

Meeting Minutes
Savannah River Site (SRS) Citizens Advisory Board (CAB) – Full Board Meeting
Hyatt Regency Savannah – Savannah, GA
May 13th & 14th, 2019

Attendance – Monday, May 13th, 2019

<p><u>CAB</u> Gil Allensworth Carlos Cato Kandace Cave Betty Cook David Eisele Jim Guille AK Hasan Charles Hilton Ruth Hollingsworth Eleanor Hopson Douglas Howard Dan Kaminski Narinder Malik Jerry Mossbarger Gregg Murray Malcolm Philips Ken Sajwan Robert Smith Karl Steene Joyce Underwood David Vovakes Bobbie Williams</p>	<p><u>DOE/Contractors</u> Avery Hammett, DOE-SR Kimberly Rapp, DOE-SR John Lopez, DOE-SR Thomas Johnson, DOE-SR Mike Budney, DOE-SR Michael Mikolanis, DOE-SR Jimmy McMillian, DOE-SR Amy Boyette, DOE -SR Angelia Holmes, DOE-SR Kristin Huber, SRNS James Tanner, S&K Heather McWilliams, S&K Federica Staton, S&K</p>	<p><u>Agency Liaisons</u> Jon Richards, EPA Sandra Snyder, SC DHEC Gregory O'Quinn, SC DHEC Heather Cathcart, SC DHEC</p> <p><u>Stakeholders</u> Janett Rice, Bechtel Corey Pacer, Leidos Larry Brede, Jacobs Mark Ericson, Jacobs Dara Glass, BWXT Mel Gahn, Public Jean Swu, Public Darren Grady, Leidos</p>
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CAB Chair Update: Gil Allensworth, CAB Chair

Mr. Allensworth thanked everyone for coming to the May Full Board in Savannah. He said last week's Environmental Management Site Specific Advisory Board (EM SSAB) hosted by SRS CAB went very well. Mr. Allensworth turned the floor over to Doug Howard to discuss the EM SSAB meeting.

EM SSAB Meeting Overview: Gil Allensworth, CAB Chair

Mr. Howard gave an overview of last week's meetings. The other seven EM Advisory Boards came to Augusta for a tour, meetings, and a social event. Mr. Howard provided an overview of the main presentations which were provided by EM personnel from headquarters. Mr. Allensworth provided a summary of the two Draft Recommendations which came out of the EM SSAB Chairs Meeting. He thanked the SRS CAB Support Staff for their hard work on the event.

Mr. Allensworth said this Full Board was very important due to the discussion on the Integrated Priority Letter (IPL). The IPL will be sent to EM headquarters (HQ). The list will tell EM HQ what the CAB thinks are important matters for SRS to complete. He encouraged the CAB to ask questions and make sure they participate in every discussion.

Meeting Rules & Agenda Review: James Tanner, CAB Facilitator

Mr. Tanner reviewed the meeting rules, agenda, and limiting questions to two per time. He reminded the CAB Members the microphones are slightly different than normal, and they must push a button to turn them on.

Mr. Allensworth introduced the two new members, Kandace Cave and Malcolm Philips. He encouraged every CAB member to introduce themselves with their names, what county they are from, how long they have been on the CAB, and the main reason for joining the board. Each member, DOE employees, and agency stakeholder introduced themselves.

Agency Updates

Michael Budney, Manager, Department of Energy-Savannah River (DOE-SR)

Mr. Budney welcome the two new board members. He congratulated the CAB on celebrating it's 25-year anniversary. SRS and the Forest Service held a Turkey Hunt at the site for the Wounded Warrior Foundation. The Management and Operations (M&O) draft proposals have been postponed. The contract ends May 31, 2019. The liquid Waste contract received an 18-month extension until September 30, 2020. The paramilitary contract received proposals were received in early May and they are currently in process of reviewing the proposals. The current contract held by Centerra will run out October 7, 2019. The President's Budget for Fiscal Year (FY) 20 was submitted and it includes 1.6 billion for SRS, it does include the AMC which would be located near the University of South Carolina-Aiken (assuming the budget is approved). NM H canyon, still processing all three sources of material. Used two robotic crawlers to survey the tunnel. L AREA contains to receive foreign and domestic reactor fuels. Progress is being made on the 235-F Project and so far, there has been a removal of 100 grams of special nuclear materials to date.

Tank Closure Cesium Removal (TCCR) project has processed about 150,000 gallons so far in FY19. Saltstone Disposal Unit 7 project is currently on schedule. Salt Waste Processing Facility (SWPF) should be online by the end of the year. Infrastructure project is A-Area firewater, on track to be complete by July 30, 2019. Savannah River National Laboratory (SRNL) suspended work in April 2019 to reevaluate safety and security. The stoppage only lasted for two weeks. SRNL will go back into full operations shortly.

Q&A Session

Mr. Vovakes asked if the safety pause at SRNL was similar to the fall occurrence in 2018. Mr. Vovakes wanted to know if the pause was a systematic problem. Mr. Budney said the issues last fall were most serious. The recent pause is mainly about procedure compliance and maintenance. The corrective actions which were put in place after the 2018 pause were being done and they are not the reason for April 2019 pause.

Mr. Philips asked if the recent pause was implemented by DOE or the contractor. Mr. Budney said the pause was instituted by the contractor.

Mr. Howard asked when Centerra's paramilitary contract expires at SRS. Mr. Budney said the contract ends October 7, 2019. Mr. Howard asked if there would be any problems. Mr. Budney said he didn't foresee any problems. Mr. Howard asked if there would be another strike. Mr. Budney said the strike occurred before his tenure, but he does not think a similar situation would happen again.

Jon Richards, Environmental Protection Agency (EPA)

Mr. Richards stated he was the acting Federal Facility Act manager for the EPA. Mr. Richards said EPA appreciated the amount of effort DOE put into the 2019 Suspension Agreement. Mr. Richards said he would provide more EPA updates at his afternoon presentation. *No questions were asked.*

Heather Cathcart, South Carolina Department of Health & Environmental Control (SC DHEC)
Ms. Cathcart provided an update on SC DHEC. Ms. Cathcart echoed the enthusiasm about the 2019 Suspension Agreement. The agreement was beneficial for everyone involved. Beth Cameron of SC DHEC mentioned compact disks of the 2017 ESOP data report were able on the public comment table. *No questions were asked.*

Committee Updates

Administrative & Outreach (A&O) Committee Update: Eleanor Hopson, Chair
Ms. Hopson said the AO meeting would be held after the conclusion of today's Full Board meeting.

Facilities Disposition & Site Remediation (FDSR): Joyce Underwood, Chair
Ms. Underwood summarized the work plan agenda and current recommendation statuses for FDSR.

Nuclear Materials (NM): Charles Hilton, Chair
Mr. Hilton summarized the current work plan agenda and current recommendation statuses for NM.

Strategic & Legacy Management (SLM): David Vovakes, Co-Chair
Mr. Vovakes summarized the current work plan agenda and current recommendation statuses for SLM.

Waste Management (WM): Narinder Malik, Chair
Mr. Malik summarized the current work plan agenda and current recommendation statuses for WM.

Presentations

Presentation: Federal Oversight Role – Mr. Jon Richards, EPA

Mr. Richards provided a summary of EPA's role in site remediation and the cleanup program at SRS. SRS is in EPA region 4. Mr. Richards gave an overview on the origin of CERCLA: Comprehensive Environmental Response Compensation and Liability Act. CERCLA became law back in 1980 and was amended in 1986. CERCLA was established in response to disasters like Love Canal in New York and Valley of the Drums in Kentucky. The law provide authority for the federal government to respond to releases or threatened releases of hazardous materials. Mr. Richards went over the specifics of CERCLA at federal facilities like SRS. He elaborated on EPA's role in providing technical and procedural assistance to SRS. Mr. Richards listed summary of current EPA activities and projects at SRS.

Q&A Session

Mr. Malik asked how EPA determined if a facility should go on a CERCLA list. Mr. Richards said a state can request a facility to be put on a list. Mr. Richards said facilities older DOE and Department of Defense are justified to be on the list. Mr. Malik asked if EPA participated in any monitoring of RAD releases in the area. Mr. Richards said the EPA doesn't right now.

Mr. Howard asked why slide 28 was different on the handouts compared to the slides. Mr. Richards said he updated the presentation when the Suspension Agreement was signed but forgot to send an update to the CAB.

Mr. Eisele asked if the EPA had national standards of what it the definition of clean was for cleanup sites like SRS. Mr. Richards said the parties work together to put together applicable requirements.

Guille requested slide 27 to be pulled up, the slide listed all of the current activities and projects. Mr. Guille wanted to know if EPA had the adequate number of people to stay on track with the list of projects. Mr. Richards said in recent years there has been a problem with staffing. He stated for every three people who retire, the EPA hires one person. Mr. Richards said sometimes they do fall behind especially with the shutdown which occurred earlier this year. The EPA is doing their best to not fall behind on projects.

Integrated Priority List

Mr. Allensworth read a draft copy of the Integrated Priority List (IPL) letter. The letter listed the missions which the CAB felt should be adequately funded for Fiscal Year 2019. Mr. Allensworth provided a summary of why the IPL is important to the new members. He asked John Lopez (DOE-SR Office of Integration and Planning) to explain the meaning of the Program Baseline Summaries (PBS) listed in the letter. Mr. Lopez said Congress gives money for projects in buckets. Once the money has been allocated to a PBS it cannot be moved without congressional approval. Mr. Allensworth reviewed the PBS's listed in the letter and what project each one of them covered. Mr. Allensworth opened the letter up to discussion.

Mr. Vovakes wanted to know why the Payment in Lieu of Taxes (PILT) should be funded. The PILT only covers 14% of Barnwell County's operating budget.

Ms. Underwood said Barnwell County is not able to get taxes from the land which was allocated to SRS. Barnwell County is not able to sell the land or use it. She didn't think cutting 14% of Barnwell's budget would be fair.

Mr. Philips asked if the land use was contractual. Mr. Philips said the land was not providing services so it would impact the amount of taxes would be able to get. Mr. Philips wanted to know why High-Level waste was the highest priority. Mr. Allensworth said it was the number one priority based off previous IPL's and DHEC's risk assessment. Mr. Kaminski said the board IPL recommendations come from DOE presentations, DHEC's annual report, and other resources. Mr. Philips wanted to understand the process.

Mr. Narinder wanted to look at the agreement between DOE and Barnwell County. He wanted to know how long DOE agreed to use the land. Mr. Allensworth suggested looking at the letter section by section. Mr. Allensworth stated he thought PILT was important, but it shouldn't be a top priority.

Mr. Tanner said if there was something in the letter which the board members couldn't live with it or support, to please put up their question cards. Mr. Budney said PILT originated from a 1976 public law. PILT was designed to reimbursed locality for property taxes they would have received since the government took it over. It's recognition of the people who go through their territories. Personnel drive on the roads and might use emergency services. It's broader than the ability to use the land.

Mr. Murray asked if DOE was contractually obligated to pay it. Mr. Allensworth said to the best of his knowledge the site always paid PILT. Mr. Budney said DOE always paid but sometimes PILT was removed from the budget request. Mr. Murray request moving PILT to a lower paragraph to show it isn't a top priority.

Ms. Underwood asked if there is an EMSSAB IPL. Mr. Allensworth said it was discussed at last week's Chairs Meeting but there isn't a general CAB IPL. Ms. Underwood asked if PILT was mentioned at other sites. Mr. Allensworth said it wasn't discussed at the Chair's Meeting. Ms. Underwood said she appreciated Mr. Budney's comments on PILT.

Mr. Vovakes said some residents in Barnwell are only there because they work at SRS. Therefore, Barnwell does receive taxes and benefits from SRS.

Mr. Howard said his questions was already answered but he supported paying PILT.

Mr. Budney said he suspected all the other sites had to pay PILT. He said DOD paid PILT especially when kids on base go to school.

Mr. Hasan said he supports PILT and believes the counties impacted should receive those payments.

Mr. Steene said the PILT should remain in the letter.

Mr. Tanner asked if anyone was opposed to the letter. There was more discussion about if PILT should come out of the letter. Mr. Tanner took a vote on if PILT should be removed from the letter. 12 voted to leave it in and 11 voted to remove it. The PILT will remain where it is. The group discussed the wording and made a few edits.

Recommendation Discussion

Chairs Recommendation: EM's Review of Cleanup Milestones

Mr. Allensworth read the recommendation which came from the May EMSSAB Chairs Meeting. The recommendation asked Advisory Boards to receive cleanup milestones at meetings. EM should develop a template on how the milestones are tracked and recorded. A data dictionary would be developed.'

Mr. Murray said the recommendation sounded very responsible. He wanted to know if there was something which could be done on a local level. Mr. Howard said the recommendation came out of a Government Accountability Office study. Mr. Howard said the recommendation went over very well at the Chairs Meeting.

Mr. Vovakes asked how the Cleanup Milestones worked with the End State Contracting. Mr. Allensworth said it was not related to moving towards End State Contracting.

Mr. Guille asked if anyone at the EM SSAB asked about standardizing cleanup milestones. Mr. Howard said representatives from EM HQ said they were looking for a consistency for milestones at sites.

Chairs Recommendation: Improving EM's Science and Technology Program

Mr. Allensworth provided a detailed background on the second recommendation which came from the EM SSAB Chairs meeting in May. The recommendation asks for a formal, open, transparent, quantifiable and integrated Science and Technology(S&T) program that would be accessible to everyone including scientists, regulators and the public.

Mr. Murray asked if SRS needed something like the proposed S&T program. Mr. Budney stated DOE worked well with regulars to solve what the end game looks like for Liquid Waste. Mr. Howard said the Chairs wanted to have a standardized database where the public could see what other sites are doing in terms of cleanup.

Ms. Underwood wanted to know if it would be necessary to have a standardized database. Mr. Howard said the public does not have access to a database to see what other sites are doing.

Mr. Eisele wanted to know if this recommendation would restrict SRS. Mr. Budney believed it would not restrict SRS. Mr. Folk said Hanford is right behind SRS on their TCCR application. He did not see it as a restriction.

Mr. Cato wanted to know the cost of the project. Mr. Allensworth said the chairs from Hanford did not provide a dollar amount. Mr. Allensworth noticed at the Chairs meeting that SRS is different compared to other sites. SRS works hard to complete their cleanup goals. Mr. Howard said research shows a project like this could save a lot of money in the long run.

Mr. Steene said the cleanup information should be shared with other EM sites.

Ms. Underwood asked if any patents would be impacted if we shared information with other EM sites. Mr. Tanner said it was more about idea sharing.

Draft Recommendation: Accelerated Deactivation & Decommissioning of 235-F

Mr. Hilton read the recommendation which was created after presentations from the March Full Board meeting. The recommendation asks DOE to accelerate the timeline decommissioning building 235-F. The targeted completion date of the project would be 2024. Mr. Hilton opened the floor for discussion.

Mr. Philips asked why an end date was given when it would take plutonium much longer to decay. Mr. Budney said it was a budget driven date. Mr. Philips agreed an accelerated date would be very beneficial because the building could be a fire catastrophe. Mr. Budney stated every precaution to prevent fire or other hazards from happening at 235-F.

Draft Recommendation: Preferred H-Canyon Future Operations Options

Mr. Eisele provided a detailed background on the recommendation. The recommendation asked DOE to operate the H-Canyon at full capability and capacity until all SNF in the SRS inventory is dissolved and properly disposed of. DOE would also pursue new technologies to dissolve non-Al-clad SNF in anticipation that such material has no other reliable disposition path. Mr. Eisele opened the floor for discussion.

Mr. Vovakes asked if the recommendation was a big redundant because H-Canyon should be running at full capacity since there is a Federal code which requires it. Mr. Mikolanis said the code which requires DOE to keep H-Canyon operational states the canyon has to be at a state of readiness. The department has maintained the facility and the equipment. The recommendation asks DOE to run the facility at full capability.

Mr. Budney said currently the canyon cannot get all the fuel dissolved by 2030. If the first recommendation goes through, then the second part of the recommendation would have to be solved.

Mr. Philips said he didn't agree with the description on Dry Storage. Mr. Eisele said there was a big difference between commercial Dry Storage and what can be done at SRS. Mr. Mikolanis said the disposition path for Dry Storage has technical difficulties because of the Aluminum clad fuel. It is different from commercial fuel and has its own set of unique challenges.

Public Comment

No Public Comments were made.

Final Comments

Mr. Allensworth wanted to thank Kristen Huber and Stuart MacVean of Savannah River Nuclear Solutions for their hard work with the Chairs Meeting last week. The tour at SRS went very well because of their efforts.

Mr. Tanner stated Mr. Eisele and Mr. Philips would edit some of the wording for the H-Canyon recommendation. Mr. Tanner let the board know the Administrative & Outreach committee would immediately after the conclusion of this meeting, meeting

END OF DAY 1, May 13th, 2019

CAB
Gil Allensworth
Carlos Cato
Kandace Cave
Betty Cook
David Eisele
Jim Guille
AK Hasan
Charles Hilton
Ruth Hollingsworth
Eleanor Hopson
Douglas Howard
Dan Kaminski
Narinder Malik
Jerry Mossbarger
Gregg Murray
Malcolm Philips
Ken Sajwan
Robert Smith
Karl Steene
David Vovakes
Bobbie Williams

DOE/Contractors
Avery Hammett, DOE-SR
Kimberly Rapp, DOE-SR
Soni Blanco, DOE-SR
John Lopez, DOE-SR
Thomas Johnson, DOE-SR
Jimmy McMillian, DOE-SR
Amy Boyette, DOE -SR
Angelia Holmes, DOE-SR
David Bender, DOE-SR
Jeff Bentley, DOE-SR
Kristin Huber, SRNS
Chris Bergren, SRNS
Pen Mayson, SRR
James Tanner, S&K
Heather McWilliams, S&K
Federica Staton, S&K

Agency Liaisons
Jon Richards, EPA
Sandra Snyder, SC DHEC
Gregory O'Quinn, SC DHEC
Heather Cathcart, SC DHEC

Stakeholders
Janett Rice, Bechtel
Corey Pacer, Leidos
Larry Brede, Jacobs
Darren Graddy, Leidos
Dara Glass, BWXT
Mel Gahn
Jean Swie

Meeting Rules & Agenda Review: James Tanner, CAB Facilitator
Mr. Tanner reviewed the meeting rules and agenda.

Presentations

Presentation: Deactivation & Decommissioning Activities – Angelia Holmes, DOE-SR and Chris Bergren, SRNS

Ms. Holmes and Mr. Bergren provided a presentation outlining Facility Decommissioning at SRS. The presentation gave an overview on of the Deactivation and Decommissioning (D&D) process, the progress in the last 20 years, and the current status of program. Ms. Holmes provided the D&D framework and the guidelines which DOE and their contractors must follow. Mr. Bergren showed before and after photos of completed projects at SRS Mr. Bergren explained the objective of D&D facilities at SRS and listed the main projects his group is currently working on. Both presenters took questions.

Q&A Session

Ms. Cook asked if slide 8, why the dome building had an unusual design. Mr. Bergren said the building was designed to test material on assemblies. It was not designed for nuclear mission work.

Mr. Howard noted only 292 out of 1100 plus buildings have completed D&D work. He wanted to if the group was behind or ahead on work. Ms. Holmes said they are on schedule. Ms. Holmes said they cannot go to certain areas because some are under current projects. Mr. Howard asked if funding was an issue. Ms. Holmes said funding was an issue. They would like to be able to D&D more buildings in the Liquid Waste area, but they do not have adequate funding.

Mr. Malik wanted to know if Rad testing was done on the Tritium facility before the D&D activities begin. Mr. Bergren said testing was done. Mr. Malik wanted to know what would be done if radioactive material was found in asbestos. Mr. Bergren said the material would go to the E Area burial ground. Mr. Malik asked about tank closure plan. Ms. Holmes said each tabk has a plan which is approved by DHEC.

Mr. Hilton asked about p Reactor and how much it costs to monitor it a year. Mr. Bergren said it would cost around \$50,000 to monitor it a year.

Mr. Mossbarger wanted the grouting process to be explained. Ms. Holmes said SRNL would develop the grout mixture so the containments will be contained. The mixture will last for hundreds of years. Mr. Bergren said the grout will be flowable so it can cover the required space. He said the lab always creates a very specific type of grout.

Mr. Philips wanted to know if groups in the 1950s keep pristine records. Mr. Bergren said the records weren't perfect, but they were very useful. Ms. Holmes said they even interview former workers to make sure the records were correct. Mr. Bergren said the lab can create a digital analysis due to the technology they have developed.

Mr. Vovakes wanted to know if the buildings would last forever as long as if they received proper care. Ms. Holmes said some can go into long-term monitoring which is low cost. Ms. Holmes said they are slightly concerned about the roofs and the vegetation that grows on it. They go take drones up once a year to spray herbicide on the vegetation. Mr. Vovakes asked there was a slowdown in activities in 2012. Ms. Holmes said the Recovery Act impacted their ability to complete work.

Ms. Williams asked how the stack was removed from 105-P. Mr. Bergren said a subcontract team came out to remove the stack with controlled explosives. Mr. Bergren said the process went very well. Ms. Holmes said the R Reactor stack was done the same way.

Mr. Murray asked how much the completed numbers will jump up this year. Ms. Holmes said they numbers will jump up this year because they should have a few completed after this year.

Presentation: Common Infrastructure – Dave Bender, DOE-SR

Mr. Bender provided a presentation on how DOE-SR manages and maintains SRS's common infrastructure. Mr. Bender gave an outline of the critical systems at SRS (number of common facilities, dams, water plants, etc.). Mr. Bender discussed the recent accomplishments including the major road resurfacing project. He talked about the Major Projects including A-Area Fire Waster, Building 703-47A Renovation, Tritium Power Line Relocation, and C-Road Paving Continuation.

Q&A Session

Mr. Hasan asked about the cost savings with the electrical work and solar panels. He wanted to know if it's worth it to expand to solar. Mr. Bender said they are looking at acres of cleared area, so the environmental footprint would be lessened.

Mr. Chemsak asked if each building was metered. Mr. Bender said no, each building was not metered because it's done by area.

Mr. Malik asked about the rusted pipes outside of H Canyon. He wanted to know if they were being maintained properly. Mr. Mikolanis said the pipes are not part of the common infrastructure. Mr. Mikolanis said the integrity of the pipes are routinely evaluated. Mr. Malik asked about the CAB recommendation which asked DOE to look into putting solar panels on the roofs of buildings. Mr. Tanner said a scheduled September presentation would help cover that topic. Mr. Malik asked if an analysis is done on if rainwater is entering the sewer lines. Mr. Bender said he would have to check on that.

Mr. Philips wanted to know if SRS shared data with counterparts at other sites. Mr. Bender said it was a good question, and he would look into sharing data with other sites. Mr. Philips asked about corrective actions and how they are analyzed. Ms. Holmes said plans have been developed for different systems, which is done area by area.

Ms. Cook asked if a waste treatment plant was on site. Mr. Bender said there was. Ms. Cook thanked Mr. Bender on the outdoor dining location in H Area.

Mr. Howard believed there was a security building which had rain damage and asked if it had been fixed. Mr. Bender said the building had been updated and the problems had been fixed.

Presentation: Budget Update – John Lopez, DOE-SR

Mr. Lopez gave a presentation on the Federal Budget process. Mr. Lopez explained how the Federal Budget is planned. The whole process takes a year. The "pots of money" for SRS were broken down into eight different Program Baseline Studies (PBS). The presentation had a budget chart which showed the PBS funding for FY18, FY19, and proposed FY20. Mr. Lopez also reviewed a chart on the SRS Pension Liability.

Q&A Session

Mr. Smith asked if DOE could quantify having an approved budget vs. not having an approved budget. Mr. Lopez said projects dealing with infrastructure are always put on hold. Mr. Smith said he wished this information was published so people will understand what not having an approved budget would mean. Mr. Lopez said they could put together a white paper to show

that impact. Mr. Lopez said hiring is also put hold due to the budget being held. Ms. Blanco said not having a budget impacts contracts with vendors, the vendors may not be to complete their milestones. Continuing Resolutions impact schedules greatly.

Mr. Hasan asked if DOE-SRS was impacted by the shutdown. Mr. Lopez said SRS benefitted from having the budget approved early. Mr. Lopez said the shutdown didn't really impact operations at the site.

Mr. Vovakes noticed in PBS 41 the 235-F project had a reduction in budget. Mr. Lopez said it was reduced based on priority. It was strictly a budgetary reason. Mr. Mikolanis said the work scope will be going down in FY20. Mr. Vovakes asked how active discussions are about the budget. Mr. Lopez said they are very active talking to people on the hill. They always provide updates in order to give a better understanding on the cost for projects.

Mr. Howard asked how often they get audited. Mr. Lopez said there are several different kinds of audits (cost, technical) and they are periodical. Mr. Budney said KPMG audits DOE-SR every year. Mr. Howard asked how contractors are paid. Mr. Lopez said contractors' invoice as the work is completed, they are not paid ahead of time, and they accrue fee. Mr. Howard asked if the contractor is held up due to a budget. Mr. Lopez said their payments are held up when there is no budget.

Mr. Allensworth asked if a lump sum payment was given to take the CB&I individuals into the pension. Mr. Lopez said they did not receive a lump payment. Mr. Lopez explained how the pension worked.

Mr. Vovakes noticed there was a shortfall of \$49 million. Mr. Lopez said they will have to look at the different PBS budgets to figure out where it will come from.

Mr. Allensworth asked if the Strategic and Legacy Management committee could propose something to help with the budget. Mr. Mikolanis said the IPL letter will help quite a bit.

Presentation: Liquid Waste System Plan Rev 21 – Soni Blanco, DOE-SR

Ms. Blanco gave a presentation on the importance of the Liquid Waste program at SRS. She is responsible for the planning and budget for the Liquid Waste program. Ms. Blanco showed diagrams of the three Waste Storage tanks at SRS and provided a summary of the Liquid Waste Operations overview. Ms. Blanco also gave an update on SWPF and what the facility will be able to do once fully operational. Currently SWPF will be operational until December 2030.

Q&A Session

Mr. Guille asked if operating H Canyon at full capacity would impact the operation schedule of SWPF. Ms. Blanco said it doesn't currently impact the schedule.

Mr. Howard said had a question about Tank 41. Ms. Blanco said before ARP/MCU was designed, they were running out of space in the Tank Farms. In order to save space they looked for solutions. They looked into removing liquid from the salt cake. The salt cake was able to dissolve without the liquid.

Mr. Philips referred to Slide 31. He didn't the difference reflected in Revision 20 and Revision 21. Ms. Blanco said from a technology standpoint that SWPF will work. Mr. Folk said NGS was incorporated into SWPF in Revision 21.

Presentation: TCCR1 Demonstration Data – Jeff Bentley, DOE-SR and Pen Mayson, SRR

Mr. Bentley and Mr. Mayson's presentation covered the TCCR project process. Mr. Bentley covered the benefits, drivers, and opportunities of the TCCR program. Mr. Bentley said the Dispute Resolution Agreement with the state of South Carolina signed in October 2016 was one of the drivers for the project. The process was run on Tank 10. The TCCR Conceptual Process Diagram was displayed to show how the TCCR system works. Mr. Mayson talked about the installation and readiness of TCCR. He discussed the lessons learned from the installation process and steps moving forward.

Q&A Session

Mr. Smith asked if 5,000 columns would be used. Mr. Mayson said they originally calculated 25,000 curries per columns, but they believe they will be able to load more in the future. Mr. Smith asked if they used the same column for campaign 1 and 2. Mr. Mayson said they used column 1 and 2 for campaign 1, and they may use column 3 for the second batch.

Mr. Folk asked if Mr. Smith wanted to the number of columns or loading on the columns. Mr. Smith stated he wanted to know the number of columns. Mr. Folk said Mr. Mayson answered the question on the loading of the columns. To answer the number of columns, Mr. Mayson said they would use 4 columns. Mr. Smith asked what the total number of columns would be used for Tank 10. Mr. Mayson said they are looking at 12 columns.

Mr. Howard asked if the original TCCR was setup at Hanford. Mr. Mayson said Westinghouse setup the TCCR in Richland, Washington but not at the Hanford site. Mr. Howard asked why it was not setup at SRS. Mr. Mayson said the offsite vendor provided the components in order to be cost competitive. Mr. Howard asked if they would need more than 2 TCCRs in the

future. Mr. Bentley said no, they plan on just using 2 TCCRs. Mr. Howard asked how many operators were used. Mr. Mayson said TCCR is an unmanned operation. If an alarm is received, an operator from the control room will check on it. A qualified operator is available every shift. Mr. Howard asked if testing was done in Richland. Mr. Mayson said they tried to duplicate the testing at Richland.

Mr. Philips asked about the Safety Analysis Report (SAR) and the 15 admin controls which were needed to complete the SAR. Mr. Mayson said he didn't know them all, but they all had a chemistry content. Mr. Philips said did high amount of reports gave him any trouble. Mr. Mayson, said no, they were all necessary and they worked through them every day.

Mr. Smith said the burkeite exists because of nitrates and nitrites. He wanted to know if they knew the differences in concentration of nitrates and nitrites. Mr. Mayson said they had some indications they would have a difficult layer to get through. There had been two prior campaigns in 2013 and they were able to get through 2 layers of salt and then it stopped. This time, they got water in the tank a month earlier.

Mr. Allensworth mentioned the EMSSAB asked for a site wide sharing of knowledge. Mr. Allensworth said the Hanford board last week at the Chairs Meeting mentioned they were interested in the TCCR process. Mr. Bentley said he has reached out to his DIOE counterpart at the Hanford site, and shared lessons learned. Mr. Mayson said he has shared documents and designs with the contractor out at the Hanford site.

Public Comment

No public comments.

Voting

Mr. Tanner let everyone know voting would be done by hand for this meeting. Paper ballots were distributed during the break. After all the motions have been passed, the CAB Support Staff will count the votes and announce the results before the meeting is adjourned.

Vote to Close Recommendation 358

Mr. Allensworth called for a motion to vote to close this recommendation which was granted by Mr. Malik and Mr. Smith seconded the motion. No discussion. The motion was passed and accepted with a vote of 20 yay, 1 nay, 1 abstain.

Integrated Priority Letter

Mr. Allensworth asked someone to read the IPL list and Mr. Tanner proceeded to read the letter. Mr. Allensworth called for a motion to vote on the letter which was granted by Mr. Hasan and seconded by Ms. Cook. No discussion was needed. The motion was passed and accepted with a vote of 20 yay, 1 nay, 1 abstain.

EM SSAB Chairs Recommendation: EM's Review of Cleanup Milestones

Mr. Allensworth called for a motion to vote to accept it as a recommendation which was granted by Mr. Smith and seconded by Mr. Howard. No discussion was needed. This recommendation was passed for closure with a vote of 20 yay, 0 nay, 2 abstains.

EM SSAB Chairs Recommendation: Improving EM's Science and Technology Program

Mr. Allensworth called for a motion to vote to accept it as a recommendation which was granted by Mr. Smith and seconded by Mr. Malik. No discussion was needed. This draft recommendation was passed and accepted as a recommendation with a vote of 16 yay, 5 nays, 1 abstain.

Vote to Approve Draft Recommendation: Preferred H Canyons Operation Options

Mr. Allensworth called for a motion to vote to accept it as a recommendation which was granted by Mr. Vovakes and seconded by Mr. Hilton. No discussion was needed. This draft recommendation was passed and accepted as a recommendation with a vote of 22 yay, 0 nay, 0 abstain.

Vote to Approve Draft Recommendation:

Accelerated Deactivation and Decommissioning of 235-F

Mr. Allensworth called for a motion to vote to accept it as a recommendation which was granted by Mr. Hasan and seconded by Mr. Guille. No discussion was needed. This draft recommendation was passed and accepted as a recommendation with a vote of 21 yay, 0 nay, 1 abstain.

Housekeeping Items

The ballots were collected. Mr. Allensworth reminded all CAB members to sign the Travel Vouchers and return them to Heather McWilliams. Mr. Tanner reminded all the CAB members that parking would be covered by the CAB, and to please submit any charges to the Support Staff. Mr. Tanner asked if there were any lingering questions. Mr. Smith said he spoke to

Ms. Holmes, and they both agreed it would be beneficial for the CAB to receive a presentation on the updated science and technology they are using at SRS. Mr. Smith said he would like to receive an update from SRNL and their involvement with Fukushima. Mr. Hasan wanted to know if the Suspension Agreement between DOE, EPA and SC DHEC is just for EM or if it involves NNSA as well. Mr. Tanner said he would get an answer for him back at the office. Mr. Howard mentioned they used to do a survey after the meetings on the presentations. Mr. Howard said he would like to rate the presentations if possible. The CAB members would have the ability to list what they liked or disliked. Mr. Tanner said he would investigate adding a survey to the CAB Member packets. Mr. Steene said he learned about process and procedures, but the public wants to know about long term storage. He would like an estimation given in a future meeting. Mr. Tanner asked all the first-year members to email what is still unclear. The members are encouraged to submit questions they don't fully understand but don't want to ask in a meeting. Mr. Tanner then read the results of the voting.

Final Comments

Mr. Allensworth thanked all the board for their discussions on the recommendations and he said the Chairs Recommendations will go to headquarters. Mr. Tanner announced the committee schedules for June. Mr. Allensworth encouraged members to attend their committee meetings.

END OF DAY 2, May 14th, 2019

All presentations are available for review on the SRS CAB's website: cab.srs.gov