

**Meeting Minutes
March 28-29, 2011
Augusta, GA: Full Board Meeting**

Monday, March 28-Attendance:

<p><u>CAB</u> Thomas Barnes Tabitha Barrett-Absent Dr. Emile Bernard Paul Boynton Dr. Donald Bridges Edward Burke Louie Chavis Mary Davis Kathe Golden Judith Greene-McLeod Dr. Rose Hayes Stanley Howard Dr. K. Jayaraman Travis Johnson Cleveland Latimore-Absent Denise Long Clinton Nangle Dr. Marolyn Parson Harold Simon Skyye Vereen-Absent George Snyder John Snedeker Dr. Gerald Wadley Sarah Watson Alex Williams-Absent</p>	<p><u>Agency Liaisons/Regulators</u> David Williams, EPA Robert Pope, EPA Kristin Major, EPA Shelly Wilson, SCDHEC Kim Newell, SCDHEC Van Keisler, SCDHEC Heather Cathcart, SCDHEC Al Fraizer, GADNR</p>	<p><u>DOE/Other</u> Dr. Dave Moody, DOE-SR Rebecca Craft, DOE-SR Patrick McGuire, DOE-SR Terry Spears, DOE-SR Karen Guevara, DOE-SR Doug Hintze, DOE-SR Helen Belencan, DOE-SR Gerri Flemming, DOE-SR Rich Olsen, DOE-SR Soni Blanco, DOE-SR</p>
	<p><u>Contractors</u> Sonny Goldston, SRNS Tiajuana Cochanauer, USFS-SR Nancye Bethurem, SRR Erica Williams, V3 Ashley Whitaker, V3 James Tanner, V3 Jenny Freeman, V3 Bill Brizes, V3</p>	<p><u>Stakeholders</u> Joe Ortaldo Tom Clements Karen Patterson John Gadd Bill Lauren Liz Goodson Nancy Bobbitt Bill Lawless Dan Burnfield</p>

Jenny Freeman, the Meeting Facilitator, opened up the meeting by welcoming the Board and outlining her role for the new members. She reviewed her talking points and meeting ground rules, and invited members of the public to participate in the meeting.

Donald Bridges, CAB Chair, then welcomed the eight new CAB members and introduced all of the new members.

**PRESENTATION: The Importance of CAB Membership
Doug Hintze, co-Department of Energy and Deputy Designated Federal Official
(DDFO)**

Mr. Hintze, co-DDFO, said he wanted to talk about the importance of CAB membership for the benefit of the new members. He welcomed everyone and said the Board does a lot of work and is very important to DOE. He said the CAB will interface a lot with DOE officials and the Support Staff; he encouraged everyone to jump in from the start. He said the Board is important because it asks the questions that workers in DOE, including technical experts, may think are too obvious to ask or answer.

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

CAB member Parson gave a brief presentation overview of what her committee did last year and what it will do this year. She stated what the objective of the FD&SR committee is and what it focuses on. She stated that in 2010, 16 presentations were given as part of the FD&SR committee. She summarized two of those 16 presentations; one was on soil remediation and the other focused on a ground remediation project. She said these two topics are examples of presentations focusing on remediation, and said that remediation is one of the major focuses of the FD&SR committee. CAB member Parson then reviewed the presentations that gave an understanding of the regulatory process that is included in clean-up at Savannah River Site (SRS). She also reviewed the presentations that included information on the decommissioning project.

She stated that in 2011, ten presentations are planned for committee meetings, with four to five presentations planned for Full Board meetings. All of these presentations are aligned with the 2011 CAB Work Plan. She provided a list of presentation topics that have been improved for committee meetings.

She said that the FD&SR has a rich history of recommendations, even though it is a “younger” committee than the Waste Management and Nuclear Materials committees. She said since 2003, the FD&SR committee has put forth 14 recommendations and there is currently one open. She reviewed this open recommendation and said DOE gave a “negative” response to that recommendation.

The next FD&SR committee meeting was announced as April 12, 2011. CAB member Parson detailed the proposed agenda, and listed the time and location of the meeting. She then listed reasons to join the FD&SR committee and stated that she would keep presentations with excessive acronyms to a minimum.

CAB member K. Jayaraman stated that DOE’s response to the open recommendation wasn’t negative. CAB member Parson stated that it was a positive response, but was negative in the fact that DOE could not perform the actions suggested; she thanked CAB member Jayaraman, saying he made a good point.

Nuclear Materials (NM) Committee-Rose Hayes, Committee Chair

CAB member Hayes outlined what issues the NM committee is concerned with, and stated that she and CAB Chair Bridges recently attended the Waste Management Conference in Phoenix, Arizona, which she said was helpful. She asked everyone to look at the NM section of the 2011 Work Plan. She summarized each topic, and listed what issues were important to the NM committee, including H-Canyon. She said she believes that most of 2011 will consist of finding funding for H-Canyon.

CAB member John Snedeker said he hasn’t seen any rational explanations from DOE on why it’s defunding H-Canyon. He asked if there is a “position paper” the CAB can read. CAB member Hayes said she just knows it’s in the budget. Pat McGuire, DOE-SR, said the liquid waste at SRS is the highest risk at the Site, as well as in South Carolina. He said they want to make sure they preserve and accelerate as much as they can in terms of High Level Waste. He continued that they will maintain H-Canyon in an operable condition; he said they have no plans to shutter it, shut it down, or put in a safe standby mode. At a minimum, he said H-Canyon will be used to perform research and development activities to help promote the nuclear initiative. He then reviewed other activities DOE is planning on implementing. CAB member Hayes asked Mr. McGuire if the CAB could have a presentation on the specifics of the plan to keep H-Canyon fully operable. Mr. McGuire said various cases are being developed for various capabilities from which H-Canyon and the HB Line could operate. He said DOE should have that info from the contractor soon and at the next NM Committee meeting, they could present the information on the various capacities for both of those very important facilities.

Bill Lawless, public, stated the draft of the recommendations about to be discussed are much better than the earlier drafts. He said that because of what is going on in Japan, the NM Committee should elevate the importance of the L Basin, or any type of storage basin. He said it seems to be an area of some concern.

Nuclear Materials Committee-Draft Recommendation(s) Discussions

Research and Development for Reprocessing Used Nuclear Fuel (UNF):

CAB Chair Bridges asked for a copy of the CAB Waste Flow Chart to be displayed on the screen. He asked CAB member Hayes to discuss her views on fuel coming in and the plutonium there, what H-Canyon does to it, and where it goes. CAB member Hayes stated that H-Canyon is an old facility that has had a number of missions in its history. She said there was fuel on Site that has been stored long-term, and this Used Nuclear Fuel (UNF) was generated when research reactors were producing it. CAB Chair Bridges stated that Mr. McGuire, DOE-SR, volunteered to walk through the procedural steps of where material is and where it goes; Mr. McGuire then briefly described the inputs and outputs for nuclear material onsite.

CAB Chair Bridges said the Board should have two recommendations, and started discussion on the shorter of the two, "Research and Development for Reprocessing of UNF." He reviewed the background of the recommendation, stating that it's the CAB's view that the Blue Ribbon Committee (BRC) may feel that reprocessing is viable and at least worth studying a bit further. He continued that if that is true, then H-Canyon is a viable "study mechanism and vehicle." He then reviewed the recommendation, listing what actions are requested.

Shelly Wilson, South Carolina Department of Health and Environmental Control (SDHEC), said the background of the recommendation seems very open, and that she sees disconnects between the recommendation's specificity, and the background's general broadness.

CAB member Ed Burke said they are committed to accepting additional wastes at this point, and that they should include the materials that have been identified. He said he's not sure if he would change the wording as much as Ms. Wilson is suggesting.

Ms. Wilson asked if the CAB is opening the doors wide with this recommendation, or does it want some limitations. She said once you open the door, you cannot close it.

CAB member Jayaraman stated he has some serious concerns about the recommendation. He said it seems likely that the BRC will suggest what is written in the first part of the recommendation. He said the CAB shouldn't form a recommendation based on what another committee may recommend. He also noted that the CAB should want SRS to be proactive, but he doesn't see that listed in any of the actions. He said this recommendation is too premature, and questioned what the CAB is trying to accomplish. He said the CAB should be more concerned with environmental clean-up.

CAB member Hayes said it should be understood that when the CAB speaks of reprocessing, it should be understood that it is speaking of reprocessing in relation to environmental clean-up. She said reprocessing is one of the major pathways to dispositioning materials.

CAB member Jerry Wadley edited some wording to the third paragraph of the recommendation to make it clearer and more consistent. Ms. Wilson agreed with CAB member Wadley's suggestions.

Concern for the Effective Utilization of H-Canyon:

CAB Chair Bridges said the CAB is concerned about the future plans and uses for H-Canyon. He then reviewed the recommendation, reading over the body and listing the actions suggested by the CAB. He referred to the Waste Material Flow Chart, to show the input and output of materials at the Site. He said the recommendation deals with keeping H-Canyon operable and fully staffed; this is described in item one. He continued to go through all the items listed in the recommendation. Ms. Wilson, SCDHEC, offered an alternative to how item four of the recommendation is currently written.

CAB Chair Bridges asked CAB member Hayes to comment on what the public laws say, and what the budget says. CAB member Hayes said public law 107107 states there must be a plan to disposition plutonium off of SRS and out of South Carolina. She said public law 106-398 states that the Secretary of

Energy must fund the operations in H-Canyon and must maintain it at a high state of readiness, but the 2012 Presidential budget says that H-Canyon will be shuttered on December 31, 2011. She said there are inconsistencies in the policies and laws, and the CAB recommends this be addressed.

CAB Chair Bridges continued to go through the recommendation, listing suggestions the CAB has made concerning H-Canyon. CAB member Ed Burke commented on the working of the last item listed, asking if the issue really is H-Canyon or the processing that needs to be resolved. CAB Chair Bridges said it's the latter, and CAB member Burke said the CAB should probably state that in the recommendation.

CAB member John Snedeker said it appears that some of the discussion the CAB has been having overlaps or even conflicts with the task that has been given to the Blue Ribbon Commission (BRC), and maybe there needs to be some form of coordination so the CAB and the BRC don't "trip over" each other.

Joe Ortaldo, public, encouraged all the new members to participate fully, saying they would pick up on the topics being discussed. He commented that only three things can be done with the UNF at SRS-it can stay at SRS, it can be processed at H-Canyon, or it can be sent to a repository. He then addressed earlier comments regarding the BRC. He asked everyone to think over his comments while they decide on whether or not to approve the two NM recommendations.

Strategic & Legacy Management (S&LM) Committee – Jerry Wadley, Committee Chair

CAB member Jerry Wadley encouraged members to join his committee and outlined what issues the S&LM Committee is engaged in. He then outlined five topics for consideration that he said would be worked in 2011. He said the committee only has one recommendation open at this time, 272. He said the S&LM Committee meets with the FD&SR Committee, and encouraged members to join both. He then announced the next committee meeting, as well as its location.

Waste Management (WM) Committee – Emile Bernard, Committee Chair

CAB member Emile Bernard outlined what issues his committee addresses, stating his committee deals with liquid and solid waste. He outlined his committee's mission, and referred to the 2011 Work Plan, asking everyone to look at the WM section. He said his committee would be an educational opportunity for other CAB members and encouraged members to join. He announced the date of the next WM Committee meeting.

Administrative Committee – Kathe Golden, Committee Chair

CAB member Kathe Golden welcomed all of the CAB's new members, and introduced Dr. Dave Moody, Site Manager. She then outlined what the Administrative Committee does within the CAB and encouraged everyone to join the committee. She discussed online meetings, the agenda, time set aside to sign-up for committees, and presentation content. She also spoke about reappointment and attendance-she urged everyone to always remember to sign-in at meetings.

~Public Comments~

Dan Burnfield, Defense Nuclear Facility Safety Board site representative, announced the Board would be holding a public meeting on June 16, but he didn't know the location or time. He invited everyone to attend and said there would be time for public comments. He said, at this time, the topic of the meeting will be Savannah River Operations.

~Meeting adjourned~

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Tuesday, March 29 Attendance:

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	<p><u>Contractors</u> Ginger Dickert, SRR Nancye Bethurem, SRR Doug Bumgardner, SRR Dave Olson, SRR David Little, SRR Tom Gaughan, SRNS Sonny Goldston, SRNS Bob Aylward, SRNL Tiajuana Cochauer, USFS-SR Erica Williams, V3 Ashley Whitaker, V3 James Tanner, V3 Jenny Freeman, V3 Bill Brizes, V3</p>	<p><u>Stakeholders</u> John Gadd Tom Clements Joe Ortaldo Karen Patterson Liz Goodson Nancy Bobbitt Sam Booher Dan Burnfield</p>

Ms. Jenny Freeman, facilitator, opened the meeting and CAB member Alex Williams led with the Pledge of Allegiance. Ms. Freeman reviewed the meeting ground rules and introduced CAB Chair Bridges for approval of the January meeting minutes, and CAB updates.

CAB Chair Bridges asked the CAB for a motion to approve the minutes. CAB member Williams made a motion and CAB member Denise Long seconded it. The minutes were approved with no discussion and with all in favor. CAB Chair Bridges then gave a brief presentation that included a welcome, introduction, and information on the Phoenix Waste Management Conference, which he attended.

~Agency Updates~

Dr. Dave Moody, Site Manager at SRS

Dr. Moody welcomed everyone and said SRS is making great strides toward clean-up activities. He updated the CAB on the Recovery Act funds. He stated he wants to maintain the Site for future use. Dr. Moody said SRS is not a closure site; it has established missions and there is enthusiasm about the future of the site. He said he believes that SRS is the key to the nuclear future of America, and H-Canyon will not be

“moth-balled.” He added they are proposing a modified operation, and said he recognized this operation may not align with the vision or path the CAB thinks H-Canyon should go, but he looks forward to discussions.

CAB Chair Bridges asked Dr. Moody when the budget will be known in terms of the next couple of years. Dr. Moody said the first order of business is to nail down FY2011, but the budget times are “very tight.” He said if FY2011 “survives” where it was placed, then SRS would be well-situated for FY2012. CAB Chair Bridges asked what was Dr. Moody’s “read” on the recent layoffs at SRS. Dr. Moody said the site always knew that when \$1.6 billion was added to the budget that there would be “ramp up and a ramp down.” He said the layoffs did not come as a surprise, but the real task is doing what’s appropriate to prepare for the future; however, they would not exceed the 1,400 job cuts.

CAB member Hayes asked Dr. Moody how effective the job placement center, which was opened by SRNS, has been. Dr. Moody said it’s just being started and a number of entities, who are looking to hire, have shown interest. He said he thinks SRNS is doing a good job, but it remains to be seen how successful it will be.

CAB member Alex Williams said it has been noted that some of the personnel that was laid off have been recalled to a different position with no benefits. He asked if Dr. Moody was aware of that. Dr. Moody said there is a difference in benefits for personnel depending on when they were hired; he said he is not aware of a situation like CAB member Williams described. He said it could happen if an employee was laid off and then rehired as a subcontractor.

Garry Flowers, President of Savannah River Nuclear Solutions (SRNS)

Mr. Flowers welcomed the new members and said SRNS appreciates CAB input. In terms of the SRNS workforce restructuring, Mr. Flowers said 327 people took a voluntary package and 342 left involuntarily by the end of February. He said he thinks they have done this in an organized manner and they have not affected safety or site missions. He said while it is not a pleasant thing to do, it has to be done. He said there is another phase of involuntary layoffs scheduled for August. He said they will not exceed 1,400 layoffs. He added that due to some changes in scope, there has been an extension of some ARRA workers until 2012.

He said SRNS is not sure about the outcome of H-Canyon and the HB Line. He said it’s an impressive facility and the BRC seemed to be surprised by how flexible it is, and that it is in such good condition. He said he considers it to be a commercial facility, and he asks himself how H-Canyon can be cost effective, and competitive.

Mr. Flowers provided a brief overview of the SRNS Transition center, detailing how it is operating, when it is open, where it is located, and who it is serving. He said it has been effective and that South Carolina has been very cooperative. He said it will be open for the remainder of 2011, at a minimum.

He praised the Savannah River National Lab (SRNL), saying that SRNS is striving to make SRNL EM’s lab. He said two employees from SRNL will be going over to Japan to aid them in atmospheric modeling, clean-up, and remediation. He said SRNL has a 20-year contract with the FBI concerning a forensics lab; he said SRS is not a closure site. He said the partnering between SRNS and DOE-SR has never been better.

CAB member Williams commented that the job location/transition center is a positive idea and asked if SRNS could do more advertising for the center, including listing the jobs that are available. Mr. Flowers said CAB member Williams makes a good point and he listed some ideas SRNS is working on.

CAB member Judy Greene-McLeod said she has heard some criticism about how people were chosen for layoffs, saying that some people thought that older workers on site were targeted. She asked if Mr. Flowers had to readjust how people were being selected and if he saw any problems in the future having to do with that. Mr. Flowers said SRNS and DOE followed a structured process when performing the restructuring. He said the first workers to go were those with discipline problems and absentee problems. He said there

are a lot of regulatory laws that have to be followed. He said SRNS worked very close with DOE. He said that he believes the process was very fair.

CAB Chair Bridges asked that in cutting back, did SRNS stop performing functions, or did it begin to perform functions more effectively. Mr. Flowers said processes and business systems were improved, and therefore, SRNS became more efficient.

Doug Hintze, Deputy Designated Federal Official-Department of Energy (DOE), Savannah River

Mr. Hintze welcomed all the new members to the Board and informed the members that the EM Performance Report was located at the back information table. He asked everyone to review it. He provided brief overviews of the Defense Waste Processing Facility (DWPF), the Salt Waste Processing Facility (SWPF), and low activity waste within the liquid waste program. He also provided information on tank closure activities.

He stated that DOE is moving into the Supplemental Salt Initiative out of the liquid waste program. He referred back to presentations on the small column ion exchange demonstration unit. He said it should be operational by 2013. He then provided a few updates concerning nuclear materials disposition. Mr. Hintze reviewed infrastructure support, including the Biomass Cogeneration Facility. He also announced a meeting discussing Greater than Class C Waste to be held on April 19, in North Augusta, SC.

He provided a quick brief on the increased public tours and the Strategic Plan. He said the CAB would hear more about the Strategic Plan at the April 12 committee meeting.

CAB Chair Bridges asked for the latest updates on depleted uranium. Pat McGuire, DOE-SR, said the depleted uranium program is currently underway, DOE is shipping that material to Nevada for permanent disposal under ARRA funding, and it expects all depleted uranium that exists at SRS to be permanently disposed of in Nevada by the end of this fiscal year.

Rob Pope, Environmental Protection Agency (EPA)

Mr. Pope welcomed the new members, and explained what EPA does at SRS. He advised the CAB members that in their packets were Environmental Bulletins and Action Memos for removal actions. He explained the importance of these documents. He then provided an overview of Environmental Justice meetings, stating there are currently three meetings scheduled throughout the fiscal year. These meetings are in locations such as Waynesboro, and Graniteville.

He stated there was a presentation on the Superfund program by EPA Project Manager, Rachel Hall, at the Waste Management Symposium. In reference to the natural disasters in Japan, he then reviewed an EPA monitoring program.

CAB Chair Bridges asked what kind of public response EPA gets when it holds meetings in places such as Graniteville and Waynesboro. Mr. Pope said it depends, and they haven't done the Environmental Program in a few years, but they tend to get around 10 to 30 people. He said the presentations given are more general in nature, and Gail Whitney's group at DOE-SR does a great job of presenting.

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

Ms. Wilson welcomed the new members as well, and gave a brief overview of SCDHEC's role at SRS. She stated what SCDHEC can and cannot regulate. She explained that SCDHEC has a variety of permits that cover SRS that covers different areas that are regulated. She said most permits are aimed at preventing environmental issues, but there are some existing environmental problems out there that were created before environmental regulations took effect. She continued that SCDHEC has a variety of mechanisms, permits, orders, and agreements that cover clean-up at the Site. She added that SCDHEC has two functions other than clean-up such as Emergency Preparedness and Environmental Oversight.

Van Keisler, Federal Facilities Agreement Manager at SCDHEC, introduced Heather Cathcart, SCDHEC Technical Coordinator. Mr. Keisler said that since the last CAB meeting, SCDHEC has participated in two core team scoping meetings, which focused on the A-Area Ash Pile, the A-Area Coal Pile Runoff Basin, the AO 13 Outfall Meeting, as well as the C-Area Groundwater Operable Unit. He said SCDHEC has performed two walk-downs, which includes inspections of various sites. He continued that in the past two months, SCDHEC has finalized and reviewed the approval of Appendix E of the Federal Facilities Act (FFA). He said they had a monthly meeting on liquid waste where the Rev. 16 Plan was discussed, and had a quarterly meeting where recent progress in the F-Tank Farm was discussed. He overviewed progress within the tank farm closures. He then reviewed documents and reports that SCDHEC has reviewed and made comments on recently.

Ms. Wilson thanked Mr. Keisler and reviewed the comments made by SCDHEC on the Environmental Impact Statement for Greater than Class C Disposal. She also reminded everyone of Earth Day and asked everyone to check out the SCDHEC website for environmental improvement tips.

~Public Comments~

Sonny Goldston, SRNS, thanked CAB member Hayes, CAB Chair Bridges, as well as other presenters, for participating in the Waste Management Symposium. He said they are in the “throes” of planning for next year’s conference and asked everyone to come talk to him if interested.

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Tom Clements, Friends of the Earth, encouraged the new members to be diligent in their questions and cautious about the influence in their approach to business in the CAB. He spoke about a prior incident where he felt the CAB had worked outside of its scope and procedures. He also addressed the issue of reprocessing used nuclear fuel (UNF). He continued by talking about reactors, and asked the new CAB members to speak with him for a different perspective on the issues being presented to them.

Bill Brizes, Technical Adviser-V3: Recommendation Report

Mr. Brizes referred to a slide and stated there was one “pending” recommendation. He explained to the new members what “pending” means. He said there were 10 open recommendations and said the Board has closed 263 since the beginning of the CAB. The CAB, at this time, had submitted 274 recommendations. He said that since the last Full Board meeting one recommendation, 274, was changed to “pending.” He added that Recommendation 273 was changed from “pending” to “open.”

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

CAB member Parson briefed members who were absent the day prior on her committee update from that day. She then introduced the presenters.

**PRESENTATION: Area Completion Projects-Savannah River National Laboratory
Technology Collaboration: Tom Gaughan, SRNS, and Bob Aylward, SRNL**

Mr. Tom Gaughan began the presentation by stating the purpose of the presentation, and then focused on a brief history of the technical collaboration program between SRNL and Area Completion Projects (ACP). He reviewed the initial focus of the program and what the program matured into. He provided an overview and explanation of a diagram that showed how to treat a contaminated site.

He listed examples of technologies that are involved in the project, and how these work in the areas at SRS. He then spoke about the Reactor Vessel located in the P-Area Reactor, and the issues associated with grouting it. He said they had to find a neutral pH grout.

Mr. Gaughan stated the program has had a lot of successes and, gave the board its website address. He said in 2006, DOE Headquarters wanted to make a bigger impact on the complex, and solicited field offices. This resulted in a document titled, "Engineering & Technology Roadmap." He then listed the programmatic needs that SRNS identified when asked for its needs. He then introduced Bob Aylward, SRNL, who presented the second half of the presentation.

Mr. Aylward said the Savannah River National Lab (SRNL) has always prided itself on applied science. He said his department, the Environmental Restoration Technologies Section, is focused on helping SRNS get the technologies that will improve its baseline, in order to make remedies more effective, as well as less expensive. He then referred to the diagram of contaminated areas again and defined the concept of applied science. He referenced the EM Leadership Pyramid, as well as a graph on the department of Groundwater and Soil Remediation's research and development areas. He said the issue was deciding what to fund out of all the topics in the graph. Mr. Aylward stated that they came up with three Research Center. He reviewed information on these centers, including the Attenuation-Based Remedies for the Subsurface Applied Field Research Center, which is in F-Area, the Deep Vadose Zone Applied Field Research Center, which is located at the Hanford Site, and the Remediation of Mercury and Industrial Contaminants Applied Field Research Center, which is located at the Oakridge Y12 Site. He also spoke about the Advanced Simulation Capability for Environmental Management (ASCEM). He explained the three centers and the ASCEM where the EM 32, department of Groundwater and Soil Remediation, is applying its sources.

He stated that SRNL is the technical "arm" for EM and he then referenced a graph of the EM Center for Sustainable Groundwater and Salt Solutions Technology Import and Export, which he said is EM 32's programmatic and technical "arm" for SRNL. He also reviewed the import and export of technology, as well as listed examples of work functions performed.

As a summary, Mr. Aylward stated that ACPs and SRNL have a "long history of successful collaboration in the groundwater and soil technology development, and deployment area." He also stated "the DOE Headquarters Technology Innovation and Development Program provides valuable resources that support applied science advancements at SRS, and across the DOE Complex, and that the combined Site and Headquarters program successes result in technology import and export opportunities for all of EM."

CAB member Parson asked if there is a risk in using silver to sequester the iodine-129 discussed on page 11 of the presentation. Mr. Gaughan said it's a matter of scale. He said it is insoluble, and won't dissolve into the solution and go back in the Savannah River.

CAB member Denise Long asked if there was research performed to see if moving organisms from one location to another may damage the new area where they are being moved. Mr. Gaughan said once the contaminants are gone, the bugs will go away. He said they feel it's worth the introduction of this material so it doesn't get out since the bugs won't be there long anyway.

CAB member Paul Boynton asked what effect stripping the oxygen out of the soil would have on the bugs and if the oxygen would return once those bugs leave. Mr. Gaughan said they have to create an environment for the bugs to flourish, and after they're gone, the oxygen will come back. He said SRS is ripe with oxygen.

CAB Chair Bridges asked what are the primary contaminates dealt with, and what percent of them is radioactive. Mr. Gaughan said, at the Site, the major problems are spent solvents, which are not radioactive, and tritium in the groundwater.

Nuclear Materials (NM) Committee-Rose Hayes, Committee Chair

CAB member Hayes stated the objective of the NM Committee and said one important aspect of nuclear research today is remediation technology. She said she and CAB Chair Bridges attended the Waste Management Symposia in February and spoke briefly about her experience. She then introduced the two speakers for her committee.

PRESENTATION: Governors Nuclear Advisory Council (GNAC)
Presentation to BRC-Karen Patterson, GNAC

Ms. Patterson said when President Obama closed the door on Yucca Mountain, he “opened a window” called the Blue Ribbon Commission (BRC) on America’s Nuclear Future. She explained that the BRC is a commission that has been tasked with coming up with recommendations on America’s nuclear future, which she called the “back end of the nuclear cycle.” She said this is jargon for what do you do with mostly commercial, but some defense, spent fuel, and what will you do with the high-level waste that has been generated.

She gave a brief background on Used Nuclear Fuel (UNF), detailing how and where it is generated. She said UNF has almost all the energy it had when it was new, but it’s not accessible anymore. She said the question being proposed to America is, “Should we reprocess UNF to get that energy out, or should we dispose of it without tapping into that energy?” She provided a definition of high-level waste.

She continued that when the BRC came to Augusta in January, it asked the public to provide input on what it thought about this nuclear waste issue. She listed some people who spoke at the meeting. She provided background information for the Governors Nuclear Advisory Council (GNAC), and gave reasons why South Carolina should involve itself in the discussion of UNF and reprocessing. She said she is a big proponent of keeping H-Canyon open and operating. She stated when the GNAC thinks about its charter, which is to apprise the governor of issues it thinks is important, it focuses on two things: first, the liquid defense waste at SRS must be disposed in a geologic depository as mandated by law, and second, reprocessing generates a lot of waste, and is not an efficient process. She said that GNAC believes that reprocessing is not a reason to dismiss the nuclear future and that technology exists to solve those problems.

Ms. Patterson said that given GNAC’s frame of reference, it came up with four challenges any nuclear policy needs to address. She listed these as technical challenges, economics of nuclear energy, politics, and building public acceptance. She stated she believes the true cause of the failure of Yucca Mountain was a lack of public participation in the decision process. She said people need to get involved in the decision process early and often.

She then listed six elements that GNAC thinks any nuclear waste policy should have. These elements include flexibility, regulatory certainty, repository or repositories, recycling, interim storage for used fuel, and funding for rigorous R&D program to improve on repositories, recycling and interim storage.

She said GNAC’s final point to the BRC was that no solution will please everyone, but that doesn’t mean we shouldn’t proceed in the disposal of our nuclear waste. She said the technical expertise to handle nuclear materials and develop better solutions exists, and South Carolina has more than 50 years of lessons learned. She said South Carolina understands the risks and still knows that nuclear materials can be handles safely and securely. She said the council understands the country’s need to be energy independent, and recognizes that nuclear technology is an important component. She said GNAC believes that the storage and disposal of nuclear waste is not yet a crisis, there are multiple paths to resolution, and that being said, it is time for the government to make a decision and begin.

CAB member Hayes asked what the office of the governor of South Carolina had to do with suits against the federal government for closing Yucca Mountain. Ms. Patterson said she doesn’t know what interaction the governor’s office has had with Aiken County. She said that Governor Sanford was not really interested in nuclear issues, but she gets the impression that Governor Haley will be more interested. She said she can’t tell the CAB at this point what the Governor’s office is going to do.

Shelly Wilson, SCDHEC, said that South Carolina is one of the parties suing the federal government for shutting the door on Yucca Mountain.

PRESENTATION: Site Safety Overview-Robert Edwards, DOE

Mr. Edwards briefly overviewed the history of SRS, listing transitions and changes in contractors. He said although the contractors changed, the expectations stayed the same. He said the contractors are responsible for safety measures, but DOE provides oversight on a daily basis. He reviewed the oversight program. He referred to a graph that showed the DOE-EM prime contractors safety rankings, and listed the safety expectations for all contractors at the Site. He then referred to a graph that showed the framework for the Integrated Safety Management Systems (ISMS).

He stated that although there are several contractors on the Site, there is only one safety standard. He said the Site has an Integrated Safety Management Integrated Council (ISMIC). He listed the council's major initiatives. He then discussed the 2010 ISMS Champions Workshop, listing its success factors. Mr. Edwards reviewed a voluntary safety program, the Voluntary Protection Program (VPP). He listed the program's performance measures and reviewed the results of the program. He also reviewed applicable safety regulations and directives.

Mr. Edwards stated why the Site performs all the safety measures, and listed operations that have been successfully, and safely, performed. He stated that the ARRA funding has helped keep projects on schedule and budget, and reviewed the achievements at SRNL.

He summarized his presentation that saying "the safety of the public, workers, and environment is the primary value at SRS, no job will be done at SRS unless it can be done safely, and the ISMS ensures that safety is effectively integrated into the overall mission so that work can proceed safely."

~Public Comments~

Karen Patterson, public, informed the CAB members that it would be discussing a draft recommendation on H-Canyon later in the day. She said the recommendation is critical and encouraged everyone to vote for that recommendation.

PRESENTATION: H-Canyon & HB-Line Future Options-Allen Gunter, DOE-SR

Mr. Gunter said the purpose of this presentation was to give an update on H-Canyon, in terms of future missions and operations. He said his presentation is the same briefing that Dr. Dave Moody, Site Manager, gave at a Congressional Briefing. He first reviewed the vision for SRS's 2015 clean-up. He listed all the operations that would be performed, or continued, while building on the momentum of the ARRA funding.

As for a potential new mission for H-Canyon, he said they have been working on a process called Vacuum Salt Distillation in HB-Line for removal of chlorides and fluoride in Non-MOXable plutonium. He said they are also working on a Fuel-Cycle Proof-of-Concept Demonstration, and the Pu-238 Campaign. He said that private companies are interested in recycling UNF. He then listed the current and future operations of H-Canyon.

He said many people are asking what DOE is going to do with the Non-MOXable Pu on Site. He said they've been planning to dissolve it in the HB-Line, transfer it to the liquid waste sludge batch tanks where it would then be incorporated into high-level waste glass. He said it is very expensive to utilize glass, so they've been working on utilizing HB-line to convert the material to a form where they can ship it to the Waste Isolation Pilot Plant (WIPP). He reviewed this plan, and then spoke about the "initial campaign," and the "full campaign." He referred to charts on planned shipments of UNF to L-Basin and proposed L-Basin capability increases.

He summarized his presentation by stating the high-level waste program is the Site's highest disposition priority, that H-Canyon and HB-Line are national assets, that H-Canyon and HB-Line will transition to

embark on new missions of national importance, and that the Site will ensure that all nuclear materials are safely and securely stored during the transition period.

CAB member Golden asked how the shipments get to the Site. Mr. Gunter said they're brought in by ship, and loaded onto trucks.

CAB Chair Bridges asked how much room there will be for further expansion after the L-Reactor expansion is completed. Mr. Gunter said they have estimated that even after the expansion, they can still receive 5,000 more assemblies if necessary.

CAB member Hayes asked how long it would take to re-rack for the Foreign Research Reactor (FRR). Mr. Gunter said they are going to start with the Canadian in 2012-2013 time period, putting those racks in where they planned initial receipts in 2013, but it takes four years to receive all of that so instead of doing them all at once, they would just build them in modules and set them in as they need it. He said the standard storage racks shouldn't be needed until 2014. He said if they installed them all, it would take about two years.

CAB member Hayes asked what 5,000 assemblies would amount to and for an example of a typical receipt. Mr. Gunter said they typically receive about 10 to 100 assemblies, depending on fuel size and reactor configuration. He said they normally get in about one cask at a time, but it can vary.

CAB member Gerald Wadley asked Mr. Gunter to describe the storage units and how much they cost. Mr. Gunter said the projected cost of putting in the Canadian fuel racks is about \$20 million, but the Canadian government will pay that fee. He said the units are rectangular, with square corrugated sections that the fuel slides into, and they are underwater.

Nuclear Materials Committee: Draft Recommendations Discussion

Research and Development for Reprocessing Used Nuclear Fuel

CAB Chair Bridges said the fundamental question in this recommendation is "is there some way we can take existing facilities, existing personnel, as well as existing capabilities at the Site, do some R&D and extend the life of those facilities or extend the jobs for people." He then read through the recommendation, reviewing the content and outlining expectations. Ms. Jenny Freeman asked if there was a motion to approve the recommendation. There was a motion and a second. The floor was open for discussion, with the caveat that no significant changes could be made. The recommendation was approved with 17 "yes" votes, none opposed and four abstentions.

Concern for the Effective Utilization of H-Canyon

CAB member Hayes explained the purpose of the recommendation. CAB Chair Bridges reviewed the recommendation, listing each numbered item and explained each point. Ms. Jenny Freeman asked for a motion to approve the recommendation. It was approved and the floor was opened for discussion. The recommendation was approved with 17 "yes" votes, one opposed, and four abstentions.

Strategic & Legacy Management (S&LM) Committee- Jerry Wadley, Committee Chair

CAB member Wadley reviewed the purpose of his committee and what his committee would be working on in 2011. He said they have 12 presentations planned for committee meetings in 2011, and what his next committee meeting would discuss; this meeting was on April 12.

**PRESENTATION: Budget Update and Integrated Priority List-
Doug Hintze, DOE-SR**

Mr. Hintze, who serves as the CAB's DDFO, introduced to the Board DOE main points of contact for committee information. He stated the purpose of the presentation, stating he would cover the budget and Integrated Priority List (IPL). He said for 2/3 of the year, DOE is operating in three funding years at the same time. He listed the topics that would be covered in his presentation, which included FY 2011 Appropriations, FY 2012 President's Budget Request, a comparison of the Certified Baseline to President's Budget Request and Appropriation, and the IPL for FY 2012. He explained that the Government was currently under a Continuing Resolution and explained what that meant for DOE.

He referred to and explained a chart of the DOE Budget Flow Process. He said for FY 2012, the President just released the budget, it's going to Congress, and Congress is going to debate between now and the beginning of October, to pass an appropriation for FY 2012. He said DOE fully supports what the president submits to Congress.

Mr. Hintze then reviewed charts on the total Site budget and the Environmental Management Budget. These charts showed FY 2010, FY 2011, and FY 2012. He said these charts are called Project Baseline Summaries (PBS). He reviewed each area on the chart and explained what it meant.

CAB member Ed Burke asked for the H-Canyon budget in 2010. Mr. Hintze referred to Pat McGuire, who said H-Canyon and HB-Line was approximately \$225 million. CAB member Burke asked Mr. McGuire to split H-Canyon and HB-Line apart to share the individual budget of each. Mr. McGuire said they have the flexibility in the PBS to move money between H-Canyon, HB-Line and other areas. He said they could fully support shipping Plutonium to WIPP, which is normally a HB-Line function, and fully support H-Canyon activities. He said HB-Line is in the neighborhood of \$75 million and H-Canyon would be the remaining portion of the \$225 million.

Mr. Hintze referred to a graph comparison of the Certified Baseline to the president's budget request and Annual Appropriation. He explained the information on the graph, which included ARRA funding as well. He then reviewed a chart of the FY 2012 EM IPL.

PRESENTATION: ARRA-Update Video-Helen Belencan, DOE-SR

Ms. Belencan said her department is changing its name from Assistant Manager for Closure Project to Assistant Manager for Infrastructure and Environmental Stewardship; Karen Guevara is the Assistant Manager and Ms. Belencan is the Deputy Assistant Manager. Ms. Belencan outlined what work her area does. She said her presentation would provide an update on ARRA funding. She stated what work has been done so far under ARRA.

She explained that five years prior DOE, EPA, SCDHEC, and Site contractors worked together to come up with a strategy on how to close out large areas and decommission large, complicated facilities. She said they had the plan in place and then ARRA funding came, and they were well positioned to bring that money in because they had a plan and a path forward. She said by completing the footprint reduction activities of the Recovery Act, they are now positioning the Site for its future. She said the Recovery Act has put the Site in a better position to accept and fulfill missions.

Ms. Belencan then showed and narrated an ARRA video.

Waste Management (WM) Committee-Emile Bernard, Committee Chair

CAB member Bernard reviewed his committee's objective, and listed how many recommendations the WM Committee has passed since the CAB's inception. He announced the next WM Committee meeting would be held on April 26.

PRESENTATION: System Plan Revision 16, Doug Bumgardner- Savannah River Remediation (SRR)

Mr. Bumgardner listed what would be included in his presentation and referred to a graph that showed DOE-EM Prime Contractor Safety Rankings. He said SRR is at the top of these safety rankings. He said in order to achieve the acceleration SRR is looking for, SRR must move faster in all the areas of its business. He listed all these areas, including the areas where they have accelerated activities. He then reviewed a chart that showed System Plan Rev. 15 results. He said their plan in Rev. 15 was to accelerate sludge processing at the Defense Waste Processing Facility (DWPF). He said they have installed melter bubblers in the fall of 2010, which increased the rate from 200 cans per year to 325 cans per year. He stated in System Plan Rev. 15, the Federal Facilities Agreement (FFA) commitments for bulk waste removal and tank closure were met, sludge processing will be completed in FY24, and Salt Processing will be completed in FY31. He then provided a Liquid Waste Overview, which was presented as a flow chart. He listed the biggest changes and additions to Rev. 16.

Mr. Bumgardner said some of the specific assumptions in Rev. 16 of the System Plan relate to how each facility is going to process. He provided examples of this relating to the Actinide Removal Project (ARP) and the Modular Caustic Side Solvent Extraction Unit (MCU), Small Column Ion Exchange, and the Salt Waste Processing Facility. He listed Rev. 16 sludge processing inputs and assumptions. He continued with Rev. 16 inputs and assumptions, stating that enhanced chemical cleaning will be deployed in January 2014, sludge washing Rotary Microfilter startup will begin in December 2013, tank 48 waste treatment is complete, with the tank available for unrestricted service by October 2016, and Tank 50 will continue as the Saltstone feed tank.

He referred to a chart that listed key milestones within Rev. 15 and Rev. 16. This chart lists results and dates of milestones. He then reviewed a result chart of lifecycle impacts and a result chart of tank closures. He summarized his presentation by stating Rev. 16 utilizes key technology deployments to accelerate tank closures, maximize DWPF throughput, and supplement salt processing capacity. He said Rev. 16 is consistent with the Goals of Liquid Waste Disposition Processing Strategy, the FFA commitments have been met, and the Lifecycle has been accelerated by six years.

CAB Chair Bridges asked if this plan consisted of the plutonium the Board has spoke about, is the plutonium “in or out,” and asked Mr. Bumgardner to explain the disparity in canisters between Rev. 15 and Rev. 16. He also asked if Tank 48 is a real hazard. Mr. Bumgardner said Tank 48 is in a safe state today. He said they have a project that will treat the organic material in Tank 48, but the tank is stable; he said Tank 48 is important, but he isn’t worried about it from a health risk point-of-view. He continued that there is a section in System Plan Rev. 16 that looks at the sensitivity of how much plutonium they can take. He said they are still processing plutonium into glass with limits from the federal repository. He said they take whatever plutonium they can fit into those canisters. He said they will continue to look at that each year. He stated, in terms of the disparity in canisters between Rev. 15 and Rev. 16, there is approximately a 300 canister difference. He explained the process that accounts for more cans with one System Plan over the other revision.

CAB member Hayes asked if anyone has looked at the possibility of increasing the plutonium limit per canister. Mr. Bumgardner said they have and continue to do so, and it may be resolved as the path for final disposition becomes clearer. He said that in planning cases, they look at several different limits.

CAB member Bernard asked who governs that limit. Terry Spears, DOE-SR, said DOE establishes that limit, and he explained how DOE came to that number, and why it is planning to maintain that limit at this time. He said in the future DOE can revisit the issue and may be able to raise the limit without safety concerns.

Pat McGuire said DOE-SR is not going to continue to dissolve plutonium and send it to the sludge batches. He said they are ceasing that operation today. He said if a decision is made to return to that, DOE feels

confident that the limit can be raised safely. He said the current path forward is to send the material to the Waste Isolation Pilot Plant (WIPP).

Administrative Committee-Kathe Golden, Committee Chair

CAB member Golden premiered a new public outreach brochure on the CAB. She asked everyone to sign up for a committee meeting. She then showed everyone the Site Safety Overview presentation that had been presented earlier in the day. She pointed out that the Support Team printed them with two slides per page at the Administrative Committee's request and stated this is good because it saves money.

CAB member K. Jayaraman spoke about the natural disaster that occurred in Japan and said it should be important to the CAB. He outlined why it is important, and said SRS should look at this disaster and learn from it. He then spoke about car accidents, listing how many people have died, and were injured, the year prior in car accidents. He said everyone makes a big fuss about reactors, but don't worry about car fatalities/accidents. He said Japan was very well-prepared, but still had problems because the disaster exceeded its preparations.

CAB member Sarah Watson asked for an update on the live meetings. Gerri Flemming, DOE Lead Federal CAB Coordinator, said the Support Team is progressing well with the live meetings; however, few CAB members log on to the live meetings. She encouraged CAB members to join the live meetings. Erica Williams, V3, explained that January's Full Board meeting, which was recorded as a test for a live meeting, had problems with speaker reverberations. She explained that the Support Team is working on fixing the issue before recording future Full Board meetings.

~ Public Comments ~

Joe Ortaldo, public, suggested to the new CAB members that they should read the Rev. 16 System Plan. He said it is easy to read and is very helpful.

Dan Burnfield reminded everyone that the DNFSB will hold a public meeting on June 16. He listed what topics may be covered, but said they aren't committed to an agenda yet. He said they don't know the location or time of the meeting yet.

~Meeting adjourned~

