste (HLW) that is sitting in the tanks. She said SCDHEC is anxious to have more conversations with SRS about the SWPF schedule. She added that one of SCDHEC's main goals is to protect its other milestones; she said one large one in the out-years is a milestone for the treatment of all HLW by 2028. She said the tank closure schedules are also staggered through 2022 and those are very critical future dates that SCDHEC is interested in protecting.

CAB member Hayes asked Dr. Moody to help the CAB understand how the Enterprise SRS would involve the activities the CAB has been tasked with commenting and making recommendations on. Dr. Moody said with the disposition of special nuclear materials, the disposition takes a number of routes. He said in the case of the used reactor fuel that has been brought in, the Enterprise SRS identifies the strategy of pulling the used fuel out of the basin, getting it into dry storage and establishing the protocol for dry storing aluminum-clad fuel, as well as positioning it for shipment offsite. He said they are also dissolving some of the used fuel, and they are looking to move forward with more dissolution of that fuel and dispositioning that highly enriched uranium. He said there are

SMR vendors that would like 19 percent enriched material for the start-up of their reactors, and so DOE-SR is looking at how it will use the canyons to remove that material from the highly enriched used fuel onsite to make it usable to those SMR vendors. He said a single charge of that material brings with it about $200 million worth of value. He then spoke about other aspects of the nuclear materials area, stating DOE-SR is negotiating with industries as they are processing Pu, purifying it, and making it available for MOX. He said the goal is to have a ready supply of pure Pu for MOX before it starts. He said they can process that material through H-Canyon. He said they are negotiating ways to better resolve the byproducts of that process rather than put it in tanks or glass logs; this is all addressed through the Enterprise SRS. He then spoke about environmental stewardship, stating they have a lot of experience in cleaning and preserving the Site; he spoke about negotiations with emerging industries that are responsible for cleanup. He said they want to look globally as well as locally, and they want offer knowledge as well as hardware. He then compared SRS to other sites, such as Hanford, stating SRS is ahead in some areas. He said they work with the Enterprise SRS approach in order to get to the next step.

Mr. Pat McGuire, DOE-SR: Co-Designated Deputy Federal Official (DDFO)

Mr. McGuire said SRS had a security-related incident earlier in the month. He explained that after robbing two local gas stations, two suspects crashed through a SRS barricade off of Highway 125, near Jackson, SC, at a speed of more than 100mph, while fleeing Aiken Department of Public Safety. He continued that the suspects' vehicle eventually struck a guardrail and came to a stop; both suspects were quickly arrested by the Aiken Department of Public Safety with the help of Wackenhut. He stated the vehicle, surrounding areas, and suspects were searched, and no weapons were found. He said DOE is pleased with Wackenhut's quick response in apprehending the suspects and securing the area. He added that the suspects did not get near any nuclear facilities or any nuclear materials, and there were no injuries to any of the Site security officials. He reviewed the liquid waste operations at SRS, noting the successful achievement of grouting the HLW tanks. He spoke briefly about the Defense Waste Processing Facility (DWPF), stating the facility has successfully vitrified more than 3,500 canisters of HLW. He stated the Salt Stone Facility remains in an extended outage to perform some system upgrades to enhance the facility's reliability. He said during the outage, Savannah River Remediation (SRR) has been completing maintenance on the Modular Caustic Side Solvent Extraction Unit (MCU).

He spoke about environmental stewardship, stating that SCDHEC approved the Savannah River Site Treatment Plan for 2011. He said this plan is a regulatory agreement executed in 1995 that enables SRS to develop and carry out suitable treatment methods for legacy inventory of mixed hazardous and radioactive wastes. He said most of the Site Treatment Plan milestones have been completed, and SCDHEC has agreed to allow SRS to reduce from yearly Site Plans to Site Plans being submitted every five years, which is a "significant cost avoidance" for SRS. He reviewed Recovery Act work being completed in C-Area, and then discussed ground water remediation efforts, stating SRNS recently completed a multiyear project and removed more than 33,000 gallons of nonradioactive chemical solvents from beneath M-Area; he reviewed the method used.

Mr. McGuire gave an update on the Draft Surplus Plutonium Disposition Supplemental Environmental Impact Statement (Draft Surplus Pu SEIS), stating DOE would release it for public comment and the notice of availability was expected to be posted in the Federal Register by the end of the month. He stated that within the Draft Surplus Pu SEIS, DOE's preferred alternative for disposing of surplus Pu is the Mixed Oxide Fuel Fabrication Facility (MOX). He stated that for Pu that does not meet standards, and is not suitable for MOX, DOE's preferred disposal method is at WIPP in New Mexico. He said DOE's preferred option for Pit Disassembling Conversion of surplus Pu to supply the feed for MOX, is to use some combination of existing facilities rather than construct a new stand-alone facility. He continued that the combination of facilities that DOE is considering is the Plutonium Facility, PF4, located in Technical Area 55 at the Los Alamos National Lab, as well as K-Area, H-Canyon, HB-Line, and MOX, all located at SRS. CAB Chair Bridges asked when that decision would be made. Mr. McGuire said these decisions would be evaluated and made through the Environmental Impact Statement (EIS). He said the Supplemental Environmental Impact Statement (SEIS) would be issues that month and will open for a 60-day comment period. He said the Notice of Availability will be posted on the web and will be open for public comment. He said they will also hold public meetings throughout the country during the month of August and those dates will be posted in the Federal Register. He encouraged everyone to get involved.

Mr. McGuire then reviewed nuclear material activities, stating the H-Canyon and HB-Line are continuing preparations to provide Pu to be used for MOX. He said they are expecting to start-up the process in November, and

during the next fiscal year, plan to produce 200 kilograms of Pu oxide as feed material for MOX. He said the production will then be increased to an annual rate of about 1 metric ton per year, and those operations will continue through FY17. He said in HB-Line they are repackaging Pu materials that do not meet the MOX fuel fabrication standards; he said they are blending that material down for eventual shipment to WIPP. He stated that so far this year, and throughout the remaining fiscal year, they should have about 90 kilograms of Pu that will be down blended and shipped to WIPP. He said that material is being packaged into Pipe Overpack Containers, which will be placed into a TRU-PAC container and shipped. He said they expect to make the first shipment in the fall 2012 timeframe, which he said will demonstrate that DOE-SR has a pathway out of the state and into WIPP. He said after the pilot shipment is made, they will continue on with the Legacy TRU waste shipments, and once all the TRU waste is shipped offsite, they will begin routine shipments of Pu to WIPP. CAB Chair Bridges asked if they have shipped Pu waste before. Mr. McGuire said the previous path forward included dissolving Pu in HB-Line, sending it to a sludge batch as a liquid and vitrifying that into glass waste logs. Dr. Moody, SRS Manager, said CAB Chair Bridges is correct; it isn't the first time that the complex has shipped Pu, but it is the change in direction for SRS with its Path Forward.

Mr. McGuire then spoke about a tour SRS would be hosting for the CAB the next day, and encouraged everyone to hydrate well before starting the tour and to dress comfortably.

Environmental Protection Agency (EPA)-Robe Pope, EPA

Mr. Pope referred to the previous day's discussion on budget and funding for the regulatory agencies, stating that for 2012, the EPA did receive funding from DOE in the levels that were pre-Recovery Act. He said there is currently an interagency agreement that that will continue for a few years. He said this funding helps provide salary funding for extra staff positions. He said it does not fully fund the team the EPA has working at SRS, but it does provide extra staff positions so that they are more easily able to cover things. He said if there was a decrease in funds, the first thing impacted would be the ability to perform field oversight at SRS all the time, and this is mainly because of travel costs. He said other things severely impacted would be the EPA's support of the CAB and the Environmental Justice Program. He continued that there are times where activities fluctuate; for example, when it is very busy in the tank program or very busy in the C-Reactor. He said the funding from DOE makes it possible to handle those fluctuations. He stated that in 2013, as far as EPA knows, the funding for EPA to provide oversight support at SRS is stable, and the funding that DOE can provide is stable, but with all federal agencies, this is completely dependent upon what the budget ends up being.

He continued by thanking the CAB for having members attend and support Environmental Justice meetings. He said they will likely have another Environmental Justice meeting that year, due to funding not being used for Super Fund Job Training Initiative (SJTI), because of a lack of current job positions with Parsons, who is working with the EPA on the current round of SJTI. He said the money originally put aside for SJTI will be used to have an additional Environmental Justice meeting. He stated there were three things he wanted the CAB to be aware of that were coming out soon for public notice and comment. These three things included the Proposed Plan, public noticed for public comment, on the F-Tank Farm; a Public Notice of an Explanation of Significant Difference for Lower Three Runs, which looks at land use controls and how they are out in place; and a Proposed Plan for B-Area, which will cover the "finishing touches" on the Heavy Water Components Test Reactor (HWCTR). He said under the Recovery Act, HWCTR was completely closed and grouted up.

He stated that when waste is left in place, under CERCLA, they have to come back and review every five years that what has been done is still working. He said SRS has enacted many remedies, and have done three five-year reviews over the past 15 years, and it is time for the Site to do its fourth five-year review. He said there should be a public notice coming out soon saying the five-year review has been initiated. He said the EPA expects to see a draft document from DOE to the regulatory agencies on the five-year review this fall. He said he has had the opportunity to be in a work group that included representatives from DOE, the Department of Defense (DoD), the Department of Interior, as well as a state representative organization, that are working to put together five-year review trainings for the people who make the documents and review them, and for communities. He said one of the products the working group put out recently is a video that introduces communities to five-year reviews and why they're important. He said they are also releasing a PowerPoint training, which is about 20 minutes long, and available for communities to view. He asked the CAB to consider training on five-year reviews.

CAB Chair Bridges asked how long it takes to conduct a five-year review. Mr. Pope said the reviews are "massive," and is a review of every single final decision made at SRS that left waste in place. He said the last round of the document fit into a four inch binder, without the appendices. He said it is a massive document, requires a lot of effort, and was always intended to be that way.

South Carolina Department of Health & Environmental Control (SCDHEC)-Shelly Wilson, SCDHEC

Ms. Wilson began her update by introducing Van Keisler, SCDHEC, who gave an update on the Federal Facility Agreement (FFA) portion of what SCDHEC does at SRS, and this includes mostly soil and groundwater, but also some other things.

Mr. Keisler provided a brief overview of some of the work SCDHEC completed since the previous CAB meeting in May. He said since May, SCDHEC has attended five meetings in conjunction with the EPA and DOE; he listed these meetings, which included a meeting on the optimization of groundwater monitoring at SRS. He then stated that in addition to the meetings, SCDHEC has reviewed many items since May, including nine documents. He thanked some of SCDHEC's regional staff, including Scott Simons and Gregg O'Quinn, who he called the "SCDHEC's eyes and ears in the field." He said they are at SRS almost daily and oversee remedial activities that are occurring.

Ms. Wilson spoke about the H-Tank Farm, stating they have been focusing a lot of attention on the closure of HLW tanks because that gets the Site to risk reduction, but DOE submitted a general closure plan for H-Tank Farm that SCDHEC reviewed. She said this general closure plan was recently out on public notice; she said the public notice went from June 18-July 19, 2012. She said they received one set of comments from the Alliance for Nuclear Accountability (ANA), and she thanked Mr. Tom Clements for those comments. She said they didn't receive any other comments, and she thinks it may be because the H-Tank Farm closure plan was very similar to the F-Tank Farm closure plan. She said they have been looking ahead to the next two tanks on the schedule for closure, and the next document that is going to outline the plan for the closure of those two tanks, tanks 5 and 6, is another closure module. She said while it has not been submitted yet, SCDHEC has been actively having meetings and discussions with DOE on issues related to that closure module, and that is in an effort to be faster and more efficient.

She spoke about the Site Treatment Plan, which Mr. McGuire mentioned earlier in the meeting. She said he noted that SCDHEC is dropping back the frequency of the Site Treatment Plan; she explained that the reason they are doing that is because it has been so successful. She added that one of the major remaining milestones in the Site Treatment Plan is the treatment of all HLW by 2028. Ms. Wilson discussed the Proposed Plan that is coming out for public comment related to the F-Tank Farm, stating the closure modules relate to how the tank farm or specific tank is going to be closed and all of the procedures DOE is going to perform to close those tanks; the Proposed Plan that is coming out for public notice will cover what happens after that. She said DOE has a plan for monitoring the closed tanks and that is what is covered in the Proposed Plan.

Public Comment

Karen Patterson, Chair of the Governor's Nuclear Advisory Council (GNAC), discussed the subject of MOX, stating the CAB frequently hears costs, schedule and technical issues about the construction and operation of MOX. She said she thinks everyone needs to remind themselves of the history of MOX and why it is being built. She said MOX is not being built to provide fuel for commercial nuclear reactors- it is being built to get rid of nuclear weapons. She said if one goes back to the Cold War timeframe, the United States and the Soviet Union independently generated enough nuclear weapons in the Cold War to send the world to "Kingdom Come" a million times over. She said at the end of the Cold War, both of those nations decided that getting rid of some of those nuclear weapons would be a good idea, and so in 1993, they committed to getting rid of weapons of mass destruction in a treaty. She said they got rid of the highly enriched uranium (HEU) fairly easily; they blended it down, both the Soviet HEU and the American HEU, to low enriched uranium, and it has been sent to commercial reactors as fuel. She said, ironically, some of the meeting attendees' homes are now heated by bombs that used to target America. She continued that it has taken longer to resolve the Pu issue; in 2000 the U.S. and the Soviet Union managed to get the Plutonium Management Disposition Agreement signed, which is where the 34 metric tons comes from. She said each country agreed to disposition 34 metric tons of the weapon-grade Pu. She said there is more than one way to handle the Pu; however, most of the options are hugely expensive. She said one of the criteria in the treaty is that the Pu must be rendered so it cannot be turned into more weapons, and she said there are not many ways to do that. She said this

brings up an issue: after they build a huge, costly facility to disposition the Pu, if it can still be retrieved, they will have to spend a lot of money on safeguards and security forever. She said MOX, which turns the Pu into a fuel which then runs through a commercial reactor, is a way to make the Pu no longer a proliferation issue. She explained that running the Pu in the reactor as a fuel changes its physical characteristics so it cannot be retrieved. She said otherwise, if one had enough money, the Pu could be retrieved from the other methods. She said the reason they are building MOX, and spending so much money, is to get rid of all the nuclear weapons. She said it is true that there is no commercial utility that has stepped up and said "I want to buy this MOX fuel," but she views that as more of a strategy by the utilities. She said MOX has issues, but she thinks everyone needs to remember, when listening to discussions about MOX, is that it eliminates the weapon threat, it provides a means to recover some of those costs, and MOX is a way for America to meet its commitment of the treaty it signed in the 90s.

Bobbie Paul, Georgia Women's Action for New Directions (GA WAND), said it had been a while since the last time she was at a CAB meeting, and thanked the CAB members for its service. She read aloud her public comment, which she wrote down and submitted to DOE for response:

1. What is the involvement of the CAB on the restoration of DOE funded environmental monitoring of the Georgia counties and communities bordering or downstream/downwind of SRS?

She said it is currently unfunded, as she understands it, it is unfunded. She said this was an agreement with DOE made in 1989, and was "sharply" cut off in 2003. She said her organization has been working to restore it. She stated it was promised in 2010, under the EM Program in D.C., and then the funding went from $1.5 million to $700,000, to $350,000, and to the point where DOE said it would not be providing funding at all.

She stated her next two questions as:

2. Is Georgia EPD represented here, and at all CAB meetings, and if so, how? What is their role at this point?

3. How does the Environmental Justice program interact with communities in Georgia affected by SRS emissions or specifically waste contamination, groundwater, well water, and rain that has potential health impacts on Georgia residents? She said she was particularly talking about Burke county and Screven county.

She said she saw the CAB Work Plan, and it seemed so extensive. She said she saw remediation and environmental monitoring on the Work Plan, but not Environmental Justice. She said maybe it is woven into other elements; she said GA WAND works on Environmental Justice issues as well.

Tom Clements, ANA, commented that given the updates by Rob Pope, EPA, Shelly Wilson, SCDHEC, and Van Keisler, SCDHEC, he really thinks it is incumbent on the CAB to engage in the public comment process. He said he is overwhelmed himself by all of the things that are put forward with closing the tanks, but he would like to see the CAB take up these Federal Registers notices and other things that SCDHEC puts out, and actually make comments (copied to DOE). He said he thinks this should be on the CAB meeting agendas.

He then spoke about Pu disposition, stating they have heard the first Pu shipment to WIPP has been delayed. He said the reason it is so important to get that shipment right is because there will be other shipments of Pu to go to WIPP. He referenced the Land Withdrawal Act, which covers how much material goes into WIPP; he said that is going to have to be changed if the facility were expanded in any way. He said that it is a political issue. He asked if he had a program where disposing of 34 metric tons of Pu in WIPP, or some other facility, was to cost $5 billion, and would meet the security and disposal standards, but he had another program that costs $20 billion dollars and would impact heavily EM issues at SRS, which one would he choose. He said the MOX program has been given a blank check by DOE, and we have no idea what the costs are, although he estimates it could be up to another $20 billion to be spent. He asked: if the goal is to dispose of Pu as waste, no matter what route is chosen, why would they choose the most expensive option if it continues to put heavy pressure on the DOE budget? He stated that is the question that is hanging in front of the Office of Management & Budget, the Government Accountability Office, Congress, DOE, and public citizens, like the CAB. He said they hear there is a lot of pressure on the EM budget, but there is no pressure on the MOX budget that he can determine. He said he keeps asking why the MOX program is getting a blank check, and EM does not have a blank check. He suggested the CAB look closely at how the funding is

allocated for the MOX program at SRS. He said the funding should be focused on the most serious issue at SRS, which is cleaning up the Site, and not throwing money into a program that only has a speculative goal at this point.

CAB Research Associate Report-Kole Helvie, V3 Technical Services

Mr. Helvie gave a brief status update on the CAB Work Plans and recommendations, stating there were six open recommendations, six pending recommendations, and four draft recommendations. He said the CAB would be voting on two recommendations that day. He then reviewed the CAB Work Plan progress, highlighting each committee's progression over the year.

Facilities Disposition & Site Remediation (FD&SR) Committee Overview-Marolyn Parson, CAB

CAB member Parson announced that the next FD&SR Committee meeting would be held August 21, and she encouraged everyone to participate either in person or online. She welcomed Donell Jenkins, DOE-SR, to present on an overview of the SRS Energy Management Program.

PRESENTATION: Overview of SRS Energy Management Program-Donell Jenkins, DOE-SR

Mr. Jenkins began his presentation by stating the purpose of his presentation, and the drivers for the Energy Management Program. The drivers included the DOE Order 436.1, "Departmental Sustainability"; Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance"; Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management"; the Energy Policy Act of 2005, Public Law 109-58; and the Energy Independence and Security Act of 2007.

He discussed "energy intensity," stating the goal is to have a 30 percent energy intensity (which refers to energy consumption per square footage) reduction by FY15 from a FY2003 baseline. He gave the performance status, stating SRS has currently achieved a 22.5 percent reduction through FY11 compared to the FY2003 baseline, and SRS energy intensity has decreased by approximately 2.4 percent in FY11 versus FY10. He listed current and planned actions as: SRNS will continue to replace the heating, ventilation, and air conditioning systems with higher seasonal energy efficiency ratio units, there will be facility audits of square footage conducted, and the Site will continue to use "Peak Alert" to control demands for purchase electricity.

CAB Chair Bridges asked what the one big factor was that helped the Site achieve efficiency. Mr. Jenkins said it is several things that have been done at SRS. He said SRS has been one of the Sites that have been a leader when it comes to meeting the federal requirements. He said he has been at SRS since 1989, managing the Energy Program, and SRS is one of the Sites that had the first Site Specific Energy Saving Performance Contract (ESPC). He said now you hear a lot about ESPCs, but in the late 1990s, SRS put its first ESPC in place, and so it has several ESPCs in place. He said they went out and look at SRS facilities, and were able to go in and replace lights with more energy efficient lighting, and put energy control systems in place, so not only are they able to cut cooling and heating off at night when no one is in the buildings, but also on the weekends. He said before these energy controls were put in place, the system was running 24/7.

Mr. Jenkins then continued his presentation by referring to a chart depicting the performance status. He then discussed "metering," stating the goal is have individual buildings or processes metered for 90 percent of electricity by October 1, 2012, and for 90 percent of steam and chilled water to be metered by October 1, 2015. He gave the performance status, stating the SRS Metering Plan was developed in FY11, and the existing metering program includes more than 220 electrical meters, and 17 steam meters, to provide energy use data. He continued that SRS uses meter data as part of a comprehensive billing and cost allocation system, and meter data is directly correlated with various multi-building processes and programs across the Site. He said not all buildings are individually metered, but individual processes and programs are as part of costing efforts. He listed the current and planned activities as: continue to use existing metering of multiple, rather than individual, processes and buildings, and continue metering of high performance sustainable buildings.

Mr. Jenkins discussed "cool roofs," stating the goal is to replace roofs with "cool roofs," unless uneconomical, and the new roofs must have a thermal resistance of at least R-30. He gave the performance status, stating SRS applied cool roof technology to three new roofs, totaling approximately 25,420 square feet in FY11. He said these

applications reduce heat transfer, and increase reflectivity, and provide the Site with additional warranties as these materials aid in providing longer life. He listed the current and planned activities as: SRS will continue to incorporate cool roof technology into annual roof replacements.

He discussed "renewable energy," stating the goal is have 7.5 percent of the Site's annual electricity consumption come from renewable sources by FY13 and thereafter. He gave the performance status, stating the new Biomass Cogeneration Facility went online in FY12, with a reduction of more than 161,000 tons of annual coal consumption and 300,000 gallons of fuel oil consumption, the utilization of 322,000 tons of biomass and bio-derived fuels, a reduction of more than 1 billion gallons of water from the Savannah River annually, a reduction of greenhouse gas emissions by about 100,000 tons per year, and the meeting, and exceeding, of all SRS renewable energy goals found in federal directives. He listed the current and planned activities as: SRS will use the new Biomass Cogeneration Facility to produce SRS process steam, and up to 20 megawatts of "green" power. He explained that the facility has a life expectancy of 30 to 40 years. He then showed a photo of the Biomass Cogeneration Facility.

Mr. Jenkins discussed "high performance sustainable buildings-existing buildings," stating the goal is to make 15 percent of existing buildings, larger than 5,000 gross square feet, to be compliant with the five guiding principles of high performance sustainable buildings by FY15. He reviewed the performance status, stating SRS is contracted with Energy Act to provide energy auditing, commissioning, and an American Society of Heating, Refrigerating, and Air Conditioning Engineers Compliance Evaluation for 3 buildings in 2011. He said approximately 555,000 square feet of building space has been evaluated, and the payback to incorporate Energy Conservation measures are typically very long and do not show economic cost-effectiveness, in general. He listed the current and planned actions as: audits of 15 percent of remaining facilities will be completed in FY12.

He then discussed "high performance sustainable buildings-new construction," stating that the goal is that all new construction, major renovations, and alterations to buildings, greater than 5,000 gross square feet, must comply with the guiding principles, and where the work exceeds $5 million, each are to be "Leadership in Environmental and Energy Design Gold" certified. He reviewed the performance status, stating MOX received Leadership in Energy and Environmental Design gold certification in FY10, and Ameresco Federal Solutions' administration building received Leadership in Energy and Environmental design silver certification in FY12. He listed the current and planned activities as: two additional facilities are projected to achieve Leadership in Energy and Environmental Design certification. He showed a photo of MOX.

Mr. Jenkins discussed "electronic stewardship," stating the goal is for 100 percent of eligible personnel computers, laptops, and monitors with power management actively implemented and in use by FY12. He gave the performance status, stating that most Site computers are provided to Site employees via a lease agreement, and the lease contract requires that all computers must be Energy Star compliant and must meet low standby power requirements. He said the power reduction features of the personnel computers and monitors are set to efficient levels upon receipt of the equipment. He listed the current and planned activities as: SRS will continue to ensure that all leased desktop computers, laptops, and monitors continue to meet the Electronic Product Environmental Assessment Tool and Energy Star requirements.

He then provided a summary of his presentation, and asked if anyone had any questions.

CAB member Parson said the Leadership in Energy and Environmental Design achievements are a big deal and congratulated DOE-SRS for those achievements. She asked if seeking those achievements is a DOE-HQ goal or a SRS goal. Mr. Jenkins said it is a DOE-HQ goal; he explained that part of the federal requirement through the Executive Orders is seeking these accomplishments. He said all of the things being done at SRS tie into the EM goals, so each Site has requirements to do certain things based on the Executive Orders, but at the same time, everything is "rolled up" into the EM goal and they have a scorecard. He said DOE-SR recently got a scorecard from EM and all of the things they are highlighting are green right now.

CAB member Artisha Bolding asked if the efforts have been translated into financial terms to show the actual cost savings in dollars. Mr. Jenkins said most of the stuff they have done has been done under the ESPC, and when you have an ESPC, you have to do measurements and verifications. He said when the energy saving company comes in, they agree to reduce the Site's energy consumption by a certain amount and DOE has to measure that. He said it is all tied to a dollar amount. He said the Executive Orders state that when you save money with an Energy Contract,

you should take and reinvest that money into other energy projects. He said that since there is an ESPC, the money that SRS is saving is taken to pay the escrow. He said when the project comes to an end, all the savings go to the federal government.

CAB member Burke stated that Mr. Jenkins stated that a 30-year project contract would be unprofitable. He asked what was considered an acceptable project payback life. Mr. Jenkins said he mentioned 30 year contracts being unprofitable because when they use an ESPC, the project has to be within 25 years. He said they could not use an ESPC for a 30-year project. He said ESPCs are popular because the energy savings company does the financing; he said they come in, study, and identify energy conservation methods, and then DOE agrees to the numbers and the company does the project. He said then DOE pays them, and after a certain amount of time, the savings come to DOE-SR.

CAB member Earl Sheppard asked who gets the credit for the billion gallons of water saved per year by using the Biomass Cogeneration Facility-Georgia or South Carolina. Mr. Jenkins said he wasn't sure. Ms. Wilson, SCDHEC, commented that the states are still trying to work that out.

CAB member Bolding asked if Mr. Jenkins knew what the period of time will pass before DOE-SR is able to reinvest the saved funds into its program or when the contractor will be paid off for the ESPC. Mr. Jenkins said for each ESPC, they know exactly what time the contract comes to an end, so they know exactly when DOE-SR should start receiving those saved dollars.

Ms. Wilson, SCDHEC, stated that she wanted to echo CAB member Parson's earlier comment; she said SCDHEC appreciates the energy saving efforts of DOE and DOE-SR. She stated not everyone is doing what they are doing in this area. She said she appreciates the federal leadership.

CAB member Parson stated that before Vickie Wheeler, DOE-SR, was to present on Building 235-F, she wanted to make a few comments. She stated there have been some serious concerns raised about Building 235-F by the Defense Nuclear Facilities Safety Board (DNFSB). She said that 235-F decontamination was a concern of the CAB and in 2004, the CAB passed Recommendation 199, which dealt with the Pu contamination in 235-F and concerns over what the final end state of 235-F would be. She added that in October 2004, the CAB asked for a report from DOE on how it was going to decontaminate 235-F and what the end state would be; in 2005, DOE reported to the CAB on this topic.

PRESENTATION: Building 235-F-Vickie Wheeler, DOE-SR

Ms. Wheeler began her presentation by showing an aerial photo of SRS Building 235-F, and stating the purpose of her presentation. She reviewed her presentation agenda, and reviewed the 235-F history. She stated that building 235-F was constructed in the 1950s as part of the original Savannah River Plant, and the Plutonium Fuel Form (PuFF) mission was performed from 1979 through 1984. She summarized historical missions, and stated there were three primary Pu-238 process areas: the Old Metallurgical Lab, the Pu Experimental Facility, and the PuFF Cells. She stated the facility was placed in standby mode in 1984. She spoke briefly about the PuFF Facility History, showing photos of the early construction of 235-F, an interior of a glovebox, and process cells. She continued discussing the PuFF Facility history, stating the stack reduction was completed in June 2010. She said DOE is preparing a new 235-F Authorization Basis; this was funded by the Recovery Act.

She reviewed the challenges with 235-F, stating there is still a large amount of residual material in the facility. She said currently, under an accident scenario, they could have exposure to collocated workers or those in the general area. She added it is in close proximity to the new NNSA facilities. She said the end state will be determined through a Core Team Agreement.

CAB member Parson asked what the consequences would be of a 27,000 rem exposure. Ms. Wheeler said that exposure rate is based on totally unmitigated dose consequences. She said the consequence of that dose to a worker would be "significant." CAB member Parson asked if the consequence could be death, and Ms. Wheeler said it would be fatal. CAB member Parson said she understands that number represents an unmitigated dose, but she thinks it should be clear in a presentation. She said when you give a dose in a presentation the people listening don't know the consequences. Mr. McGuire, DOE-SR, said he appreciates what CAB member Parson said, but he

emphasized “unmitigated.” He said the 27,000 unmitigated dose consequence was very conservative and there is a lot of uncertainty built into that. He said Ms. Wheeler would discuss the next steps to be taken to better characterize the building so DOE would have a better and more realistic dose.

CAB member Hayes asked Ms. Wheeler to tell the CAB how an offsite event that could cause an exposure of 10 rem would tie into the Emergency Response Program in place. Ms. Wheeler said she wanted to take some time to talk about the unmitigated dose because she said that is not taking anything into account that they currently have, such as the building itself. She said the 10 rem unmitigated dose accident scenario for offsite exposure is from a situation where they would have to have a full facility fire and a seismic event to occur, at the same time, that would totally demolish the building and result in everything being released. CAB Chair Bridges asked why Ms. Wheeler was showing such a dose consequence scenario if it is so unusual and practically impossible to come to pass; he said it seemed alarmist. She said it is within their responsibility as DOE to analyze the scenarios fully, so it will know what the situations will be; she said she was presenting the worst case scenario. CAB member Hayes said things that have never happened before happen all the time, so she finds the dose consequence scenario to be realistic. She asked how it ties to the Emergency Response System Plan. Ms. Wheeler explained the Emergency Response System Plan takes into account buildings, trees, and all of the surrounding area that could knock down any of the material that may breach the Site boundary. She said the opinion from an Emergency Response standpoint is that a breach would be contained at SRS. She said the 10 rem offsite dose is a worst case scenario, but when they add in all the protective measures, it will be contained. Mr. McGuire said SRS has a very robust Emergency Preparedness Planning Program, and this includes Site workers as well as actions to take for offsite and the public. He said part of the DNFSB Recommendation includes evaluating the adequacy of SRS’ Emergency Preparedness planning, as well as drills and inclusion for protective actions. He said SRS thinks it has adequate plans in place, but in order to respond to the Recommendation, and to assure itself, DOE will be taking another look at the Plan.

Ms. Wheeler reviewed the 2012-2013 planned activities, stating they are continuing surveillance and maintenance activities necessary to maintain safety. She continued that they have removed all of the flammable and combustible materials, and are replacing the roof. She provided a summary of deactivation planning activities, and then stated they are developing a response and implementation plan for the DNFSB Recommendation for Building 235-F. She stated that DOE has accepted the DFNSB Recommendation. She then listed items being under the implementation plan as: immobilize and/or remove the residual Pu-238, remove all transient and fixed combustibles that are not directly necessary for activities, ensure all necessary electrical equipment is in a safe configuration, evaluate the operability of early detection and alarm systems, ensure that an integrated emergency response plan is in place, and ensure that periodic coordinated drills in response to a simulated event at 235-F are conducted.

CAB member Hazen asked if DOE removes the Pu-238 from 235-F, where would it be slated to go. Ms. Wheeler said it would be TRU waste and dispositioned in WIPP.

CAB member Bolding asked if any of the items listed under “planned activities 2012-2013” were contingent on funding, or if the funding was in place for all of those activities. Ms. Wheeler said the funding is available for the continued surveillance and maintenance, and she said all activities under “deactivation planning activities,” with the exception of the end state discussion with regulators, will be completed with funding that is available.

CAB Chair Bridges asked what sense of urgency has DOE attributed to the 235-F effort. Mr. McGuire said DOE has been aware of the conditions in 235-F for a quite a while, and over the last few years they have developed several different alternatives and analysis to best address how to remediate the hazards in the facility. He said balancing that out with other priorities at SRS presents a budget challenge. He said they have looked at the building before for new missions, and there was a way to reinforce it seismically; however, over the years, DOE made the decision that it was not going to reinvest in the building. He stated they have set aside money since FY11 to better characterize the material in the building; he said it is a high priority for DOE. He said until they have the alternative analysis and material characterization, a real dollar value need to address the need is unknown, but it won’t be $5 or $10 million. He said it will likely cost around tens of millions of dollars, based on rough previous estimates. He said it is a very high priority project for DOE-SR.

Ms. Wheeler then summarized her presentation, stating they are going to continue to perform surveillance and maintenance to maintain facility safety. She said they would continue deactivation activities and will reevaluate

options in consultation with the EPA and SCDHEC, and will address deactivation prerequisites while planning work methodology.

Mr. McGuire stated that building 235-F is a very safe building day in and day out, but in the worst case scenario accident there can be a release and that is why it is a significant priority. He said he doesn't want the CAB to walk away with the sense that people need to stay miles away from 235-F; he said it is very safe and well-maintained.

Nuclear Materials (NM) Committee Overview-Rose Hayes, CAB

CAB member Hayes listed the members of the NM Committee, and announced the next NM Meeting as Aug. 28 at the DOE Meeting Center in Aiken. She said the committee currently has three open recommendations; she said these have been given satisfactory responses from DOE. She said the committee has two pending recommendations; she said they have not yet received responses from DOE, or the committee has not been able to review the response yet.

PRESENTATION: Dry Used Nuclear Fuel Storage Initiative-Steve McConnell, SRNL

Mr. McConnell stated the purpose of his presentation, and referred to a diagram depicting the Enterprise SRS and where the interim storage of DOE fuel fits into that mission. He then reviewed the CAB's SRS Waste and Material Flow Path chart, highlighting Dry Storage. He discussed fuel storage at SRS, stating the Site has an inventory of DOE-owned fuel, primarily from research reactors, awaiting disposition. He said the fuel is currently in wet storage in L-Basin, it includes aluminum-clad and nonaluminum-clad fuels, and much of the fuel contains HEU.

CAB Chair Bridges asked if the Idaho Lab is going to directly dispose of the fuel, why can't SRS directly dispose of the fuel. Mr. McConnell said SRS can. He said, ultimately, all of the fuel has to go to the repository, or be reprocessed. Mr. McGuire said CAB Chair Bridges was correct; he said years ago the thought process was that SRS, since it has the unique assets such as H-Canyon and the ability to blend down waste, would be the uranium-based disposition location and Idaho would be the other location. He said rather than investing in duplicate direct disposal projects, the thought was that SRS has the unique capability to process, and would do that at H-Canyon, and Idaho would invest in a direct disposal facility.

Mr. McConnell spoke about the potential strategies, stating they include a combination of technologies. He listed these technologies as: melt and dilute for disposal in a geologic repository, onsite processing in H-Canyon of aluminum-clad fuel for uranium recovery, and shipment of nonaluminum-clad fuel to the Idaho National Laboratory, and the construction of a new Dry Storage Facility for extended storage and subsequent disposal. He noted that DOE is currently reviewing the final BRC recommendations and will reply to Congress later this year.

CAB Chair Bridges asked when DOE would be making a decision on the disposition of spent nuclear fuel. Mr. McConnell said the program is moving down that path. Mr. McGuire said the decision process is through the NEPA process, and they have a Supplemental Analysis, as well as an Amended Record of Decision (ROD). He said SRS submitted those documents to EM HQ in the 2010 timeframe. He said they are awaiting that decision, and then the BRC was formed and it performed its analysis. He said DOE-SR is currently awaiting the evaluation of the BRC Recommendations by DOE before it can make a final plan for disposal. He stated that before December 2012, DOE-SR should be able to brief the CAB on the DOE response to the BRC Recommendations, and what DOE-SR plans on doing. He said the CAB's position is very clear, which is that SRS should process the material in H-Canyon. He continued that SRS is developing some back-up plans and back-up alternatives in the event that the decisions continue being deferred. He said SRS will have other options and alternatives it can pursue rather than continue in a wet storage configuration.

CAB member Hayes commented that since the government has committed to providing a repository of some sort, and the BRC has recommended that they continue down that path, she wonders why SRS is planning supplemental storage systems onsite if they're going to cost extra money. She said she doesn't see the benefit. Mr. McConnell said the issue is that the waste is kept in the spent fuel pools and when the power plants were built, they didn't design the pools to hold all of the fuel for the entire life of the plant. He said there was an assumption that the fuel would be moved off the Site after a few years. He said it is a very economic and attractive alternative for a power plant to take

the fuel out of a spent fuel pool and put it into a dry cask. He said they can add rack capacity or a spent fuel building. He said they will maintain the fuel in a more retrievable condition until decisions are made. He said SRS does not have an issue with capacity, but it will need to continue to add rack capacity to the L-Basin. He said if they start to move material out of L-Basin, they will save the cost of rack capacity. He continued that they will get it out of water, and when they're discussing very long-term storage, this is an attractive and stable alternative. He said if the material does need to be retrieved at some point, it can be. CAB member Hayes said they shouldn't be talking about long-term storage. She said the focus should be disposition, but the Site is putting a lot of time, energy, money, and planning into things that would be capable with long-term storage plans instead of an energetic focus on disposition. Dr. Moody, SRS Manager, stated this is the first step in dispositioning the material offsite: getting it out of the pool, dry, and configured in a shippable configuration. He said they are looking at, "What are the first steps no matter what the option." He said they need the material to be dry in order to move over to H-Canyon, and that is already configured in that. He said if they are going to move it to an interim storage site as part of the overall disposal option of defense used fuel, they will need it dry for the transportation. He said the reason this alternative is so attractive is because it does presuppose whether the Site is going to dissolve the material and produce 5 percent material for the reactors or if it is going to ship it to an interim storage site at or near the repository of choice. He said it also, by emptying the basin, removes a mortgage of about $60 million a year that can be put towards other projects onsite. CAB member Hayes asked how long it took to dry the fuel. Mr. McConnell said it takes only a matter of hours. He said when they load a canister with spent fuel, it goes to a drying station and it's heated under a vacuum and dried. He said they do that for each cask.

Mr. McConnell reviewed "near-term" objectives, stating a program has been initiated to demonstrate and evaluate pad-based storage for a selected set of DOE fuels. He said this program would be similar to commercial industry practice, will utilize SRNL research to establish the technical basis for safe, long-term dry storage of aluminum-clad fuel, provide a cost-effective alternative to a large, greenfield dry storage facility, and will establish dry storage at SRS, providing an alternative to long-term basin storage for DOE fuels. He stated that the BRC has recommended dry storage as a necessary and important element for extended storage of used nuclear fuel. He then spoke about the program objectives, stating the program would provide a phased, optimized dry storage approach to DOE used nuclear fuel. He provided a brief overview of the three phases of the program.

CAB Chair Bridges asked if all the future receipts would be aluminum-based. Mr. McConnell said he believed it was all aluminum-clad based; Mr. McGuire said it was. Mr. McGuire commented that when the CAB had a discussion the day prior about DWPF canister storage and developing a cask ready to ship offsite, they discussed the possibility of spent nuclear fuel being put in a canister that is ready to be shipped offsite. He said the research and development in the pilot program phase one is very consistent with what the CAB's proposed recommendation would be. He said DOE hears what the CAB is saying.

CAB member Burke asked if the aluminum-clad fuel is uniform enough so that they can determine everything they need to know with a few canisters. Mr. McConnell said they need to establish the parameters of interest; they need to understand the technology gaps for dry storage of aluminum-clad fuel, and select fuel that will give them the best chance of closing that gap. He said there are many different types of fuel in L-Basin, but relative to the burn-up and criticality issue, as well as other issues, they can select fuel that will "bound" the condition. He said it is a scientific determination.

Mr. McConnell reviewed the progress of the program, stating alternatives had been developed for preparation and transfer of selected fuels to dry storage. He said proposed equipment and operations will be integrated with current facility operations. He stated that meetings have been held with industry representatives to describe the scope, test objectives, and challenges presented by the fuels selected for the demonstration. He said they are soliciting vendor input to evaluate technical feasibility and use of standardized products to cost-effectively implement the demonstration, and they have launched the pre-project planning phase for a dry storage pilot project. He then overviewed the next steps to be taken in the program stating they will complete the pre-conceptual design by Oct. 2012 (FY12 funding), and they will evaluate "synergy" with similar project for extended storage of vitrified HLW at DWPF.

CAB Chair Bridges asked if the program would pay for itself. Mr. McConnell said they have looked at the business case, which is something they have to do every time they start a project, and they have compared alternatives. He said they have found that the program is attractive from an economic point of view.

Nuclear Materials (NM) Committee Overview, continued-Rose Hayes, CAB

Recommendation Discussion

"Development of Defense Waste Processing Facility Canisters and Research Reactor Spent Nuclear Fuel Shipping Facility and Shipping Casks"

CAB member Hayes read aloud the recommendation, and noted the changes that were made after the previous day's discussion. The recommendation can be found attached to this document.

Recommendation Voting

CAB Chair Bridges called for a motion for the recommendation to be accepted. He then asked if there was further discussion; there was none. The CAB voted to approve "Development of Defense Waste Processing Facility Canisters and Research Reactor Spent Nuclear Fuel Shipping Facility and Shipping Casks." The recommendation was approved with 22 votes in approval, and one against.

Public Comments

Tom Clements, ANA, thanked the CAB for using the proper legal term "spent nuclear fuel," which is defined under the Atomic Energy Act and the Nuclear Waste Policy Act. He said the NRC uses this term, as does the EPA and other agencies. He said they follow the law. He continued that DOE is trying to "waiver" off from the law, and that is why you see some hesitancy by people in DOE when using the terms "spent nuclear fuel," and "used nuclear fuel." He said they know what the law says-"used nuclear fuel" is not defined under the law and some have tried to interject that term to imply that it can be reprocessed or recycled to take the constituents out for reuse. He spoke about commercial spent fuel, stating there is 65,000 metric tons of it. He then spoke about the recommendation the CAB just passed, and said CAB member Burke's discussions and concerns about bringing a huge amount of waste to SRS without a disposition path is "spot on." He said they are correct to be concerned about the implications if the decision was made to make SRS a consolidated site.

PRESENTATION: Basic Understanding of Transmutation-Steve Sheetz, SRNL

Mr. Sheetz first stated the purpose of his presentation, and then referred to the CAB's SRS Waste and Material Flow path, highlighting several areas. He defined "transmutation" as: an act or instance of transmuting or being transmuted. He gave two examples of transmutation: a.) the conversion of base metals into gold and silver, and b.) the conversion of one element or nuclide into another by natural or artificial nuclear reaction. He then addressed "artificial nuclear reaction," stating it is taking the material, bombarding it with neutrons, and either transmute it by turning them into different isotope, or by "fissioning" the material; he said these are the two methods of transmutation.

He continued by discussing isotopes and fission products, stating an isotope is an element with the same number of protons as its base element, but varying numbers of neutrons; he said it has the same atomic number, but varying atomic mass. He stated that around 1,600 isotopes have been characterized, and have been determined to be either "stable" or "unstable." He defined "fission products" as the atomic fragments left after a larger atom fissions. He then explained how neutrons cause transmutation, referring to a diagram and several photos.

He spoke about sources of neutrons for transmutation, giving examples such as Thermal Neutrons, used in Light Water Reactors, and Fast Neutrons, used in Fast Reactors and Accelerator-driven Subcritical Reactors. He stated there are two things one can do with transmutation: 1.) isotope production, and 2.) waste destruction. He said isotopes are needed materials. He said isotopes have industrial uses, and are also used in nuclear medicine and in defense efforts. He stated that waste destruction includes reducing radiotoxicity and destroying excess Pu. He then referred to a diagram of "Savannah River isotopes throughout the years."

Mr. Sheetz continued by addressing the question, "What is in Used or Spent Nuclear Fuel"? He referred to a graph concerning the constituents of used or spent nuclear fuel. He stated that 95.6 percent is uranium, 3 percent is stable or short-lived fission products, 0.3 percent is cesium and strontium, 0.1 percent is long-lived iodine and technetium, 0.9 percent is Pu, and 0.1 percent is long-lived actinides. He then discussed transmutation and used fuel management, stating the reasons for transmuting include: shorter disposal, less HLW, and less toxic. He reviewed a graph concerning the effects of transmutation on commercial fuel.

He presented a summary of the transmutation of waste, listing the benefits as: reduces volume, reduces radiotoxicity, destroys Pu, and simpler repository. He listed the challenges as: portioning, costs, proliferation questions, and technology development. He addressed SRS' current role in waste transmutation, stating the presentation he was providing was for information only. He said there are currently no budgeted programs, and SRNL support has been task-based from other programs. He said prior support was provided on the following programs: Accelerator Transmutation of Waste, Advanced Fuel Cycle Initiative, and Global Nuclear Energy Partnership.

CAB member Mary Davis asked what the term "light water" means. Mr. Sheetz said all the waters in the commercial power fleet use light water, which is just regular water. He said in naturally occurring water, there is a deuterium oxide, which is an isotope of hydrogen. He said in that material, the hydrogen is just hydrogen, but there is a deuterium isotope of hydrogen that does make water. He said it is a slightly heavier isotope of water, and the reactors at SRS, for many years, used heavy water for production.

CAB member Hayes asked why there isn't more focus on transmutation. Mr. Sheetz said he felt opposition to the separations process is one reason why transmutation is not being focused on. He stated some companies are creating small Fast Reactors that like the technology because they can design a small, compact reactor that can produce a lot of energy, but they're really not focused on transmutation but the energy market. He says until the country looks at transmutation as a way to manage the back-end of the fuel cycle, there is not going to be a lot of movement towards Fast Reactors until it changes its direction and that is a policy decision he cannot make.

Administrative & Outreach (A&O) Committee Overview-Kathe Golden, CAB

CAB member Golden listed the committee members, and stated the CAB did not have handouts at the meeting because DOE and the CAB are trying to go green and reduce paper waste; however, she said the CAB has discovered that some committee members are passionate about having paper handouts. She stated that if the CAB members need paper handouts, they can collect a package from the public table or tell the CAB Support Team so they provide them with a paper packet. She discussed the committee meeting schedule, stating the current schedule has caused some problems. She stated the CAB is thinking it may be better to have committee meetings twice a month during committee meeting months, on Tuesdays, as joint meetings, instead of each committee having its own meeting every Tuesday. She said the CAB would have to vote on it and it would not go into effect until Feb. 2013. She said one committee will meet during the 4-6 p m. timeframe and the other during the 6-8 p m. timeframe. She then asked all CAB members to turn in the completed Speakers Bureau surveys and to reapply for CAB membership if their term is up. She stated that all of the CAB members were given a CAB Membership Packet and asked that each member give this packet to someone who may be interested in joining the Board. She stated there was a challenge for the CAB members-the CAB member who recruited the most applicants would have an article written about them in the next *Board Beat* newsletter. She said all applications were to be sent in by August 15, 2012.

She continued that the SRS CAB Support Team went out into the community twice during the months of June and July to conduct membership outreach. She said the first day they focused on Georgia, going to central, west and south Augusta, Waynesboro and Hephzibah. She stated the second day was focused on South Carolina, with the Support Team going to Aiken, Jackson, New Ellenton, Blackville, Barnwell, Allendale, and Wagener. She said applications have come from this two-day outreach campaign.

The CAB voted on the new committee meeting schedule; the CAB approved the new committee meeting schedule, to be started in Feb. 2013.

A special election was then held to select a new Vice Chair for the CAB, to replace Gerald Wadley, who left the Board for personal reasons. Ballots were handed out, and CAB member Golden went out of the room to tally the votes with Gerri Flemming, DOE-SR.

Strategic & Legacy Management (S&LM) Committee Overview-Harold Simon, CAB

CAB member Simon listed the members of the committee, and stated the committee has one open recommendation, #285, and two pending, #288 and #289. He said both recommendations have been responded to and will be discussed at the next S&LM Committee.

Recommendation Discussion

"SRS Asset Revitalization Initiative"

CAB member James Streeter, who served as co-Recommendation Manager, read aloud the recommendation. CAB member Simon stated the recommendation had been read, and asked CAB Chair Bridges if he could make a motion to open the recommendation for discussion. CAB Chair Bridges seconded the motion.

CAB member Hayes read aloud a portion of the recommendation that stated "Good Practice: Community Reuse Organization (CRO) allowed to primarily work to OSHA standards." She asked if the OSHA standards are requirements for SRS. Dr. Moody, SRS Manager, stated the Site meets OSHA standards. CAB member Hayes said she doesn't understand the wording. She said either you are in compliance or you're not. She suggested the wording be changed to "meet or exceeds." CAB Chair Bridges asked the co-Recommendation Managers, CAB members James Streeter and Bob Doerr, what the original wording added to the recommendation. CAB member Simon said he didn't have an issue with changing the wording to CAB member Hayes' suggested wording. CAB member Streeter said that wording was an extract from the report that was given to Dr. Moody in terms of "good practices." Karen Guevara, DOE-SR, said the significance of the statement is that for the CRO, or workers from offsite, working to meet OSHA standards is something they are used to meeting. She said the intent is to clarify that the Site is not trying to add on additional DOE requirements that they must also meet, or be trained to meet, before taking actions to reuse the assets. CAB member Burke asked if that wording refers to the work they would be doing onsite to disassemble assets, or did it refer to practices they may follow those assets offsite. Ms. Guevara said she believes it is a good practice for when they some onsite-so they can use the same standards onsite as they would when working anywhere else. CAB member Hayes asked if the wording "meet or exceeds OSHA standards" would be correct. Ms. Guevara said problem with that wording is that it is implying that DOE is trying to get the workers to "best" a standard. She said the intent of raising the issue at all is to point out that the Site is not trying to add to the workers' burden; they don't have to be able to do more or meet higher standards to come onsite and take the assets. She said "meet" the standard is acceptable, but she doesn't see them asking them to "exceed" the standard.

CAB member Stan Howard asked if this issue would tie in with the safety standards at SRS that require subcontractors to have training before they can do work onsite. Ms. Guevara said the CRO does all types of training before coming onsite. She said that as part of the overall HQ ARI program, it is trying to establish that asset revitalization should acknowledge that this is communities coming onsite to try to make use of assets. She said there are some minimal requirements-they have to perform some basic training to get onsite and have to go through security, but when they are actually performing work, they can do it to OSHA standards and not DOE's. Ms. Guevara said the wording "work to meet OSHA standards" is acceptable without trying to imply workers must exceed them. She said they do not have to include the statement at all in their recommendation, however, if they do not wish to do so.

CAB member Golden asked if the people who come onsite to pick up the assets are there for weeks and months, or for short time frames. Ms. Guevara said it can extend to a longer timeframe-one project could take six to eight weeks, for example. She said it can take a while.

Mr. McGuire said the MOX Facility is following OSHA standards and they are not required to follow the DOE Directives, which go above and beyond OSHA standards. He said there are entities onsite that are following OSHA standards ,and they just want to extend the good practice of allowing those coming onsite to work to meet OSHA standards. He said if the CRO is not meeting OSHA standards, they would have to stop work.

CAB member Howard asked if Site Technical Representative (STR) would be available as a DOE oversight as the activity is going on, and if there is no STR required, how does the Site differentiate between the people coming onsite to gather assets and subcontractors who work onsite. Ms. Guevara said there are STRs to oversee the work.

Recommendation Voting

"SRS Asset Revitalization Initiative"

CAB Chair Bridges asked if there were other discussion items. He then called for a vote. The CAB approved the recommendation with 21 votes of approval.

PRESENTATION: Army Training Update-Chuck Borup, DOE-SR

Mr. Borup first stated the purpose of his presentation, and then gave a brief background of the Army training at SRS. He stated that the Army faces a shortfall of 5 million acres of "maneuver training" land in the U.S. He said the reason for this is base closures, technology changes in weapons, and environmental restrictions. He listed strategies to address this situation as: maximize the management of existing lands and using other federal lands. He said DOE's decision to support the Army training at SRS came from DOE's interest in the protection of national security, the training is subject to reasonable protocols, compatible with SRS' missions and sustainable natural and cultural resource stewardship, and the Army will benefit from the unique training capabilities afforded by SRS. He said DOE considered the multiple uses of SRS lands as a prudent use of federal property.

He reviewed the implementation of Army training at SRS, which started with a Memorandum of Understanding (MOU) between the Army and DOE in Sep. 2007. He said there was then an Interagency Agreement (IA) in Sep. 2009 between SRS and Fort Gordon. He said there is a Joint Standard Operating Procedure (JSOP) that details the processes and responsibilities; this was incorporated into the IA. He stated there has also been an Environmental Assessment issued, and a finding of "no significant environmental impact" was found. He then summarized key items in the JSOP and IA that assured that DOE was protected.

Mr. Borup provided a summary of the training that has been completed and training that was scheduled to happen in the future; he referred to photos of training that had occurred in Jan. and Feb. 2012. He then reviewed training that was completed on March 20, 2012; he stated Army Nuclear Disablement Teams practiced characterization and disablement exercises on simulated nuclear production facilities. He stated that DOE-SR repurposed inactive facilities for Army training activities; these facilities include C-Reactor, F-Canyon, 681-1G Pump House, and the 717-A Maintenance Shop. He said radiological support was provided by SRNL.

Mr. Borup continued by reviewing the April 2012 SRNL Radiological and Nuclear Challenge. He said it was a SRNL-sponsored event, with three Army Civil Support Teams and a team from the Philadelphia Police Department competing in various simulated threat-based nuclear scenarios. He said the competitors exercised their radiological detection equipment and reporting techniques. He stated that the training locations included: the P-Reactor parking lot, Rail Classification Yard, and the D-Area Bubbler Towers. He then showed several photos that showed Army training that had been completed.

He announced training that was scheduled by the Marine Corps Special Operations, to be taken place in Nov. and Dec. 2012. He said it would be a small, 12-man, United States Marine Corps infantry, conducting air, ground, and water operations on approved SRS training locations. He stated the Marines would only train during the hours of darkness, and it would last a few days. He said there was training scheduled for the 3rd Combat Aviation Brigade, 3rd Infantry Division, with an anticipation date of the late Aug. He then gave a summary of results and analyses, and listed the anticipated training activities for FY13 and beyond.

Rob Pope, EPA, commented that DOE approached the EPA and SCDHEC years ago with the idea of having the Army train at SRS, and they (the regulators) have been involved in the process. He summarized the oversight the EPA and SCDHEC had on the program, and said DOE has worked very well with them and understands all the issues and concerns. He said it has been a good process, and he is very much in favor of the Army being allowed to use SRS to train.

CAB member Parson commented that when the Army first presented to the CAB its plan to train onsite, there were three things that people wanted addressed: the impact on the environment and waste units, local economy benefits, and the issue that if the Army was conducting training in an area, that would preclude other uses that had wider economic benefit; she said all three of these concerns were addressed in Mr. Borup's presentation.

CAB Chair Bridges asked Mr. Borup how he saw the Army training program "playing out" time-wise. Mr. Borup said there is no timeframe on the program, and it's not a lease but an agreement. He said DOE has full control of the property and each exercise has its own parameters. He said there is no particular timespan on it. He said hopefully it is something that will work and will work for a long time.

CAB member Simon thanked Mr. Borup for his presentation, and the CAB for passing the ARI recommendation. He thanked CAB members Streeter and Doerr for being co-Recommendation Managers of the recommendation and for doing a good job on writing and bringing the recommendation forward.

Waste Management (WM) Committee Overview-Ed Burke, CAB

CAB member Burke reviewed what the WM Committee addresses, and stated the principle goals of the committee. He listed the members of the committee, and announced the next WM Committee meeting as Aug. 14, at the DOE Meeting Center in Aiken; he briefly reviewed what would be presented on and discussed.

PRESENTATION: Tank Closure Update-Sherri Ross, DOE-SR

Ms. Ross first stated the purpose of her presentation, and then referred to a map of SRS that highlighted the F-Tank Farm. She reviewed the "near term" objectives, stating they will operationally close SRS Tanks 18 and 19 by the Federal Facility Agreement (FFA) date of Dec. 31, 2012. She said they will close the tanks in a way that is safe, technically sound, risk-informed, and compliant with regulations and commitments. She then referenced a chart titled "DOE-SR's Regulatory Documentation Pathway to Waste Tank Removal from Service."

She discussed the National Defense Authorization Act (NDAA) Section 3116(a) which covers "consultation." She stated it says that the Nuclear Regulatory Commission (NRC) provides technical consultation to inform the Secretary of Energy's Waste Determination decision. She reviewed Section 3116(b), which covers "monitoring." She stated that this section says that NRC, in coordination with SCDHEC, monitors disposal actions taken by DOE pursuant to Section 3116(a). She provided a summary of NDAA 3116, which included information on how DOE responded to the NRC's Technical Evaluation Report (TER). She then addressed some of the NRC concerns, and spoke about additional model support and reducing uncertainty; she referenced three graphs/diagrams. She then stated that additional waste removal for the waste tanks is impractical; she referenced more graphs and diagrams showing the work completed on this subject.

She reviewed other activities regarding the NRC recommendations, stating DOE performed a formal Features, Events, and Processes review for the F-Tank Farm Performance Assessment, updated the Liquid Waste Performance Assessment Maintenance Plan with long-term activities, documented post-operational closure technologies available to reduce long-term performance risk, and added a reference in the 3116 Basis Document to clearly document how DOE addressed each NRC recommendation. She stated the documents are posted online for public access at http://sro.srs.gov/f_htankfarmsdocuments html. She then referred to an updated "DOE-SR's Regulatory Document Path to Waste Tank Removal from Service" diagram.

Ms. Ross showed several photos, including the grouting of Tank 19 and the grouting of Tank 18. She showed diagrams of the Closure Module Field Status of Tanks 18 and 19. She said Tanks 18 and 19 are 99.9 percent completed. She said they have been actively grouting for the past three months.

CAB Chair Bridges asked what the radiation exposure would be to someone standing on top of the tanks. Ms. Ross said it would be only the natural background exposure.

She then discussed future plans for F-Tank Farm, stating DOE requests the SRS CAB consider closing Recommendation 284. She said Tanks 5 and 6 have been cleaned, sampled, and characterized, and a state-approved

Closure Module must be prepared and approved for those tanks. She said they will begin isolation and the field activities for Tanks 5 and 6. She said the goal is to close Tanks 5 and 6 well before the FY15 FFA milestone, and they are on task to do so. She then discussed the future plans for H-Tank Farm, stating an H-Tank Farm General Closure Plan and associated groundwater monitoring plan are under preparation. She said a revision to the H-Tank Farm Performance Assessment is underway, and consultation with the NRC on the H-Tank Farm Draft 3116 Basis and revised Performance Assessment is planned for CY13.

CAB member Howard asked if Tanks 5 and 6 are presently containing material. Ms. Ross said both tanks are 99 percent empty and are Type 1 tanks that have cooling coils in them. She said they were cleaned with acid, as well as mechanical. She said she is very pleased with the volume of waste removal they were able to achieve with Tanks 5 and 6, and they will finish up a special analysis on the current risk associated with characterized source term that remains in the tanks. She said they will be presenting that in the closure modules for public review before they make decisions to close those tanks. CAB member Howard asked if other tanks that still propose a possible hazard have been emptied yet. Ms. Ross said they still material in their tanks. She said they have about six tanks that have had bulk waste removal completed, which means they are predominately empty but have a "heel." She said Tanks 5 and 6 have completed "heel activities", and they are moving into closure. She said they have commitments in the FFA to clean and close old style tanks by 2022. She said they will treat the tanks through salt and sludge processing.

CAB Chair Bridges asked why DOE closed two tanks in the 90s, waited 12-14 years, closed a few more, and are now working to close more in a short timeframe. Ms. Ross said the big space of time was in result of the lawsuit that DOE encountered out at Idaho and all closure activities for tanks were seized. She said that after closing Tanks 17 and 20, DOE went and did a new Environmental Impact Statement (EIS) and that took a couple of years. She said then the lawsuit hit and DOE got new legislation in 2005, which is when they initiated closure of Tanks 18 and 19. She said they received a lot of comments and changes to the assumptions for closing tanks, and so had to make changes.

CAB member Hayes asked if some of the technologies used at SRS to clean and close tanks were different, or superior, to technologies being used at other sites such as Hanford. Ms. Ross said they are using very similar technologies; she gave one example of a technology used to clean the tanks that came from the Hanford site. CAB member Hayes asked why SRS was so ahead of Hanford. Ms. Ross said Hanford has a lot of challenges different than SRS. She said they have a very different regulatory scheme with the regulators, many more Native American tribes, and more soil and groundwater contamination versus their tanks. She said SRS has technology exchanges with Hanford and is learning.

Dr. Moody, SRS Manager, said the SRS has a very talented workforce on the federal and contractor side. He said there are several differences between SRS and Hanford, but perhaps the biggest one is that Hanford has undergone a number of changes in process and at SRS, there is generally one process and the Site keeps to it.

PRESENTATION: Alternative Storage of Vitrified Waste Canisters: Canister Interim Storage Project (CISP)-Jean Ridley, DOE-SR

Ms. Ridley stated the purpose of her presentation, and provided a background of the project. She stated the DWPF produces HLW canisters, and a few years ago in its long-term planning, DOE discovered it was going to need a third glass waste storage building (GWSB). She said the rate of canister production has gone up, so based on that, additional storage for vitrified HLW canisters will be needed by Dec. 2016. She said the two GWSBs it has now will only hold about 4,600 cans. She said when they started looking at the cost of the third GWSB, they performed a government estimate to theorize on what the cost would be. She said the total project cost range is $96 million to $138 million. She stated SRS is pursuing a lower cost alternative; she said DOE asked SRR to look at some alternatives to storing in GWSBs. She reviewed this alternative analysis, stating since there was a time crunch, they focused on scenarios that were available commercially or were somewhat similar to the GWSB. She said the base option was a third GWSB, but options other than that included above-grade cask storage. She said SRR issued its alternative analysis on Jan. 17, 2012. She said they looked at several things concerning the alternatives, but the primary driver was the upfront cost. She stated the "SRS Dry Cask" alternative was selected for further development. She said this alternative is based on commercial spent nuclear fuel dry storage concept. She referred to graphs titled "Alternative Analysis-Up Front Cost Comparison," and "Alternative Analysis-Life Cycle Comparisons."

Ms. Ridley discussed the SRS storage alternative development and/or decision, stating it is titled "Canister Interim Storage Project (CISP)," and the conceptual design period is from Feb.-May 2012; she summarized what the conceptual design period encompassed. She spoke about the CISP, stating it would use an existing Shield Canister Transporter (SCT), which would remove more than 3,000 lowest radiological dose canisters from GWSB#1 and #2. She continued by speaking about the CISP transfer station and carrier, stating the SCT would remove canisters from the GWSB and transport the canisters to the Canister Transfer Station (CTS). She stated the SCT will place seven canisters into the container in the CTS, and the carrier will move the containers to the storage pad.

She reviewed the Canister Interim Storage Container (CISC), stating it is concrete-reinforced with a 30" wall that is 12' in diameter and 15.5' high. She said it weight 106 tons when empty, and 126 tons with seven canisters. She then summarized the safety profile of the CISC and stated it is not licensed for shipment. Next, she reviewed the proposed CISP Site Plan, showing photos and a diagram.

Ms. Ridley concluded her presentation by stating DOE reviewed multiple alternatives for storage, and selected a preferred alternative. She then reviewed the projected path forward.

Rob Pope, EPA, said Ms. Ridley showed the cost of procuring the cask and having them made in comparison to the other options, but asked did they have the cost of the Transfer Station, and the vehicles needed to move the casks around, figured into the cost. Ms. Ridley said they did; she said with the upfront project cost they only looked at two containers, but when they looked at the Life Cycle, they included the cost of all the containers. She said the project cost included the equipment, pad, and other things.

CAB member Parson asked how they knew that the future logs would have higher radioactivity levels. Ms. Ross said because they know what the material is in the tanks. She said they have already performed characterization of many of the tanks and they know how much cesium is in them. She said DWPF started out processing the least difficult material, and that is why the earlier canisters had a lower dose, but as they develop the processes to go after the salt and the higher radioactive sludges, the canister dose rate goes up.

Administrative & Outreach (A&O) Committee Update-Kathe Golden, Chair

CAB member Golden announced the results of the Vice Chair special election; CAB member Harold Simon was appointed as the new Vice Chair of the CAB.

Public Comment

Sam Booher, public, thanked SRS and the CAB for holding meetings in the Augusta area because he said it is difficult for him to travel to Aiken and other areas to attend CAB meetings. He then commented that if in the beginning, when DOE started the storage of the glass vitrification process, it used the least radioactive material, why don't they put those outside and as they do the new ones, that are more radioactive, put those in the storage facility. He said he would think they would want the least radioactive ones outside as they have already been stored for some time.

Dr. Moody, SRS Manager, said that is exactly what they are going to do. He said because they need less shielding on the low activity ones the casks to hold that material will be smaller. He said they have invested in those buildings already so the hotter logs will go into the storage building.

CAB Chair Bridges thanked the CAB Support Team, DOE, and the contractors for the meeting support, and the CAB members for their attention and input. He adjourned the meeting.

~Meeting Adjourned

Savannah River Site
Citizens Advisory Board

Recommendation # 291

Development of Defense Waste Processing Facility Canisters and Research Reactor Spent Nuclear Fuel Shipping Facility and Shipping Cask

Background

For approximately 40 years, from the early 1950s to the early 1990s, SRS was involved in nuclear reactor production activities for the nation's nuclear weapons program. The production activity created a massive legacy of nuclear waste which has been the subject of major cleanup activity at SRS since the mid 1990s. That program remains ongoing and is projected to extend into the mid-to-late 2030s. The most significant waste to be addressed in cleanup is the liquid radioactive waste, a byproduct of the reactor production. Chemical separations of the reactor products led to the radioactive liquid inventory, which is now being processed for disposition with the most hazardous radioactive materials being placed in a glass form (in the Defense Waste Processing Facility) in stainless steel canisters for ultimate disposition at a federal repository. This activity has been ongoing with over 3500 canisters produced to date out a total of approximately 7500 canisters needed for total cleanup.

Central to cleanup planning for the Site was the manner in which the canisters were to be dispositioned. With the designation of Yucca Mountain in Nevada in the mid 1980s as a federal repository it was assumed throughout the process that the SRS canisters would be shipped to Yucca Mountain, perhaps as early as the 2020s. The planning basis radically changed in 2010 when the president decided Yucca Mountain was no longer a viable option as a federal repository. The DOE recounted to the Government Accountability Office (GAO) in their report the Site was pressured to close down quickly. In fact, the haste with which the program shutdown could hinder efforts to resurrect Yucca Mountain in the future, should the Nuclear Regulatory Commission desire. Development of a second potential repository is likely to take in excess of 40 years and leaves the SRS community and political leaders somewhat concerned and in a cumbersome position for realistic nuclear waste disposition planning.

The Site's history and operations have enjoyed support from the surrounding communities. This support has been based on the premise that nuclear materials would be brought to the Site for processing and at the end of processing the waste would be sent off site for final disposition or in cases such as plutonium in MOX disposition in some other manner. With the president's decision regarding Yucca Mountain, it seems now that removing nuclear waste could result in a very long storage time in excess of 50 years at SRS. Local political leaders and citizens are now concerned that SRS will be a storage site for waste much longer than they anticipated or planned. This has created a negative impression in the local area, as there is strong opposition to SRS becoming a "de facto" waste storage site.

Discussion

As a result of Yucca Mountain's cancellation as a federal repository, the Site (along with the encouragement of the CAB) has become more aggressive in looking into another approach for disposition of the canisters. A promising and likely approach seems to be disposition of the canisters at the Waste Isolation Pilot Plant (WIPP) in New Mexico. Bedded salt is absent of fresh flowing water, impermeable, easily mined and geologically stable, all which create hospitable environment for long-term waste. In the 1960s, scientists found a remote desert area of southeastern New Mexico where 250 million years ago, evaporation cycles of an ancient sea left behind a 2,000-foot-thick salt bed (Energy 2007). In 1979, Congress authorized the DOE's WIPP plan and the facility opened to allow the disposal of defense-generated TRU waste. The CAB has made a recommendation for disposition of the SRS waste canisters in the WIPP. Initial indications are that this approach is feasible from a technical standpoint, but a number of institutional problems still need to be resolved to make the option truly viable. Serious consideration of this concept would be well-received by local political leaders and the public at large.

In addition to the continued long-term storage of waste canisters at SRS, the "waste issue" at SRS is compounded by the fact that spent nuclear fuel (SNF) is continually being brought into SRS with no approved disposition path. The continued receipt of such spent nuclear fuel at SRS creates concerns for local citizens that this will de facto make SRS a long-term storage site for nuclear waste.

The indefinite storage of these completed and "ready for shipment" canisters and the indefinite nature of SNF disposition has not been accepted well by the surrounding communities. The entire planning basis has been undermined and the credibility of DOE to handle this matter has been brought into question.

With the existing situation of stored waste on-Site there is absolutely no provision or realistic way for SRS to get the DWPF canisters off site in the next few years. This can be done only if a shipping container for the canisters is designed and developed and a facility is constructed to handle the loading of the canisters into the shipping containers. Early action on designing, approving funding, and constructing both the shipping facility and the shipping container would provide some assurance that DOE is serious about removing waste from SRS. One further issue is worth noting. If spent nuclear fuel is not processed through H-canyon, it may be useful to consider if such a shipping facility should also appropriately handle the casks and loading capability for spent fuel, since spent fuel in some cases may have to be shipped from SRS.

At any rate if early action were taken on the shipping containers and the shipping facility it would permit removal of waste from SRS on a "sooner rather than later" basis. While the CAB would agree that there is no imminent safety hazard with the storage of the canisters, this action would go a long way to restoring the confidence of the local communities that DOE is acting in good faith in removing waste from SRS.

It is the view of the CAB that SRS should take bold and aggressive measures to assure the citizens and local political leaders that DOE is serious about SRS not being a long-term nuclear

waste storage site. One such positive measure for the Site is to commence actions for removing DWPF canisters to an alternative location rather than waiting another 40-50 years for a federal repository.

Recommendations:

The Savannah Rivers Site Citizens Advisory Board recommends that DOE commence plans and actions to remove the DWPF canisters and research reactor spent nuclear fuel from SRS to include:

1. Development of shipping containers for the DWPF canisters and research reactor spent nuclear fuel for off-site shipment to a repository.
2. Construction of a facility for handling and preparing both the DWPF canisters and spent nuclear fuel for shipment off-site for disposition.
3. Advising the CAB when such actions can be budgeted for and funded.
4. Explain the process for the DWPF canisters and research reactor spent nuclear fuel to be accepted and moved to the WIPP facility.

Works Cited

Energy, WIPP Information Center - U.S. Department of. "Why WIPP?" *U.S. Department of Energy Waste Isolation Pilot Plant.* February 5, 2007. http://www.wipp.energy.gov/fctshts/Why_WIPP.pdf (accessed July 2012).

Recommendation # 291
Adopted July 24, 2012
Sponsored by the Nuclear Materials Committee

Savannah River Site
Citizens Advisory Board

Recommendation #292
SRS Asset Revitalization Initiative (ARI)

Background

In February 2011, the U.S. Department of Energy (DOE) established a Task Force on the Asset Revitalization Initiative (ARI). To quote the ARI specifically, "The purpose of the Task Force is to facilitate discussion among the DOE, communities around DOE sites, nonprofit organizations, tribal communities, the private sector, and other stakeholders to identify reuse approaches as environmental cleanup efforts reach completion."

In October 2011 a report was presented to the SRS CAB of the Phase I conclusions of the DOE ARI Task Force and the linkage between the ARI work and the Enterprise SRS Strategic Plan. Reuse opportunities lie with the involvement of the local community to define and advocate for new industrial uses and land development that supports open spaces, recreation areas, and nature preserves.

The SRS CAB continues to feel strongly that we are an important local community resource to understand the progress that the DOE ARI Task Force has made. Specific recommendations by the DOE ARI Task Force were outlined to the SRS CAB in October 2011. One recommendation calls for outreach and active planning by engaging the private sector on a national and site-specific basis. The SRS CAB would like to participate in and advocate for the ARI work and understand how this links to the Enterprise SRS Strategic Plan.

The ARI specifies eight (8) assignments for the Task Force. To understand the next steps for the ARI and the CAB recommendations to follow, the 8 assignments from the ARI are listed below:

- Develop a corporate definition of ARI.
- Assess the private sector, community, and stakeholder interest in, and resources available for, ARI.
- Inventory the potential for ARI projects at DOE sites.
- Identify and address potential policy, financial, legal, procedural, and programmatic issues that could impact ARI implementation.
- Recommend a transparent and efficient process to prepare and respond to ARI proposals.
- Establish protocols for involving stakeholders in ARI activities after DOE has established an internal policy on how to proceed with asset revitalization.
- Engage other DOE program offices and the sites to inform the community, other federal agencies, and other stakeholders about ARI task force recommendations.
- Prepare a strategy and business plan within six months of the date the Task Force was established.

The Task Force is scheduled to present the results of this work and a set of recommendations to the three DOE Under Secretaries. DOE envisions a second Task Force phase that would implement those recommendations approved by senior management.

Currently, the SRS has an Asset Revitalization Program underway. It includes a SRS Excess Asset Program and the good practices used by the SRS in working with the Community Reuse Organization (CRO):

• **Personal Property Excess Program**
- 38,500 items released to the CRO (60% of the items excessed).
- Good Practice- Allow the CRO to pick-up property at locations across the site; which eliminates multiple material movements.
• **Chemical excess program**
- 44,000 lbs released to CRO (30% of chemicals excessed).
- DOE partnered with the CRO to help them establish a Chemical Handling Facility
- Good Practice- Chemicals that were previously disposed of are now an asset utilized by others.
• **Installed Real and Related Personal Property**
- Allows CRO to enter the site, disassemble, and remove installed property.
- Asset Transition Plan revised to include new process and first real estate license is in draft for steam and rail lines.
- Good Practice- utilization of real estate license to temporarily release the disassembly area /location to CRO for work performance period.
- Good Practice - CRO allowed to primarily work to meet OSHA standards.
- Good Practice - ability to transfer real and related personal property as personal property once removed.

Recommendations:

The Savannah River Site Citizens Advisory Board recommends that DOE:

1. Provide to the SRS CAB a progress update in the 2nd half of 2012 addressing the 8 assignments accepted to further develop the ARI. The 8 assignments are stated above and were taken from section 7 of the ARI report to Congress, August 2011.
2. Share and explain how ARI recommendations will be implemented with the SRS CAB as early as practical.
3. Establish a mechanism to consider input from the CAB relative to reuse and utilization of existing EM facilities consistent with the interests of the Asset Revitalization Initiative.

Background (CAB Website)

The Savannah River Site (SRS) - Citizens Advisory Board (CAB) is a part of the Environmental Management Site-Specific Advisory Board (EMSSAB), a stakeholder board that provides the Assistant Secretary for Environmental Management and designees with advice, information, and recommendations on issues affecting the EM program at various sites. Among those issues are clean-up standards and environmental restoration; waste management and disposition; stabilization and disposition of non-stockpile nuclear materials; excess facilities; future land use and long-term stewardship; risk assessment and management; and clean-up science and technology activities.

The board's membership is carefully considered to reflect a full diversity of viewpoints in the affected community and region. Board members are composed of people who are directly affected by DOE site clean-up activities.

The Savannah River Site (SRS) Citizens Advisory Board (CAB) is one of eight Environmental Management Site-Specific Advisory Boards (EMSSABs) funded by the U.S. Department of Energy (DOE), and located in Aiken, SC. These Boards provide advice and recommendations to DOE at its request on environmental remediation, waste management and related issues. Agency Liaisons from DOE, the U.S. Environmental Protection Agency-Region IV and the South Carolina Department of Health and Environmental Control participate at the table during Board meetings.

Importance of CAB

Full community participation and representation of all viewpoints are vital to a successful CAB. Practically, not each community member could join CAB. As such, the membership is usually composed of people representing various community interests – I like to lump myself in the category of people who understand the strong link between the CSRA, surrounding communities and the Site and hope to learn more about that relationship on both ends. Other people may

include property owners near the site, environmentalists who fear releases from the site, and other experts from local universities and retired professionals. In addition to the community members, a host of other groups participate in making decisions about site cleanup and related environmental issues, including EPA, and other federal agencies; state, and local government organizations; and various non-profit groups. These groups work closely with the CAB and offer their support, thoughts, and views of the site.

I have found membership on the CAB to include more scientific understanding and thought than years of chemistry in high school, college, and beyond. While the DOE representatives are very helpful in explaining the nuclear, chemical and related processes that are involved at the Site, independent research is crucial to making informed recommendations to the DOE. Taking the time to review board presentations and research the components and terms of site activities, I believe, is vital in staying actively engaged with the CAB. Additionally, reading the local papers and receiving Site updates from the support team plays an important role on the CAB. Understanding what current activities are taking place at the site may help form the basis of recommendations. So, a combination of independent research, asking questions during presentations, and staying involved in current related reading seem to be the most pressing ways to stay involved. CAB involvement is a true commitment. Members must be prepared to devote considerable time and effort in order for the CAB to be most effective. I feel like I have learned so much about site issues from attending meetings and speaking with fellow community member, in addition to reviewing site cleanup plans and hosts of other data.

My First Six-Months

- Co-Drafting Recommendation – research, participation with committees, etc. to put forward a recommendation that best represents the community views, is in accordance with CAB procedures, and provides clear intentions to DOE.
- Learning more about the site, history, functions, and future plans. Share this information with community in various settings.

- Encourage other community members to consider attending CAB meetings or joining the Board – the CAB is only as effective as the community support, and I really believe the recommendations and questions put forth by the CAB are received by the DOE and have their place in shaping decisions and expressing the views of the surrounding Site communities. Even if every citizen cannot be a CAB member, every citizen within the community has an important role in the site remediation process and can support the CAB activities – attending the bi-monthly committee meetings and bi-monthly full board meetings provides an excellence way to share viewpoints and contribute. Long-time residents (Old Ellenton) can be an amazing source of historical information about the Site. Local groups, churches and HOAs, work directly with residents and can inform of the site activities. Local environmental groups can contribute their knowledge of environmental issues and their experience to the CAB.
- Reaching people who may not normally attend a CAB meeting, but may benefit from the information and also contribute to discussion. The Environmental Justice meeting provides an excellent example – hosting the meeting at a local church seemed to encourage more people to attend and it was great to hear their views of the Site.