

Meeting Minutes
SRS Citizens Advisory Board – Combined Committees Meeting
Aiken, South Carolina
November 14, 2011

Monday, Nov. 14- Attendance:

CAB
Thomas Barnes
Dr. Donald N. Bridges
Edward Burke
Louie Chavis
Mary Davis
Kathe Golden
Judy Greene-McLeod
Dr. Rose Hayes
Stanley Howard
Dr. Kuppuswamy Jayaraman
Travis Johnson
Cleveland Latimore-*Absent*
Denise Long
Clinton Nangle
Dr. Marolyn Parson
Harold Simon
John Snedeker
George Snyder
Skye Vereen
Dr. Gerald Wadley
Sarah Watson
Alex Williams

Agency Liaisons/Regulators
Rob Pope, EPA
David Williams, EPA
Kyle Bryant, EPA
Diedre Lloyd, EPA
Martha Berry, EPA
Heather Cathcart, SCDHEC
Van Keisler, SCDHEC
Kim Newell, SCDHEC
Shelly Wilson, SCDHEC
Tom Rolka, SCDHEC

DOE
Doug Hintze, DOE-SR
Pat McGuire, DOE-SR
Maxcine Maxted, DOE-SR
Jim Folk, DOE-SR
Becky Craft, DOE-SR
Gerri Flemming, DOE-SR
Dawn Gillas, DOE-SR
Gail Whitney, DOE-SR
David Hoel, DOE-SR
Rich Olsen, DOE-SR
Wade Whitaker, DOE-SR

Contractors
Bill Bates, SRNS
Teresa Eddy, SRNS
Mtessa Wright, SRNS
R. Sprague, SRNS
Benjamin Terry, SRNS
John Cook, SRNS
Paul Sauerborn, SRNS
Nancye Bethurem, SRR
K. Subramanian, SRR
Mark Schmitz, SRR
Keith Harp, SRR
David Little, SRR
Kim Hauer, SRR
Tim Jannik, SRNL
James Tanner, V3
Eddie Watson, V3
Erica Williams, V3

Stakeholders
SC State Rep. Tom Young
John Gadd
Joe Ortaldo
Liz Goodson
Dana Crocker
Murray Riley
Tom Clements, Friends of the
Earth
Karen Patterson, GNAC

Facilitator Erica Williams, V3 Technical Services, reviewed the agenda, and stated the first presentation was an overview of the SRS Environmental Report for 2010, and that there were copies available at the meeting. She stated there would be discussions that day concerning possible CAB recommendations, and that there would be public comment periods provided throughout the day.

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

CAB member Parson reviewed what the committee focuses on, summarizing her committee's last meeting. She reviewed one open recommendation, which was Recommendation 279. She continued that the FD&SR had a draft recommendation that would be opened for discussion that day, titled "Revising the Department of Energy Websites & Using Plain Language to Communicate with the Public More Effectively."

**PRESENTATION: An Overview of the SRS Environmental Report for 2010-
Teresa Eddy, Savannah River Nuclear Solutions (SRNS)**

Ms. Eddy, SRNS, stated the purpose of her presentation. She provided a brief overview of SRS missions and programs, including National Security, Environmental Stewardship, and Clean Energy. She listed highlights of 2010 Environmental Restoration, and showed photos of 2010 Cleanup Activities. She then provided 2010 Waste Management highlights, and discussed the Environmental Management System (EMS), which she listed examples of.

She continued by stating SRS has various Federal and State regulations that provided specific requirements and standards for protection of the environment and public; she reviewed some of these regulations and statutes. She then referred to a graph of exposure pathways for someone living near SRS, stating there are two main ways someone living near the Site could be exposed: by airborne or liquid effluents. She provided an overview of Effluent Monitoring versus Environmental Surveillance, explaining the use for each, and then reviewed Radiological and Nonradiological Effluent Monitoring.

Ms. Eddy provided some results of the Nonradiological Effluent Monitoring, including air results from three coal-fired boilers which were within the emission limits, and the National Pollutant Discharge Elimination System (NPDES) compliance status for liquids, stating there were no permit exceedances from all industrial wastewater results, and no permit exceedances from 13 of 16 storm water outfalls; she explained that three outfalls were “uncollectable.” She continued by reviewing the Radiological Effluent Monitoring for air and liquid, stating that Tritium is the radionuclide of greatest abundance in SRS releases. She stated that in 2010, 41,785 curies were released, including 40,500 curies to the atmosphere through the air pathway, and 227 curies to site streams, with 1,058 curies that migrated from seepage basins and the Solid Waste Disposal Facility, through the liquid pathway. She referred to two graphs, titled “Ten-Year Annual Atmospheric Tritium Release,” and “Ten-Year Direct Releases of Tritium to SRS Streams.”

She reviewed the Environmental Surveillance program at SRS, stating it determines the impact of Site operations on the environment and public, assesses the effects, if any, on the local environment, validates models for dose calculations, provides a direct measurement of sportsman dose, and performs the baseline environmental monitoring for new facilities such as the Mixed Oxide Facility (MOX), and the Plutonium Disposition Program. She also reviewed the Nonradiological Air Surveillance, stating air dispersion modeling for all 2010 criteria pollutants and toxic air pollutants were in compliance with air quality regulations. She said that Savannah River National Laboratory (SRNL) participates in the National Atmospheric Deposition Program for the national mapping of mercury in precipitation. She referred to a graph of “Total Mercury Wet Deposition for 2009.”

Ms. Eddy reviewed the Nonradiological Surveillance of water quality, stating water quality parameters were performed on all stream, river surveillance, and fish samples. She said the results indicated that SRS discharges were not impacting the water quality in streams and the river. She referred to a graph of “2010 Average Metal Concentration in SRS Streams Compared to Drinking Water Standards.” She reviewed the fish analyses of mercury levels in the Savannah River, and stated South Carolina Department of Health and Environmental Control (SCDHEC) had a fish advisory for the Savannah River. She encouraged everyone to pick up a pamphlet, provided by SCDHEC, on what types of fish in the Savanna River are OK to eat. She also provided the Environmental Protection Agency (EPA) safe dose.

CAB member Parson asked how accessible the pamphlet is to the average person. Ms. Eddy said it is written very simply and is easy to understand. Ms. Shelly Wilson, SCDHEC, added that the pamphlet is very accessible and said it provides pictures and other examples that make it easy to follow.

Ms. Eddy then reviewed the Radiological Air Surveillance Tritium Results, and referred to several graphs. She also reviewed a graph titled, “Tritium Released to Water (Three Methods)”;

the graph showed direct releases, stream releases, and river transport. She also reviewed a graph concerning drinking water surveillance, titled “Average 2010 Tritium Concentration Compared to EPA Limit,” as well as a graph on wildlife surveillance results. She then discussed potential offsite doses for 2006-2010, and referred to a graph that showed atmospheric and liquid releases from 2006-2010. She said all doses are below the DOE standard, which is 100 mrem/year. She then referred

to graphs of Critical Liquid and Air Pathway Radionuclides, stating the 2010 Liquid Pathway dose was 0.06 mrem and the 2010 Air Pathway dose was 0.05 mrem.

Ms. Eddy discussed the 2010 Sportsman Dose, referring to a graph that showed many factors. She then reviewed ongoing continuous improvements, and showed several photos. She discussed the March 2011 Japan tsunami/earthquake nuclear incident.

She then presented conclusions, stating SRS has a comprehensive environmental monitoring and surveillance program, and the Site's airborne and liquid releases to the environment show a long-term decrease and are well below health-based standards. She said maximally exposed individual doses remain low. She stated future environmental monitoring missions include collaboration and support of SRNL research. She reviewed the baseline monitoring for new facilities. She provided an online link to the 2010 report and provided contact information for anyone who wanted to inquire about the report.

Ms. Wilson, SCDHEC, commented that she noticed Ms. Eddy spoke about the EPA standard in her presentation. She reminded the CAB that even though it is the EPA standard, when it comes to implementation, that authority is delegated to SCDHEC.

Mr. Tom Clements, Friends of the Earth, stated that Ms. Eddy said tritium was one of the isotopes that made DOE concerned. He referred to page 23 of the presentation, and remarked on the EPA limit for tritium concentrations. He said there are different standards in Europe and in some states. He asked if anyone could clarify why there are different standards elsewhere. Mr. Rob Pope, EPA, said each state is free to set whatever standard it wants as long as it is as protective as the national standard. He said this is what Colorado and California has done. He said California has set its standard because of its limited water supply and the concern for its water supply. Mr. Pope said he is not aware of why Colorado has set its standard to what it is. He said these are the only two states that have a lower limit of how many picocuries can be in groundwater. He continued that it doesn't seem like the standard for EPA is going to change anytime soon.

**Facilities Disposition & Site Remediation (FD&SR), Proposed Recommendation Discussion:
"Revising the Department of Energy Websites & Using Plain Language to Communicate with the
Public More Effectively"**

CAB member Parson briefly explained what the recommendation covers, and what concerns motivated the recommendation. She read through the recommendation, highlighting the five actions it called for. She spoke about issues on the SRS website where users of Mac computers cannot access certain aspects of the website. She referred to her slides that illustrated the problems with the websites, and to a handout concerning Federal Plain Language Guidelines. She discussed what the Federal Plain Language Guidelines stated about abbreviations in government writing. She then referred to another handout, which was originally a memo for the heads of executive departments and agencies, which discussed transparency and open government.

CAB member Parson referred to a table she developed from the SRS Environmental Bulletins.

CAB member Hayes asked if there is a central office that is supposed to track Environmental Bulletins and put them into the system. CAB member Parson commented that in the Community Involvement Plan (CIP), there are some requirements on where information is made available to the public. She said there is information in libraries, for example. She said if there is a permit that is available for public comment it comes through EPA or SCDHEC. She said there are certain groups within DOE that post information, but there are also other agencies such as EPA and SCDHEC, that publish information that is of interest to the CAB. Mr. Rob Pope, EPA, said that in general, the entity that has the permit will submit an application to the State or the EPA to make a permit change. He said this application is a technical document completed by an entity such as DOE, so the CAB may be interested in the application which it would get from DOE, not EPA or SCDHEC.

Mr. Bill Lawless, Augusta, commented that he gets double copies of all environmental bulletins. He said it would be nice to get a link to these documents.

CAB member Golden said she thinks this is a good recommendation since, as a Mac user, she has had issues with the SRS website.

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

CAB member Hayes listed topics the NM Committee addresses, and stated discussed three open recommendations: Recommendation 263, which is shared with the Waste Management (WM) Committee, Recommendation 266, and Recommendation 276. She said the NM Committee put forth three new recommendations at the last Full Board meeting; she reviewed these recommendations, stating many will have to wait to be closed after the CAB receives the BRC's final report. She then announced the next NM Committee meeting.

PRESENTATION: Yucca Mountain, H-Canyon, and Used Nuclear Fuel- Mr. Tom Young, SC State Representative

Rep. Young thanked CAB member Rose Hayes for inviting him to speak, and said he envisioned his presentation as a proactive discussion with the SRS CAB. He said he wanted to discuss issues in regards to how they impact the community and SRS. He said that members who are not in his district can still send him their concerns. He said he is one of three local members of the community that are on the Governor's Nuclear Advisory Council (GNAC), and that he wanted to create a dialogue concerning issues within the community.

CAB member Denise Long said as a state, South Carolina has put so much money into the Yucca Mountain site and now the project is not being followed through on. She asked if South Carolina has found a way to get the money back. Rep. Young said he agreed with CAB member Long, and said it is his understanding that the SC governor has spoken directly with the President and the Secretary of Energy concerning this issue, and the governor said the response she received was that they would get back to her on that.

CAB member Ed Burke said he has seen a lot of articles on the issue of Yucca Mountain. He asked if Rep. Young thought it was a dead issue, or if he thought it would be reopened. Rep. Young said he doesn't think it is a dead issue at all, and said it could be reopened. He spoke about the lawsuit that was filed on behalf of Aiken County, and other states, over Yucca Mountain; he said it was ruled that the lawsuit was premature, but it can be re-filed, or the political climate could change in the future. He said it is important for SC community members to keep the issue of Yucca Mountain at the forefront. He said he feels like it is his responsibility as an elected official to keep Yucca Mountain at the forefront of discussions.

CAB member Hayes said she is the NM Committee Chair, and discussed the recommendations the NM Committee has open. She said very often years go by before the committee gets what it considers an adequate response to these recommendations from the "federal level." She said the CAB hasn't really focused much on the county or state levels. She asked if Rep. Young, or others at the county or state level, ever hear about or know what the CAB is bringing forth with its recommendations, or what it is working on. Rep. Young said as a state representative, he does not get the CAB recommendations provided to him on a regular basis. He said what he has gotten from the SRS CAB has been from CAB member Hayes, or from independent research on the internet. He said he would encourage the CAB to send him recommendations and informational emails. He said it helps to educate as many delegates as possible.

Ms. Karen Patterson, GNAC, asked Rep. Tom Young to elaborate on how the delegation is getting information and the letters the delegation has been asked to write concerning Yucca Mountain. She then provided a brief update of the Yucca Mountain lawsuit. Rep. Young said his delegation has worked very closely with the GNAC, and that Ms. Patterson has worked to make sure his delegation is updated on the issues that are important.

Mr. Bill Lawless, a citizen from Augusta, GA., commented that if the law is in favor of those filing the lawsuit, he would definitely support it. He said he has spent some time with the CAB and they have gone out of their way to push the Yucca Mountain issue. He said he has spent some time with the Blue Ribbon Commission (BRC) documents, trying to understand what happened in the state of Nevada. He said the BRC has claimed that the DOE "bungled" the placement of the repository so badly that the BRC recommended that the DOE be replaced. He said

the BRC recommended, and he seconded, that there should be public review and local approval. He said the issue of Yucca Mountain has gotten public review, but the DOE has failed in terms of public approval. He continued that both he and the BRC have recognized the great job the DOE has done at the Waste Isolation Pilot Plant (WIPP) in Carlsbad. He said he thinks that if the lawsuit does not succeed, they need to take seriously how they would feel if they were forced to keep the high level waste at SRS.

Rep. Young said he has received a substantial amount of information from SRS Manager, Dr. Dave Moody. Dr. Dave Moody, Site Manager, commented that the BRC listened to some of the public comments in Atlanta and Denver, and just recently published that a subcommittee is being formed to decide if whether or not the recommendation should split as it relates to commercial waste and defense waste.

CAB member Travis Johnson asked where the money taken to pay for Yucca Mountain came from. Rep. Young said it comes from utility bills for rate payers in South Carolina. CAB member Johnson asked if South Carolina will get any money back if the project does not happen. Rep. Young said both Secretary Chu and the president have been asked about that.

CAB member Hayes expressed her doubts concerning Yucca Mountain, stating there was a small amount of space set aside at Yucca Mountain for Legacy Waste, and the total volume of that would not even cover all the Legacy Waste that is currently at SRS. She said in the long-term, more UNF will be produced, and eventually Yucca Mountain won't be able to hold it all; she said there was always supposed to be one more repository. She said she thinks they need to think beyond "digging holes and burying waste in the ground." She expressed her views on the types of technologies that could be used, saying the research is still in its infancy within the U.S. She said SRS is a good place for this type of technology research to begin in the U.S. Rep. Young said he agreed with CAB member Hayes and said this is why he wanted to come to the meeting and have a dialogue with the Board.

CAB member K. Jayaraman said he doesn't think it is a problem to find another geographically suitable location to replace Yucca Mountain. He said the problem, to him, is that they've spent a billion dollars, and no other site has been investigated like Yucca Mountain. He said it took a long time and now they will have to do it all over again. He said it is a mockery of the public to say Yucca Mountain doesn't exist anymore without giving valid reasons. Rep. Young said it "boggles" his mind that the BRC can give a report on America's nuclear future and there is no mention of Yucca Mountain. He said it is concerning to him as an individual and as an elected official.

CAB member Golden commented that the nuclear waste program should be taken out of the hands of the politicians because every four to eight years there are changes and setbacks as the administration changes.

CAB Chair Bridges expressed concerns that the Board would receive a BRC report that would get "filed away." Rep. Young said there is a process to provide input and his delegation has written several letters that have been put into the record to the BRC. He said to the best of his knowledge, the entire Congressional delegation has communicated with DOE officials about its concerns. He said the reality of the situation is that the community has the waste at SRS closer to it than other communities in the country, with more waste coming. He said they have to keep this issue at the forefront.

Ms. Patterson, GNAC, said that the BRC recognizes that politics are part of the problem. She said the BRC has proposed setting up an independent "quasi-independent agency," whose funding does not have to go through Congress, to move and disposition the waste.

Mr. Pat McGuire, DOE-SR, said there are several issues on the table. He reminded everyone that the largest hazard SRS has is the liquid waste. He said regardless of what happens with Yucca Mountain, the Site is going to continue to move forward with taking that liquid waste and putting it in the most stable form possible, which is a glass form, and they are doing so with the understanding that the waste will eventually be shipped out of the state. He also addressed the issue of UNF at SRS, and said they do want to get that to a repository. He said H-Canyon is moving forward, and not shutting down, and currently has a new mission partnering with NNSA.

State Rep. Young addressed an article about waste at SRS published by the *Augusta Chronicle*. He said when his delegation met with Dr. Moody, the issue at the forefront was what was going to be done with the waste addressed

in the article. He said Dr. Moody told them, on Oct. 3, that despite the uncertainty with H-Canyon, the DOE approved the use of H-Canyon to process the waste.

Mr. Clements said he has submitted a lot of comments to the BRC and when someone mentions H-Canyon in a meeting, he said eyes start to roll. He said the issue has been politicized heavily. He said regarding H-Canyon, he appreciates the discussion on Yucca Mountain and understands the politics surrounding it that has influenced decisions. He told Rep. Young that there needs to be a discussion in South Carolina about reprocessing if they decide to bring in Spent Fuel. He told Rep. Young that if SRS becomes a commercial reprocessing site, more SNF will be brought into the state of South Carolina. He said there is a question of where all the waste streams would go. He asked how the people of South Carolina would be convinced that bringing more waste into the state is a good idea when at the same time there is an ongoing push to take waste out of the Site.

Ms. Patterson replied that she has never heard anyone advocating bringing SNF to SRS to process at this time. She said they are advocating the use of H-Canyon, and the scientists at SRS, to do R&D on the best way to reprocess all that fuel. Rep. Young said he has the same understanding as Ms. Patterson.

Mr. Clements addressed Ms. Patterson by stating they both know that the Global Nuclear Energy Partnership, which “died” at the end of the Bush administration, proposed using the old Barnwell site, or SRS, for rapid deployment of reprocessing. He said these proposals “died” because they were “overreaching.” He said there are indications that this will be discussed again in the long-term, even if it is in the R&D stages right now.

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

CAB member Wadley announced the next S&LM Committee meeting, and said the committee has two open recommendations: 262 and 272. He said they would close both at his next committee meeting. He provided a brief update on the SRS Public Tours, which is what Recommendation 272 deals with. He continued by providing an overview of the H-Canyon tour some members of the CAB attended in October. He reviewed the committee’s last meeting, stating it had great attendance and presentations.

He stated that during the January Full Board meeting, DOE will provide topics that will assist the CAB in developing its 2012 Work Plan. He asked everyone to pay close attention to these topics in January.

PRESENTATION: Strategic Plan Initiatives-Doug Hintze, DOE-SR

Mr. Hintze, who serves as the CAB’s co-DDFO and is the DOE-SR Assistant Manager for Integration and Planning, reminded the CAB that Mr. Rich Olsen, DOE-SR, gave a presentation on the Strategic Initiatives at the last S&LM Committee meeting. He said there were questions over how they could potentially line up the Strategic Initiatives as they go through the year, and if the CAB has the correct committee structure for the Strategic Initiatives.

He stated in the area of Facilities Disposition, DOE-SR received \$1.6 billion from the Recovery Act, and most of that was spent on area completion and facility decommissioning. He said over the next several years, DOE is probably not going to spend significant amounts of funding in those areas. He proposed changing the FD&SR Committee to something that is more aligned with new technology and environmental stewardship. He had no recommendations for the other committees.

He reviewed the 12 Strategic Initiatives, as well as the “initiative champions” for each initiative. He said there will be varying stages of varying maturity for each Strategic Initiative.

CAB member Wadley said it seems like there is a lot there for the CAB to comprehend and would need the initiative champions to come to the meetings to inform the CAB about what is going on in their areas. He asked if the CAB would be allowed to ask these people in to speak to the Board. Mr. Hintze said once they have a meeting with the champions and they all know what they’re doing, they could come speak to the CAB.

CAB member Jayaraman commented that when he joined as a member of the CAB, the FD&SR Committee was the only committee he felt has a name that truly represents the subject matter addressed.

CAB Chair Bridges asked if the Strategic Initiatives represented the EM budget for SRS. Mr. Hintze answered “yes and no.” He explained that the 12 initiatives represent what SRS is going after in terms of strategic objectives, so these represent the EM budget. He pointed out that some areas are within the NNSA budget, and some are outside both the NNSA and EM budget, such as small modular reactors. He spoke about private partnerships.

PRESENTATION: Performance Metrics Final Report FY11 & FY12 Targets-
Rich Olsen, DOE-SR

Mr. Olsen provided a background of the SRS Cleanup Program by reviewing the Lifecycle Baseline, which he described as the management tool for the program. He explained the Lifecycle Baseline, stating that it was created in the 1990s, and that DOE has been updating and maintaining it. He said the baseline has changed over the years due to technology, funding, regulatory functions, and more. He said performance metrics have evolved to track progress towards the current Lifecycle Baseline tracks.

He referred to a chart that showed the major areas within the SRS Cleanup Program. He outlined the major areas as Liquid Waste, Solid Waste, Nuclear Materials, and Soil, Groundwater, and Facilities. He then referred to a graph that showed the progress towards EM Site Cleanup through FY 2011 within the major areas. He said a lot was accomplished in FY11, partly because of the Recovery Act funding.

Mr. Olsen referred to several graphs concerning performance results and “Lifecycle Projections”; these graphs covered areas such as Liquid Waste, Solid Waste, Nuclear Materials, and Area Completion. He provided a summary and path forward by stating DOE-SR will continue to provide the stakeholders periodic updates of performance Lifecycle measures for the key operational areas of EM cleanup operations, and said any suggestions for improvements was welcomed.

Mr. Bill Lawless, Augusta, commented on slide nine of the presentation, which was over Used Nuclear Fuel (UNF). He said he would like to see something about “dry storage,” including how many UNF rods are in dry and wet storage.

Waste Management (WM) Committee Overview-
Ed Burke, WM co-Vice Chair

CAB member Burke introduced himself as the co-Vice Chair of the WM Committee and stated that WM Chair Emile Bernard had resigned from the Board.

CAB member Burke outlined the purpose of the WM Committee, and said it works very closely with the NM Committee. He announced the next WM Committee meeting. He said the WM Committee has one pending recommendation, and six open recommendations. He said the CAB should evaluate all open recommendations.

PRESENTATION: Tank 4 Vapor Space Crack-
Karthik Subramanian, SRR

Mr. Subramanian said annual routine inspections of the waste tanks are performed as part of the Site’s program to ensure safe storage of liquid waste. He said during these inspections, a hairline crack was found in the upper weld of Tank 4, which is an “old style Type 1 tank.” He said the crack is more than five feet from above the current liquid level in the tank, but the tank remains structurally sound and there has been no impact on safety or operations, and no releases to the environment. He explained that this type of condition is not unexpected and should have no significant impact on the remaining activities planned in Tank 4.

He then referred to a graph of the different types of waste tanks, explaining the differences between old style tanks and new style tanks. He reviewed a diagram of the Structural Integrity (SI) Program, and then provided an overview

of the Comprehensive Inspection Program, detailing visual surveillance and type 1 and 2 tanks. He showed two photos of the Tank 4 visual inspection results; he said it was on the outside of the tank.

Ms. Patterson, GNAC, asked if the crack was above the waste, and what generated the line of salt on the photo. She also said another vertical line on the tank also looks like a crack, and asked how they can tell the difference. Mr. Subramanian said the technicians who perform the visual inspections are very qualified, and he can tell it's not a crack because it looks like a drawn line. He said any time there is a salt-bath, there will be airflow that will carry salt up through it. He continued that the salt line is salt that is within the crack.

Mr. Subramanian then spoke about the Tank 4 visual inspection results, stating that a 2011 inspection photo provided evidence of an "indication" in the wall of Tank 4, and after comparison to past photos, it was declared a crack. He said the operating level for the last 20 years has been below the location of the crack, and the location of the crack is consistent with the known degradation mechanism for a non-heated treated Type 1 tank. He referred to a graph that detailed the Tank 4 waste volume history.

CAB member Judy Greene-McLeod asked what caused the waste level in the tank to fluctuate. Mr. Subramanian said the active removal of the waste caused it to fluctuate.

He stated the structural integrity of the tank remains sound with a high margin, the leak integrity will be maintained, and a specific inspection plan will be developed to reduce the risk of the leaks in Tank 4 during waste removal operations; he referred to a graph titled, "Type 1 HLW Tank, Seismic Conditions."

He reviewed degradation mechanisms, stating the primary mode of degradation is nitrate-induced stress corrosion cracking near fabrication welds or repair welds. He concluded that SRS continued to inspect all waste tanks as part of a comprehensive SI program, and then summarized the problem with Tank 4, as well as its current situation.

CAB member Hayes asked, when they are looking for the cracks, if it is a sample or if there is 100 percent coverage. Mr. Subramanian said the inspections are done by cameras and very close to 100 percent. He said the type three tanks are 100 percent. He said the "UV" inspections are a sample because they get a ton of data.

CAB member Jayaraman asked why they should worry about the crack at all. Mr. Subramanian said they are always concerned about the degradation in tanks, and they are always vigilant in their inspections.

PRESENTATION: Salt Disposition Integration at SRS-Keith Harp, SRR

Mr. Harp first referred to a diagram of the Liquid Waste System at SRS. He then reviewed the Salt Disposition Integration (SDI) purpose which is to prepare existing liquid waste facilities for the start-up and long-term operation of the Salt Waste Processing Facility (SWPF). He discussed the SDI mission, and provided a SDI overview.

He spoke about SDI, overviewing the Blend Tank Mixers. He explained that salt batches consist of waste from multiple tanks, and once the wastes are assembled in a blend tank, the contents are blended and the tank is sampled. He said they designed and procured four 35-hp blender pumps for the salt blend tanks. He reviewed the SDI Feed Tanks, stating they completed the design for the SWPF feed tank and procured a variable frequency drive and four transfer pumps in support of SWPF operations. He said the salt feed is being transferred from H-Tank Farm to SWPF through one mile of underground piping.

CAB Chair Bridges asked about the consistency of the salt solution. Mr. Harp said it's a lot like water. Mr. Dave Little, SRR, added it's a low-specific gravity salt solution and is well below 1 weight-percent solid. He said it is a low-level waste and is low in solids. CAB Chair Bridges asked if the tanks are stainless steel. Mr. Harp pointed out that some were carbon steel and others were stainless steel.

He reviewed the SDI Salt Solution Receipt Tanks, stating they designed and constructed two 60,000 gallon decontaminated salt solution receipt tanks (SSRTs) at SWPF to allow a higher throughput receipt. He then discussed the Effluent Treatment Plan (ETP) Concentrate Hold Tank, stating the ETP removes low levels of radioactivity and processes chemicals from waste water prior to releasing the discharge to the environment.

He then reviewed the DWPF Nitrogen Tank, stating nitrogen protects the facility from the accumulation of flammable vapors. He said they designed, fabricated, and installed a 9,000 gallon nitrogen tank, and also designed piping tie-in to support the processing of higher activity effluent waste from SWPF.

He concluded his presentation by summarizing that the SDI project modified the Liquid Waste Systems at SRS in order to seamlessly integrate with SWPF operations. He also listed what the SDI project supports, and stated that significant work will continue through FY2014 in preparation for SWPF start-up.

Mr. Bill Lawless, Augusta, said he has been concerned about the ARP and the MCU, which are the interim facilities used before SWPF would become operational. He said he doesn't know what the plan currently is, but there is a real possibility that the funds needed to operate SWPF will not come through. He asked Mr. Harp to address this concern.

Mr. Harp said the current system plan shows ARP and MCU stopping operations six months prior to starting operations at SWPF, and that stoppage is to allow them time to safely flush out the system, and cut transfer lines and reassemble them. He said if the funding is in question for operations at SWPF, they would not stop operations at the other facilities.

CAB member Denise Long asked how they will know if the lines will be able to take the amount of work they want to put on it. Mr. Harp said they've done several different models, engineering has evaluated the transfer piping itself, and it's been determined that the pipe is capable of handling it. He then reviewed other models they have used to determine if the pipes can handle it.

CAB Chair Bridges asked who is going to operate SWPF. Mr. Harp said the first year is assigned to Parsons and in the second year a long-term operator will be named.

Administrative Committee Overview- Kathe Golden, Administrative Committee Chair

CAB member Golden said the next day the CAB would be voting for a new Vice Chair of the CAB. She said CAB members Jerry Wadley and Harold Simon were running for Vice Chair. She said in January the CAB would be voting for Chairs of the subcommittees. She said the Board Beat would be out the next day. She reviewed changes the Board made during its Education & Process Session, which was held in October, highlighting on possible committee meeting changes in 2012.

CAB member Golden said the Speakers Bureau is coming along and that the committee has reviewed the information; she thanked CAB member Long for working on the Speakers Bureau.

She then reviewed CAB outreach, thanking CAB member Travis Johnson for reaching out to the radio stations, and CAB member Long for her work with the Speakers Bureau.

Public Comments

Mr. Tom Clements, Friends of the Earth, urged the CAB to always have the meetings at places that have a WiFi internet connection. He provided handouts and reviewed it with the CAB. Mr. Clements thanked the CAB for its interest in making sure information and documents are posted on the DOE website and are made available to the public. He said this is very important. He said DOE makes very little effort to post important documents on the DOE-HQ website.

He asked the CAB to support a supplemental Environmental Impact Statement (EIS) for the processing of plutonium in H-Canyon. He said he has consulted some National Environmental Policy Act (NEPA) lawyers and it's going to require that EIS because it is a new mission. He said he hopes DOE would just go ahead and announce it is going to perform a supplemental EIS.

In regard to tank closures, Mr. Clements read aloud from a letter from the NRC that was dated on October 27. He said this needs to be addressed by the CAB. He left the letter with the CAB.

Mr. Bill Lawless, Augusta, read aloud a letter he said he sent to CAB Chair Bridges and Dr. Dave Moody, SRS Manager, which included three recommendations he made to DOE.

~Meeting adjourned

**Meeting Minutes
November 15, 2011
Aiken, SC: Full Board Meeting**

Tuesday, Nov. 15- Attendance:

CAB
Thomas Barnes
Dr. Donald Bridges
Ed Burke
Louie Chavis
Mary Davis
Kathe Golden
Judy Greene-McLeod
Dr. Rose Hayes
Stan Howard
Dr. K. Jayaraman
Travis Johnson
Cleveland Latimore
Denise Long
Clinton Nangle
Dr. Marolyn Parson
Harold Simon
John Snedeker
George Snyder
Skyee Vereen
Dr. Gerald Wadley
Sarah Watson
Alex Williams

Agency Liaisons/Regulators
David Williams, EPA
Rob Pope, EPA
Kyle Bryant, EPA
Diedre Lloyd, EPA
Martha Berry, EPA
Tom Rolka, SCDHEC
Heather Cathcart, SCDHEC
Van Keisler, SCDHEC
Shelly Wilson, SCDHEC
Kim Newell, SCDHEC
Adam Waller, SCDHEC
Crystal Robertson, SCDHEC
Chris McKinney, NRC
Larry Camper, NRC

DOE
Dr. David Moody, DOE-SR
Linda Sutton, DOE-HQ
Doug Hintze, DOE-SR
Patrick McGuire, DOE-SR
Terry Spears, DOE-SR
Maxcine Maxted, DOE-SR
David Hoel, DOE-SR
Wade Whitaker, DOE-SR
Rich Olsen, DOE-SR
Gerri Flemming, DOE-SR
Becky Craft, DOE-SR
Sherri Ross, DOE-SR
Helen Belencan, DOE-SR
Rita Stubblefield, DOE-SR

Contractors
Paul Sauerborn, SRNS
Mtessa Wright, SRNS
Jeannette Hyatt, SRNS
Elroy Saldivar, SRNS
Chris Bergren, SRNS
Kent Rosenberger, SRR
Nancye Bethurem, SRR
Kim Hauer, SRR
Mark Schmitz, SRR
Dan Wood, SRR
John Tseng, SRR
Eddie Watson, V3
Erica Williams, V3
James Tanner, V3

Stakeholders
Tom Clements, Friends of the Earth
Sonny Goldston
Liz Goodson
John Gadd
Murray Riley
Kristen Major, TechLaw
Karen Patterson, GNAC

CAB Chair Donald N. Bridges opened the meeting. CAB Chair Bridges asked for a recommendation to approve the meeting minutes from September 2010. CAB member Williams moved to approve the minutes, it was seconded, and the minutes were approved.

CAB Chair Update-Donald N. Bridges, CAB Chair

CAB Chair Bridges welcomed everyone, and said CAB member Emile Bernard, had resigned from the Board. He reminded everyone that after the January meeting, three other CAB members would be exiting off the Board due to term limits. He updated the Board on membership selections, and said the Administrative Committee was able to provide input on those selections.

He spoke about the October committee meetings, and said he heard good reviews on the H-Canyon tour held on October 25. He then reviewed the Education and Process Session, which was held in October. He said the attendance was good, and the Board focused on the internal processes and public involvement. He said they agreed

to the concept of position statements. He said they also spoke about the Speakers Bureau and discussed changes to the structure of committee meetings in 2012, including member attendance.

CAB Chair Bridges discussed the SRS CAB's EMSSAB Chairs' teleconference held on October 20, stating who attended, and said they presented their top ten issues. He said it was an introductory session with the Assistant Secretary of EM, and summarized the meeting.

He then provided an overview of the BRC Recommendation strategy, stating the Recommendation has seven key elements. He said the BRC's final report is due out on January 29, 2012, and nationwide meetings were held to present the report and receive feedback. He discussed the October 19 BRC meeting held in Atlanta, noting his impression of the meeting, listed attendance, and gave insights from the meeting's "state roundtable."

He discussed the 2012 Waste Management Conference, stating he has submitted an abstract and paper; the title of his paper is, "Finding the Public Voice-A Few Observations After Experience on the SRS Citizens Advisory Board." He then reviewed the Environmental Justice (EJ) meeting that was held in Barnwell on September 29; he said CAB member Long attended it, and asked her to speak about the meeting. CAB member Long stated the attendance at the meeting was good, and said they got very good information about the Site and EJ. She applauded the EPA for their hard work, and said she was happy to see "scholars" from the Super Fund EPA Job Training Initiative. She indicated that the workshop was beneficial.

CAB Chair Bridges listed "CAB Initiatives," encouraging the Board members to identify and suggest speakers for CAB meetings, and to talk to the local community. He said there are many responsible people in the community who have thoughtful input for the SRS CAB. He discussed CAB proposed Position Statements, saying it would be a general view of the CAB's position on a topic of interest, the adequacy of priority assigned, and similar issues. He said it would state what the CAB would like to see planned and/or implemented. He explained what he felt the Position Statements are useful and needed, stating it helps the CAB look at issues from the "big picture" perspective. He then suggested the topics that could be covered, such as general cleanup, new missions, and the CAB's view on budget priorities.

He concluded his update by providing an emphasis for the year, stating they should continue what they're doing, and focus on more involvement to DOE from the CAB, as well as more public involvement.

Erica Williams, Facilitator, briefly reviewed the agenda, and the process for public comments.

Agency Updates

Dr. Dave Moody, SRS Manager: DOE-SR

Dr. Moody thanked everyone for coming, and said he gets a lot out of the discussions. He said he appreciates the Board members' commitment to the CAB, as well as the support provided by the regulators. He said the CAB has a tremendous DOE and contractor staff supporting it. He said the last time he met with the CAB, SRS was about to introduce the Enterprise SRS, and has now "rolled" it out with the closure of P and R Reactors. He said they have received a lot of interesting feedback. He said they look forward to moving that forward. He said he's glad CAB members had a chance to speak with the new Assistant EM Secretary, whom he said is very supportive of the new Enterprise SRS mission, and is helping kick-start the mission.

He spoke about the progress towards Nuclear Materials activities, including progress towards the disposition of SNF. He said DOE is feeling the effects of a tight budget, and said they may have seen in the paper that Savannah River Remediation (SRR) is in the middle of a voluntary and involuntary layoff. He said this is directly related to the tight budget. He said they are still looking at accelerating the overall tank closure program, and new ways to do that.

Dwayne Wilson, President and CEO of Savannah River Nuclear Solutions (SRNS)

Mr. Wilson said he has been learning about the facilities at SRS, and is taking the time to visit as many people on the Site as he can. He said he took over SRNS on October 1 and then held a meeting with Site management on

October 6. He said there will be things rolled out over the next few months in relation to safety. He said they talked a little about reorganization to be more in-line with Enterprise SRS because they want to be more “business-focused.” He stated that the day before he had spent “time on the hill” with the staff members of the various delegates from South Carolina and Georgia. He said Terry Michalske, SRNL Director, as well as other individuals from the lab, spent time on the hill giving them a briefing on small modular reactors. He said the delegates are very engaged.

CAB member Williams said one of the key elements of safety is physical fitness. He asked if that would be included in the safety program. Mr. Wilson said he agreed and while they won’t see a big emphasis on physical fitness from a safety standpoint, it is important to him.

CAB Chair Bridges asked Mr. Wilson what his perceptions are of the workforce in terms of its profile. He asked if Mr. Wilson thought it was an aging workforce, or was in the middle. Mr. Wilson said the average age is 53. He said they do have some individuals that have been there for 20 plus years. He said this is a concern since retirement at the Site tends to be at a younger age. He said they need to work on retention and ways to attract younger staff members.

CAB member Hayes said as Mr. Wilson speaks about a more business-focused approach, she assumes he is trying to identify areas that are revenue generators. She asked where he sees that fitting in future SRS programs. Mr. Wilson said he doesn’t have a target at the moment, but he wants to get the overall concept started.

Dr. Moody said that one of the things that will not change is their strong partnership with the community. He said the business model and partnership with the local communities is not mutually exclusive.

CAB member Mary Davis asked for an update on the new mission to convert algae to useable fuel. Mr. Wilson said he couldn’t address that at the moment. Dr. Moody said they’ve been approached by an additional company out of the Southwest that is interested in the large area SRS has. He said this company is interested in converting algae to biofuels such as biodiesel, and SRS does have some interest in that growing area. He said it is a slow process, but there are some things going on. He said SRNL has ongoing work in that area and it’s starting to build with energy partners.

Pat McGuire, DOE-SR: co-DDFO

Mr. McGuire thanked Dr. Moody and Mr. Wilson for attending the meeting and sharing their views. He gave a safety brief on space heaters, warning everyone to give them enough space and to not leave them unattended. He then said with the support of the CAB, NNSA has committed to reinvest \$20.5 million each year to help provide plutonium as input to the mixed oxide fuel fabrication facility. He said that plutonium will be brought over from K-Area, dissolved in H-Canyon, and then transferred over to HB-Line where it will be purified and produced into an oxide. He said that material will eventually be shipped over to the MOX facility for fabrication into fuel. He said the support of the CAB helped build this new mission; he thanked them for their support.

He said they are finalizing the highly enriched uranium blend down program in H-Canyon. He said they have completed the dissolution of the last remaining highly enriched uranium materials, and by the end of December they plan on having that material purified, blended down, and shipped off to the Tennessee Valley Authority (TVA). He said this will meet their current commitment to deliver 301 metric tons of low-enriched uranium to TVA.

He said over in Liquid Waste, there was a new record established in saltwaste processing within the month of October; he addressed this new record and referred to the previous record from last June. He then discussed the tank closure process, stating they completed bulk waste removal efforts in Tanks 18 and 19 using both mechanical and chemical cleaning activities. He then stated they are working in consultation with the NRC.

With regard to the American Recovery and Reinvest Act (ARRA) funding, Mr. McGuire said that work is drawing to a close. He said the Site received \$1.6 billion to invest in Recovery Act activities. He reviewed the major areas this work was held in, and spoke about Footprint Reduction and TRU Waste.

He then spoke about the Enterprise SRS, stating there are 12 Strategic Initiatives. He reviewed what these initiatives address. He said there is a lot of interesting new work the Site will be focusing on, and more information on those will be available soon.

CAB member Clinton Nangle asked if a plan could be made available to the CAB that shows them from an aerial perspective where the miles of Footprint Reduction are located, as well as the areas that still need to be completed. He said he would also like something that would show where other activities, such as Army training, would be held. Mr. McGuire said it is a significant amount of real estate that has been cleaned up. He said they are concentrating their operational facilities at the center of the Site. He referred to the presentation held the day before that showed the areas focused on during the cleanup. Mr. Hintze, DOE-SR and co-DDFO, said they have a complete map of the Site with overlays of where the Army training can occur. He said they have a land use planning process as well. CAB member Parson asked who is in charge of the land use planning process. Mr. Hintze said it falls under his organization and the M&O contractor has an organization that is responsible for the comprehensive planning. CAB member Greene-McLeod said she would like to make a point of clarification. She stated some of the terminology used by DOE, such as “Footprint Reduction,” is misleading. She said that when DOE says that 228 square miles have been cleaned up, she thinks a lot of people interpret that as 228 square miles of SRS was contaminated, which is untrue. She said she thinks this is very misleading, and she would like for them to speak to that or even change the terminology. Mr. McGuire said CAB member Greene-McLeod is correct and that 100 percent of the Site was never contaminated. He said as they do footprint reduction they are not changing the boundaries of SRS. He said they had an arms training area which they cleaned and consolidated. He said this does not mean the entire area was contaminated, but as they cleared up the area around it, it cleared up space for new missions. He said they would do better in the future when speaking of footprint reduction.

CAB member Nangle said for a new person, the term “footprint” is confusing. He said he’s not sure if it includes buildings, or land, or both. He asked if there was an approved definition for footprint reduction. Ms. Helen Belencan, DOE-SR, said the term footprint reduction became sort of a term used to describe activities. She said it does include facilities, and only includes sources of contamination or superficial contamination, but not groundwater.

Robert Pope, Environmental Protection Agency (EPA)

Mr. Pope said it’s going to be a tough budget year. He said EPA’s travel budget will be hit very hard and they may not be attending as many CAB meetings as they have in the past. He said they plan to utilize the CAB’s Live Meetings. He said last year the EPA, with DOE and SCDHEC, co-hosted three EJ meetings. He said they plan to do that again in FY12. He said these meetings are a good opportunity to get out to communities that have people who may not be able to make it to CAB meetings. He spoke briefly about what is presented at these meetings. He stated they would soon get an update from Parsons on where they are with the third round of the Super Fund Job Training Initiative. He said he hopes to give a full update in January on the Job Training Initiative.

CAB Chair Bridges asked if the EPA could pick a modest level of training and keep the Job Training Initiative an ongoing program with several being held a year. Mr. Pope said they have not done that approach because Headquarters provides funding, and in order for them to give funding, they have to have a partner that identifies jobs. He said the program has to be “identified,” and they do not want to introduce training with no guarantee of a job.

Mr. Pope said the EPA is excited to see the CAB have interest in Appendix E, and looks forward to input from the CAB. He said they will have to step carefully because of regulatory deadlines. He then said many topics on the agenda shows the work done between DOE, SCDHEC, and EPA, including some bigger issues.

CAB member Williams asked Mr. Pope to present on the EJ Program in the future.

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

Ms. Wilson commented that Dr. Moody mentioned earlier that some of the goals for High Level Waste Tank Closure have been set-back due to budget constraints, but despite that, SCDHEC is still pleased with DOE’s progress because its goals are still ahead of regulatory milestones. She said there is currently a public comment

period for the closure modules for Tank 18 and 19; she encouraged everyone to submit comments. She said the comment period runs until December 15. She said there was a public meeting on the topic that evening and invited everyone to attend.

Ms. Wilson said SCDHEC submitted three comments to the BRC on October 31; she reviewed these comments.

She then introduced Ms. Heather Cathcart, SCDHEC, to speak. Ms. Cathcart said since the last CAB meeting, SCDHEC has reviewed, in conjunction with the EPA, 15 documents. She listed some of these reviewed documents. She said they are in the process of reviewing the F-tank farm closure module for tanks 18 and 19. She said they attended two meetings in the last month, and listed these. She said they would attend the Lower Three Runs Integrated Operable Unit meeting later that month.

Public Comments

Mr. Tom Clements, Friends of the Earth, said he was recently at the Nevada Test Site and was in the low level waste burial ground. He said he asked for them to point out where the SRS depleted uranium was taken, but was surprised the Site Manager couldn't identify where it was in the grid system. He said he did get to see how materials were being buried in different forms there. He reviewed this trip to the Nevada Test Site and reviewed what he visited while there. He responded to the talk about the BRC Report by stating there have been a lot more comments coming in and the BRC needs to spend more attention to getting Spent Nuclear Fuel (SNF) out of the pools in a quicker fashion. He said the staff came up to him to clarify on the issue of consolidated storage to say they are mostly initially talking about material from reactor sites or other sites that are closed that don't have adequate security. He stated one issue of concern for him with the Enterprise SRS is it appears to be some kind of centralized planning on the part of DOE-SR to push it, and he thinks the climate in the country is not very friendly to government picking winners and losers. He said that the private industry needs to step up and it's not a "ball" for DOE-SR to carry. He then spoke briefly about an inspector general report he said came out that day; he said it mentioned the term "environmental triage."

Ms. Karen Patterson, Governor's Nuclear Advisory Council (GNAC), said she wanted to address the issue of how the CAB can only make recommendations to DOE. She said as private citizens, the CAB members are her representatives to DOE and know better than anyone else in the community about the activities that are going on at SRS. She said SCDHEC is asking for public comments because they have to approve DOE's closure plan. She said the CAB should never let a procedural issue limit what it says. She said they should do it and ask for forgiveness later. She said she thinks DOE wants SCDHEC to hear from as much as the public as it can. She asked them to make comments on the Tank Closure Module.

Mr. Joe Ortaldo, Aiken, said the CAB might want to think about asking DOE to give it a presentation about reprocessing, what it is, what the fuel cycle is, etc, so to understand the terms. He said this is an area they didn't speak about when he came onto the Board because it was out of EM's scope of authority, but today things are changing. He said they should think about getting themselves educated.

Administrative Committee- Kathe Golden, Administrative Committee Chair

CAB member Golden said they would vote for the new Vice Chair of the CAB, and the results would be announced before the end of the day. She then gave the shorter address for the CAB website, which is cab.srs.gov

She reviewed changes made to the committee meeting schedule at the October Education and Process Session. She said all of the applications for membership have been sent up to DOE-HQ and they will hear in March who the new members are, and who has been reappointed. She said if any members are waiting to see if they have been reappointed, but are interested in running for any of the committee Chair positions, she encouraged them to go ahead and run. She provided information on the CAB Live Meetings, and thanked CAB member Johnson for his outreach efforts. She thanked CAB member Long for her work on the Speakers Bureau.

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

CAB member Hayes listed the members of the NM Committee, and explained the committee's mission. She spoke about issues the committee has addressed in its recommendations, and said the committee currently has four open recommendations; she reviewed these recommendations. She then spoke about the committee's pending recommendations. She said many of her recommendations have been in a state of limbo for several years, in more recent years because of the BRC Report.

She said she feels like they should keep these recommendations open until the BRC Report is addressed and other questions are answered. She asked her committee for their thoughts on the matter. CAB member Stan Howard said he thinks CAB member Hayes is right and they should leave them open until they have more information. CAB member John Snedeker asked if they knew what the final BRC report would look like in comparison with the initial draft report. CAB member Hayes said the information CAB Chair Bridges gave at the beginning of the meeting is the most recent. She asked DDFO Pat McGuire if he knew what the report would look like, and he said the BRC is outside the purview of DOE so it is hard to predict. CAB member Burke said if the CAB has recommendations that have been responded to, and the CAB feels like it is going to be in a different place in a few months, they should close those recommendations and evaluate where they are after the BRC Report is released. CAB member Hayes said CAB member Burke does have a point. She said to a large degree, many of the recommendations are repetitive, so they may consider closing them and boiling it down to a few recommendations. CAB Chair Bridges said he is ambivalent. He suggested they wait until BRC comes out with its report before deciding what to do with them. CAB member Hayes said she recommends they wait until January and then make decisions.

CAB member Hayes announced the next NM Committee meeting.

PRESENTATION: Overview & Status of the National Nuclear Security Administration (NNSA) Nuclear Nonproliferation Program at SRS-Virginia Kay, NNSA

Ms. Kay gave the purpose of her presentation, and reviewed the mission of NNSA's Surplus Plutonium Disposition Program. She said in order to complete its mission, NNSA is starting three projects: the Mixed Oxide Fuel Fabrication Facility (MFFF), Pit Disassembly and Conversion (PDC), and a Waste Solidification Building (WSB). She briefly explained the purpose and/or function of each of these projects.

CAB member Hayes asked if there was funding for the PDC, and if there was funding, where it would be built and what the schedule would be for it. Ms. Kay said they do have funding, and are undergoing critical decisions at the moment.

CAB member Burke asked if there were any customers, other than TVA, for MOX at this time. Ms. Kay said there were no other customers at this time. She explained their relationship with TVA, and said NNSA is working out an agreement with Areva Corporate so they can market MOX fuel with its customers. CAB member Burke asked if they would be marketing to customers outside of the U.S. Ms. Kay said not at this time.

CAB member Hayes asked if the reactors at TVA that use MOX fuel are boiling water reactors. Ms. Kay said there are three boiling water reactors and two pressurized water reactors that are under consideration. CAB member Hayes asked if there were other designs being considered for MOX usage. Ms. Kay said not at this time. She said it's not that MOX fuel couldn't be used in other reactors, it's more that NNSA has not had a customer come to it with a desire to evaluate other reactors for MOX usage.

Ms. Kay referred to a diagram of the Surplus Plutonium Disposition Program, as well as a chart of the Plutonium Disposition Program Schedule. She then reviewed the Mixed Oxide Fabrication Facility, stating it began construction in August 2008 and 56 percent of the total project has been completed, with 46 percent of the facility construction completed. She said the process building structure was 73 percent completed. She said there are three additional MFFF buildings in construction and it is scheduled for construction in October 2016. She said current employment is at 1,850. She referred to photos of the MOX construction sites from July 2007 and October 2011.

She then reviewed information on the Waste Solidification Building (WSB). She said it began construction in December 2008 and 70 percent of the total project is complete, with 56 percent of the facility construction completed. She said the process of building concrete had been completed, and the installation of piping, ductwork, cable tray, and GFE is in progress. She said it is scheduled for completion in 2012 and current employment is at 185. She referred to photos of the WSB from January 2010 and October 2011.

She reviewed information on Pit Disassembly and Conversion, stating what the facility would accomplish. She said DOE is evaluating the proposed CD-1 cost estimate for the PDC facility and is performing a study to evaluate additional alternatives that could establish a more cost-effective approach to meet the mission requirements.

Ms. Kay concluded her presentation by giving an update on the status of Plutonium Disposition Program.

CAB member Parson asked where MOX fuel is currently being made. Ms. Kay said it is being made in France. CAB member Parson asked if Duke Energy was using MOX fuel, and Ms. Kay said Duke Energy was not using MOX fuel.

PRESENTATION: Radiation: “What it is, What it isn’t”- Clint Wolfe, Citizens for Nuclear Technology Awareness (CNTA)

Mr. Wolfe stated what he would cover in his presentation, and gave the “ABC’s of Radiation.” He reviewed radiation, defining “Alpha,” “Beta,” “Gamma,” and “Neutron.” He said radiation can come from nature, such as from the sun, air, the ground, and from water, or food, that contains radioactive material. He said it can also be man-made, coming from things such as radioactive materials made in reactors, fallout from weapons tests, medical uses, and from consumer products. He spoke about how radiation is measured, which is in “rem.” He said you cannot see, smell or hear radiation, but you can measure it. He then listed the uses of radiation, including nuclear weapons, medical applications, and consumer uses.

He spoke about the hazards of radiation. He said if one gets a large dose, it can ionize molecules in cells and can cause cell death or damage. He then addressed radiation and health, stating that radiation is probably the most studied hazard, and work with radiation is highly regulated. He said there numerous national and international advisory organizations that focus on radiation. He said this is because radiation scares people, and they afraid of the unknown. He said one should have a healthy respect or something, but not fear.

He spoke about radiation phobia, saying it results in high costs for nuclear industries. He said there have been no new nuclear power plants in 30 years. He said radiation phobia possibly results in disproportionate attention compared to other areas and national safety.

He then discussed several myths concerning radiation, and nuclear energy, including such topics as yearly radiation doses from nuclear power plants, that nuclear reactors can explode like nuclear bombs, that nuclear energy is bad for the environment and unsafe, that there is no solution for the huge amounts of nuclear waste being generated, that most Americans don’t support nuclear power, that an American Chernobyl would kill thousands, that nuclear waste cannot be safely transported, that UNF is deadly for 10,000 years, and that nuclear energy cannot reduce our dependence on foreign oil.

He continued by showing a graph of radiation doses. He concluded by stating radiation is universal, there is no evidence that radiation exposure at less than 100,000 mrem causes any health effects, no one died at Three Mile Island, that nuclear power results in a small environmental footprint, and about 50 people died at Chernobyl, but the background radiation in surrounding areas is now normal.

CAB member Greene-McLeod asked what it takes to get to a “pellet,” as in what has to be mined, etc. Mr. Wolfe said uranium mining doesn’t have the best reputation from how it was done several years ago. He said the process for getting uranium separated and enriched to the levels needed has been improved over the years. He said some of these operations used to have the same issues mining has. He said when talking about energy density, the pellet is the equivalent of coal. He said the energy in that is very concentrated. He said he isn’t sure about the amount of waste generated by getting uranium out of the ground, but he assumes it is less than mining coal.

CAB member Jayaraman said the presentation was very interesting. He said he is one those who has a superstition about radiation, but that superstition doesn't always come out of ignorance. He said the myths in the presentation are not really myths created by laymen, but by professionals and research. He said some experts would take the same information and use it to draw different conclusions.

Mr. McGuire said Mr. Wolfe provided information and the CAB should take that information and form their own opinions. He said there are other experts that will draw different conclusions from the same information. He said the CAB should get as much information from different credentialed sources so to be able to form an educated opinion, and that is the point of Mr. Wolfe's presentation. He spoke about a similar presentation that was held at the Education and Process Session. He said Mr. Wolfe is respected in his field and is providing one point of view; he said others may form different opinions.

CAB member Hayes suggested that although some forms of radiation are not hazardous, that does not negate the fact that some forms are reported to be highly hazardous. She said as a social scientist, she has a mantra that is "things happen all the time that have never happened before." She said you can't ever just assume the management practices are always going to keep us safe from nuclear energy or waste. She said one of the reasons people can claim nuclear waste and radiation is safe is because of management practices. She said at SRS there are huge risks that are controlled by proven and tested management practices. She said if you look at public opinion polls it does show an increased support of nuclear energy, but the majority still prefer the government provide alternative energy solutions.

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

CAB member Wadley announced the next S&LM meeting. He said after this meeting the S&LM Work Plan will have been completed. He said the committee has two open recommendations; he briefly reviewed these. He said they would close these at the next meeting. He provided a brief review of the SRS Public Tours Program. He said all members were in attendance at the last S&LM meeting; he said the presentations were good, and it was the best meeting all year. He spoke about the H-Canyon tour that was held in October, and explained why he thinks the tours are worthwhile.

Public Comments

CAB member Alex Williams said he wanted to speak as a private citizen. He said he has heard lately the phrase "consolidate the management of nuclear materials" used to separate the State and the Federal government. He said this is a frightening thought for him. He said wrestling with the current system is like wrestling with an octopus and if it is consolidated, it will be like "wrestling with an octopus that has been shot up with PCP." He said they're going to have multiple disagreements and inputs. He said if Senator Reid is the animal the CAB says it is, get ready for more of that if the State and Federal government is separated. He said they don't have the technology in place to allow the States to do their own thing. He said the Federal government is having a hard enough time. He said they should approach new technology solutions. He said they need to focus on SRS and keeping it secure.

Waste Management (WM) Committee Overview- Stan Howard, WM Committee co- Vice Chair

CAB member, and WM co-Vice Chair, Stan Howard, began the committee's discussion by announcing the committee's next meeting, and stating it was working on many recommendations. He then introduced Christopher McKenney, of the Nuclear Regulatory Commission (NRC), to give a presentation.

PRESENTATION: NRC Staff Technical Evaluation Report: Related to the Waste Determination for the F-Tank Farm Facility at the Savannah River Site, South Carolina, - Christopher McKenney, NRC

Mr. McKenney introduced himself and said as part of the National Defense Authorization Act (NDAA) of 2005, the NRC was tasked with assisting in the review of decisions made by the Department of Energy (DOE) on the closure of the high level waste tanks in the H-Tank Farms and Saltstone disposal activities. He said during his presentation

he would provide a technical evaluation of the Waste Determination for the F-Tank Farm Facility. He said he didn't have any prepared remarks on Saltstone as they were currently reviewing it. He said DOE provided the NRC with comments in late August and these comments are still being reviewed.

He continued by providing an overview of his presentation, which included NRC's role in DOE Waste Determinations, a review timeline, results and recommendations for F-Tank Farm, and results and recommendations for Tanks 18 and 19.

Mr. McKenney reviewed the NRC's role by stating it is defined by Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 to have a consultation role with DOE. He said DOE still makes the determination on whether or not something is high level waste or is not high level waste; the NRC only makes recommendations on how to improve DOE documents, how to answer technical questions, and assists in making the determination better. He continued that after the determination, the NRC has a different role—it has a monitoring role that ensures that Performance Objectives are met in the long-term. He said the Secretary of Energy must consult with the NRC in determining certain wastes associated with reprocessing are not high level waste. Mr. McKenney explained that the NRC will not enter its stage of monitoring until the waste determination is released by the Secretary of Energy. He continued that “DOE provided the NRC with a waste determination and associated performance assessment in order to facilitate consultation.”

Mr. McKenney addressed the Review Timeline, stating in September 2010, DOE issued a draft basis document for F-Tank Farm, in December 2010, the NRC issued requests for additional information, in January to February 2011, the NRC and DOE participated in public technical exchanges to clarify requests for additional information, in May to June 2011, DOE responded to the requests for additional information from the NRC, in June to July 2011, the NRC and DOE participated in a series of technical teleconferences to clarify request for additional information responses, and in October 2011, the NRC issued a technical evaluation report for the F-Tank Farm. He stated that the NRC maintains a “neutral” position regarding DOE's ability to meet Section 3116 criteria given early stages of tank cleaning and closure, and provides several recommendations where additional support for modeling approaches or assumptions is needed. He said the reason for this is because not all of the data is available yet, and a lot will be coming out in the future.

He continued that the NRC has provided several recommendations, and stated in the short-term, some of the biggest assumptions in the model includes the performance of the cover, how long the tank liners actually last, and how does the chemical, and physical characteristics, of the grout assist in keeping the residuals in the tank even if the tank liner were to degrade. He added that these were projections over thousands of years, and the modeling was showing that with the assumptions made by DOE, if those work within the rates in which they say they'll degrade, the releases will be within performance objectives. He spoke about dose restraints, stating the dose constraint NRC works on for the tank farms is 25 millirem at 100 meters from the facility. He reviewed NRC results and recommendations on Tanks 18 and 19, stating that no concerns were identified with respect to the Tank 19 closure; however, Tank 18 is a type four tank, which is a tank without a secondary containment, and it is also located on the corner of the facility. He said it has the highest residual inventory of all the tanks in the tank farm, and explained that type four tanks have the shallowest groundwater underneath them. He then listed a recommendation that stated DOE will evaluate all options for the delaying of closure for Tank 18, and reviewed the reasons for this recommendation.

Mr. McKenney then spoke about the barrier concerns, and reviewed more NRC recommendations on Tanks 18 and 19, which included a determination that insufficient information was provided in regards to the practicality of additional highly radioactive radionuclide removal for Tank 18, and that short-term experiments on Plutonium (Pu) solubility in order to suppose current assumptions could resolve problems with uncertainty in barrier performance and release characteristics.

CAB Chair Donald Bridges asked Mr. McKenney to explain what he meant by “neutral position.” Mr. McKenney said they didn't come out and say that it does or does not meet the performance criteria at this time. He said if the question came forth of “will DOE's plan result in the performance objectives being met under NRC's monitoring role in the future,” the NRC will say they have not reached that determination yet because the final inventories aren't established, and the NRC has some questions on the uncertainty of the performance of the tank liner and the

solubility rates. CAB Chair Bridges then asked what's DOE's, or SRR's, position on providing the NRC with the additional information needed. Mr. McKenney said that would be covered in the next presentation.

CAB member Rose Hayes stated the CAB was briefed the day previously about a crack in Tank 4, which is above the liquid level and is therefore without risk. She said it raises the question of controlling for all variables in modeling for long-term degradation and security of these tanks, and asked what was learned by this unanticipated crack in Tank 4. Mr. McKenney said the NRC has not been involved in any of the follow-up for the Tank 4 issue. CAB member K. Jayaraman asked about the review timeline, stating the process seems to take a long time. Mr. McKenney said the questions began in December and both sides had to work on how to solve some of those questions; he reviewed the timeline briefly, explaining why it took a year. He said they try to be mindful of timelines, but for some of the NRC's licensing actions, a year is not uncommon.

CAB member Howard asked if there is a consideration for the cost involved when the NRC makes recommendations, and asked if there are estimations available concerning the cost involved for the additional tests. Mr. McKenney said the NRC is not in a position to consider cost when making recommendations, and it is up to DOE to consider costs and impacts on other agreements and schedules.

CAB member Denise Long said it is her understanding that Tank 18 and 19 are the same type of tank. She said if they are having issues with 18, why not 19; she wanted to know the difference between the two tanks. Mr. McKenney said it's the degree of inventory. He said there isn't as much Pu in Tank 19 since more was taken out when cleaned than Tank 18.

CAB member Jayaraman made a comment to the effect that it appears the NRC doesn't have "teeth" in making decisions or monitoring. Mr. McKenney explained the NRC's role historically, and what it is today. CAB member Hayes commented that it sounds like the NRC can pass rules and regulations, but can't enforce them if it involves a federal site. She said the NRC sends a letter to Congress; she asked which committee that letter goes to and who heads that committee. Mr. McKenney stated it goes to an Energy Committee, but he isn't sure who currently heads the committee. He said the NRC has different paradigms with DOE depending on what the issue is; he gave Yucca Mountain as an example. He then explained NRC's relationship with DOE on the tank issue, saying they were included in 2005.

Larry Camper, NRC, stated the questions being asked were very interesting. He said the NRC is typically 100 percent regulator. He said the NRC does impose civil penalties on other federal facilities, but DOE is not a licensee. He explained that with the NDAA in 2005, the two agencies were brought together in a very unique relationship. He said DOE was not accustomed to being regulated by an agency such as the NRC, and the NRC was not accustomed to working in the role of consultant. He said what makes 3116 complicated from the NRC's standpoint is there are two parts: 3116a deals with the consultation efforts, and 3116b says NRC will assess compliance that the performance objectives are met. He explained what the NRC is typically trying to achieve when asking questions, and then stated the NRC does not have the authority to fine DOE within this agreement; he addressed what the NRC is permitted to do.

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

Ms. Ross outlined the purpose of her presentation, which included providing information concerning Tanks 18 and 19 in F-Tank Farm, the regulatory documentation path, or decision-making process, and the path forward. She said there are six major decisions to be made before closing Tanks 18 and 19. She referred to and reviewed a graph titled, "DOE-SR's Regulatory Documentation Path to Waste Tank Removal from Service."

She continued by stating DOE has received the NRC's evaluation report and the NRC will be entering into a monitoring role in conjunction with the state of South Carolina. She said both the NRC and South Carolina has enforcement actions with DOE. She said the documents that are currently approved have been developed, reviewed, and have been out for public availability. She reviewed decisions associated with the F-Tank Farm, pointing them out on the regulatory documentation path graph.

Ms. Ross spoke about DOE's Waste Determination, stating DOE has been consulting with the NRC for a number of years, and thanks the NRC for the supportive role it is providing to DOE. She explained the regulatory driver is Section 3116a of the NDAA for Fiscal Year 2005. She reviewed the decision, stating "the Secretary of Energy, in

consultation with the NRC, may determine that the residual waste, tanks, and ancillary equipment in F-Tank Farm at the time of closure are not high level wastes if the criteria in Section 3116a are met.” She continued by saying the status is that DOE is “carefully” considering the NRC’s Technical Evaluation Report (TER). She said DOE will factor this into its decision. Ms. Ross stated that a decision is being made by the Secretary of Energy, which is expected for early next year, and DOE will provide public notice of the Secretary’s decision, and will place supporting documents for public access at: http://sro.srs.gov/f_hthankfarmsdocuments.html.

She then reviewed the NRC’s TER, stating DOE received it on October 27, 2011. She said DOE is carefully considering the TER and will factor in the NRC’s recommendations, and public comments, into its decision-making process where it is appropriate. She continued that DOE remains committed to protecting DOE workers, members of the public, and the environment, and to reduce the risks associated with the storage of waste in aging tanks at SRS. She said DOE will work with South Carolina Department of Health and Environmental Control (SCDHEC) and the Environmental Protection Agency (EPA) pertaining to the NRC’s Tank 18 recommendation.

CAB Chair Bridges commented that what seems unusual to him is that Ms. Ross is saying that DOE is going to make a decision in January, but he assumes there is a package at DOE Headquarters. Ms. Ross said DOE had prepared a package, and is working the NRC’s recommendations, and fully intend to address all recommendations that NRC has identified, and is developing a response document. She said to remember that many of these recommendations are going to fall into a monitoring role. She said they are looking at long-term performance-such as performance of the facilities over tens of thousands of years. She said they want to make sure they know the risks involved, and will evaluate those risks, including risks in the future. She said DOE is moving forward, has called in experts, and is not surprised by Tank 18; she said DOE anticipated Tank 18 is a driving risk, as it was a sludge tank. CAB Chair Bridges asked if the Pu inventory could be decreased anymore than it already has been. Ms. Ross said there are two criteria that must be met, including removing highly radioactive radionuclides to the maximum extent practical. She said this is primarily a technology capability question, and DOE has employed four different technologies, multiple campaigns, to empty Tank 18. She said the tank is 99.7 percent empty, which she described as “very, very empty.” She said NRC has raised the point that Tank 18 is a driving risk, and should be looked at again, so DOE will look at it again.

CAB member George Snyder stated that in the NRC’s presentation, Mr. McKenney stated that Tank 18, in the modeling, the levels were raised after 10,000 years. He asked how many years it goes out. Ms. Ross stated that DOE believes that the risk associated with entire F-Area Tank Farm, including Tank 18, in a 10,000 year period, will be less than 25millirem.

CAB member Hayes asked what kind of variables are built into computer models that project out to 10,000 years, let alone millions. Ms. Ross said DOE has a lot of smart people that look at the models and predictions. She said they have estimated things like how much rain will fall, and it’s all a guess. She said when talking about 40,000 years, don’t think the numbers are real. She said what is important is to understand a quantitative-type evaluation. Ms. Ross then reviewed what DOE looks at and how.

Ms. Ross continued by stating the regulatory driver for the NEPA Supplemental Analysis is the National Environmental Policy Act (NEPA). She said the NEPA requirements have been met, and the Supplement Analysis is in process. She explained that approval by the DOE Savannah River Site Manager is scheduled for Jan./Feb. 2012, and DOE will publish an Environmental Bulletin and post for public access. She stated the regulatory driver for the closure of F-Tank Farm decision is DOE Order 435.1 and Manual 435.1-1. She said with DOE’s authorization, they have proceeded with the closure of the F-Tank Farm. She said the status is that the Tier 1 authorization document is in process, and the decision will be made by the Assistant Secretary for EM by Jan./Feb. 2012.

Ms. Ross reviewed SCDHEC’s approval of Tanks 18 and 19 closure modules, stating the regulatory driver is the Pollution Control Act and Industrial Wastewater Regulations. She said the decision was SCDHEC’s approval to close Tanks 18 and 19, and the decision is made by SCDHEC’s Director of Water Facilities Permitting; this decision is anticipated by March 2012. She listed the status, stating the closure module has been reviewed by SCDHEC and EPA, a public comment period is scheduled for October 31-December 15, 2011, and there would be a public meeting in Aiken that evening. She continued that the DOE post for public access is at: http://sro.srs.gov/f_hthankfarmsdocuments.html.

She then stated there was a mutual decision made by DOE, EPA, and SCDHEC to cease waste removal. She said the regulatory driver was the Federal Facility Agreement (FFA). She explained the decision, stating that waste removal activities may cease for a specified tank or system. She said the three agencies, DOE, EPA, and SCDHEC, must mutually agree, and the agreement is needed by March 2012 in order to support meeting FFA commitment.

Ms. Ross continued by discussing DOE's authorization to close Tanks 18 and 19. She said the regulatory driver was DOE Order 435 and Manual 435.1. She stated the decision is for DOE's authorization to proceed with the closure of Tanks 18 and 19. She listed the status as "pre-requisites underway," and commented that the decision is made by the SR Operations Office Site Manager, and is scheduled for April 2012 to support meeting the FFA commitment. She summarized by reviewing DOE's path forward.

CAB Chair Bridges asked if they would do some additional experiments, can they reduce the inventory, and can they do something about barrier performance. Ms. Ross said they can do R&D, and intend to do R&D. She said the NRC has made some recommendations, but these were things DOE was planning to do anyway. She said the question was should they do this before or after making decisions; she said they will factor these recommendations into the decision-making process. She said they can do R&D on the residual source term, on how it leaches, and on if it is or is not mobile in the environment. She continued by stating that Pu is really not mobile in the environment, and DOE thinks that the 40,000 year peak is not real. She said they will do the research and development, and the additional evaluations, to support that decision. She said they will do testing on the existing grout to find out how long it will last and provide protection.

CAB Chair Bridges asked if there was anything that could keep DOE from closing Tanks 18 and 19. Ms. Ross said the Secretary of Energy could decide to not close the tanks at this time.

PRESENTATION: Update on Tanks 18 and 19 - Shelly Wilson, SCDHEC

Ms. Wilson invited everyone to that evening's public meeting concerning the Tank 18 and Tank 19 closure. She reviewed what was covered earlier about the 2005 NDAA and the role of monitoring it gave the NRC. She said that act also clarified that SCDHEC has a regulatory role, and that the 2005 NDAA clarified the state of South Carolina's voice and role in tank closure activities. She continued that the NDAA states that the NRC will be monitoring later on and that monitoring will be in coordination with SCDHEC. She commented that if the state of South Carolina finds something it doesn't like, it can always take enforcement action to bring the situation back in compliance.

Ms. Wilson stated there was an overall closure plan approved by SCDHEC earlier in the year, and now there is a specific closure module that proposed specific activities for closure of tanks 18 and 19, and that is what is open for formal public review and comment. She encouraged the CAB to review and comment the closure module. She said the formal comment period runs from October 31 to December 15, 2011. She advised everyone on how to submit public comments.

She then reviewed some of her own thoughts, and SCDHEC thoughts, on the tank closures, stating they were not surprised that Tank 18 is the risk driver. She continued that it is also not surprising that the NRC wanted additional information. Ms. Wilson said when she looked through the TER, and saw the recommendation for the delay of closure of Tank 18, she said what she was looking for in the report was a "red flag." She said she surmised that if the additional information, in terms of the solubility studies, turns out to be unfavorable, and if many things break down at inopportune times in the tank system, there may be an elevated risk of some sort, which would happen 30,000-40,000 years into the future. She said there are a lot of "ifs" and uncertainties, and nothing definite. She explained all of these things come from the use of a predictive model, which she described as a useful tool, but as imperfect. She explained how this tool is imperfect and how different, unforeseen variables, could change the outcome. She said it is not the only tool they use.

CAB Chair Bridges commented that looking so far into the future is overly conservative. Ms. Wilson said the time frame and measurements are criteria cited in the NDAA for consideration.

DISCUSSION: Rob Pope, EPA

Mr. Pope also announced the public meeting that evening. He said the EPA has also reviewed the TER, and is still looking at it, and stated the NRC has raised some very interesting points. He stated the EPA's expectation at this time is that DOE will address all those issues. He said the EPA will look very carefully at how DOE address these

issues and answers questions. He said at this time, the EPA thinks that most of the issues brought up can be addressed by engineering solutions in the short-term, which he defined as when they complete F-Tank Farm closures. He continued by addressing Ms. Wilson's statement that there are multiple tools used; he said the EPA's strongest tool is the FFA. He said they will perform Comprehensive Environmental Response Compensation and Liability Act (ERCLA) decisions on each group of tanks as they are closed, and over each tank farm. He reviewed how CERCLA decisions work, using the P Reactor at SRS as an example. He said at this time, the EPA expects DOE to make all FFA commitments.

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

CAB member Parson listed the Vice Chair and members of the FD&SR Committee. She announced her committee's next meeting; she asked members to be there at 5:30. She said CAB Chair Bridges has given them a Position Statement to look over. She said they may speak about changing the committee name, but wanted DOE people to be there to answer questions. She said they have a pending recommendation, 279; she briefly reviewed this presentation.

PRESENTATION: P-Area Operable Unit (PAOU) and R-Area Operable Unit Update (RAOU)- Rita Stubblefield, DOE-SR

Ms. Stubblefield began her presentation by reviewing its purpose and agenda, and giving a brief background on the P and R Area Operable Units. She then referred to a diagram of the Area Completion Approach, as well as aerial photo diagrams of PAOU and RAOU. She listed the Operable Unit Completion Objectives, which stated 1.) Remediate waste units requiring action, 2.) In-Situ Decommission Reactor Building, and 3.) At completion, Operable Unit will be safe for industrial use.

She reviewed the Operable Unit Scope, referring to a graph of the reactor in-situ end-state cross section. She continued to review the scope, stating the projects are being safely performed as part of the Recovery Act funding. She reviewed individually the scopes of PAOU and RAOU, and then gave the current status of each.

She then referred to photos of a 105R Reactor Vessel, 105R Stack Demolition, P-Ash Basin Remediation, 105p Lower Level Grouting, 105R Roof Modifications, 105R Disassembly Basin, 105R Aerials, Final Sealing of 105P Reactor, 105P Reactor Initial State, 105P Aerial End State, and 105R Reactor Aerial-End State.

Ms. Stubblefield concluded her presentation by stating work has been performed safely, reactor decommissioning scope and waste unit remediation has been executed, and projects are mechanically completed ahead of schedule in August 2011, and below cost.

CAB Chair Bridges said it only cost \$70 million to build it, but cost more to take it apart. He asked if they ever anticipated going back in. Ms. Stubblefield said they do not.

CAB member Greene-McLeod asked if Ms. Stubblefield could give CAB members a history of R-Reactor. Ms. Stubblefield said she thinks it was shut down because the nation's defense needs had decreased. CAB member Greene-McLeod asked if there was a leak in R-Reactor. Ms. Stubblefield said there was a spill in the emergency basin.

CAB member Parson asked how cleaned up the area is, and if tours could be taken in the area. Ms. Stubblefield said you cannot enter the building as it is sealed, and there are land use controls in place and signs around the building. She said you cannot dig in the area, but there is no fence around the building.

CAB member Nangle said they should spend another \$10,000 to put some trees or shrubs around the building to take the "sting" out of it. He said it is not attractive and won't be beneficial to attracting new missions.

Dr. Dave Moody, SRS Manager, referred to a photo of the reactor and said it will not be a recruiting poster. He said if he had a place where he would put a few million dollars, it would be for a new building for SRNL because it is the

key to the Site's newer missions. He said they can do some cosmetic things to the reactor area and no tours will be in that area.

**PRESENTATION: Heavy Water Components Test Reactor (HWCTR) Update-
Ms. Candace Freeman, DOE-SR**

Ms. Freeman began her presentation by listing its agenda and purpose. She gave a brief background on HWCTR and showed photos of HWCTR being constructed. She then showed a photo of a panorama view of the inside of HWCTR at ground level.

She stated the Completion Objectives, which included "achieve human health and environmental protectiveness by removing approximately 99 percent contamination," and "in-situ decommissioning with reactor vessel and two steam generators removed and disposed in E-Area trenches on site." She reviewed the scope, listing the major work activities, and referred to a few diagrams that showed the scope in action.

Ms. Freeman then showed photos of Block Removal, Crane Assembly, Dome Removal, Steam Generator Removal, Reactor Vessel Removal, Relocation of Transfer Coffin, Dome and Wall Shearing, and Completed HWCTR Concrete Cap.

She concluded her presentation by stating work has been performed safely, and projects have been completed "mechanically" ahead of schedule in July 2011, and below cost.

Facilities Disposition & Site Remediation (FD&SR) Recommendation Discussion and Voting

CAB member Parson said CAB member Golden would act as Recommendation Manager for the proposed recommendation, "Revising the Department of Energy Websites & Using Plain Language to Communicate with the Public More Effectively."

CAB member Golden reviewed the four recommendations listed at the bottom of the document. She then asked for a motion to accept the recommendation. It was approved and seconded.

CAB Chair Bridges then asked if there was any discussion. CAB member Skyye Vereen made some editorial changes. CAB member Howard suggested changing "all computer programs," to "common computer programs."

CAB member Parson suggested to leave it broad and let it be addressed in DOE's response.

CAB Chair Bridges opened the recommendation for a vote. It was approved with all in favor.

CAB member Parson then provided some information on the next FD&SR meeting.

Vice Chair Election Results

CAB member Golden announced the results of the election for CAB Vice Chair. CAB member Wadley was elected Vice Chair of the CAB. She said he was elected by one vote.

Public Comments

Mr. Tom Clements, Friends of the Earth, announced he would attend the public meeting held that night by the NRC concerning the tank closures. He addressed the presentation given by Mr. Wolfe, stating he attended a presentation recently titled, "Is a Little Pollution Good for You?" He said the professor didn't seem to believe that a little pollution was good for him. He said those who are not getting the recommended "good for them" dose of radiation should be radiated. He gave examples of residents in India who don't get scheduled dental x-rays, etc. He said he doesn't see anyone advocating a program that makes sure people get radiated to some level. He said he wants to see that proposal if other theories about the dangers of radiation are not valid. He said until he hears someone propose a

program that insists everyone have a radiation dose, he is going to believe what most of the scientists say about radiation. He said this is an important discussion.

~CAB Chair Bridges adjourned the meeting.

NOTE: For presentations, recommendations, and other CAB materials, please refer to the CAB's website at: cab.srs.gov

See attached:

- Facilities Disposition & Site Remediation Committee Recommendation, titled “Revising the Department of Energy Websites & Using Plain Language to Communicate with the Public More Effectively.”
- Handout titled, “Environmental Bulletin Online Evaluation”

Recommendation #

Revising The Department Of Energy Websites & Using Plain Language
To Communicate With the Public More Effectively

The ability of the government and its agencies or departments to communicate and collaborate with the public is viewed as important by the public at large. Recognizing this, in January 2009 President Obama issued the “Memorandum on Transparency and Open Government” in which the Director of the Office of Management and Budget was instructed to issue an Open Government Directive. Together with guidelines issued by Attorney General Eric Holder with regard to the Freedom of Information Act, the principle that openness is the Federal Government’s default position was reinforced.

These initiatives were given another boost with The Plain Writing Act of 2010, which requires federal agencies to write government documents that the public can understand and use. As a result of this Act, the “Federal Plain Language Guidelines” was updated in May 2011. The Guidelines state that agencies should prepare documents so that “users can find what they need, understand what they find; and use what they find to meet their needs.”

While the the Savannah River Site Citizens Advisory Board recognizes that it takes time for initiatives to be implemented, DOE’s websites do not have adequate search features, documents are not readable, and many documents are not posted online.

For example, a search for “SRS” on www.DOE.gov yields no results, and a search for “Community Involvement Plan” on www.srs.gov yields no results even though that document is posted on that website. To illustrate how documents intended for the public are not readable, the “Environmental Assessment For The Proposed Use Of Savannah River Site Lands For Military Training” (August 2011, U.S. Department Of Energy, Savannah River Operations Office, Savannah River Site) included a list of 83 acronyms. Finally, to date, only 10 of the 29 documents announced as available for public review in the 2011 “Environmental Bulletin *from the Savannah River Site*” are posted online (for full details, see the Attachment).

Recommendation: The Savannah River Site Citizens Advisory Board recommends that DOE:

- 1) Review www.srs.gov and www.DOE.gov to see how the two website can be modified so that information about the Savannah River Site is readily available on both sites and vice versa.
- 2) Review www.srs.gov and www.DOE.gov and revise as necessary to make all information accessible to all computer platforms.
- 3) Make all documents that are noticed in the “Environmental Bulletin *from the Savannah River Site*” available online.
- 4) Write all documents intended for public use per the “Federal Plain Language Guidelines.”

- 5) Review the “Open Government Directive” to determine to what extent Environmental Management at SRS is in compliance with the intent of the Directive in terms of publishing government information online and to present its findings to the CAB at a full board meeting no later than January 2012.

ATTACHMENT

Environmental Bulletin from the Savannah River Site	Date Published	Public comment announced	Online link
New Mexico Community Foundation Announces APPLICATIONS BEING ACCEPTED FOR COMMUNITY INVOLVEMENT FUND	January 10, 2001	N	Y
Removal Site Evaluation Report/Engineering Evaluation/Cost Analysis (RSER/EE/CA) For the C Area Reactor Area Cask Car Railroad Tracks as Abandoned (NBN) Subunit at the Savannah River Site	January 14, 2011	Y	Y
PUBLIC INVITED TO PARTICIPATE IN NRC/DOE CONFERENCE CALLS DISCUSSING THE F-TANK FARM DRAFT WASTE DETERMINATION BASIS FOR SRS	January 20, 2011	N	N/A
Public May View NEPA Planning Summary	January 26, 2011	N	Y
REVISED ACTION MEMORANDUM ISSUED FOR THE REMOVAL SITE EVALUATION REPORT/ENGINEERING EVALUATION/COST ANALYSIS (RSER/EE/CA) FOR THE REMOVAL ACTION OF TRITIUM CONTAMINATED SOIL AND CONCRETE at the MODERATOR PROCESSING SUBUNIT at the D AREA OPERABLE UNIT	February 17, 2011	N	N
Action Memorandum and Responsiveness Summary Issued for the C-Area Reactor Area Cask Car Railroad Tracks as Abandoned at the Savannah River Site	March 09, 2011	N	N
DOE to Hold Public Meeting on Draft Environmental Impact Statement (EIS) for the Disposal of Greater-Than-Class C Low-Level Radioactive Waste (GTCC) and GTCC-Like Waste	March 10, 2011	N	Y
Revision 5 Action Memorandum Issued for the Disposition of Water in the 105-P Disassembly Basin at the Savannah River Site	March 16, 2011	N	N
Removal Site Evaluation Report/Engineering Evaluation/Cost Analysis (RSER/EE/CA) For the In Situ Decommissioning of the 105 C Disassembly Basin	March 23, 2011	Y	Y
Revision 2 Action Memorandum Issued for the Non Time Critical Removal Action for the 489 D Coal Pile Runoff Basin, D-006 Outfall, and 484-10 D Waste Oil Facility at the D Area Operable Unit	March 28, 2011	N	N
Action Memorandum Issued for Transfer of the D-006 Petroleum Release Site From the D Area Operable Unit to the Savannah River and Floodplain Swamp Integrator Operable Unit		N	N
Floodplain/Wetlands Assessment Issued for the D-006 Petroleum Release Site Removal Action at the Savannah River Site		Y	N
The Savannah River Site (SRS) H-Area Tank Farm Performance Assessment (HTF PA) is Available for Public Information	April 4, 2011	Y	Y
Interim Action for the Flexible Manufacturing Capability for the Mixed Fuel Fabrication Facility (MFFF) at the Savannah River Site Available for Public Review	April 13, 2011	N	Y
Hazardous Waste Permit Modification Requested for the Savannah River Site	April 15, 2011	Y	N
Record of Decision for the R Area Operable Unit at the Savannah River Site Available to the Public	April 20, 2011	N	N
Action Memorandum and Responsiveness Summary Issued for the In Situ Decommissioning of the 105 C Disassembly Basin at the Savannah River Site	May 19, 2011	N	N
FACT SHEET AVAILABLE FOR THE R AREA OPERABLE UNIT AT THE SAVANNAH RIVER SITE	May 25, 2011	N	N
NOTICE OF AVAILABILITY - RECORD OF DECISION FOR THE L AREA NORTHERN GROUNDWATER OPERABLE UNIT AT THE SAVANNAH RIVER SITE	June 20, 2011	N	N
REMOVAL SITE EVALUATION REPORT/ENGINEERING EVALUATION/COST ANALYSIS (rser/ee/ca) FOR THE C AREA PROCESS SEWER LINES AS ABANDONED (NBN) SUBUNIT FOR THE C AREA OPERABLE UNIT AT THE SAVANNAH RIVER SITE	June 23, 2011	Y	y
NOTICE OF AVAILABILITY - RECORD OF DECISION FOR THE GUNSITE 012 OPERABLE UNIT AT THE SAVANNAH RIVER SITE	June 27, 2011	N	N
FLOODPLAIN ASSESSMENT ISSUED FOR THE STORMWATER DRAINAGE REPAIRS OF THE T AREA CAP AT THE SAVANNAH RIVER SITE	August 29, 2011	Y	N
Draft EA prepared for the proposed use of SRS lands for military training (DOE/EA-1606)	August 29, 2011	Y	N
RCRA Permit Application Modification Requested for the Mixed Waste Management Facility at the Savannah River Site	September 12, 2011	y	N
Action Memorandum and Responsiveness Summary issued for the C Area Process Sewer Lines as Abandoned (NBN) SUBUNIT for the C Area Operable Unit at the Savannah River Site	September 14, 2011	N	N
FACT SHEET AVAILABLE FOR THE GUNSITE 012 OPERABLE UNIT AT THE SAVANNAH RIVER SITE	September 22, 2011	N	N
NOTICE OF AVAILABILITY - EARLY ACTION RECORD OF DECISION FOR THE D AREA OPERABLE UNIT AT THE SAVANNAH RIVER SITE	September 26, 2011	N	N
DOE Requests Temporary Authorization to Modify the Corrective Action System at the M-Area Hazardous Waste Management Facility at the Savannah River Site	October 21, 2001	N	N
Interim Action Determination for Disposition of Certain Plutonium Materials Stored at the Savannah River Site Available for Public Review	October 25, 2011	Y	Y
Industrial Wastewater Closure Module for the Liquid Waste Tanks 18 and 19 F-Area Tank Farm, Savannah River Site Available for Public Comment	October 31, 2011	Y	Y

ATTACHMENT

Environmental Bulletin from the Savannah River Site	Date Published	Public comment announced	Online link
New Mexico Community Foundation Announces APPLICATIONS BEING ACCEPTED FOR COMMUNITY INVOLVEMENT FUND	January 10, 2001	N	Y
Removal Site Evaluation Report/Engineering Evaluation/Cost Analysis (RSER/EE/CA) For the C Area Reactor Area Cask Car Railroad Tracks as Abandoned (NBN) Subunit at the Savannah River Site	January 14, 2011	Y	Y
PUBLIC INVITED TO PARTICIPATE IN NRC/DOE CONFERENCE CALLS DISCUSSING THE F-TANK FARM DRAFT WASTE DETERMINATION BASIS FOR SRS	January 20, 2011	N	N/A
Public May View NEPA Planning Summary	January 26, 2011	N	Y
REVISED ACTION MEMORANDUM ISSUED FOR THE REMOVAL SITE EVALUATION REPORT/ENGINEERING EVALUATION/COST ANALYSIS (RSER/EE/CA) FOR THE REMOVAL ACTION OF TRITIUM CONTAMINATED SOIL AND CONCRETE at the MODERATOR PROCESSING SUBUNIT at the D AREA OPERABLE UNIT	February 17, 2011	N	N
Action Memorandum and Responsiveness Summary Issued for the C-Area Reactor Area Cask Car Railroad Tracks as Abandoned at the Savannah River Site	March 09, 2011	N	N
DOE to Hold Public Meeting on Draft Environmental Impact Statement (EIS) for the Disposal of Greater-Than-Class C Low-Level Radioactive Waste (GTCC) and GTCC-Like Waste	March 10, 2011	N	Y
Revision 5 Action Memorandum Issued for the Disposition of Water in the 105-P Disassembly Basin at the Savannah River Site	March 16, 2011	N	N
Removal Site Evaluation Report/Engineering Evaluation/Cost Analysis (RSER/EE/CA) For the In Situ Decommissioning of the 105 C Disassembly Basin	March 23, 2011	Y	Y
Revision 2 Action Memorandum Issued for the Non Time Critical Removal Action for the 489 D Coal Pile Runoff Basin, D-006 Outfall, and 484-10 D Waste Oil Facility at the D Area Operable Unit	March 28, 2011	N	N
Action Memorandum Issued for Transfer of the D-006 Petroleum Release Site From the D Area Operable Unit to the Savannah River and Floodplain Swamp Integrator Operable Unit		N	N
Floodplain/Wetlands Assessment Issued for the D-006 Petroleum Release Site Removal Action at the Savannah River Site		Y	N
The Savannah River Site (SRS) H-Area Tank Farm Performance Assessment (HTF PA) is Available for Public Information	April 4, 2011	Y	Y
Interim Action for the Flexible Manufacturing Capability for the Mixed Fuel Fabrication Facility (MFFF) at the Savannah River Site Available for Public Review	April 13, 2011	N	Y
Hazardous Waste Permit Modification Requested for the Savannah River Site	April 15, 2011	Y	N
Record of Decision for the R Area Operable Unit at the Savannah River Site Available to the Public	April 20, 2011	N	N
Action Memorandum and Responsiveness Summary Issued for the In Situ Decommissioning of the 105 C Disassembly Basin at the Savannah River Site	May 19, 2011	N	N
FACT SHEET AVAILABLE FOR THE R AREA OPERABLE UNIT AT THE SAVANNAH RIVER SITE	May 25, 2011	N	N
NOTICE OF AVAILABILITY - RECORD OF DECISION FOR THE L AREA NORTHERN GROUNDWATER OPERABLE UNIT AT THE SAVANNAH RIVER SITE	June 20, 2011	N	N
REMOVAL SITE EVALUATION REPORT/ENGINEERING EVALUATION/COST ANALYSIS (rser/ee/ca) FOR THE C AREA PROCESS SEWER LINES AS ABANDONED (NBN) SUBUNIT FOR THE C AREA OPERABLE UNIT AT THE SAVANNAH RIVER SITE	June 23, 2011	Y	y
NOTICE OF AVAILABILITY - RECORD OF DECISION FOR THE GUNSITE 012 OPERABLE UNIT AT THE SAVANNAH RIVER SITE	June 27, 2011	N	N
FLOODPLAIN ASSESSMENT ISSUED FOR THE STORMWATER DRAINAGE REPAIRS OF THE T AREA CAP AT THE SAVANNAH RIVER SITE	August 29, 2011	Y	N
Draft EA prepared for the proposed use of SRS lands for military training (DOE/EA-1606)	August 29, 2011	Y	N
RCRA Permit Application Modification Requested for the Mixed Waste Management Facility at the Savannah River Site	September 12, 2011	y	N
Action Memorandum and Responsiveness Summary issued for the C Area Process Sewer Lines as Abandoned (NBN) SUBUNIT for the C Area Operable Unit at the Savannah River Site	September 14, 2011	N	N
FACT SHEET AVAILABLE FOR THE GUNSITE 012 OPERABLE UNIT AT THE SAVANNAH RIVER SITE	September 22, 2011	N	N
NOTICE OF AVAILABILITY - EARLY ACTION RECORD OF DECISION FOR THE D AREA OPERABLE UNIT AT THE SAVANNAH RIVER SITE	September 26, 2011	N	N
DOE Requests Temporary Authorization to Modify the Corrective Action System at the M-Area Hazardous Waste Management Facility at the Savannah River Site	October 21, 2001	N	N
Interim Action Determination for Disposition of Certain Plutonium Materials Stored at the Savannah River Site Available for Public Review	October 25, 2011	Y	Y
Industrial Wastewater Closure Module for the Liquid Waste Tanks 18 and 19 F-Area Tank Farm, Savannah River Site Available for Public Comment	October 31, 2011	Y	Y