Meeting Minutes
November 15-16, 2010
Augusta Full Board Meeting

Monday, November 15: Attendance

CAB
Tabitha Barrett-***Absent***
Dr. Emile Bernard
Manuel Bettencourt
Dr. Donald Bridges
Edward Burke
Arthur Domby
Kathe Golden
Judith Greene-McLeod
Lee Harley-Fitts-***Absent***
Dr. Rose Hayes
Stanley Howard
Dr. Kuppuswamy Jayaraman
Ranowul Jzar-***Absent***
Cleveland Latimore
Denise Long
Joseph Ortaldo
Dr. Marolyn Parson
Skyye Vereen
John Snedeker
Dr. Gerald Wadley
Sarah Watson
Alex Williams-***Absent***

Agency Liaisons/Regulators
Kyle Bryant, EPA
Cathy Amoroso, EPA
Rob Pope, EPA
Al Frazier, GADNR
Shelly Wilson, SCDHEC
Kim Newell, SCDHEC
Heather Cathcart, SCDHEC
Scott Simons, SCDHEC
Gregory Suber, NRC
Nishka Devaser, NRC

Contractors
Mark Hasty, SRR
Nancye Bethurem, SRR
Ginger Dickert, SRR
Elmer Wilhite, SRNL
Jeannette Hyatt, SRNS
Sonny Goldston, SRNS
Mtesa Wright, SRNS
Erica Williams, V3T
Jenny Freeman, V3T
Bill Brizes, V3T
Ashley Whitaker, V3T
James Tanner, V3T

DOE/Other
Doug Hintze, DOE-SR
Patrick McGuire, DOE-SR
Karen Hooker, DOE-SR
Helen Belencan, DOE-SR
Rebecca Craft, DOE-SR
Shirley Thomas, DOE-SR
Wade Whitaker, DOE-SR
Gerri Flemming, DOE-SR
Sherri Ross, DOE-SR
Rich Olsen, DOE-SR
Jim Folk, DOE-SR

Stakeholders
Liz Goodson
Carol Connell
Karen Patterson
Tom Clements

Jenny Freeman, the facilitator of the Savannah River Site (SRS) Citizens Advisory Board (CAB), reviewed the agenda and ground rules, and announced a meeting later that evening for the CAB.

Strategic and Legacy Management Committee (S&LM) -Gerald Wadley, CAB

CAB member Wadley introduced himself, and his committee, stating the S&LM committee has two recommendations-one open and one pending. He then introduced Doug Hintze, co-Designated Deputy Federal Officer (DDFO) for Mr. Hintze's presentation.

PRESENTATION: Progress in Executing SRS Strategic Plan: Introduction – Doug Hintze, co-DDFO

Mr. Hintze introduced himself and stated he would be addressing some items that are in Recommendation 262; this recommendation is titled "Future Missions." He stated there are four parts in the Recommendation and the first two dealt with the Recovery Act.

In his introduction, Mr. Hintze addressed items three and four of the Recommendation. He stated item three asked for an update in the Strategic Plan for areas that aren't usually covered in Department of Energy (DOE)-Environmental Management (EM) program briefings. He said item four asked for summary of SRNL's business plan.

He stated the SRS Strategic Plan revision was issued in May 2010 and was structured in three areas: EM Cleanup Program, NNSA Program, SRNL Critical Support Functions, and Management Excellence. He said there are 59 strategic objectives and he referenced a hand-out given that listed those objectives.

PRESENTATION: Update to SRNL Strategic Objectives - Dr. Terry Michalske, SRNL Director

Dr. Michalske introduced himself as the new Director of SRNL, briefly summarized his experience and thanked the CAB for its service.

He stated SRNL was established in 1951 and said the lab has evolved with time. He explained it has moved from serving a single purpose, the Site, to engaging in a broader set of science and technology issues.

He continued that SRNL is staffed by 945 employees and is the safest DOE national laboratory. He said the lab covers a broad range within science and technology, and is expanding its role as a broad science and engineering resource for the nation. He explained the lab is also expanding its role in the missions for national security. He referred to a pie graph within his presentation and stated that SRNL's greatest strength is its people.

CAB member Don Bridges asked if the funds concerning national security are the same funds that other laboratories are competing over. Dr. Michalske said that SRNL does compete with other laboratories. He said 70 percent of that is from the National Nuclear Security Administration (NNSA) and the rest comes from other intelligence communities. CAB member Bridges then asked if the National Security allocation is expected to expand for SRNL. Dr. Michalske said it has expanded in the last four years and is expected to expand.

Dr. Michalske said SRNL is a multi-program national laboratory. He listed three areas the lab works within as Environmental Management, National and Homeland Security, and Energy Security. He summarized topics within each area that SRNL addresses.

He continued that the work that goes on at SRNL really has an impact on the nation. He explained within Environmental Management, SRNL has invented some technologies that make a "quantum leap" in how it processes and removes tank waste. He stated that is includes work that is performed with SRNL partners such as Savannah River Remediation (SRR). He then listed some of these technologies and what they do. He said these devices have saved roughly $3 billion with the cleanup efforts. He summarized SRNL's activities for several different organizations, including National and Homeland Security, the FBI, Energy Security, and more. He said SRNL is putting science to work for broad national priorities.

Dr. Michalske said SRNL is happy with its facilities, and outlined what support they receive and where it is located. He then stated that the facilities are very old, which is something that needs to be addressed. He explained the best scientists and engineers that could potentially work for SRNL will look at how updated the facilities are before accepting a position.

He continued that the real challenge is looking into the future and deciding where SRNL is going. He stated SRNL is pursuing a "Clean Energy Initiative," but that energy is a complex issue. He said he has spent a lot of time looking into energy. He stated he does not agree with the idea that the U.S. needs an "Apollo-like mission." He explained that creating a Clean Energy Initiative in the U.S. will take a partnership between Government and other industries. He stated the concept of smaller modular reactors has emerged because they allow for a more reasonable investment for a region, community, military base, or small country. He added they have announced an industrial partnership between SRNL and Hyperion Technologies, as well as GE Hitachi. He said they will partner in ways that helps industries mitigate the risks involved.

CAB member Rose Hayes asked what kind of emphasis is being placed on Nuclear Waste Management in the research for the small modular reactors, especially concerning security measures. Dr. Michalske answered SRNL is focusing in the design of small reactors that will consume the waste. He said the designs being researched will actually be able to reuse some of the waste onsite and reduce the amount of waste instead of creating more. In terms of security, he explained that it is the key to the design. CAB member

Hayes asked Dr. Michalske if the waste would use Legacy Waste or Spent Nuclear Fuel. He answered that it would be both.

CAB Chairperson Manuel Bettencourt asked if enabling legislation is needed for the partnership to go forward.

CAB member Bridges asked how the concept being developed works with the idea that Idaho is the Site in charge of nuclear reactors. Dr. Michalske said he talked about cooperation, and competition, and said the whole picture of the nuclear fuel cycle involves the design and implementation of the reactors. He stated that in terms of how SRNL handles the waste that comes out and how they make sure that is secure, that this portion is not "owned primarily in the same place" by DOE. He stated they have an opportunity with Idaho to work together to bring all the pieces together. He added that nothing happens without appropriate legislation and that it is an issue that needs to be resolved.

Dr. Michalske then reviewed recommendations that are related to the Strategic Plan for SRS. He said these recommendations discuss facilities, stating it is a critical issue for SRNL. He stated the lab is putting together a document with other DOE members, such as Dr. Karen Hooker, as a first step in revitalizing the SRNL campus and facilities.

CAB member Bridges asked if this process is the norm. Dr. Michalske stated that this process is the norm and is consistent.

CAB member Kuppuswamy Jayaraman commented, in reference to the SRNL Strategic Objective 1, which states, "position SRNL for transition into a financially self-sustaining, direct business unit," that he believes that SRNL should not be self-sustaining and that it should not be a prime goal. Dr. Michalske said that he believes everyone is still trying to figure out what those words mean. He said he sees SRNL as DOE's national laboratory and not independent of DOE.

Dr. Karen Hooker, DOE-SR, commented that the verbage for the Strategic Plan comes from the current Management and Operating (M & O) contract with SRNS. She said there was community meetings held to gain input four years prior. She stated many people wanted to see SRNL as a separate contract so to be held at a higher standing. She said currently SRNL is a subset of SRNS, but is treated as a national laboratory by name. She said DOE wants to see SRNL mature and elevate to be on par with the other national laboratories. She continued that because of how SRNL is contracted, it receives no appropriated funds and that in order for the lab to grow, it will need its own appropriations. She said that to get to that point, DOE is trying to get SRNL financially stable. This will be a milestone in the lab's process.

Dr. Michalske highlighted SRNL's role with the EM Program and said the laboratory is currently task-oriented. He said this is not what a national lab should be and stated that a national lab should provide more strategic guidance and input for the nation. He continued that the lab is currently working with the Assistant Secretary about a different role for SRNL that will allow it to be more strategic. He added that the lab will continue to perform needed tasks, but needs a more strategic role in order to be effective nationally.

He continued that the areas of expanding missions and critical national security activities have doubled in the past four years. He said it is a real testament to the strength of the scientists at SRNL because results are everything and added that SRNL is in competition right now for a major forensics facility.

Dr. Michalske concluded that SRNL is not trying to increase its funding as much as its impact. He said that national labs should be measured by impact, and SRNL will see significant growth focused on sustainable environmental management, national security, and clean, secure energy.

CAB member Denise Long asked what Dr. Michalske expects to see the pie chart on presentation slide three looking like in the future. Dr. Michalske said he expects the National Security portion to continue to grow. He said the Energy portion is new to the lab and its growth is harder to predict. He also stated SRNL has "big hopes" for the small modular reactor portion and said it may grow more.

CAB member Emile Bernard asked if the Small Column Ion Exchange Module and Rotary Microfilter on presentation page six have been tested and developed. He then asked if these tools will be used to treat the sludge that's left in the Savannah River tanks. Dr. Michalske answered yes, and said they are working with Savannah River Remediation (SRR) on deploying those technologies.

CAB member Judy Greene-McLeod asked if SRNL has the highest overhead of the entire complex, why that's true and what is going to be done about it. Dr. Michalske said it's not true and that SRNL has the lowest overhead of all national laboratories. He said they are projecting increases in SRNL's overhead in order to meet the needs of the customer.

CAB member John Snedeker announced there was a meeting going on at DOE Headquarters (HQ) concerning concepts for installation vessels for offshore wind farms. He asked if Dr. Michalske saw a role for SRNL in that type of activity. Dr. Michalske stated the region could, and should, be the leaders in offshore wind.

Jim Folk, DOE-SR, stated Small Column Ion Exchange Modules have been developed and demonstrated on a lab-scale. He said it is a $130 million project for implementation. He said they have already incorporated initiation of that project under the SRR contract and plan to have it in place by 2013. It was designed to supplement the salt waste processing facility. He added it will be installed in a waste tank.

PRESENTATION: Critical Support Functions & Management Excellence- Doug Hintze, co-DDFO

Doug Hintze said his presentation's purpose was to provide a briefing to the CAB on SRS's progress in executing the SRS Strategic Plan in the areas of Critical Support Functions and Management Excellence.

He referred to a handout that referenced Safety & Security, which is the Supporting Strategic Objectives 36-38. He stated everything done at the Site is based upon doing things safely. He outlined the background on Safety, including employee and management involvement. He then outlined the background of Security, which he said consists of protecting and keeping track of nuclear material.

In terms of Safety progress within the Executing Strategic Objectives, Mr. Hintze stated that every organization has a Safety Plan in place, an Integrated Safety Management Council that provides Site-wide integration for common safety programs and issues, and that "lessons learned" are taken into account by employees.

From a Security perspective, Mr. Hintze stated that everyone onsite has to receive an annual security brief, including visitors, a new entry control system for entry into locations that hold special nuclear material, is being implemented. In terms of Emergency Preparedness, more than 300 drills are conducted each year, including internal and external.

CAB member Bridges stated there was a chart shown to the lab with a safety rate of 200,000 hours. He asked what the rates were for comparative contractors at the Site. Mr. Hintze said he would get back to CAB member Bridges with those rates.

Mr. Hintze reviewed Supporting Strategic Objectives 17-21, which included "Environmental Quality." He stated "Environmental Quality" means that DOE's programs and activities are compliant with environmental laws and management. He said they are integrating environmental requirements in project planning, and added they have been successful with no notice of violations, and 75 percent of Federal Facility Agreement (FFA) waste units have been completed. He stated a team approach has been implemented and a core team with members of DOE, the Environmental Protection Agency (EPA), contractors, and South Carolina Department of Health and Environmental Control (SCDHEC) has been developed to look at environmental documents and other decision documents so everyone agrees on what will be inside these documents. He added a new Site Regulatory Integration team will soon be added to make sure that the environmental program Site-wide is consistent and unified.

CAB member Jayaraman stated all of the Strategic Objectives are qualitative and not quantitative. He asked how the progress of the plan is documented. Mr. Hintze said that CAB member Jayaraman was asking about specific Performance Measures. He answered DOE has consolidated its metrics and that each area has its own metrics or measures. He added they have baselines as well, which are schedules associated with the plan.

Mr. Hintze said Environmental Stewardship is being promoted through innovative environmental technologies, a reduction of greenhouse gas emissions, and a preservation of the past. He stated the Environmental Management System implementation includes the Executive Order 13514, the Leadership in Energy and Environmental Design option when designing new buildings such as the Computer Support Center, and a cogeneration facility.

He then outlined the scope of Site Services and Infrastructure, and referenced a photo of the cogeneration facility. He stated the facility is scheduled to begin in December 2011 and will generate electric power sufficient to meet approximately 50 percent of the Site's current consumption level. He added that the current powerhouse meets approximately 71 percent of the Site's needs and the rest of the electricity is taken from offsite.

He stated a common complaint is that SRS has a lot of infrastructure that is 50 to 60 years old. He said that DOE has developed the Infrastructure Mission Alignment Plan (IMAP), which consists of 14 different system plans for services such as electricity, steam, water, waste water, roads, bridges, railroads, and more. He said it determines what needs to be done in those areas to ensure those services are available to carry out missions. He continued that in addition to that, DOE has performed projects over the course of the year to increase the reliability of certain aspects of the Site. He then listed the Infrastructure Reliability Projects.

He stated that one of the big projects being performed includes the D-Area Powerhouse. He said they need to keep it running until December 2011. He outlined what DOE has done to keep the D-Area Powerhouse running and upgrades that were implemented.

He said DOE-SR will submit a Site Sustainability Plan to HQ by December 2010 and it will be in accordance with the Executive Order. This will include what they will be implementing to make SRS a "greener" Site.

CAB member Ed Burke asked what is the cost of the energy-generated biomass cogeneration facility compared to what it was as the old boiler technology. Mr. Hintze said that he will get back to CAB member Burke with that information. Helen Belencan, DOE-SR, stated that the cost differential between the biomass plant and the coal fire power plant is the benefits seen in not having to maintain and upgrade the older facility. She said the cost of operating the new facility will effectively be the same. She added that the facility is being built under an Energy Saving Performance contract. DOE will be paying for then newer facility with the cost-savings from not operating the old facility.

Mr. Hintze then reviewed the Management Excellence portion, stating that Management Excellence extends to people & leadership, and business process & technology improvements. He then reviewed that SRS strives to maintain a diverse workforce. He stated there will be a "workforce restructuring" on the Management and Operation (M&O) side over the next year.

CAB member Hayes asked if the Site has an internship program in place. Mr. Hintze answered that SRS has several different intern programs. Jeannette Hyatt, SRNS, commented that SRNS has very specific internships. She added that they are working on a program called Knowledge Management, where critical skills and knowledge are identified; there is also a mentor program.

Mr. Hintze then outlined the Project Controls Processes and stated SRNS and SRR were certified with the Earned Value Management System (EVMS). He explained the EVMS is a system that tracks the actual completion of work that is in the baseline. He stated from the perspective of Risk Management, DOE is making sure it has a Risk Management programs throughout the Site, at all levels, so that risk-informed decisions are being made.

Mr. Hintze reviewed the topic of Interface Management and said the 12 primary Site tenants, including contractors, Federal and State organizations, are all part of the Interface Management program. He said they resolve the issues at the lowest level. He added that the program has Site-wide committees, such as the Integrated Safety Management Council, to ensure that the program is reaching across all the contractors before new directors and other management changes are issued.

He said the Business Process Modernization Project is implementing an enterprise resource planning tool to replace the old system. He then overviewed the areas of continuous improvement and listed areas these improvements were implemented during FY2010. Mr. Hintze summarized that DOE is moving forward to meet its Strategic Objectives. He said they have given many examples of progress and will continue to strive to improve.

CAB member Marolyn Parson stated the budget for SRNL is $210 million according to slides presented during the presentation. She asked what the total budget is for Environmental Management. Mr. Hintze answered SRNL's budget is around $200 million and of that, roughly half of it comes from the EM Programs and the rest comes from other sources. He continued that the EM budget is around $1.4 billion annually. CAB member Parson commented that Strategic Plans are very important for organizations, as it helps the public understand what is viewed as important. She stated when she looked at the Strategic Plan, she noticed SRNL had 14 objectives out of 58. She continued that if the public looks at this separate from the budget, they may think it's one of the major missions. She said although SRNL's mission is worthy, from a Strategic Plan perspective, the information seems a little "skewed".

Nuclear Materials Committee (NM) -Judy Greene-McLeod, CAB

CAB member Judy Greene-McLeod welcomed everyone and outlined the objective of the Nuclear Materials (NM) committee. She stated that Allen Gunter explained the difference between Nuclear Materials and Nuclear Waste at the 2010 CAB Retreat. She thanked her committee members.

She stated that the NM committee has three recommendations that are open, including one that is shared with the Waste Management (WM) Committee. She continued that Recommendation 271 is open and is about finalizing plans for plutonium disposition. She said that Recommendation 266 has to do with enriched uranium disposition, and Recommendation 263, which is shared with the WM committee, concerns spent fuel disposition, surplus plutonium and vitrified high-level waste.

Administrative Committee-Sarah Watson, CAB

CAB member Sarah Watson stated that the Administrative Committee has been very busy and reviewed what the committee is working on.

She said the 2010 CAB Retreat was intensive and that the educational portion was very strong. She noted much was accomplished and that the unresolved issues would be resolved that day during a special meeting. She thanked the Support Staff for putting the Retreat together.

She continued that the Board is still working on membership. She said that DOE will be sharing the candidates with the Administrative Committee and there will be a brief discussion. She stated efforts are continuing to be put into establishing a Speakers Bureau. She asked everyone to pick up a copy of the Fall Board Beat newsletter. She reminded the CAB to use the online meetings and stated the SRS CAB is the only Board to utilize the online live meetings. She stated that attending CAB meetings online will count as attendance. CAB member Watson then introduced James Tanner, a new staff member for V3.

Waste Management Committee (WM)-Joe Ortaldo, CAB

CAB member Joe Ortaldo reviewed the objective of the Waste Management (WM) Committee and introduced the WM committee members. He stated the WM Committee held a meeting on October 19, reviewed what was discussed at this meeting, and who presented.

He reviewed the WM Committee's recommendation status, stating that it has zero pending, six open and four that are closed. He briefly detailed each recommendation, which included 263, 258, 256, 246, and 242.

CAB member Cleveland Latimore, who is the Recommendation Manager of Recommendation 242, commented that 242 should be closed. CAB member Ortaldo agreed and said he would keep it open for two more weeks and if anyone had any suggestions or objections, to let him or CAB member Latimore know. Other recommendations listed included 244, 162, and 135. He stated that all closed recommendations have been sufficiently addressed.

He said Recommendation 270 was moved from pending to open, and stated that it was approved in May 2010. This recommendation concerns plutonium loading in the DWPF canisters and the issue is how much to put into each canister. He said the DOE response to the recommendation was vague, although many good discussions have occurred since. He stated over the next year, while the plutonium studies are being finished, DOE-SR will be working on what is the max amount of plutonium that can be put into each canister safely.

CAB member Hayes stated Recommendation 263 was a seven-part Recommendation, but several parts were not addressed. She said she assumes many parts will not be addressed until the Blue Ribbon Panel has reached some type of closure. She said this means that the unresolved portions of the Recommendation will remain open for the next two years. She asked if the CAB should rewrite it, drop it, or re-categorize it. CAB member Ortaldo said that this would be a good issue to discuss in committee in order to decide what path to take. He suggested they wait until the Blue Ribbon Panel meets in January.

He stated the WM Committee has one new recommendation being prepared that will help the CAB prioritize the budget. He referred to a previous presentation on the 10 most programmatic risks associated with the system plan, and noted that the top two risks had to do with equipment reliability and equipment running. He stated the upcoming recommendation will ask for some input relative to the risk relationship between spare equipment and the amount of spare parts that are presently in the system plan.

He reminded the CAB of a joint NRC/DOE public meeting being held that evening in Aiken and encouraged members to attend. He stated the WM Committee will not hold a committee meeting in December due to the holidays.

CAB member Jayaraman asked if the term "risk management" is used in reference to the reliability of spare parts. CAB member Ortaldo said that if money wasn't an issue, they would have plenty of spare parts, but since the equipment is expensive and unique, there has to be a line drawn on how many parts they can get on the available budget. He stated if more money was spent in the area of equipment and spare parts, it may reduce the risk.

PRESENTATION: Nuclear Regulatory Commission (NRC): Update on Waste Incidental to Reprocessing Activities at the Savannah River Site-Gregory Suber, NRC

Mr. Suber listed his objectives and stated that NRC is regulators of commercial use of nuclear energy, power and materials. He stated the National Defense Authorization Act (NDAA) added to that traditional role by soliciting NRC to consult with DOE on DOE's waste determination and NRC was given the responsibility of monitoring DOE's disposal actions.

He stated in a process of consultation, DOE has the lead to consult with NRC and its disposal actions. He said it starts with a "scoping" process, which is where the Performance Assessment (PA) is formed. This happens before work is started on the Waste Determination; he said these are called "basis documents." He continued that when DOE presents the PA to NRC, NRC reviews it and makes comments. When DOE presents the Waste Determination to NRC, NRC evaluates it and sends DOE a set of Requests for

Additional Information (RAI), and forms a Technical Evaluation Report (TER.) He then reviewed current activities being performed by NRC.

Mr. Suber stated that in monitoring, NRC is responsible for monitoring the disposal actions of DOE. He explained that NRC generates a Site-specific Monitoring Plan that's based on the basis documents that were evaluated earlier. He added that NRC participates in on-site observations and technical reviews; all of this is done in coordination with SCDHEC. He then outlined what is currently being monitored on the Site. He referred to a graph that presented a timeline of the actions NRC is involved with currently. He stated that the graph shows who is in control of which action.

He stated for consultation activities on F-Tank Farm, NRC reviewed the PA in 2008, and is currently reviewing the revised PA and Draft Waste Determination. He added NRC is working on a set of RAIs that should be finalized in December 2010. He continued that DOE has not yet submitted the PA for the F-Tank Farm activities, but that NRC did participate in a scoping meeting the previous summer to discuss the direction DOE plans to take when developing the PA.

Mr. Suber stated NRC's monitoring activities are delegated to Saltstone. Every year, NRC produces a calendar year Monitoring Report-this includes on-site recommendations and technical reviews. This Monitoring Report is currently available. He stated that the 2010 report is in the process of being developed. He said that three observations were conducted at the Site by NRC in 2010 and the details of those observations are available in the observation report and Annual Monitoring Report.

Mr. Suber said NRC is trying to enhance interaction with the CAB. He stated that the F-Tank Farm is a priority for NRC and much of its energy is being focused on that, but NRC does plan to reach out to the CAB more in the future. He announced that NRC would be holding a "Lessons Learned" public meeting that evening and invited everyone who was interested to attend.

CAB member Hayes asked Mr. Suber to explain the statement "May 19, 2010 Saltstone inadvertent transfer," which was on the last page of the presentation under "Monitoring Activities." Mr. Suber stated there was an error in processing within the Saltstone facility where some waste was inadvertently deposited in one of the vaults. He asked DOE to speak about that.

Ginger Dickert, SRR, stated the event resulted in some liquid waste being transferred to the vault cell without being mixed into the grout. She said it was immediately transferred back, but since it was a process upset, it was investigated in order to prevent it from happening again. Nishka Devaser, NRC, commented that the Observation Report that's forthcoming will have more details on what NRC observed and how DOE, and SRR, responded. Mr. Suber stated very shortly after it happened, DOE did alert NRC to what had happened. He stated that under monitoring, the system worked exactly as it is supposed to.

Bill Lawless, of Augusta, asked if the point of compliance has been resolved or is it still open. He stated that the point of compliance with NRC has a guideline of 100 meters downstream from the closed facility, which he said in this case is the Tank Farm. Sherri Ross, DOE-SR, stated the issue has been resolved and that DOE has proposed a 100 meter point of compliance against the 10CFR 61 standards and the Draft Waste Determination. She added there is a different point of compliance with the state of South Carolina against the drinking water standard and this is still being addressed with South Carolina. Mr. Lawless commented that the point of compliance issue took years to be resolved, and he hopes NRC and DOE is working to avoid those types of "hang-ups."

CAB member Ortaldo asked if it's fair to assume that with everything that has been learned, is it fair to expect that the H-Tank Farm work will move along faster than the F-Tank Farm work. Mr. Suber answered that it would be a speculation, but he hopes so.

PRESENTATION: Waste Determination and F-Tank Farm PA

Introduction by Sherri Ross, DOE-SR

Sherri Ross, DOE-SR, first provided the status of waste removal and tank closure activities. She outlined the topics that would be covered in the presentation and who would be presenting each topic. She stated that she would present on the schedule, status and path forward. She referred to tanks being presented on in the Waste and Material Flow Path diagram. She then introduced Mark Hasty, SRR, for his portion of the presentation.

PRESENTATION: Savannah River Remediation Tank Closure Update-Mark Hasty, SRR

Mr. Hasty began his presentation by referring to a slide he said SRR uses to track different phases it has to go through to be able to operationally close a tank. He stated that 15 of the 22 noncompliant tanks are in some phase of activity. He outlined the tank closure progression and reviewed where each tank is at in this work progression. He stated that not every tank will go through all of the same processes. He referred to photos of Tank 5 to illustrate the process that has been made.

CAB member Burke asked how many pounds of dry solids are estimated to still be in the Tank 5. Mr. Hasty said it is estimated at 2,000 gallons. CAB member Greene-McLeod asked about the scale of the items in the tank. Mr. Hasty stated that the pump is about 2 foot in diameter. Ginger Dickert, SRR, provided a list of measurements. CAB member Hayes asked if there was a way to describe the 2,000 gallons in the tank in terms of radioactivity. Mr. Hasty said that SRR will have to get the final characterization samples. CAB member Kathe Golden asked how deep was the product in the tank before it was cleaned. Ms. Dickert answered that it was 730,000 gallons of material, which equates to about 30 feet. Mr. Hasty added that with the solids in the material, it was around 35,000 gallons. He stated 2,000 gallons is less than 1 inch across the tank. CAB member Jayaraman stated the solid waste appears to be clear because he can see the floor of the tank in the photos of Tank 5. Mr. Hasty answered that the solid waste is mostly just a dusting across the tank.

Mr. Hasty stated that Tank 5 went through 11 campaigns to get it to its current stage. He then referred to a photo of Tank 6. He stated that the column support has a lifting plate that was left over from the construction in the 1950s. He referred to a chart that listed the work that was done on Tank 6 to get it cleaned.

CAB member Bridges asked if Tank 5 and 6 were among the most complicated tanks SRR would have to work with in the cleaning process. Mr. Hasty said yes and outlined the coils that are in the tanks.

CAB member Long asked Mr. Hasty to refer back to the graph on Tank 5 and asked what happened at the point where the graph shows it went back up. Mr. Hasty referred to the graph and said that at that point they took the solids from Tank 5 and moved them into Tank 6 before they took it from Tank 6 and put it in Tank 7. As a way to maximize space, they used a “feed and bleed” operation for Tank 5 with fresh well water, but that added some waste to the system, which was undesirable, so they set up Tank 6 to take Supernate from Tank 7. He said they used that as a Slurry Medium and then pumped the solids back from Tank 6 to Tank 7. Ms. Dickert stated that the two before that were Chemical Solids Removal (CSR) and explained the process being used. She said they didn’t want to increase the volume.

CAB chairperson Bettencourt asked what the timeline across the bottom of the graph was based in. Ms. Dickert answered it is based in years.

CAB member Ortaldo asked if the material moved into the tanks check with the amount of material moved out of the tanks, and if there was any way to double-check. Mr. Hasty said it is an estimate. He said they do take samples.

Concerning the tanks, Mr. Hasty stated SRR started with 1.4 million in volume, used more than 7 million gallons of liquid in the tank to clean them, and new waste created is about the size of a compliant tank. He added that they removed about 99.7 percent of the waste material.

CAB member Jayaraman said the process of cleaning the tanks is increasing waste. Mr. Hasty stated that rather than introducing new waste or water into the system, SRR is taking the top layer of one of the compliant tanks and using that as a Slurry Medium.

Tom Clements, Friends of the Earth, asked under Section 3116 how much material from Tanks 5 and 6 will end up falling under the waste incidental to reprocessing definition, and how much will go on to be handled in a Defense Waste Processing Facility (DWPF.) Ms. Dickert stated the residual material, which is about 2,000 gallons, will come under the 3116 waste determination process, and all of the other volume will get processed through a DWPF or a Salt Waste Processing Facility (SWPF.) Mr. Clements asked if some of the material could be held until its time to be processed in SWPF. Ms. Dickert said that is correct. Mr. Clements asked if the pathway would be ARP/MCU or a SWPF. Ms. Dickert said for the most part, the tanks' Supernate that was removed off the top would be held for the SWPF. She said the sludge waste will be pushed through to DWPF and they will not continue holding that in the tanks.

PRESENTATION: The NDAA Section 3116 Waste Determination for F-Tank Farm **- Ginger Dickert, SRR**

Ms. Dickert first outlined the scope of the Waste Determination Basis Document as the entire Tank Farm, including Type 1 tanks, Type 4 tanks, all of the compliant tanks, and all of the ancillary equipment.

She then referred to the Regulatory Documentation Path, which is color-coded according to the requirements that drive those documents. She outlined the Area Specific Documents and the 3116 section.

She stated a document called a draft basis is developed. In the case of her presentation, it is a Draft Basis for the Determination of Tank Closures. DOE consults with NRC, which is an extensive 9 to 10 month process. This consultation results in NRC producing a Technical Evaluation Report (TER), which is then used by the Secretary to inform his decision on if the material is safe enough to be managed as low-level waste. The NRC also develops the Monitoring Plan and monitoring is an ongoing process.

She said the purpose of the Basis Document is to demonstrate and document that after final stabilization activities are complete, the residuals and associated structures can be managed as low-level waste. She said it is not an authorization to dispose of waste or close a decommissioned high-level waste facility. Ms. Dickert then outlined the criteria assessed for NDAA 3116a and listed the Basis Document contents. She said that one can logically follow the document through the steps of its criteria.

She stated the 3116 Basis Document quantifies future risk and demonstrates the risk that will occur as a result of the closure actions of the tanks will result in less potential exposure than a person receives when they fly a roundtrip flight cross country. She added the document demonstrates the defense-in-depth of engineered barriers and provides the sound technical basis to inform the Secretary of Energy's Waste Determination.

She then referred to the regulatory diagram and stated the backbone for all subsequent documents is the Performance Assessment (PA.) She explained the PA is a key risk assessment tool, gives the best estimate of the maximum dose consequences, chemical and radiological, for members of the public, as well as reflects uncertainty, and identifies key parameters for which the model has the greatest importance.

She stated the area in the F-Tank Farm has been widely studied for many years and SRR knows very well what the aquifers, and soil structure, is underneath the tank farm. She said they are able to model rainwater coming down, evaporation going up, the seep line, and other factors. She said they look at all these pathways that can occur after the material is in the ground.

She continued that SRR models a number of very conservative scenarios. She referenced a model that includes a citizen that would get the maximum dose possible after the closure is completed. She also referred to a figure that showed barriers in some of the issues they look into.

Ms. Dickert stated that the models show that the peak annual all-pathways dose from F-Tank Farm will be less than 5millirem. Over 20,000 years, the peak annual does is less than 25millirem. To put those numbers into perspective, she stated that the average dose to a person in the U.S. in 2006 was 620millirem. She outlined all the over ways a citizen could receive exposure.

CAB member Burke asked if they had targeted to only go to 25millirem, how much impact would that have had on the cost of cleanup. Sherri Ross, DOE-SR, answered they don't quantify the activities in that way. She said DOE spends a lot on worker-dose, in cost and time, to sample analyze that tank, so she can't really provide a difference in cost if they were to stop earlier.

CAB member Ortaldo stated the dose between 10,000 and 20,000 is going up by a factor of five. He asked why this is happening. Ms. Dickert said it's two-fold; she said as the systems deteriorate, the rate of release of materials is higher. She said the increase of the primary dose driver in F-Tank Farm has to "grow in" over the course of time. She said they have watched that in-growth.

CAB member Jayaraman asked Ms. Dickert to go back to slide five in her presentation. He asked why Section 3166 is so important and asked why they "fall back" on 3166 when they have other data that can be used. Ms. Dickert stated the Nuclear Waste Policy Act defines high-level waste as a source based definition, not a concentration base. She continued that DOE has an order, DOE Order 435.1, for the management of waste. She said it has a process within it titled, "Waste Incidental to Reprocessing." She said there was a lawsuit that challenged DOE's authority to have authority in this process. She stated that Congress decided there needed to be a mechanism that allowed DOE to put waste in canisters, etc. She continued that the criteria in Section 3166 is similar the criteria in DOE Order 435.1.

CAB member Bridges commented DOE has very sophisticated models and conservative approaches, but ends up looking foolish because it is too conservative. Ms. Dickert said she understands CAB member Bridges' comment, but that those who are looking at DOE, and judging what is going on, are looking for these types of models and approaches.

CAB chairperson Bettencourt commented that the law doesn't say DOE has to target a certain level of millirem, but to the maximum extent practical. Ms. Dickert said the law requires the maximum extent practical, and also that they meet the performance objectives of 10cfr61.

Ms. Dickert referenced a timeline in the presentation and commented that the cleanup efforts have been a journey. She outlined and summarized the steps taken, the documents provided, and the meetings held.

PRESENTATION: Tank Closure Update Schedule and Path Forward-Sherri Ross, DOE-SR

Ms. Ross stated the project is on schedule and all activities have been completed on time, or ahead of schedule. She referenced the published draft document and said they welcome input. She stated the public comment period will extend until January 7, 2011. She added there is a call scheduled for December 14, 2010 at 1 p.m. to discuss NRC's RAI. She said they will be consulting with NRC until May 2011.

CAB member Bernard asked what is happening for H-Area. Ms. Ross said they are in the process of developing the H Tank Farm PA, which is the first step to developing a waste determination. She said they have had a public meeting and consulted with NRC. She said the document should be out by the end of March 2011.

Bill Lawless commented that he hopes CAB member Ortaldo's committee, and the CAB's Technical Advisor, takes the lead and tries to get public input.

Tom Clements commented that in the agreement with the state of South Carolina, there is a maximum number of curries that are allowed to be disposed of through salt waste. He asked if this also covers tank closures. He asked if DOE applied in the tank farm that it's a uniform amount over the area of the tank farm. He asked how many curries are left in the tank farm. Ms. Dickert stated that under the Solid Waste Landfill Permit for the Saltstone Disposal Facility, the agreement exists on how many curries will remain. She said it was only in reference to the Saltstone Disposal Facility. She said they work with the state to ensure a practical approach and to minimize the number of curries left in South Carolina. Mr. Clements commented that if they have made the determination of the dose, they have based it on some amount of curries left behind. Shelly Wilson, SCDHEC, said it is a permit, and as a permit it caps at 1.4 to 2.3 million curries in the disposal facility. She said this doesn't include the tanks and the state is trying to reduce residuals, but this would be a tank by tank process. Ms. Dickert said SRR and DOE use their Waste Characterization System to give estimated concentrations of the various radionuclides and hazardous constituents. Ms Ross outlined and summarized all the actions DOE takes prior to any tank closure.

~Public Comment Period~

Bill Lawless, Augusta, said he was at a Waste Management meeting in Japan and heard a presentation from an European scientist on Yucca Mountain. The scientist referred to Yucca Mountain as the failure of public participation. He stated the scientist said that Boards should be able to choose their own Technical Advisors, and that public groups should have veto power of decisions that nuclear managers want to impose on them. He referenced a letter from President Obama's Blue Ribbon Panel about public outreach. He said that the letter stated that the Panel's criteria for public involvement were being met. He then stated that this letter was dismissed by a scientific article because it said the public participation programs running around the Blue Ribbon Panel are ineffective. He said he is dismayed that the Board cannot chose its own Technical Advisor and that DOE will not allow the Technical Advisor to ask technical questions. He said he has heard that the CAB will not be allowed to choose its own members in the future. He said that the SRS CAB used to be the best Board, but that DOE got disturbed by that and has made the CAB a public outreach Board. He encouraged DOE to learn how to make the SRS CAB and public participation effective.

Facilities Disposition & Site Remediation (FD&SR)-K. Jayaraman, CAB

CAB member Jayaraman outlined his committee's objective and introduced all of the committee members. He stated Recommendation 273 was replied to by DOE. He summarized DOE's response and stated that the materials addressed in Recommendation 273 cannot be reused.

He then thanked Chris Bergren, SRNS, and encouraged everyone to go into the lobby to view a hands-on presentation titled, "SRS Technologies for Characterization and Remediation." Mr. Bergren came up and explained what the hands-on presentation would address.

Adjourned~

Tuesday, November 16: Attendance

CAB
Tabitha Barrett-***Absent***
Dr. Emile Bernard
Manuel Bettencourt
Dr. Donald Bridges
Edward Burke
Arthur Domby
Kathe Golden
Judy Greene-McLeod
Lee Harley-Fitts-***Absent***
Dr. Rose Hayes
Stanley Howard
Dr. Kuppuswamy Jayaraman
Ranowul Jzar-***Absent***
Cleveland Latimore
Denise Long
Joseph Ortaldo
Dr. Marolyn Parson
Skyye Vereen
John Snedeker
Dr. Gerald Wadley
Sarah Watson
Alex Williams-***Absent***

Agency Liaisons/Regulators
Kyle Bryant, EPA
Cathy Amoroso, EPA
Al Frazier, GADNR
Shelly Wilson, SCDHEC
Kim Newell, SCDHEC
Heather Cathcart, SCDHEC
Scott Simons, SCDHEC
Gregg O'Quinn, SCDHEC

Contractors
Nancye Bethurem, SRR
Eric Nelson, SRNL
Teresa Eddy, SRNL
Tim Jannik, SRNL
Jeannette Hyatt, SRNS
Sonny Goldston, SRNS
Benjamin Terry, SRNS
Mtesa Wright, SRNS
Paul Sauerborn, SRNS
Ken McLeod, SREL
Bethany Raines, PEC
Erica Williams, V3T
Jenny Freeman, V3T
Bill Brizes, V3T
Ashley Whitaker, V3T
James Tanner, V3T

DOE/Other
Doug Hintze, DOE-SR
Terry Spears, DOE-SR
Patrick McGuire, DOE-SR
Helen Belencan, DOE-SR
Rebecca Craft, DOE-SR
Wade Whitaker, DOE-SR
Gerri Flemming, DOE-SR
Rich Olsen, DOE
Sherry Southern, DOE
David Hoel, DOE
Rod Rimando, DOE
Charles Borup, DOE
Dennis Ryan, DOE

Stakeholders
Liz Goodson
Carol Connell
Karen Patterson
Tom Clements
Murray Riley
Dianne Valentin
Bobbie Paul
Harold Simon
Rick McLeod
Nancy Bobbitt
Mindy Mets

Ms. Freeman welcomed everyone to the Full Board Meeting, went over the ground rules and agenda.

Chairs Update-Manuel Bettencourt

CAB chairperson Bettencourt asked for a motion to approve the September meeting minutes. CAB member Long moved to approve the minutes and CAB member Bernard seconded the motion. The minutes were approved unanimously. CAB chairperson Bettencourt then introduced CAB member Bridges to make a report.

CAB member Bridges stated the CAB held a Retreat in October. He continued that he attended the M-Area Footprint Reduction celebration. He said M-Area represented all the uranium that ever went through the Site. He stated in his view, M-Area cleanup was a significant milestone.

CAB chairperson Bettencourt stated that he attended the Decisions Makers Conference a month prior. He said the conference addressed questions put forward by the Weapons Complex Monitor Board of Chairs. He said that each Chair discussed what each Board's top priority is.

Agency Update~ Department of Energy (DOE), Doug Hintze

Mr. Hintze stated for the first year of SRNS's contract, it was not allowed to let anyone go. SRNS now has excess workers for its scope. He continued that a restructuring is currently underway. There will be a workforce reduction and the skill mix will be refined. He said this will happen in phases; the first phase is a self-selection program which runs until December 10, 2010. The next phase will occur in the January 2011 time frame and will be involuntary. The final phase will occur in August 2011 and will also be involuntary. He stated that most of the Recovery Act workers were temporary workers and will be not eligible for the workforce restructuring. Employees who were full-service employee from SRNS that are working for the Recovery Act program will be eligible. He said that SRNS plans to open a Transition Center to help workers find other employment options; this will open in January 2011.

Mr. Hintze said DOE's budget is still under a Continuing Resolution and DOE will update as new information is available. Concerning fiscal year 2010, Mr. Hintze said it was a good year and final performance metrics will be passed out later that day. He then summarized activities happening or achieved in fiscal year 2011.

He said that SRS continues to average three to four Transuranic Waste (TRU) shipments per week to Waste Isolation Pilot Plant (WIPP.) He continued that F Canyon TRU remediation and operations box packaging at H Canyon continues to go well and Phase 1 of box packaging will finish two months ahead of schedule. He said plans for the new Biomass Cogeneration Facility is coming along well and will come online in December 2011. He outlined its purpose and the progress of the facility.

Mr. Hintze stated DOE plans to issue the "Greater than Class C Radioactive Waste" Draft Environmental Impact Statement in late January 2011. He said in that document, SRS is being evaluated as an alternative disposal Site. He said the final Mercury Storage GIS will be issued that month. He added that the Draft Surplus Plutonium Disposition Supplemental EIS will be routed through DOE in upcoming weeks, with anticipated approval in March 2011. He commented that the M-Area completion is a major step to DOE meeting its goal at SRS.

CAB member Bridges asked if SRR will experience any worker reductions and if the Site is seeing the last of the ARRA worker reductions. He also asked what kind of hit DOE is experiencing with the Continuing Resolution. He said the 1,400 workers being restructured are base SRNS employees, but doesn't include temporary workers or subcontractors hired for ARRA work. He stated DOE is currently drafting a letter to send to HQ expressing its concerns about the Continuing Resolution, which includes a difficulty in discerning how much of the budget in fiscal year 2011 will be appropriated to Spent Nuclear Fuel.

CAB member Ortaldo commented that the 1,400 people being let go due to budget problems will be highly skilled. He asked who on the Site is responsible for deciding what the manpower requirements are for each contractor. Mr. Hintze said that there may not actually be 1,400 people let go. He said the worker restructuring is not only about budget, but about creating an appropriately skilled workforce. As for the integration of the Site, he said DOE has not been responsible for that, but there is a discussion between the contractors.

CAB member Greene-McLeod asked how workers who are needed are being prevented from leaving when another contractor offers them a better deal. Mr. Hintze stated there has not been a lot of discussion on that subject, but it will be a part of the program because they don't want to let those workers go. CAB member Greene-McLeod asked for a definition of footprint reduction. Wade Whitaker, DOE-SR, answered that footprint reduction is when the surface area is made available for reuse and there are remediation solutions in place for groundwater.

CAB member Hayes asked in choosing the workers that can or cannot leave, is there thought concerning the issue of work that has been completed. She then asked what areas these workers come from. She asked if there is a chance that new workers will be hired. Mr. Hintze said he can't currently answer those questions because DOE is not far enough in the process.

CAB member Jayaraman asked why the CAB is so concerned with "manpower questions." He said that the CAB's mission surrounds around environmental issues.

CAB chairperson Bettencourt commented that SRS is better off than the other Sites. He listed all the activities happening on Site that generate employment. He said the contractors have career centers and career counseling.

Agency Update~ Environmental Protection Agency (EPA), Cathy Amoroso

Ms. Amoroso stated that footprint reduction is a DOE term and has no meaning in terms of Environmental Statutes. She said that it is a good form of measurement for DOE.

She said DOE is submitting its new cleanup schedule for the next three years. She said it is enforceable and governs investigation, and clean-up, of all the CERCLA units, including the tanks. She said it will show EPA and SCDHEC what the clean-up schedule will look like after the ARRA funding is gone.

She said EPA released the Record of Decision (ROD) for Gunsite 218 on October 22, 2010. She said it was a small Site, with a no-action decision, but it is a milestone for the program. She continued that EPA is planning to release the Proposed Plan for Gunsite 12. She said the Proposed Plan will have a 45-day public comment period and will lay out what was discovered in the investigation, what the risk is, what the remedy options are, and a proposal for a remedy there. She encouraged the CAB and other public members to utilize the public comment period. She stated that the D-Area ROD will come out soon and two Action Memos for C-Area are expected in early 2011.

Ms. Amoroso stated EPA is currently putting a lot of emphasis on public engagement concerning federal facilities nationally. She said EPA called a public engagement forum on October 20, 2010, to engage communities surrounding federal facilities. She named who was present from the CRSA community. She explained that EPA wants to start a national dialogue with communities to understand the issues. She outlined the issues that were discovered.

She continued that EPA, SCDHEC, and DOE have discussed the issue of the Army using SRS land for training purposes. She said the Army and DOE are working on their Joint Standard Operating Procedures (JSOP), and EPA, SCDHEC, and DOE had a productive meeting on this topic on September 22, 2010. She said that DOE has heard the concerns that EPA have raised. She said that the draft JSOP is currently under review. She added that in general it is in agreement that the Army be excluded from any CERCLA Operable Units, unless they have been completely investigated and deemed safe for unrestricted use. She stated that Integrated Operable Units will also be excluded.

She stated there is a round three of Superfund Job Training being planned. She said it will likely start in the summer or fall 2011. She said that Parsons is the partner for this round. Ms. Amoroso said that EPA and DOE had a productive meeting in Atlanta, GA a few weeks prior in order to update and revise some of the standard language that is used in decision documents; she added that a design team, which consists of DOE, EPA, and SCDHEC, has been introduced to work on EPA's Quality Assurance Project Plan.

CAB member Greene-McLeod asked where the documents for Gunsite 12 can be found. Ms. Amoroso said that for Gunsite 218, the ROD has been issued so it's not a document that EPA is asking for comments on, but it can be reviewed. She said the Proposed Plan for Gunsite 12 will be out soon and EPA is looking for public comments. She stated that the Environmental Bulletin has listed numerous places where it can be found, but it's not online; she listed the public reading rooms it is available at.

CAB member Art Domby asked if the Gunsites were small sites from World War II that have contaminates. Ms. Amoroso stated that Gunsite 218 is a satellite location with no contaminates of concern, and Gunsite 12 is one of the central locations where asbestos, and other contaminates, were found. CAB member Domby commented that it would be a good idea for the CAB to have a joint presentation with EPA and DOE to point out T-Area, M-Area, footprint reduction, and a focus on the plan and contaminates of concern.

Agency Update~ SC Department of Health and Environmental Control (SCDHEC), Shelly Wilson

Ms. Wilson stated SCDHEC is a "full player" in the Site cleanup and commented that the groundwater in M-Area is solely a state issue. She stated if any discussions between DOE and EPA occur concerning groundwater cleanup, SCDHEC needs to be included. She said SCDHEC is very proud of the M-Area cleanup and is glad to wrap-up the cleanup decisions surrounding M-Area.

She commented that SCDHEC is beginning to wrap up activities in P and R areas, and is beginning to "ramp up" work in C-Area. She stated that concerning Tanks 5 and 6, DOE came to speak with SCDHEC on November 1 to propose a session of waste removal could be recorded so DOE could move forward with sampling activities for Tanks 5 and 6; she stated that SCDHEC gave verbal approval that is appropriate for DOE to move forward with those actions.

She said that the General Closure Plan was out for public comment during September and closed in mid-October. She said SCDHEC is evaluating all of the comments it received and will be making a decision soon on that document. She said SCDHEC attended a Combined Intergovernmental Work Group Meeting in San Diego the week prior with DOE. She said many groups were working together to hear from DOE and gave input back on DOE activities.

Agency Update~ Georgia Department of Natural Resources (GADNR), Al Fraizer

Mr. Fraizer said that GADNR is still seeing a revision due to budget issues. He said its Emergency Response Team (ERT) has taken some hits over the years. He said there has been a proposal that will expand the ERT, although not by new hires. He said t the ERT is part of an organization called The Regional Response Team. He said t it has been preparing for a large-scale exercise that will occur mid-2011, which will involve an earthquake. He said concerns raised by FEMA in 2008 have been the driver for the earthquake exercise.

CAB member Jayaraman asked what is the extent of Georgia's and GADNR's participation at SRS.

Mr. Hintze, DOE-SR, stated that since SRS is in South Carolina, most of the participation is focused in South Carolina. He said there have been some grants awarded to Georgia in the past in areas such as monitoring. Ms. Wilson, SCDHEC, stated the way that environmental laws and regulations are written, the state that the affected land is in is the state that has authority over it. She said because of that, Georgia has very little authority over the Site, but sometimes conjoining states will have an influence. She said Georgia has attended meetings in order to give feedback to DOE on Site activities.

~Public Comment Period~

Tom Clements, Friends of the Earth, stated the role of Georgia at SRS is an important issue. He said monitoring financed by DOE on the Georgia side of the border was terminated several years ago. He said Georgia was on the verge of reinstating a monitoring program, but it has been delayed. He said DOE has been "dragging its feet" in allowing Georgia to complete sampling on its side of the river.

Helen Belencan, DOE-SR, stated DOE is working with GADNR to issue a grant for environmental monitoring. She said SRS has received a proposal and is working with the state at the moment. She said that DOE has been delayed, however, due to the Continuing Resolution, because it would be considered a new project. She said DOE plans to issue that grant once it comes out of the Continuing Resolution. She said that DOE currently does perform some monitoring in Georgia.

Recommendation Status Report- Bill Brizes, V3

Mr. Brizes said the CAB has two pending recommendations, nine recommendations that are open, and 262 that have been closed. This gives a total of 273 recommendations worked on since the beginning of the CAB in 1994. He outlined the progress made since the previous Full Board Meeting, including recommendations that have been opened and closed.

Facilities Disposition & Site Remediation (FD&SR) - K. Jayaraman, CAB

CAB member Jayaraman introduced his committee members and outlined the objective of the FD&SR committee. He announced Recommendation 273 got a reply from DOE and he then outlined the reply. He said Recommendation 273 cannot be implemented at SRS.

PRESENTATION: SCDHEC Roles & Responsibilities at SRS- Shelly Wilson, SCDHEC

Ms. Wilson stated despite budget cuts, SCDHEC sees interaction with the CAB as a priority and it has served as an advantage to SCDHEC.

Ms. Wilson said SCDHEC was created in the 70s to combat pollution and environmental issues, but is in a "completely different place" now. She said SCDHEC is cleaning up all the pre-70s legacy waste pollution. She outlined SCDHEC's environmental roles as protection, oversight, emergency preparedness, and improvement.

She said federal laws were put into place to combat industrial pollution, but the states put into place corresponding regulations. She said EPA puts the standard out nationally so the states can be uniform and EPA delegates the authority to the states to implement the standards. She said that states are required to be as stringent as the EPA regulations. SCDHEC has been delegated authority over air, waste, water, and cleanup. She continued that the state issues permits in accordance with federal and state requirements, and inspects for compliance. She said the criteria, processes, requirements, and standards are defined by regulations or laws. She explained that South Carolina has timeframes for permit decisions SCDHEC makes. She continued that SCDHEC made 98 percent of its permit decisions in the required timeframe during the last quarter. Once the permits are in place, SCDHEC performs inspections and takes enforceable action when necessary. She said SCDHEC has made hundreds of permit requests and decisions for SRS since the 70s. She outlined all the areas at SRS where SCDHEC holds permits. She added the compliance record at SRS is "very good."

She said that SCDHEC independently takes samples at SRS, analyzes them, and forms a cumulative answer to whether there is a SRS impact, and if the appropriate standards are being met. She said that usually SCDHEC's results correspond well with SRS's results. She continued that SCDHEC maintains a frequent presence at SRS. She said they follow the TRU shipments until they are out of the state of South Carolina.

Ms. Wilson said SCDHEC maintains an Emergency Preparedness Plan. South Carolina has a Comprehensive Emergency Operations Plan for disasters which includes natural and man-made occurrences. She explained that SCDHEC maintains extra measures for SRS and some SCDHEC workers have a Q clearance; she outlined all of these extra measures.

As far as improvement goes, SCDHEC is working to help mitigate the legacy waste and all of the waste contamination sites that are spread throughout SRS. She said it works to decrease environmental liability. She said the Hazardous Waste Permit, which is a state mechanism, is a primary tool for this. She outlined how this permit works.

CAB member Wadley asked how Ocean & Coastal Resource Management (OCRM) fit into the SCDHEC framework. Ms. Wilson stated OCRM is within SCDHEC and concentrates on the coastal region. She said that most of its interaction is in wetlands.

Ms. Wilson continued that the Federal Facility Agreement (FFA) is primarily a process. She said it marries the authority EPA has under CERCLA and the state's RECRA, or Hazardous Waste Permit authority, together so actions are not duplicated. When a cleanup decision is put into place, the remedy is "tied down," or enforceable, on EPA's behalf with a ROD or CERCLA, but with the state the remedy is enforced with the Hazardous Waste Permit.

CAB member Hayes asked what is the extent of SCDHEC's enforcement authority. Ms. Wilson said they can fine federal agencies and can enforce penalties. CAB member Hayes asked for an example. Ms. Wilson said it varies by program, and outlined the different ranges of penalties.

CAB member Bridges asked if SCDHEC approves Appendix C with EPA. Ms. Wilson said it does.

CAB chairperson Bettencourt asked if the fines SCDHEC implement are based on a predetermined administrative process or is it a judicial process. Ms. Wilson said it is an administrative process and SCDHEC has enforcement systems.

CAB member Jayaraman asked if SRS can perform actions on its property without notifying SCDHEC. Ms. Wilson said it can unless it's on an area that is contaminated. She said it also has to do with the timing of activities.

Ms. Wilson continued by stating that of the more than 500 contaminated waste sites at SRS, 70 percent of them have remedies in place due to the hard work of the FFA core team. She said a big challenge for SCDHEC and the Site is legacy waste. She outlined the history behind the law and regulations that allow for cleanup of legacy waste. She then referred to a graph labeled, "Network of Major DOE Radioactive Waste Transfers." Ms. Wilson reviewed the Site Treatment Plan for SRS, and stated that state approval is required for any hazardous or radioactive waste shipment proposed to SRS. She added that because of the Site Treatment Plan, most of the legacy waste streams have been dispositioned and more than half of TRU is gone. She said a major milestone is that all of the high level waste must be treated by 2028.

She commented that South Carolina wants to make sure that all the SRS environmental liabilities are addressed in a timely fashion. She said SCDHEC keeps an eye on budget, waste transfers, and regionalization. She said SCDHEC is always communicating with other groups. Ms. Wilson said that SCDHEC gave input to Section 3116 of the 2005 National Defense Authorization Act. She stated that in terms of high level waste, all residuals remaining must be under an Energy Secretary determination, in consultation with NRC, and a "state-approved closure plan or state-issued permit."

She concluded her presentation by stating SCDHEC's role is consultation and DOE's role consists of regulating. She outlined what SCDHEC maintains and what the agency focuses on. She stated SCDHEC has an active system of permits, inspections, oversight and emergency preparedness, and plans to put emphasis on high level waste, tank closures, Site cleanup, legacy waste disposition, and transitioning from ARRA in the future.

Kim Newell, SCDHEC, stated sampling is completed around SRS by the Environment Surveillance and Oversight Program This is not a regulatory program. She said it samples around the perimeter of the Site, and right now is in its reporting process in order to get its date report out for its 2009 sampling, which should be out around March or April 2011.

CAB member Jayaraman asked if SCDHEC gets any compensation for its sampling, reports and other work. Ms. Wilson said SCDHEC does get funding, but it doesn't cover all of it.

CAB member Parson asked where she could find the Hazardous Waste Permits that SRS has. Ms. Wilson said she would email it to her.

CAB member Bernard asked who is in charge when an emergency situation occurs at SRS. Ms. Wilson said the state plan outlines who is in charge and all of the protocol is well worked out. She said the Site has emergency preparedness, so normally SCDHEC would come in and ask the Site what help is needed.

CAB member Hayes commented that the date Ms. Wilson listed in her presentation concerning when all high level waste must be cleaned up is not the same as what is stated in an earlier public law, 107107 section 3153. She asked what role has SCDHEC played in trying to enforce the earlier law. Ms. Wilson stated that the earlier law did not have a role for SCDHEC. She said SCDHEC would be happy for the waste to be cleaned up earlier.

CAB member Kathe Golden asked if there ever has been an issue with perception due to SCDHEC being paid by the Site to monitor it. Ms. Wilson stated the funding from the Site does not cover all of the monitoring costs, and the Site doesn't get everything that it asks for. She explained it is a common occurrence for federal facilities to give funds to SCDHEC to be able to ensure they get a quick response time.

Waste Management Committee (WM) - Joe Ortaldo, CAB

CAB member Ortaldo provided a summary of his committees' recommendations. He then outlined a new recommendation that he is working on with Bill Brizes. He outlined the two presentations being discussed during the WM committee portion of the agenda.

PRESENTATION: ARP/MCU Status Briefing- Mike Borders, SRR

Mr. Borders referred to a "Liquid Waste Flowsheet." He said the Actinide Removal Process (ARP) and the Modular Caustic Side Solvent Extraction Unit (MCU) are in the middle of this flowsheet. He said it was SRR's first major effort concerning saltwaste processing.

He stated SRR takes dissolved salt that is in the high-level waste tanks and feeds it into the ARP first. He explained what the process is once the dissolved salt goes into the ARP. It is then sent to 512-S, which is a filtration process. Then, it is sent to the MCU facility. He stated the whole purpose of MCU is to separate out the Seisiem 137 and send it to DWPF. He said they take the decontaminated salt solution and put it into Tank 50, which is the feed tank for the Saltstone Facility. He then listed the ARP and MCU objectives, which include providing lessons learned to the SWPF design and providing limited treatment capability until SWPF startup. He said 1.2 million gallons have been processed and ARP/MCU is currently looking at a life extension because of the success of the facility.

He then overviewed ARP/MCU performance, referring to a chart. He said that all requirements have been met and management of key radionuclide decontamination has been demonstrated.

CAB member Bridges asked what is the reason for the disparity in what was expected and what was achieved. Mr. Borders stated that the design basis assumed certain things about that the equipment and technology has been performing much better than expected. He said the expected numbers represented minimum performance standards.

Mr. Borders then referred to the chart and overviewed the management of organic carryover that's in progress. He said this is very important and reviewed the figures associated with this.

CAB member Hayes asked Mr. Borders to explain the values present on his graph. He stated that the first table is a unit list ration because it looks at the curies in the input stream versus the curries going out.

Mr. Borders referred to a portion of his graph that measures the weekly production rate. He said they have been running at about 14,000 gallons and that is due to attainment issues. He said they have peaked at 45,000. He reviewed the project's focus, which includes a focus on extended operations, continued reliability or attainment, and deployment of next generation solvent.

He said most of the project's efforts at this point include looking at issues such as capacity and cycle times. He referenced a graph that measured Attainment Improvements. He discussed issues such as pump failure and said many pumps are in the process of being replaced.

CAB member Bridges asked what an "Isopar L" is. He also asked how the facility keeps the volume constant but also keeps processing all of its material. Mr. Borders stated the complex solvent that runs in MCU has four main components. He reviewed these components and stated that 75 percent of the volume is Isopar L. He asked Mr. Terry Spears to address CAB member Bridges' second question.

Terry Spears, DOE, stated that the difference has to do with how they prepare the feed to go to the facility. He said as they take salt out of tanks, the salt is in a solid form and they dissolve that salt and prepare the feed; this expands the volume.

CAB member Golden asked the difference in the batch size between ARP/MCU and the new facility. Mr. Borders stated the batch feeding tank, which is one of the waste tanks, is 1.3 million gallons. He said the real difference is not so much the feed tank, but how many feed batches need to be ready based on the throughput. He said the throughput for ARP/MCU is 1 to 2 million gallons per year and SWPF is in the 6 million gallons per year range. He said they have to have more tanks batched up for SWPF because they will run them more quickly, but they will all run out of the same feed tank. CAB member Golden asked if SWPF will be processing more waste at a time. Mr. Borders said it will process more material at a time; however, the processing is still very similar, only larger.

CAB member Long asked about the last graph Mr. Borders referred to, which was the graph on Attainment Improvements. She asked for clarification on why certain areas on the graph were missing check marks, such as the area labeled "contactor cleaning." Mr. Borders answered that the contactor cleaning is an issue that SRR has developed a cleaning strategy for and that the contactor gets scheduled maintenance cleaning; he said they have a way to deal with it but are currently trying to optimize the process further.

CAB member Bernard complimented Mr. Borders on the Attainment Improvements graph.

CAB member Ortaldo thanked Mr. Borders for this presentation and summarized some points that Mr. Borders addressed in his presentation. He introduced Tony Polk for his presentation on SWPF.

PRESENTATION: Salt Waste Processing Facility (SWPF) Project- Tony Polk, DOE-SR

Mr. Polk stated SWPF is built at ground level with walls that move up at elevations 116, 139, 154 and 176 to the top. He said base elevation is 100 feet in the facility. He referred to a photo that showed an aerial view of construction being done on SWPF. He said SWPF is a seismic facility and had a lot of rebar. He said the primary "tankage" that moves the material around in the facility is at the middle, with service areas located on either side. He referred to the aerial photo again to show the "heart" of the facility.

He referred to more photos of the facility to show how it is being constructed and with what material. He referred to photos of the Northwest corner, the walls to elevation 139, the interior, an outside view of the walls, the Southwest corner, a contactor support floor chase that's facing East, workers setting HVAC penetration, piping, the CSSX/CFF Integrated Test System at PTC, and a backup air storage tank that is facing West. As he went through the photos, he pointed out what was happening and why.

Mr. Polk then referred to a graph that he said helps him keep track of progress in the facility. He said it gives him an idea, at each elevation, the progress that is being made. He said that all of the greay areas are areas completed with concrete in place, the yellow areas have a portion of the Formwork done on one side, and the green areas have Formwork done on both sides and are ready for concrete placement. He said the progress tracked on this chart goes through September 2010, so it has improved since then.

He listed some significant accomplishments in the facility such as the first critical lift and placement that was performed successfully, concrete walls that have been completed to elevation 139, several in-plant construction activities, and the Fabrication Facility. He said currently 725 workers are employed at the SWPF.

Mr. Polk then reviewed a chart that tracked the Project Level Milestones. He stated in late 2008, the Deputy Secretary approved Critical Decision 3 (CD-3), which was the final improvement of the construction of SWPF. He said at that time they set the baseline for SWPF based on the new seismic design. He said they went though some changes in the facility from where it was originally designed and made it into a more commercial seismic facility. It is called a Performance Category Three Facility by DOE. He said these changes were introduced in late 2008.

He said the current schedule of completion states that SWPF will be completed in September 2013; however, there are still many risks associated with the construction of SWPF. He said the date of September 2013 has a 50 percent confidence rate due to potential risks and the Late Completion Date of October 2015 has an 80 percent confidence rate that considers worst case impacts and realization of remaining risks. He said SWPF has $2.75 million of contingent put in place of the $1.4 billion assigned to it to cover risks.

Looking forward, he said a focus is being put on Major Procurements and the highest risk to the project remains vendor performance. He said they have had changes in construction execution strategy to mitigate the impact from vendor delivery schedule delays. He continued that maintaining progress in construction is important, as well as maintaining a strong safety culture.

CAB member Long asked what the rate of confidence was on May 13. Mr. Polk said it was a 50 percent confidence rate.

CAB member Wadley commented that the design allows no ability for replacing large equipment. Mr. Borders said the facility is a dark cell design. He said once the parts are in the cells, there is very limited access. He said this means there is a high need for quality parts. CAB member Ortaldo commented that this does not include equipment such as motors.

~Public Comment Period~

Bobbie Paul, executive director of Georgia Women's Action for New Directions, said she was thrilled to hear the presentations concerning the tanks because her group has been studying SRS and the closure of the tanks for more than 20 years. Ms. Paul said the monitoring in Georgia was cut off in 2002. She said her organization has been working to reestablish that monitoring ever since. She called this previous monitoring "robust" and outlined what areas it covered. She said her group has been coming up against resistance, but when Inés Triay came to North Augusta recently, they asked her about the possibility of restoring the monitoring. Ms. Paul stated that Dr. Triay said that radiation doesn't acknowledge state boundaries. She said with that directive, her group has been working to restore the monitoring since. She said a program has not been put in place yet, and is now categorized as a "new" program. With the continuing resolution, this means the program will have to wait until after the resolution is ended. Ms. Paul said this program is not a new program, but a continuation of an old program. She implored the CAB to look into it and become engaged.

Administrative Committee- Sarah Watson, CAB

CAB member Watson outlined the responsibilities of the Administrative Committee and said there will be an election for the CAB chair and vice chair after her report. She welcomed new CAB Support Staff member James Tanner and thanked V3 for providing support and capable employees. She thanked the Support Staff for all of their work.

She stated the CAB had an internal meeting the night before to discuss issues from the Retreat in October. She said the CAB will work with DOE to resolve these issues and informed the CAB that edits to the Process Manual should be in by December 3, 2010.

CAB member Watson said the membership process for the CAB is being done differently. She said the Administrative Committee will have an opportunity to review and comment on candidates, but the final decision rests with DOE.

The Speakers Bureau status is still pending. She said DOE has stated it is willing to assist the CAB. She said the CAB may be able to have a representative at the SRS Public Tours. She said the CAB is proposing to create a CD or DVD about the CAB for informational purposes.

CAB member Watson reminded everyone that the SRS CAB is the only Board that provides access to online meetings. She encouraged members to utilize the online meetings. CAB member Wadley asked if the Board has plans to provide online meeting functions with the Full Board meetings. CAB member Watson said that currently only the committee meetings will be online. Gerri Flemming, DOE-SR, stated there are plans to put Full Board meetings online, but first the Support Staff must be sure the meetings are working perfectly, without hitches. She said this is why the staff is urging members to log on when they can.

CAB member Jayaraman said, in reference to DOE changing the regulations concerning membership, he doesn't care that DOE changed the rules, but asked why only the Admin Committee will be reviewing the candidates.

CAB member Burke asked who is on the distribution list for the newsletters. Erica Williams, V3, outlined everywhere the newsletter is sent, which includes local libraries, to more than 1,900 people on an email distribution list, the Chamber of Commerce, the SSAB Boards, mail recipients, and Site managers.

CAB member Ortaldo asked people to think about if they want to run for chair of any committees because the election will take place in January. CAB member Bridges asked everyone to consider what committee they may want to run for and express their interest to the Board as early as possible.

CAB member Parson asked why the CAB elected committee chairs before the new CAB members are oriented in March. CAB chairperson Bettencourt said the CAB chair and vice chair is selected at the November meeting so anyone who is not selected can run for a committee chair position. He said the election for committee chairs occurs in January because the experienced members of the Board are still there and know the people running. He said if those elected are not reappointed, the CAB will have to hold another election. CAB member Bernard asked if members can self-nominate for more than one committee chair position. CAB chairperson Bettencourt said members can only self-nominate, but for only one position.

The election ballots for CAB chair and vice chair were passed out at this time.

Strategic & Legacy Management (S&LM) - Gerald Wadley, CAB

CAB member Wadley introduced Vice Chair Marolyn Parson and discussed pending Recommendation 272. This recommendation deals with public tours. He summarized the commitment response letter from DOE.
He announced the next S&LM committee meeting and urged attendance from non-committee members at that meeting because he said he would be introducing a new recommendation.

PRESENTATION: Army Monitoring by DOE- Chuck Borup, DOE-SR

Mr. Borup stated he would discuss how DOE provides oversight to the Army training at SRS. He stated the Joint Standard Operating Procedures (JSOP) outlines the details concerning when and where the Army will conduct training, as well as all the requirements and restrictions required. It also outlines what DOE will do

He said DOE will provide detailed and general oversight of the Army training. He continued by stating DOE has met with EPA and SCDHEC to explain the process being used. He said the Army will utilize the JSOP in its planning and all of the closure Sites and waste units will be identified on a map that the Army will utilize in its planning. Mr. Borup explained that there is a 30, 60, and 90-day planning and approval process in the JSOP. The Army will know the location of all units and can refer to the JSOP on the rules that will apply to each area; all of those areas will be off-limits. He said the Army will have a presentation

on all the units before it comes to the Site. After the briefing with SCDHEC and EPA was completed, both agencies felt comfortable and Mr. Borup said DOE gave each agency a copy of the map, and a draft of the JSOP. He said DOE feels that every perceived issue has been covered and if it has not, the JSOP will have a procedure outlined to deal with it.

Mr. Borup said DOE will furnish the Army with the JSOP and planning map at least 90 days out before any training. He said the Army will have an opportunity to review the documents so it can plan training around any restrictions. As far as the overall approach, Mr. Borup said DOE will trust the Army will do what is right, but will also follow-up to make sure it is doing what is right. He said it is in the Army's best interest to comply because DOE can cancel the Army training at SRS at any time; he added that the Army is also responsible for any damages.

He said the Army units can come from anywhere in the U.S. and the Unit Commander will be responsible for them. He said Fort Gordon is representing Headquarters Army. He said it is up to them that everyone complies and Fort Gordon would handle the units in particular. Mr. Borup stated that the Army will be checked in by SRS security and if they are not in compliance, they will not be allowed on Site. He continued that once the training has started, the Unit Commander will have all the information available and will be personally responsible that the unit is following its training plan. Fort Gordon will also have a representative that is on the ground every day; this representative will be responsible to reporting to DOE and DOE will spot check to make sure everything is in order.

He said there is a short-term monitoring, which is a case by case basis and a long-term monitoring which monitors any potential degradation. He said the Army has established a baseline of what the environmental conditions are now and that information can be verified. The Army will also monitor any long-term effects and DOE will verify that as well. He said DOE will be ensuring compliance.

CAB member Jayaraman stated the Army has a greater potential for causing harm and commented this will not be a homogenous group of people, but Army units from several sources.

CAB member Golden commented in reference to the statement the Army will pay for any damages, there are things on the Site that can be damaged but can't be paid for. She said the wording of "The Army will pay for all damages" should perhaps be changed to "The Army will restore any damages." Mr. Borup said the Army is responsible for repairing anything, so he misspoke when he said "pay." He said the Army will repair any damages before it leaves, then DOE will check and make sure it is repaired to its standards.

CAB member Wadley asked when the Army will conduct its first training session. Mr. Borup said the Army would like to start as soon as the Environmental Assessment and JSOP are finalized. He said the Army would like to start in April 2011 with a small operation as a test case. He said it will start small. CAB member Wadley asked if the CAB can be briefed after the Army conducts its first training session. Mr. Borup said yes.

CAB member Ortaldo commented the Army units will have no ammunition or live fire and DOE will approve everything the Army does, will review what is being done as it's going on, and will review everything after it is done to make sure it was done correctly and without damages. Mr. Borup said this is correct.

CAB member Hayes commented she read a study that was performed on the noise level that was anticipated due to landing aircraft. She said the decibels were within the acceptable level, but she said that would be incident noise and a time-weighted average could not be taken out of that. She asked why landing aircraft would be considered the height of noise and possible nuisance noise to the community. Mr. Borup said the aircraft would produce the loudest noise out of everything the Army would be doing while training at SRS.

CAB member Jayaraman stated that to clarify his previous comment, weapons don't have to be classified as guns, but military vehicles and aircraft can be considered weapons as well.

PRESENTATION: An Overview of the SRS Environmental Report for 2009 – Teresa Eddy, SRNL

Ms. Eddy overviewed the purpose of her presentation and listed the reasons why Environmental Monitoring is necessary at SRS. She summarized the 2009 Monitoring Report findings. She stated dose is calculated based on a maximum exposure to an individual using both airborne and liquid pathways. She summarized the criteria for both airborne and liquid releases. She then referred to a diagram that showed Exposure Pathways for someone who lives near SRS.

She referred to a table that reviewed the 2009 Dose Summary. She said the DOE All-Pathway standard is set at 100millirem and for SRS the calculated dose is 0.12, which is well below the standard. She continued that the EPA Clean Air Act sets the standard at 10millirem and the SRS calculated dose is 0.04. The EPA Drinking Water standard is 4millirem and the SRS calculated dose is 0.02. She stated the annual background at SRS is 360millirem. Next, she referred to two tables that showed the drinking water dose for parts of South Carolina and Georgia, and the individual dose rates for water and air in 2008 and 2009

She provided highlights for the Air Pathway, stating the dose estimate is consistent with 2008 levels and Tritium Oxide and Iodine-129 were primary contributors. She listed the major pathways as inhalation, vegetation, meat, and milk consumption. She provided highlights for the Water Pathway, stating the dose estimate is consistent with 2008 levels and listed the major dose contribution as Cs-137, tritium, and unspecified alpha emitters. She then referred to a graph that showed the all pathways trend from 1992 to 2009. She said there is a net decreasing trend. Ms. Eddy stated there is a Special-Case dose that is based on atypical scenarios. In terms of compliance status, she said there is no notice of alleged violation issued during 2009.

She summarized by stating SRS has a comprehensive environmental monitoring program in place, the Site's airborne and liquid releases to the environment show a long-term decrease and the radiation dose to the public in 2009 is well below DOE and EPA's standard.

CAB member Burke asked Ms. Eddy to describe the procedures used for water sampling. Ms. Eddy said they perform surface water sampling using an isco sampler, a composite sampler that takes a sample every 15 minutes, and some of the annual samples are "grab" samples. She said the Water Pathway dose is based on a composite sample taken every 15 minutes on the surface. CAB member Burke asked if they are doing species analyses. Ms. Eddy say they do and said explained they perform gross measurements and isotopics.

CAB member Wadley asked Ms. Eddy to go back to graph on all pathways and asked if she could explain the differences in liquid doses. Ms. Eddy said it is dependent on the river flow. She said that 1999 and 2006 were years of large droughts and there was not a lot of flow in the river. She said that would contribute to the difference in liquid. Tim Jannik, SRNL, said the differences are due to river flow and stated that the 2006 measurements were also affected by an increase in air pathway dose.

Shelly Wilson, SCDHEC, clarified that while the EPA Clean Air Act is a federal standard, SCDHEC has adopted a state version that is just as stringent.

CAB member Parson asked if there are standard deviations associated with the numbers on the monitoring report summary graphs and listed in the Air Pathway highlights. She asked what information is the statement, "Dose estimate consistent with 2008 levels" based on. Ms. Eddy said these numbers are based on releases and those calculations do have uncertainty with them. Mr. Jannik said the overall uncertainties in these calculations are "huge." He said the numbers from year to year have stayed approximately the same. He added that no statistical analysis has been performed.

CAB member Hayes asked why the number for Sportsman dose is different between onsite and offsite. Ms. Eddy said the onsite average is calculated from someone who harvested seven animals and the offsite dose is more of a hypothetical average. She said during the deer hunts onsite, they are able to monitor what is killed onsite. Mr. Jannik said that the offsite average is calculated by all the deer that were harvested that year. He said they took the mean of the concentrations and they multiplied it by the 81kg per year

consumption rate. For the onsite hunters, it was seven animals that were harvested onsite; they took the concentrations and assumed the hunter ate all of that meat.

Cathy Amoroso, EPA, asked if SRNL has offsite air monitoring stations bordering the facility or is the air monitored onsite and modeled to the boundary. Ms. Eddy said they know exactly what is released off site and that they monitor at the point of release. She said they have surveillance monitoring that goes on for 25 miles around the Site perimeter; she stated they also have a location in Savannah. She said they use the surveillance monitoring to validate the models that are based on the releases to the air.

CAB chairperson Bettencourt commented that it is important to realize that the data is being looked at from a historical perspective and any one sample can trigger a notice of alleged violation. He said that any sample over the limit will trigger an alleged violation.

CAB member Bridges asked for a realistic dose estimate rather than an overly conservative scenario.

CAB member Bernard asked if SRNL ever had a year when it received violations. Jeannette Hyatt, SRNS, said they have tables of historical NOVs that show when they were received and resolved. She said she would provide a table to CAB member Bernard on the historical NOVs that have occurred and what they have done to remedy those.

~CAB Chair and Vice Chair Election Results~

After counting the votes, CAB member Watson announced the new CAB chairperson for 2011-2013 will be Donald Bridges and the new vice chair will be Judy Greene-McLeod.

Strategic & Legacy Management (S&LM) - Gerald Wadley, CAB

CAB member Wadley announced that during the break his committee voted to formally change Recommendation 272 from pending to open.

PRESENTATION: Savannah River Ecology Lab-FY10 Update to the SRS CAB – Ken McLeod, SREL

Mr. McLeod gave a brief history of SREL, stating that it has been on Site since 1951. He said SREL has been funded by several different sources from 1951 to the present day and in 1954, the lab established a permanent lab on SRS. He stated in 1977, the current lab facilities were established. He stated SREL has several research areas and he outlined the different areas of research. He then reviewed SREL's missions.

He continued by stating that in terms of research, the lab has more than 3,154 peer-reviewed scientific publications to date. He said the lab has education programs funded by DOE and NSF where more than 650 undergraduate students who come to the lab to spend 8 to 10 weeks through a program in which they can get exposure to research. He said they've also funded and hosted more than 400 graduate degrees. He said the lab has an outreach program, and in 2009, SREL presented 269 talks, gave 18 tours and 15 exhibits; this reached more than 29,000 people.

He then referred to a chart of recent funding history. He said the core funding for the program was cut in 2007; however, he said the program is stable now. He reviewed where the funding comes from and where it is spent. He reviewed the FY2010 SREL budget, outlining DOE projects, as well as other projects. The total FY10 budget equals $3.5 million. He said FY2011 is likely to be similar and FY2012 is uncertain.

CAB member Wadley asked what happened to the funding collected from the National Environmental Research Park Bill. Mr. McLeod said the Bill is still sitting in the Senate. He added it's not an appropriations bill.

CAB member Bridges asked if it's hard to get funding from the nongovernmental agencies due to the current economic climate. Mr. McLeod said it is; he said they are submitting proposals and grants to several entities and approximately 10 percent of those efforts will be funded.

Mr. McLeod overviewed the number of employees SREL had in 2010, stating it is less than previous years, and listed the facilities and research areas. He said the core funding for the lab was cut in 1977 and SREL was asked to fund itself in a project by project basis. He listed significant events to occur since FY07.

He stated SREL's Cooperative Agreement ends November 30, 2011. He said the lab has to begin negotiating a new contract. He said that since the current contract was put together quickly, certain areas were not edited to reflect total accuracy. He explained there are several areas within the work scope where it lists SREL as able to work on areas it no longer has the funding for. He listed these areas. He said these areas will be amended in the new Cooperative Agreement. He said SREL has an aging infrastructure that needs to be replaced. He commented that replacing or upgrading expensive equipment is not possible and maintaining unique SREL facilities is also too expensive currently. He said the current agreement also states the SREL staff will provide ecological and environmental expertise; he explained this is not currently possible because the staff is focused primarily on research projects. For the new Cooperative Agreement, he said they need to look at, and adjust, the indirect criteria.

CAB member Bridges asked if SREL has talked with those at Vogtle to see if they have any shared interests with SREL that may result in Vogtle providing some funding. Mr. McLeod said he doesn't know if the lab has spoken with Vogtle, but knows it has met with several federal agencies.

CAB member Jayaraman commented there should be a change in status between SREL and DOE so the lab can become available for funding from DOE. He added that SREL is property of University of Georgia. Mr. McLeod said it is a complex relationship between UGA and DOE. He said SREL has access to federal funding resources that it would not have if it was a DOE facility. John Seaman, SREL, stated that the lab has been there for so long because UGA has funded it substantially. He said the downsizing of budget at SREL came at the same time as downsize in budget for state schools. He explained that UGA has provided a lot of support to SREL.

CAB chairperson Bettencourt asked if there is any interest from the University of South Carolina in providing funding to SREL. Mr. McLeod said universities in South Carolina have expressed some interest but never act on it.

CAB member Howard asked if SREL is able to ask for donations from the community. Mr. McLeod said it can accept donations and information about giving donations is on the SREL website.

Nuclear Materials Committee (NM) – Judy Greene-McLeod, CAB

CAB member Greene- McLeod outlined the NM committee's objective and what it addresses. She said the committee has three open recommendations, including 271, 266, and 263. She said the last NM meeting was on October 19, 2010 and stated that Jay Ray, DOE, came up with a Matrix to list waste due to an idea presented by CAB members Burke and Hayes. Ms. McLeod said it is very helpful and in a format that is easier to understand. She then reviewed Maxine Maxted's presentation from the October meeting, as well as another presentation by Jay Ray and Rick Burns. She encouraged everyone to review the presentations on the CAB website. She then introduced Pat McGuire, DOE-SR, to address an amended ROD for fuel to be processed at H-Canyon.

Mr. McGuire said DOE has been processing unirradiated highly enriched uranium that has been received from NNSA Sites. The material was surplus and there is no programmatic use for it. He said they received approximately 5.6 metric tons at SRS in a span of 2.5 years and have been dissolving that in H-Canyon. They blend it down to low enriched uranium and ship it offsite to make commercial nuclear fuel. He said this program has been ongoing since 2001 and they received the last of the material from NNSA Sites in 2010. He said it has all been dissolved, and they are continuing to process, and dissolve, that material into low enriched material. He said they have approximately eight months before the remaining solutions are blended down and can be shipped offsite. He said another big initiative is the decision to process used nuclear fuel. He stated that for nonproliferation reasons, SRS has received domestic and foreign research reactor fuel. He said they continue to bring that into the country safely and store it in L-Area wet storage

basins. He said it is a continuing program. He said the expectation in the disposition path is to take that used nuclear fuel, process it in H-Canyon, recover the uranium from that fuel and blend it down and ship it to Tennessee Valley Authority (TVA.) He said the contractor has done a significant job to get the facility, the people, and the safety documentation in place to begin processing used nuclear fuel. Mr. McGuire added the original schedule was to start that campaign in May 2011, but there have been incentives to accelerate that progress. As a result, in September of 2010, the contractor declared its readiness to process used nuclear fuel. He said they did need an amended ROD, so they prepared it and it has been up at Headquarters since spring 2010 awaiting a decision. However, he stated due to the Continuing Resolution, the action of signing an amended ROD is considered a new start, and no new starts are permitted under a Continuing Resolution. Therefore, H-Canyon, in regards to dissolving material, is in a holding pattern; he stated that this does not mean that H-Canyon is idle. He said it is good news that the contractor was able to accelerate the progress, but because of the Continuing Resolution they are not able to execute it in the time frame they wanted to.

CAB member Bridges asked if the scenario Mr. McGuire explained adds days to the end date of canyon operations. Mr. McGuire said he can't say he cannot recover some of the schedule time by the end date, which is 2019, but it will be a challenge. He said they have discussed a fuel swap with Idaho, but that has been placed on hold. CAB member Bridges asked if it would be worth going back and flushing out the DOE system for any type of uranium to see if they can pick up the dredges throughout the system. Mr. McGuire said that's a good point and said DOE, along with NNSA, routinely inventories the Sites to see what surplus material no longer has a programmatic use. Once those materials are declared surplus, he said they find out the disposition path. CAB member Bridges asked if there has been any thought on the U233 from Oakridge. Mr. McGuire said yes, but he doesn't have a final answer on that. He said there are many pros and cons associated with that material.

CAB member Hayes stated someone from TVA stated they have not yet determined the material from SRS would be compatible with the reactors at TVA. She asked if that issue has been resolved. Mr. McGuire said the issue CAB member Hayes is speaking of concerns the Mox material. He said it is completely different than the uranium that is being blended down in H-Canyon. He said that Mox is taking the surplus plutonium, it's run through its mixed oxide fuel fabrication facility and that material will be shipped to a TVA reactor. He said they don't have a contract with the TVA reactors yet.

CAB member Greene-McLeod thanked Mr. McGuire and stated that during the CAB Retreat the Board discussed new meeting schedules for committee meetings. She said the suggestion came up that the Nuclear Materials and Waste Management committees should be merged into one committee because they share many of the same issues. She asked the Board to think about this suggestion. She then stated the NM committee should hold a committee meeting during January, possibly coinciding with the Blue Ribbon Panel meeting.

PRESENTATION: Update on Savannah River Recovery Act Program- Rod Rimando, DOE-SR

Mr. Rimando stated that the Recovery Act has made a great deal of progress in FY10. He said the work being done at SRS with ARRA funding is some of the most diverse and complex at SRS. He then showed a brief video on EM and the Recovery Act. He said the video is being shown to several groups.

He reviewed the economic impact of ARRA at SRS. He stated the total amount spent between SRNL and SRR is $820 million. He said the dollar amount of contracts awarded is $440.5 million and out of that, the small business awards are at $297.5 million. He said the local awards combined total $178 million. He said originally the goal for jobs was 3,000 and now the program is at 3,669 jobs awarded.

He said that overall EM is looking at a 40 percent footprint reduction and at SRS the footprint reduction is targeted at 75 percent. He said the program was initially looking at a 45 percent reduction but it was adjusted upwards when the scope was reprioritized. He then referred to a graph that showed where Recovery Act work is being performed at SRS.

He said 12 of the 41 total projects for ARRA have been completed. He then went over the projects that are completed and ongoing within Salt Disposition Integration, Tank Closure Infrastructure and Facility Operation. He then showed a brief video on tank cleaning and a video on bubbler technology at DWPF.

He reviewed P and R Reactors decommissioning. He said at P Reactor there are 120 cubic yards that will be grouted and at R Reactor there are 126 cubic yards that will be grouted. He said they recently demolished the P Reactor stack. He said the Heavy Water Components Test Reactor (HWCTR) has been going through decommissioning preps and beginning in January the facility will begin being lifted to its storage area.

He said the target for Transuranic Waste (TRU) is 5,000 cubic meters dispositioned and 929 cubic meters of TRU has been shipped to date. He said they will also continue with low level waste disposal in E-Area and referred to photos of the work being done. He then referred to photos of work being done in D-Area and reviewed Thermal Detritiation Treatability Units. He also showed photos of the progress in M-Area, which has been completed, and photos of other areas where ARRA work is being done.

CAB member Bridges asked what was done with the rubble from the K-Cooling Tower demolition. Mr. Rimando said it was disposed as sanitary waste and part of it was recycled.

He said they are meeting objectives by employing people, contributing to the local economy, and getting real work done within Footprint Reduction and TRU Disposition.

CAB member Bernard asked if the white containers shown on page nine of the presentation contain TRU Waste. Mr. Rimando said they do not and are empty vessels that are being disposed of.

CAB member Burke asked how many years the number of workers hired will work, how much money was used on recruiting, training and selecting these workers, and is there a way to spread that work out over a longer time frame. Mr. Rimando said he will have to get to CAB member Burke on his first two questions, but stated there is an effort to through the Site and EM Headquarters that will help Recovery Act workers transition into new employment opportunities.

CAB member Bridges asked what the population is going to be out of the 3,669 workers after 2011-2013. Mr. Rimando said you have to look at that number from two different perspectives. He said the number includes subcontractors of SRR and SRNS that were hired to perform the work, as well as the full service employees, or permanent employees of SRR and SRNS. He said when the Recovery Act began in 2009 around 800 jobs of full service employees were saved. After the Recovery Act work is completed, these workers will be absorbed back into the workforce of SRNS and will be factored into the layoffs. After the work is completed, the subcontractors will move on.

~Public Comment Period~

Harold Simon, a candidate for CAB membership, addressed the Board by saying Full Board meeting was informative and time well-spent. He said he looks forward to serving on the Board, if he is appointed.

~Adjourned~