## Meeting Minutes Savannah River Site (SRS) Citizens Advisory Board (CAB) – Combined Commitees Meeting Hilton Garden Inn, Augusta, GA May 22, 2015

Attendance - Monday, May 22, 2015

САВ
Gil Allensworth
Susan Corbett
Eric Crossan
Rose Dobson-Elliott
Thomas French
David Hoel
Eleanor Hopson
Douglas Howard
Daniel Kaminski
Jim Lyon
Narinder Malik
John McMichael
Cathy Patterson
Larry Powell
Bill Rhoten
Earl Sheppard
Robert Smith
Nina Spinelli
David Vovakes

DOE/Contractors Avery Hammett, DOE-SR Thomas Johnson, DOE-SR Jim Folk, DOE-SR Maxcine Maxted, DOE-SR T.J. Spears, DOE-SR Kristen Huber, SRNS Andrew Albenesius, SRNS James Tanner, S&K Chelsea Gitzen, S&K Federica Staton, S&K Agency Liaisons Trey Hiott, SCDHEC Beth Cameron, SCDHEC Trey Reed, SCDHEC H Cathcart, SCDHEC Sandra Snyder, SCDHEC

**Stakeholders** 

Marolyn Parson Janis Walters Liz Gordson Janie Scott, GA WAND Natalie Herring, GA WAND James Marra, CNTA Dara Glass, BWXT Laura Lance, Sierra Club

Opening: Nina Spinelli, CAB Chair

Mrs. Spinelli welcomed everyone to the meeting.

Meeting Rules & Agenda Review: James Tanner, CAB Facilitator Mr. Tanner reviewed the meeting rules and the agenda for the day and the CAB members introduced themselves.

## Nuclear Materials Committee Update: Larry Powell, Chair

Mr. Powell welcomed everyone to the meeting and introduced the committee members. Recommendation Nuclear Materials Operations Review (REC 334), Improving H-Canyon Throughput (REC 337) and Process All Aluminum-Clad Spent Fuel in H Canyon As Soon As Possible (REC 341) remained open and they plan to vote on closing the recommendations tomorrow. The next meeting is Tuesday, June 6th, 2017, 6:30 p.m. to 8:20 p.m. at the DOE Meeting Center. The committee had no presentations.

## Facilities Disposition and Site Remediation Committee Update: Cathy Patterson,

Vice-Chair

Ms. Gillas welcomed everyone to the meeting. The committee had no open or pending recommendations and one draft recommendation. The next committee meeting will be held April 12th, 6:30-8:20 pm at the DOE Meeting Center. She then asked Nina Spinelli to present her draft recommendation.

Discussion of Draft Recommendation: "Pollinator Land Use for the SRS"

Nina Spinelli, CAB Chair, read the draft into the record. She explained that the draft recommendation derived from the Forest Service presentation given at the April Full Board. The committee refined language and the recommendation was considered ready for vote on Day 2.

Presentation: Update of the Community Involvement Plan, Brian Hennessey, DOE-SR

Mr. Hennessey provided an overview of the SRS Community Involvement Plan (CIP) – its nature and purpose and he provided information discussed in responses to Citizens Advisory Board Recommendation #338, "Revision of SRS Community Involvement Plan".

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is a law implemented by a body of regulations called, the National Contingency Plan (NCP) states that due to the nature of the clean-up process active communication between communities affected by discharges or releases and the lead agency responsible for response actions, (in this case Department of Energy) are necessary. Community Relations Plans are required by EPA for certain response actions. CERCLA is the only law that requires public community involvement. The Resource Conservation & Recovery Act (RCRA) and other federal and state laws and regulations require public participation particularly, at the point in the regulatory process where decisions are being made about actions toward clean-up. The Federal Facility Agreement (FFA) has a section called public participation and it requires DOE to prepare and implement a community relations plan to fulfill to requirements of statutes and regulations.

EPA guidance on Community Involvement Plans (CIP) states that the CIP should be updated every three years or as required, whichever comes first. The last CIP was revised and issued in 2011. The lead agency under FFA and CERCLA, should determine whether additional community interviews are needed. Before we had an FFA, CERCLA had been enacted and RCRA existed, so there were reasons and legal requirements for a CIP and the Site had one. For the very first official community relations plan, the Site's various groups participated in the collection of community input via interviews and surveys to inform the very first community relations plan to determine what the community around SRS was concerned about regarding Site operations and it's clean-up. There have been other iterations and revisions of the community relations plan and public involvement plan since 1991. The CIP released in 2011 stated that DOE would conduct a new round of interviews and rebasline community concerns prior to the next CIP update to ensure that we are appropriately responding to concerns about current SRS operations.

In 2017, what is different today versus the state of affairs in 1991? We did the CIP required by laws and regulations before we had a community relations plan but now we have a well-established and long standing public involvement plan as you are aware of. There is education and outreach to various schools that both DOE and our contractor Savannah River Nuclear Solutions carry out. There is Science and Technology Enrichment Program (STEP) and science bowls and fairs that SRNS and DOE employees are instrumental in judging and coordination. We have stakeholder training through Teaching Radiation, Energy and Technology (TREAT) Workshops. The Department of Energy participates in a lot of environmental justice activities with EPA and it is a very active program for EPA region IV. Environmental Bulletins are frequently distributed to a large populace on a variety of topics. The Radionuclide Education, Monitoring, & Outreach Program (REMOP) is a relatively new one and I believe it began in 2016. This program is in Shell Bluff, Georgia near Waynesboro. A public education and sampling and analysis program is being done for the citizens of Shell Bluff with the involvement of GA WAND.

When the CIP was written in 1991, we had no inkling that we were going to have a Citizen's Advisory Board. The CAB has been a continuous venue for expression of community concerns and recommendations, and sharing of information about the SRS EM mission.

According to EPA guidance, the content of the CIP should include:

- Overview of the CIP
- Capsule site description
- Community background (Census information included)
- Community issues and concerns (from community interviews)
- Highlights of the CIP
- Community involvement activities and timing (including your Communication Strategy)
- Copy of the interview questions
- Contact list (not the private citizens interviewed or the site mailing list)
- Location for public meetings
- Location for the Information Repository
- Local media contacts

I am sure that you have seen the information repository mentioned in the environmental bulletin but our information repository or administrative record file copies for the public are located in two places, the University of South Carolina at Aiken library and the University of South Carolina at Columbia library have government document sections where you can locate this information. Augusta University library and Savannah State University Library also has copies for the public.

The CIP guidance is written for a site where EPA has the lead in planning and implementing the cleanup and that describes a lot of superfund sites around the country. When a company or individual responsible for creating

pollution is no longer around, EPA takes over those clean-ups under its own initiative and funds. This CIP guidance is really written for an EPA project manager on one of those sites but naturally it can be adapted for use by another lead agency as DOE has adapted it for SRS. It is clear in that guidance that the CIP is prepared as the lead agencies guide in planning public involvement activities. In other words it is DOE's guide, not the publics or communities guide for how to engage in site two way communication. It is the lead agency's guide on how to conduct community involvement. It is a plan/statement on what DOE does and what they intend to do to ensure community and stakeholder awareness and involvement are healthy and that we are meeting the statutory requirements of the laws in place. The current CIP is available on the SRRS external website srs.gov under the documents and publications tab. It is also on the DOE-Savannah River Operations Office website sro.srs.gov, in the documents list at the bottom of the page.

The next revision of the CIP will include updated Census information on countries and communities surrounding SRS and the SRS cleanup timeline will be updated. A summary of statutory requirements for public participation will also be included. Notably it will include updated community/stakeholder concerns about SRS operations and cleanup and community/stakeholder preferences for receiving SRS information. An evaluation of current concerns and preferences, changes to the SRS community involvement program, if any, that DOE believes would improve community understanding of SRS EM operations and cleanup, and the effectiveness of the two-way communication between the communities and the site will also be including in the CIP.

Community concerns and information preferences will be updated by DOE announcing that the SRS CIP is being revised. Over the next several months we may announce and hold meetings strictly for the purpose of collecting input for the CIP. Comments and suggestions on the revisions will also be solicited. DOE is interested in any suggestions you have regarding any aspect of the next revision of the CIP.

## Q&A Session

Narinder Malik, CAB Member: If there is any release of radionuclides how would you inform the public to solicit their input?

Michael Mikolanis, DOE-SR: We publish a report annually on site environmental impacts the ASER and it will provide a summary of all the radionuclide and other contaminants that make it into the water and offsite. If we were to have an exceedance of a regulatory requirement we have various discharge permits that the state approves. If we were to exceed any of those we would make a notification to the state and we would take any action after if we had to. If there was a major release we would be activating the emergency response organization and there is a component of the emergency response organization that provides information to the public.

Narinder Malik: I had a personal experience where I think there was a leak in one of the tanks and there was a lot of information distributed to local elected officials. Is that part of CIP too?

Brain Hennessey, DOE-SR: The real time notification about an event like that I don't believe is a apart of the community involvement plan, if it is, I apologize. That is available online, and I will look as soon as I get an opportunity and I invite you to do the same. If there was a significant radiological event at the site somehow they get on the news.

Jim Guisti, DOE-SR: In the event of a release that is abnormal or beyond what we expect for our permits that would have any potential impacts off-site, we have an emergency response system that we would then notify the appropriate elected official or the news media. If you are talking about an incident that occurred at Hanford this week, we have the same type of emergency response system that would respond and provide the appropriate notifications and work with the state to put out any information that would need to reach the public in addition to what we have. When an event takes place that we consider an emergency we have a way of communicating that to the public. The news media is the main channel we use to get that information out to the public. We also have our social media accounts and other things that we use.

Jim Lyon, CAB Member: In the new budget how is the timeline going to run? The biggest variable is funding and if you have fewer dollars that extends the clean-up for the future. Will the CIP discuss or

reveal the budget for clean-up and how it differs from the current budget and the timeline revision will be?

Brian Hennessey: That is not within the scope of this plan. When I alluded to a clean-up timeline it was a retrospective timeline. It had nothing to do with budget.

Susan Corbett, CAB Member: The demographic of people that are going to be interviewed, how do you select them?

Brian Hennessey: We don't have that process yet Susan. I can tell you that we will use the demographic that was used in 1991. Members of the public, public health personnel, elected officials from both states, staff members of the congressional delegations were interviewed.

Susan Corbett, CAB Member: This is a concern to me because you will have some people who have a preset bias going into this. The DOE gets a lot of input from the public, how will the DOE integrate and take seriously the concerns of the public?

Brian Hennessey: This input that we are soliciting we are going to use to evaluate whether we need to modify the way we do community involvement and that is the purpose of the input at this moment. I can't say what the results of this will be in the coming decades but we do it for a reason. We want to know and need to know what the communities around the Site are concerned about. The community involvement plan is not going to say how DOE is going to use public input that is outside the scope of the plan.

David Hoel, SLM Vice-Chair: You mentioned that there is EPA guidance in the preparation of the community involvement plan. Is that EPA wide or specific to Region 4? What kind of guidance is that.

Brian Hennessey: That is national guidance.

David Hoel: Could we get a copy of that guidance? Brian Hennessey: Sure. I know it is online but I would be happy to get it for you. If you search community involvement plan on epa.gov you would be able to find the guidance.

David Hoel: Will the community involvement plan, when you revise it, be put out for public comment before you finalize it?

Brian Hennessey: As of right now, all I know is that we are going to announce that the revision is in preparation. I don't think any prior revision was made available for public comment so I don't really know. It is not a document that would require public review and comment.

Michael Mikolanis: We will follow the same process we've used for the previous community involvement plans and that's presuming that they are consistent with the EPA guidance. We don't intend to depart from anything that we have done in the past assuming that the past was done correctly.

David Hoel: Brian on slide 6, you give a listing of a number of methods for public involvement. Many of them appear to be public information and outreach things basically you are telling the public how you do things. A few of them are venues where the public gives you input. On page 10, you say that part of the update will include updating of stakeholder and community concerns as well as their preferences for receiving SRS information. DOE's response to CAB recommendation 338 was that it wasn't necessary. Why does DOE feel this way?

Michael Mikolanis: We consulted with EPA on this, and it would take a fair amount of resources to go through hundreds of recommendations. The Department is focusing the resources that we have on the venues that we feel will give us the best information. If you want to peruse that information as a member of the public and bring it to attention you can but it is not going to be a part of the community involvement plan.

Gill Allensworth, WM Chair: You mentioned the Census, are you going back to 2010 Census?

Brian Hennessey: I am talking about the national Census. I am not an expert on the Census. I am assuming it is done every 10 years.

Gill Allensworth: I was just wonder if we were going back to 2010 or looking forward to 2020. It was mentioned in the news that the Census may see some funding cuts and that concerns me.

Brian Hennessey: It would be the most recent past Census.

Narinder Malik: Is it possible to have public meetings before you revised your CIP? Can you hold public meetings for different communities to get their input instead of just doing surveys?

Brian Hennessey: It is possible. I want you to know that this revision isn't something that is coming out next month. It is something that is going to come out towards the end of FY 2018. There is time to plan the surveys and interviews and the meetings. There are meetings that we hold around the area for other purposes and I am hoping that we might be able to use those meetings for the purpose of making these revisions known.

Public Q&A

Marolyn Parson, Public: On slide 11 it talks about survey availability, will the surveys also be available online?

Brian Hennessey: I think having online would be a great idea.

Marolyn Parson: I hope that the interviews include people in the counties surrounding the Site and also some downstream communities.

Brian Hennessey: That will be noted. Thank you. Louis Walters, Public: There has been tremendous information on the news about the EPA being revamped and units being cut. Is the current information regarding EPA in your presentation up to date?

Brian Hennessey: That is something I will pass along to my counterpart at EPA so that he can respond to you. I don't want to tread into other waters although the latest I have heard is that EPA is not going to be cut in this fiscal year and I don't know that the fiscal year 18 budget has been decided yet. As far as this information not being current, I am not sure if environmental justice activities are still going on.

Louis Walters: The environmental justice unit of EPA has been cut. I think the CAB needs to look into the changes coming down and how that will affect any future community environmental analysis.

de'Lisa Carrico, DOE-SR: You are right about the EPA environmental justice program but SRS also has an environmental justice program that we partner with Savannah State University and we hold workshops and joint community meetings and we will do that in the future. EPA and DOE would normally partner doing that but since their funding may be jeopardizing some of them leading the meetings, DOE-SR will be still having those meetings.

Marolyn Parson: Brian what budget year is this update included in?

Brian Hennessey: We will be doing some activity this year and some in 2018 but this is not a tremendous burden on our budget. FY'17 and FY'18.

Strategic and Legacy Management Committee Update: David Hoel, Vice-Chair Mr. Hoel welcomed everyone to the meeting and introduced the committee members. Recommendation #338, Revision of the Savannah River Site Community Involvement Plan and Recommendation #342, Military Trainings at the Savannah River Site remain open and will be voted on closing Tuesday. The next committee meeting will be held Tuesday, June 13th, 4:30-6:20 pm at the DOE Meeting Center. He then introduced the presenter, Monte Volk. Presentation: <u>Unmanned Aircraft Systems Overview</u>, Monte Volk, DOE-SR An unmanned aircraft system (UAS), sometimes called a drone, is an aircraft without a human pilot onboard. Instead, the UAS is controlled from an operator on the ground. Public Law 112-95, Section 331(8) defines an unmanned aircraft system as an unmanned aircraft and the equipment necessary for the safe and efficient operation of that aircraft. An unmanned aircraft is a component of a UAS. It is defined by statute as an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft. 14 CFR, Part 107 states that a small UAS as UAS that uses an unmanned aircraft weighing less than 55 pounds.

Since 2008, FFA has been looking at pursuing rules to govern UAS in the national air system. In 2012, Congress passed the FFA Modernization Reform Act which charged the Secretary of the FFA to go and look at producing rules to govern UAS operations within national airspace. The plan and consideration and guidance that they gave was that operation must not create a hazard to users of the national airspace system or the public and the operation must not pose a threat to national security.

In 2015, they announced to the public that they were going to have rules and they put those rules out and had a public comment period. In June 2016, those rules were released to the public with a 60 day grace period. The rules went into effect on August 29, 2016. For flying for work or business there are requirements for the pilot, aircraft and rules for operating. There are two options for rules when flying UAS's for recreation.

June 19 to July 22, 2016 the Savannah River Site experienced 12 reported sightings of possible UAS flying over the site. Based on the details obtained during the response and assessment of those 12 reported sightings, eight UAS sightings were reported to the appropriate authorities for determination if further action was necessary and four of the reported sightings resulted in no confirmation of UAS operations.

From July 22, 2016 to now eight preliminary reports of UAS sightings have been received. Based on the follow-up assessments and inquiries no UASs were located or confirmed. If you are operating a UAS and you are following the rules it wouldn't be flying over the Savannah River Site. Currently, the FFA lists the SRS airspace in the national airspace system (NAS) and establishes it as a national security area (NSA). This consists of a Notice to Airmen to voluntarily avoid the SRS airspace and not fly below 2,000 feet.

To give you an example, on roads, we have gates and obstructions to prevent people from coming on site. In the air if you were to extend those gates up, you don't have that same luxury. We have had questions informing us of UAS's flying over SRS and people asking why we don't take it down. If a random car comes through the gate we wouldn't just automatically shoot the car. That isn't safe and that is not how we would like to operate and conduct business. The same thing applies to UAS. We don't know the intent but if we have rules in place to govern it, if we have a UAS on site we consider our options on why it is there.

#### Q&A Session

Larry Powell, NM Chair: What is the difference between rules and laws and what are the repercussions of breaking rules?

Monte Volk, DOE-SR: Congress makes the public laws that are available so 14 CFR, Part 107 is a federal law. They have various repercussions from suspension of pilot license and revoking of flight privileges. Specifically, I could provide you with a copy of the handbook.

David Hoel, SLM Vice-Chair: I was looking at the slide where you talk about recreational use; you don't mention the 400 ft. altitude requirement that is under the work or business requirement. Is there a difference there? Is there a limitation for recreational use?

Monte Volk: Yes it is the same.

David Hoel: So if someone was flying a drone, saying they launched off-site and flew on to SRS. What rules are broken?

Monte Volk: We are going to assume that someone is flying during the day. The operator must keep the aircraft in an unassisted visual line-of-sight, must not fly over people or fly from a moving vehicle.

David Hoel: I understand how the drones (from last summer) were in violation of line-of-site but do you know how high they were?

Monte Volk: I do not.

David Hoel: So we don't know if the 400 ft. rule was violated?

Monte Volk: At this time no.

David Hoel: Ok. I am just trying to understand what rules were broken and it appears to be the line-of-site one.

Monte Volk: When you look at our dates from June, up until August 9<sup>th</sup> there weren't really any rules until the rules went into effect. There was nothing enforceable. FFA at that particular point in time, if someone was operating outside of these guidelines here, they received an FFA letter. The letter stated the rules to operate the UAS and asked them to adhere to the rules.

David Hoel: Do I understand correctly that a private airplane flying above 2,000 ft. is free to fly over SRS and take photos?

Monte Volk: Correct.

David Hoel: I believe that I read in the paper that the FFA just lost a court case where people flying these UAS now by court order are not required to get a registration.

Monte Volk: I am not a UAS expert but I do know that they have their operating rules registration they have requirements. I don't exactly what you are referencing.

Douglas Howard, CAB Member: Going back to David's question, if a drone was spotted over SRS the procedure would be to report it to the FFA or do you all do the investigative work to find out that?

Monte Volk: For the Site itself, we call it in to our alert number that we have and tell them that we have a potential UAS. Then our protective force, Centerra, would come out and do an initial investigation and interview people that were in the area, asses what happened and make further determinations based upon that.

Douglas Howard: Does the SRS security team have the ability to spot drones?

Monte Volk: As far as I know, the individual protective force personnel are trained to either watch the gate, do their routes on Site and things like that. So as far as anything beyond that, I am not certain on their specialties or certifications but I know they do have adequate training to identify certain things. The investigative portion the initial analysis that they do, helps them identify UAS's.

Jim Lyon, CAB Member: These drones are scary. I am pretty sure that someone with nefarious intent would not really make himself known as the operator. I am curious if there is an actual plan of intercepting drones? I think it is something to think about.

Susan Corbett, CAB Member: I am under the impression that some of the drones can carry things? So they can be used to potentially drop an explosive device.

Monte Volk: They can carry things.

Susan Corbett: This is our risk here. Has there been a risk assessment done of this possibility?

Monte Volk: This is not just a DOE thing; this is a federal government thing. Everyone is trying to wrestle with controlling them, what to do, and the rules in place. Someone with nefarious intent wouldn't abide by rules so what comes next? Currently, the FFA is looking at different technologies to detect them as they are flying and different ways to render them useless or bring them down in other terms. They are exploring options and currently there is not a government wide option. I know DOD just recently, using a public law, prohibited drone flights over 133 military instillations. It wouldn't work for all of them but for those particular instillations they were able to do it. But just

because there is a restriction in place, again, someone with bad intent it doesn't matter. Right now we are looking and NNSA is actively looking for options along with other entities.

Susan Corbett: It is not just here. Other nuclear power plants are at risk for that kind of drop and it could be devastating. I was just curious if there had been any "missile shield" or interference with controlling or something going on.

Monte Volk: From having my name in the paper no less than a dozen private companies have sent there capabilities and I have shared those with Headquarters so that they can see what is available and discuss the best path forward.

Michael Mikolanis, DOE-SR: Our security is aware and they have assessed our protocols in place for engagement and beyond that I really don't want to comment on anything. There are protocols in place to disengage a drone that was deemed to pose a threat.

Susan Corbett: Why tell us about this if you are not going to tell us how you are going to protect us from it?

Michael Mikolanis, DOE-SR: You asked if the Department has assessed the hazard and my answer was yes. They have defined a series of protocols of what actions they take beyond that, the details we won't discuss.

Gil Allensworth, WM Chair: We can't drive on the Site but my 12 year old son could man a drone and fly over. Why can't we set something up saying that this is a bad idea to let people fly drones over SRS. We had a member of the public who regular attends meetings, questioned by the FBI about his involvement in the drones over SRS. This happened a year ago and we are still talking about it. This is not a good thing.

Tom French, CAB Member: I just want to clarify a couple of points. You had fixed winged and propeller drones over the Site?

Monte Volk: I am not exactly sure what was spotted.

Tom French: There are two very different types of things. There is a guy in Aiken who uses a fixed winged aircraft that has an 8 foot wingspan and he flies it for miles and can't see it. That is the one you could put something on but it is also very slow. You could see it, spot it, and take it down or whatever. The smaller ones are almost impossible to spot because they fly so fast. I don't know you would detect one of those unless it flew right over someone's head.

Monte Volk: Our reports and sightings were from employees on the ground that have thought they saw one and that is how they initiated the investigation but I do not know what they actually reported.

Tom French: Ok. I was curious because there are a couple of kinds out there.

Monte Volk: One of the things that FFA is doing in Dallas, is they just tested some UAS detection equipment that could detect small to large UAS.

Nina Spinelli, CAB Chair: We are going to be bringing the recommendation back at the June committee meeting and I wanted to know if it would be possible for you to attend and answer questions about the recommendation.

#### **Public Questions**

Laura Lance, Public: So I do understand that there were four confirmed sightings? If so, is there any public record about that or what was determined or done about that?

Monte Volk: There was enough evidence through sight or photos, for our protective forces to believe that they were UAS's.

Laura Lance, Public: It seems like the government has an extraordinary sophisticated surveillance apparatus and it's hard to imagine how big SRS is but has there been any discussion on finding a way to surveil the airspace to be able to keep track of these things. It seems like it should be discussed.

#### Presentation: Historic Preservation, Mary Beth Reed, New South Associates

We are here to tell you what we accomplished in 2016 and give you a roadmap of what we are going after in 2017. The program is driven by the National Historic Preservation Act, which asks federal agencies to survey and identify the historic resources and use that information to plan projects so that they aren't impacted and preserved. Another provision is that most buildings and sites are considered historic once they reach 50 years of age and SRS is no different. In 2000, SRS was 50 years of age and they wanted a history. DOE also recognized that we needed to look at the buildings that were there and talk about the Cold War legacy. In doing that SRS identified a Cold War historic district and also began to collect an artifact collection that began to tell these stories. In 2004, in tandem with our state historic preservation office, the federal preservation officer for DOE, Advisory Council for Historic Preservation and local stakeholders, DOE met with these groups and devised an agreement on how to tell those stories. Our 2004, programmatic agreement pretty much defined what we do. We identify facilities for preservation, we write histories, we collect and manage artifacts and we provide public outreach.

In 2016, we did not find or identify any new resources. In documentation, we made very solid advances. We finished a large scale separations thematic study and began one on research and development looking at the laboratory system at SRS. The laboratory system is fascinating. It starts out as a process laboratory and grows into a national laboratory. We are really looking forward to this. We have already conducted the oral histories needed for it and we are starting basic information about the lab and its buildings; that's our next set. The building was designed by a fifth avenue architectural firm in the 1950's that was well renowned for laboratory architecture.

Those of you who saw Melissa in the curation facility know how passionate she is about the artifacts. Last year, we accepted 60 new artifacts and we also scanned over 20,000 original historic photographs for the public and research purposes. We are very proud of this accomplishment and we have many more thousands to do. Finally, we created a traveling exhibit for the Augusta Public Library that was very well received.

For public outreach, we do many things. One of the things that Melissa has done a great job with is Throwback Thursdays; getting those historic photographs out to the public. We heard on one of our tours last week that one of the photos featured one of the tour goers father. We display small exhibits at the SRNS leadership events. 25 tours have been hosted of the Curation Facility to various audiences. Four Heritage Tourism meetings have been organized for preservation community within the CSRA.

The major thrust for 2016 was compliance. While each year we worry about and take into consideration how we can help DOE be compliant with the National Historic Preservation Act; in 2016 we learned that DOE had decided to not preserve C reactor area which is a major plank within the programmatic agreement for 2004. We had a "C Area Consultation" and brought the parties together to talk about the cultural resource management update and DOE advised our PA stakeholders that they wished to return C area to the decommissioning list. That began an almost yearlong consultation which we are still working on. Preservation of C area was key to two very important planks in the agreement dealing with preservation and public outreach. This change triggered the drafting of a new PA that helped reframe those two areas of commitment. As a result, we sent out an invitation to all the people who were involved in the first programmatic agreement. Monthly meetings were held with the objective of gaining a better understanding of the change of removing C reactor from the decommissioning list. We looked at the potential for preserving buildings or structures that best represent the Site's Cold War legacy. We also explored opportunities to collaborate with newly established SRS Museum, an arm of the Aiken County Historical Museum, and other regional institutions.

We are still discussing potential public outreach avenues but I would like to give you an idea of what we are discussing. We are very lucky this year to have public affairs speak with us and we have done two history based tours within the last month and they worked out well. We would like to increase our Cold War presence on the web and create traveling exhibits for regional displays. Finally, we think we need to work with the SRS museum to help them develop a large permanent exhibit that tells SRS's story. That would really be a central avenue.

In terms of preservation, we need to identify the buildings and facilities that can tell the story and identify how we can make that work. We are big into artifact conservation and we are thinking about how to get C reactor's control room into the curation facility in some way, shape or form and create and assemble a marvelous Cold War artifact exhibit. We have a great collection of photos and film and we are working towards digitizing these to create easier access and provide long term archival storage. We want to complete the update of the cultural resource plan because it ties into updating the PA and this is our major thrust for 2017. We want to assist the SRS Heritage Foundation with the museum start up. They are opening but we can do more. We also are looking to improve and host and history based tours, broaden heritage tourism participation, provide assistance to DOE in meeting compliance requirements and updating the 2004 PA and complete update on Cultural Resources Management Plan.

Melissa Jolley: For those of you who toured the curation facility we didn't have the chance to talk in depth about the photography collection that we have. We have a large collection of over 600,000 photos and we have changed our game plan on how we are going to scan the photos. We have added a full time staff member to focus on digitizing the collection. There is still photography on site so our current collection is just focusing on 1950-1989. The collections have mixtures of employee culture. The series we have now is focused on construction so we have the Atomic Energy Commission progress photos from the early 1950's. Photos of equipment and cost reduction testing are also included. Our goals have been to make it more assessable and preserve the photos for long term storage.

Our current storage is housed in the photography building on site. The room is fire proof but it isn't climate controlled. It has air conditioning but it is warmer than we would like for it to be but at the curation facility we are able to provide a climate controlled room. As we are scanning we are able to move to collection over to the curation facility. Four interns have scanned over 20,770 photos and we have completed the M series and are currently working on the construction series.

#### Q&A

Nina Spinelli, CAB Chair: Are you able to capture and preserve the social media comments you receive?

Melissa Jolley: Those are actually through the SRS Facebook page. I have printed some out on my own for our records.

Nina Spinelli: That would be really interesting to keep that. About the interested parties participating; I saw that the CAB declined to participate. Do you have any information about that?

Mary Beth Reed: We spoke to the folks at that time but the interest at that time was us coming to give yearly updates on our progress rather than becoming a part of the consultation progress.

Larry Powell, NM Chair: I was on the tour in April and I thought it was great. All of you all do a great job in your work at the site; I just feel like it's a big shame that your building isn't in an less secure area so that people from the public on a whim can just come in and tour the facility. I would think it would be great if you could move somewhere to give the public better access.

Narrinder Malik, CAB Member: I didn't see any equipment in the collection but there were some abandoned equipment in D-Area. I think it would be nice to have them added to the collection and stored.

Mary Beth Reed: Yes and that is our intention and just not for the SRS Heritage museum. There could be other places that we could loan objects to that have the credentials. We agree and you are going to see more and more. Right now the museum is getting established.

Rose Elliot, CAB Member: I heard you say that you have a traveling exhibit that went to Augusta?

Melissa Jolley: We did. At the end of last year it was at the Augusta library for about two to three months.

Rose Elliot, CAB Member: I was wondering if you had it available for loan for some of the smaller counties that have been impacted being downriver from SRS. I know our county museum would probably love something like that.

Melissa Jolley: That would be great. That was the first loan exhibit that I have done but we have been talking about increasing our outreach efforts for the community.

Andrew Albenesius, SRNS: I work with the Cold War program and I just wanted to address some of curation facility comments about public access. A big focus for us right now is to do more and more public outreach. We are in our infancy right now but our intent is to get much more robust and get more artifacts out to the public to tell the story.

## Discussion of Draft Recommendation: "SRS Strategic Plan"

David Vovakes, CAB Member, presented the recommendation. Marolyn Parson, Public, asked if the CAB would provide input to DOE on the strategic plan draft before or after the draft goes out for public comment.

Zach Todd: DOE-SR, stated that when the new strategic plan was being drafted they agreed to allow public comment but it hasn't been released for public comment yet.

The recommendation was considered ready for vote on Day 2.

## Discussion of Draft Recommendation: "Prescribed Fire"

Nina Spinelli, CAB Chair, presented the recommendation.

Laura Lance, Public, asked if SRS's prescribed burn program includes a timbering program.

Nina Spinelli stated that she assumes that timbering falls under the forest service program.

Susan Corbett, CAB Member, asked if the smoke was tested for radiation releases.

Terry Spears, DOE-SR, stated that he wasn't aware if the smoke was tested. The prescribed burns are conducted in locations of undergrowth within the forested areas.

Michael Mikolanis, DOE-SR, added that hazard analyses are conducted to calculate the likely dose and the forest service uses the data for any contamination in the area.

John McMichael, CAB Member, suggested taking the communication further by informing local media and health institutes.

Narinder Malik, CAB Member, informed the CAB that there is a system for radiation monitoring placed in various places around the site.

The recommendation was considered ready for vote on Day 2.

### Waste Management Committee Update: Gil Allensworth, Chair

Mr. Allensworth welcomed everyone to the meeting and introduced the committee members and provided insight about the CAB's last tour. The committee has three open recommendations. The next meeting will be held June 6, 2017; 4:30 p.m. to 6:20 p.m. Mr. Allensworth then introduced the presenter William Barnes, SRR.

## Presentation: 3H Evaporator Status, William Barnes, SRR

The 3H evaporator is our largest evaporator on site and it has a key role in our mission. It can create well over 1 million gallons of tank space gain in one year. It has been a key part of our sludge batch preparations and our system plan. Essentially the evaporator is a big boiler that boils off water to create a space gain for the tank farms. It began operation in 2000 and in February 2016 it reached its end of life. That was unexpected given it had a 30 year life expectancy. As a result, we have no spare 3H evaporator on site because with planning we expected a 30 year design life.

The evaporator is about 27 to 28 feet tall and 14 feet in diameter and has an operating volume of 10,000 gallons. Before it was installed the evaporator was insulated and stainless steel sheet metal was put around it. The cell that houses the evaporator is stainless steel. To determine where the leak was on the evaporator we realized that we were going to have to take the stainless steel sheet metal off from the outside and remove the insulation so we can see that walls of the evaporator itself. It's very high dose, radioactively, so we knew we were going to have to use robotics. We picked out a couple robots, Base Brokk Robot, to perform the task. We mounted on top of the Brokk a robot called the Kuka to do a lot of the precise work. We lowered the robots down into the cell and we first used the robotics to remove the sheet metal and insulation. We identified, when everything was removed, at the bottom of the cone the leak site.

We attached to the robots, ultrasonic instruments that went and measured the wall thickness at the leak site and we identified that we had good aspect wall thickness everywhere except for the very bottom cone. We determined that the leak was caused by erosion. There is a steam lance that goes into the bottom of the pot that blows steam to mix up any solids in the pot. Using steam cause erosion in the pot and it lined up almost exactly to where we saw the thinning of the walls. For the repair, we deployed some good technology including ultrasonic technology to take measurements and laser 3-D imaging of the pot and cell. This allowed precise measurements of the evaporator itself as well as the entire structure. Results of that mapping helped us find out that the bottom of the evaporator wasn't completely round and that was helpful in designing of the bottom patch. We tested different welding methods to see what would be best in this application and we landed on something that looks like it would work well. It's called, powder injection laser welding. Essentially on the outside of the cell cover you would have a power that gets conveyed down to the robot which is holding the laser and you can do multiple passes with that and it has worked quite well. The next problem is determining how we are going to get the 200 pound cap lifted. We have a design for basically a hydraulic lift underneath the evaporator to lift the cap.

It has really been an exciting project so far; we have a lot of young engineers really learn a lot about robots. We are making good progress and during this calendar year we expect to have it repaired and operational. If we run into a problem we have a parallel path forward with the replacement evaporator.

Susan Corbett, CAB Member: What company made the evaporator? Is it an American company?

William Barnes, SRR: I believe it was Joseph Oat Corporation which is American.

Susan Corbett: Going back to the evaporation process, this boils off water to reduce the inventory in the tank. Is that water collected?

William Barnes: Yes. The water is boiled off and condenses and that goes to the treatment plant and is processed and released.

Susan Corbett: How long did this thing leak for before it was detected? How much leaked out?

William Barnes: I don't know the exact time frame before it was detected and about 3,000 gallons leaked out. Again, it leaked into the secondary containment and what happened next, which took some time, is that the evaporator was emptied and we moved the contents in that secondary containment back into a waste tank.

Susan Corbett: So this was high level waste with pretty much every radionuclide you can have in there?

William Barnes: Yes

Susan Corbett: Was it gamma radiation that we are concerned about for the radiation?

William Barnes: Yes

Susan Corbett: Any chance of getting money back from the company since the evaporator didn't live up to its expected lifespan? Was there any warranty on it?

William Barnes: I don't think so but we will certainly ask that question.

Susan Corbett: Where do the little robots go after they have been contaminated?

William Barnes: We have a few choices. We can decontaminate them as best as we can and then wrap them up and seal them and make sure that they won't release any contamination and save them for a future project. They can also be disposed of depending on a cost/benefit analysis.

Susan Corbett: Are they being disposed of at SRS?

William Barnes: Yes depending on their waste classification. We lost one of the little robots that I showed you was fairly inexpensive and will probably be disposed of. The Brok and the Kuka were more expensive and we are looking at how we can apply that technology to tank closures so that may be something we save.

Jim Lyon, CAB Member: Are you able to assess the condition of other components in this evaporator?

William Barnes: Yes. We have done stress analysis on this evaporator to identify high stress areas. When we uncovered the vessel we took ultra-sonic measurements to assess the integrity of the walls and we did tests of the two bundles and there is a periodic inspection of the vessel.

Jim Lyon: I take it you have been able to identify the cause of this failure. The materials that you would replace that particular component with would not be prone to the same failure or do you not know yet?

William Barnes: Yes that is something that we are going to take in account either way the other evaporators on site are all  $1/3^{rd}$  of the size and none of them have failed, as far as a breech in the vessel. When this was designed they scaled everything up by three so this has three times the velocity. The velocity is what really caused the erosion. So that is one area; how far from the bottom it is, that we might change. We are also looking at the thickness of the bottom and that may be something we have to beef up.

Jim Lyon: If the repairs option is selected rather than replace, do you anticipate that the life span of this evaporator would extend into the original 30 years or even beyond.

William Barnes: The repair option looks like it will last us 15 additional years. That is well beyond what the system plan requires the 3H evaporator to operate. The repair is much more cost effective than a replacement.

Jim Lyon: The disposition of the spilled material? Can you provide more information on that?

William Barnes: When the leak occurred nothing went into the environment. We cleaned the cell.

Narinder Malik, CAB Member: What is the probability of getting this welding done so that it does not leak? If you have to replace the part, what is the cost involved and how big will that be? Where will the failed equipment be stored?

William Barnes: Personally, I am very confident that we are going to go through a well qualification quarter section mock-up before we do a full scale mock-up and then we are going to deploy to the field. Bill Barnes estimate would be that we have about a 95% chance but if you ask different people you will get different answers. As far as the cost, as I mentioned, what we have done mostly up to now like taking off the stainless steel and insulation, identifying the leak site and assessing why it failed was required for either the repair or the replace option. To go from here to repair it would be about \$1.9 million versus a replacement would be an estimate of around \$10 to \$14 million. So it is a fraction of the cost. Storage, I believe we would de-inventory the failed evaporator if we replaced it and we would have a disposal path for it. It wouldn't be like the melter where it would stay on site until we figured that out we would have a disposal path with a disposal box where it would go to.

Narinder Malik: There is one evaporator in F-Tank farm that has been abandoned on site. If you aren't going to use this melter is it going to be abandoned on site as well?

William Barnes: We wouldn't abandon it. We would pull the existing 3H evaporator pot completely out put a new pot in and reconnect everything and then dispose of the old. It would be a part replacement.

Dan Kaminski, WM Vice-Chair: So 100 percent containment, right? No problems? When you did the ultrasonic testing was there any other degradation of the material further up or is the cap going to encompass all the erosion?

William Barnes: Correct no problems. As far as the erosion, all of our well thinning was at the bottom of the cone and we took measurements all the way up and we are going to encompass all of that and have good wall thickness.

Dan Kaminski: When this equipment was designed and fabricated was there a failure mode effect analysis done?

William Barnes: I believe so.

Dan Kaminski: Did anyone dust off these records to see where they might have missed a few things because steam lancing is inherently erosive.

William Barnes: Certainly there were some lessons learned there. What it looks like to me from the other evaporators, everything was 3 times larger and they went 3 times the amount of steam and maybe that factor of erosion wasn't calculated.

Robert Smith, CAB Member: If I understood correctly you are not cutting away the existing cone bottom. You are going to do an overlay and weld the cone and in essence you are going to end up with a much thicker cone with a sacrificial layer in between.

William Barnes: Yes that is correct. We are going to have a cap that is going to be welded at the ring. We are going to put a new bottom on and we can't guarantee that there is not going to be any space in between.

## EM-SSAB Chairs Recommendations Review: Nina Spinelli, CAB Chair and Earl Sheppard, CAB Vice-Chair

Twice a year, the chairs of the site specific advisory boards get together and craft recommendations that they feel are agency wide rather that site specific. These recommendations are taken as is. What we do is we vote as a group yes or no, that we as a Board agree and approve of the recommendation and it goes forward to the other boards. We cannot wordsmith it or change it. We have to accept it just as it is.

Recommendation: Above Ground Storage at the Waste Isolation Pilot Project

1) The EM SSAB recommends seeking further efficiencies in the WIPP TRU program in order to streamline, expand and accelerate TRU waste disposition.

2) The EM SSAB recommends that DOE prepare for public review, information on the expected benefits and costs of this proposed addition to the WIPP facility in terms of more efficient operation of WIPP, an overall reduction of risk around the DOE complex from an increased rate of disposal of TRU waste, and the impact of the cost of this facility

on other DOE facilities. Allowing nearly a one-year buffer of TRU waste inventory to be safely stored above ground at WIPP for a period of up to one year, seems to makes sense.

After receiving clarity the CAB moved to vote on the recommendation on day 2.

Recommendation: Cleanup Performance Road Map and Communication Strategy

Advisory boards at each site are tasked with providing project priorities on an annual basis. However, this tool allows stakeholders to see the DOE-EM mission in totality provides a high-level overview of each project and allows advisory boards to have a more comprehensive view of DOE-EM's work.

The EM SSAB Chairs have been tasked with the development of a recommendation addressing DOE-EM's need to define communication and performance metrics that better identify project accomplishments, risks and challenges associated with cleanup activities to the public.

DOE-EM should revise metrics so the public can better understand the status of cleanup projects across the complex in the near-term. The intent is to quantify and build transparency into the status of specific projects as they move along the continuum of meeting agreements and legally binding dates for cleanup completion.

DOE-EM should utilize existing resources and simple, visual examples within the Department and other U.S. government agencies (e.g., U.S. Geological Survey, National Oceanic and Atmospheric Administration). DOE-EM should include DOE-EM complex-wide and individual site matrices information and success data.

There needs to be two clearly-described visual road maps:

- 1) A visual road map that depicts each site's schedule and key milestones
- 2) A visual road map that depicts DOE-EM's key milestones in totality.

The CAB moved to vote on the recommendation on day 2.

**Public Comments** 

There were no public comments.

END OF DAY 1, May 22, 2017

## Meeting Minutes Savannah River Site (SRS) Citizens Advisory Board (CAB) – Full Board Meeting Hilton Garden Inn, Augusta, GA May 23, 2015

Attendance - Tuesday, May 23, 2015

CAB Gil Allensworth Susan Corbett Eric Crossan **Rose Dobson-Elliott** Robert Doerr Thomas French David Hoel Eleanor Hopson Douglas Howard Daniel Kaminski Jim Lyon Narinder Malik John McMichael **Cathy Patterson** Larry Powell Bill Rhoten Earl Sheppard Robert Smith Nina Spinelli Ed Sturcken **David Vovakes** 

DOE/Contractors **Terry Spears, DOE-SR** Michael Mikolanis, DOE-SR de'Lisa Carrico, DOE-SR Avery Hammett, DOE-SR Thomas Johnson, DOE-SR Jim Folk, DOE-SR Maxcine Maxted, DOE-SR T.J. Spears, DOE-SR Zach Todd, DOE-SR Jay Ray, DOE-SR Jean Ridley, DOE-SR Susan Clizbe, DOE-SR Kristen Huber, SRNS Mtesa Wright, SRNS Kim Cauther, SRNS Lindsev MonBarren, SRNS Wyatt Clar, SRNS **Bill Giuding**, SRNS Mark Schmitz, SRR Jeff Allender, SRNL G.L. Jackson, SRNL James Tanner, S&K Chelsea Gitzen, S&K Federica Staton, S&K

Agency Liaisons Shelly Wilson, SCDHEC Beth Cameron, SCDHEC H Cathcart, SCDHEC Sandra Snyder, SCDHEC Trey Hiott, SCDHEC

<u>Stakeholders</u> Rose Hayes Steve Hoeffner Janie Scott, GA WAND Natalie Herring, GA WAND James Marra, CNTA Shannon Farrell, Westinghouse Dara Glass, BWXT

#### CAB Chair Opening and Update - Nina Spinelli, CAB

CAB Chair Nina Spinelli opened the meeting and asked everyone to stand for the Pledge of Allegiance and National Anthem. She asked for the CAB to vote on whether or not to accept the meeting minutes from the March 2017 full board meeting. Gill Allensworth moved to put it to a vote and Earl Sheppard seconded that. The vote to accept the minutes was unanimous. CAB Chair Spinelli continued with her update presentation to the board, informing everyone that the newest CAB member, Joyce Underwood, would be absent from this meeting due to feeling ill. She encouraged everyone to greet her whenever they meet her in the future. She also summarized a letter from congressional delegation members to Rick Perry which is signed as she explained by Representatives Joe Wilson, Trey Gowdy, Jim Clyburn, and others. She continued by noting that in this letter Rick Perry was asked to visit SRS at his earliest convenience to see the work of the site. She suggested that if there is a visit which coincided with a CAB meeting it would be nice if he would participate. She continued to summarize the letter which noted that SRS is one of the primary economic engines for the CSRA. She resumed her presentation noting the first WIPP shipments have left SRS to Carlsbad, NM, and the facility has been closed since 2014 due to a truck fire in the underground mines. She stated the first shipment is one of eight which are planned by SRS in 2017; the goal being for WIPP to start with two shipments per week and then move to four by the end of 2017. She noted the discussions of the previous day at the CAB Combined Committees Meeting regarding shipping eligibility meeting TRU waste standards. She then summarized the tunnel collapse at the Hanford site: the tunnel has not been used since the mid 1990's and had been closed but maintained, this being unique because of the pending legal case ordering the site to meet cleanup requirements beginning in the year 2020. She posed the question of how this impacted SRS and implored CAB members to seek information for DOE to present at a future meeting on this topic. She reminded CAB members that it needed to relate to site-specific topics and not complex-wide topics. She then informed everyone that DOE is evaluating the disposal of GTCC LLW in a geologic repository, according to a recent NEPA update; SRS and Hanford being two of the locations in consideration. She went on to highlight overall goals for CAB members which included staying up to date on emails regarding SRS updates, continuing to use recommendations as the best way to express CAB members' thoughts to DOE, and keeping up with public involvement. This concluded her presentation and she then introduced CAB Vice Chair Earl Sheppard so that he could begin an update based on his experience at the chair's meeting in Kentucky.

CAB Vice Chair Sheppard summarized his experience by stating the discussion included current statuses of different sites, how things should be handled in the future. CAB member David Hoel asked CAB Vice Chair Sheppard to explain what the meeting in Kentucky was. CAB Vice Chair Sheppard responded that the meeting encompassed all EM SSAB board chairs and vice chairs, the discussion focusing on improvements, current events, star achievements, and recommendations. CAB member Hoel questioned whether the recommendations discussed were cross-cutting to all sites. CAB Vice Chair Sheppard agreed they did.

CAB Chair Spinelli then allowed CAB Facilitator, James Tanner, to review the Meeting Rules of Conduct and meeting agenda which would then be followed by recommendation voting.

# Voting: EMSSAB Chairs' Meeting Recommendations: Cleanup Performance Road Map & Communication Strategy, Above Ground Storage at the Waste Isolation Pilot Project

CAB Chair Spinelli asked for any feedback on the Cleanup Performance Road Map & Communications Strategy draft recommendation, which was forwarded to all members prior to the meeting and made available to the public through handouts. When no CAB members expressed a desire to discuss this recommendation, she asked for a motion to put it to a vote. CAB member Hoel made the motion and CAB member Bob Doerr seconded it. The vote to accept this draft recommendation was 18 yay, 1 nay.

CAB Chair Spinelli asked if there was a motion to vote on the Above Ground Storage at the WIPP. CAB member Hoel motioned to vote and CAB member John McMichael seconded it. The vote to accept this draft recommendation was 18 yay, 1 abstention.

## Agency Updates

#### Mr. Terry Spears, Deputy SRS Manager, Department of Energy – Savannah River (DOE-SR)

Mr. Spears welcomed everyone to Augusta and thanked members of the CAB and public for the continued interest and support of SRS. He also welcomed the newest CAB member Joyce Underwood.

Mr. Spears: In the news, you've seen information on the Target Residue Material and our recent Defense Nuclear Facility Safety Board weekly report and in the press. The news on shipment of TRM material was reported in both of those venues. Tony Polk is here today and has been inserted into the agenda to give a detailed update on our TRM program. I'll explain briefly what you've seen in the press.

As a shipment of TRM was being unloaded inside H Canyon's truck well, a radiation "hotspot" was detected on the side of a lead container called a "PIG" which shields the containers as they're being moved from the protective shipping cask into H Canyon. The radiation, while higher than expected, did not pose a significant safety concern. Our workers nor our facility were in any danger. SRNS radiation protection employees handled the situation promptly and efficiently and turned the hotspot towards the wall. There was no problem with the shipping cask and the workers were already wearing the proper personal protective equipment and using radiation protection measures. The PIG that exhibited the hotspot was taken out of service. Again, Tony Polk will be here shortly to answer any specific questions regarding that.

Continuing in the news regarding aging facilities and the potential dangers associated with them, Nina spoke of the issue at the Hanford site in Washington state with the collapsing tunnel. Perhaps recently you might have seen also information about their double shell tanks having leaks and so forth. Those highlight the potential dangers from aging facilities and structures. As you know, this issue is relevant here at SRS as well it's among our top concerns as we plan and execute our cleanup work in recent years. We're aware of where the potential problems lie and in fact, they're always included in our regular briefings that the CAB receives along with the budget and other issues that affect them. To reiterate what we tell you during those briefings, we have a robust program to monitor and maintain structural integrity with several levels of prevention and mitigation as well as redundant safety measures. We take a highly proactive approach to emergency preparedness and response with safety modeling used to develop worst case scenario drills. Lessons learned from these drills are incorporated into planning and into our operations, maintenance and engineering programs. In the event of an incident our goal is to communicate quickly and accurately with our site employees, neighbors and the local, state and federal agencies that will help respond to those emergencies. We have detailed communication plans that are incorporated into our emergency planning as well as into our daily activities.

Moving into the budget, covering three years as we typically do at any given time. For FY 17, following a series of continuing resolutions, we were very pleased that on May the 5<sup>th</sup> the consolidated appropriations act for FY 17 was signed into law which provides funding for the remainder of FY 17 which extends through the end of September. For FY 18 there's a little bit of a change here in the verbiage that's on your handout. The president's FY 18 budget is expected to be released today 23<sup>rd</sup> of May which was current as of yesterday because as of yesterday it had not been issued so we do expect it today. The president's budget of course is sort of a starting point and then it goes to Congress where it's debated and discussed quite extensively

before it's passed into law. For FY 19 the SRS is just beginning the initial planning process. The priorities presented by the CAB and our regulators related to the FY 19 budget have been received and we very much appreciate those inputs.

As you know, we do military training on site and that training is ongoing. The South Carolina National Guard unfortunately will not be doing a project on the site this year as they did last year. Actually, they had several last year. They won't be doing that this year due to conflicts that have arisen with their national security missions. We hope that they will resume conducting projects on the site next year.

All Nuclear Materials facilities are in sustained operations. H Canyon continues to process spent nuclear fuel with 60 bundles processed in FY 17 and 180 bundles of 1,000 expected in the material test reactor bundles campaign. TRM is also ongoing as I mentioned earlier. HB line continues to process plutonium feed material for disposition. K-Area continues to conduct destructive examinations of 2013 containers as part of the surveillance program for long term storage of plutonium. L-Area continues to support fuel receipts from Foreign and Domestic Research Reactors and transfers of Spent Nuclear Fuel to H-Canyon for processing. 235-F continues to work removal of materials at risk and address actions for completion of the Implementation Plan for DNFSB Recommendation 2012-1.

The SRNL is an active participant in the DOE small business voucher pilot program and some of the examples they've delivered under that program include the following: SRNL is working with Hawaii Hydrogen Carriers to develop a low-pressure hydrogen storage system to assist small businesses in bringing next generation clean energy technologies to the market place, in conjunction with Augusta University, SRNL licensed glass microsphere technology developed in the lab for medical applications using microspheres as carriers for biomolecules.

In the area of Environmental Cleanup especially our Liquid Waste and Solid Waste Programs. First the Waste Isolation Plant Project (WIPP). WIPP has resumed accepting shipments as you heard earlier in Nina's update in placing that transuranic waste in the repository. SRS resumed shipments in April and 3 of the 8 planned shipments from SRS have been completed. SRS is working with WIPP personnel to re-certify additional transuranic waste materials from the site for continued disposal at WIPP.

As you're probably aware, our Liquid Waste system is in a system-wide outage. That system-wide outage is expected to take several months throughout this year. The scope of the work is broad, involving most aspects of the system. Two major projects – DWPF Melter change and SWPF tie-ins – require other facility outages and specialized work in the interconnected Liquid Waste operations. The Defense Waste Processing Facility Melter 3 installation. After nearly 14 years Melter 2-reached its operational end in February 2017. That failed Melter has been placed in a Melter storage box and has been moved to the underground failed equipment storage vault. In progress is Melter 3's final assembly in preparation for movement into DWPF. With respect to the Salt Waste Processing Facility tie-in outage. The SWPF outage is to prepare for the final tie-in of current Liquid Waste Facilities to SWPF. The outage was originally scheduled to be this summer and is now taking advantage of the DWPF outage to complete some critical tasks early. SWPF outage scope includes sheet piling installation which is now complete, initial excavation down to 10 feet, final transfer line flushing and draining, and excavation to modify waste transfer lines. That allows ARP and MCU to continue operations and prepare for the final tie-ins to SWPF later in the summer. DWPF Facility Infrastructure Systems outage is the next item. This is the result of preventive and corrective maintenance on systems that cannot be shut down for extended periods during Melter operations. Now is the optimum time to complete this work as well. Some of this is done in parallel with the Melter change out, and some will be accomplished after the change out. The bottom line: This extended outage ensures all our work in the facilities can be accomplished safely and thoroughly. Using 2017 to complete this significant outage will put the Liquid Waste Facilities in a much better operational position and to make them more robust for the next year and beyond.

In the area of tank closure; Sludge waste removal out of Tank 15 continues. Supernate is being transferred from Tank 13 to Tank 15 to support the bulk waste removal campaign in Tank 15. The second waste transfer was completed on April 2nd and the FFA milestone is to complete this by August 31st. The third and fourth waste transfers are scheduled for mid-June and early August. In the area of tank closure cesium removal, SRR has selected the commercial supplier to design and fabricate an ion exchange process with an "at-tank" deployment for the removal of the cesium component of salt waste. The vendor design continues on schedule for June of 2017.

Defense Waste Processing Facility (DWPF) operations. Prior to our outage, the DWPF completed 52 canisters in FY17 for an overall total of 4,155 canisters. The Canister Double Stacking effort continues in the Glass Waste Storage Building 1. Crossbars have been removed from 359 canister storage locations, and modifications have been completed on 298 of them – this involves installation of new support plates and new shield plugs. A total of 143 radioactive canisters have now been double stacked.

In our Saltstone Processing Facility, it is currently operational and will go into an outage after processing all of the available feed from Tank 50 which is the feed tank for Saltstone. For FY17, Saltstone has processed 152,410 gallons of waste material. I'm going to cover our two existing projects for waste disposal of Saltstone: the Saltstone Disposal Units 6 & 7. For Unit 6, Construction and readiness assessments are now complete. The final headquarters review for operational startup approval is now in progress. And Jean Ridley is supposed to brief you I believe later today on SDU 6 and it's status. For SDU 7, SRS

received line item authorization in our budget for SDU 7 for FY 17 through the omnibus appropriation that I mentioned earlier. SDU 7 site preparation activities will begin this year and Shayne Ferrel is scheduled to provide more details about SDU 7 and SDUs 8 through 12 which is the balance of the disposal units that we plan to build for Saltstone. For the Salt Waste Processing Facility, testing and commissioning activities at that important facility are almost 50 percent complete now. Operation with radioactive waste is on schedule to begin by December 2018.

And the 3H Evaporator, you had a great briefing yesterday from Bill Barnes but that evaporator remains shut down as you heard due to a leak in the evaporator pot. Leak locations were identified and the contractor is in the process of determining a suitable repair method.

In our Facilities Disposition and Site Remediation Program, progress continues in the D Area ash basin projects. The completion of the 489-D coal pile run-off basin by the end of this month makes three of four completed for this project. Ash consolidation work is under way in the 488-1D basin in preparation for a geosynthetic cover. The projected completion date for 488-1D is January 2019.

The third annual SRS Ultimate Fishing Challenge for Wounded Warriors and mobility impaired sportsmen was held on Saturday, May the 20th out on our L Lake. The event hosted 24 participants and each was escorted by a badged SRS employee. Co-sponsors of that event were the US Forest Service and the National Wild Turkey Federation Wheeling Sportsmen. Very widely-know event and very well-received in the community and by our Wounded Warriors. And lastly, in April SRS conducted the annual Ultimate Turkey Hunt for Wounded Warriors and mobility impaired sportsmen. In conjunction with the National Wild Turkey Federation and the Forest Service at SRS, hunters from seven states harvested 26 turkeys during the two-day hunt. Again, a big deal for those folks and we're pleased to host them. That concludes my briefing update for this morning and I'd be happy to entertain any questions that you might have at this time.

CAB Chair Spinelli thanked Mr. Spears for his update. CAB member Bill Rhoten asked if the CAB could receive information on what our underground failed equipment storage vaults are like in comparison to the Hanford collapsed tunnel. Mr. Spears replied that DOE will be providing a briefing on that topic as requested, and in the Hanford collapsed tunnel, it was a timberreinforced earthen tunnel. He went on to say that the SRS failed equipment storage vaults are comprised of reinforced concrete with a safety-basis design so they're much more robust and those are expected to have extremely high integrity and they're maintained to do so. CAB member Rhoten went on to thank Jim Giusti for his foresight in terms of scheduling a meeting in Charleston, referencing a lengthy article in the "Post and Courier" newspaper. CAB member Hoel expressed that he's very happy to hear SRS resumed shipments to WIPP and that two have been accomplished already. He went on to ask if those shipments or any planned contain the down-blended Plutonium. Jim Folk replied to say some of the eight shipments will contain some of the down-blended Plutonium, but he cannot comment on whether that includes the two which have already been sent. He corrected the statement previously made by himself and Mr. Spears to note that three of those shipments have actually been sent at the time of him speaking at this meeting. CAB member Hoel asked if there had been any environmental violations or non-compliances during the past two months. Michael Mikolanis responded that SRS reported one exceedance in A area last month; the outfall for A area which receives flows from SRNL exceeded the daily and monthly limits for oil and grease. He continued that SRS grabbed five samples to confirm which all came up blank, then reviewed a number of activities that could have led to a possible release which again came up dry - there was no indication of a source of a leak or anything like that. So then we turned our attention to the lab that does the analysis work for us and they have verbally confirmed that they had a quality control issue with the analysis of the sample and we expect something in writing from that lab this week. CAB member Hoel asked if there were any DOE order violations or non-compliances within the last two months. Mr. Spears replied that there were not any which he was aware of. CAB member Hoel asked if Mr. Spears could comment on the status of SRS' negotiations with SCDHEC on tank closure deadlines. Mr. Spears deferred to Jim Folk since he has been directly involved in that and also Shelly Wilson of SCDHEC. Jim Folk answered that SRS has committed to having two sessions; the first of which he noted was completed last week. He went on to explain that in that session, which Mrs. Wilson and Rob Pope was present at, setting a good baseline was the goal. They discussed the history of what had been done, the challenges that are presented regarding outage work and contract transition activities, and brainstorming future plans. The second meeting he noted would take place in July. CAB member Hoel asked if Mr. Spears could comment on the status of re-issuing the SRR contract. Thomas Johnson, associate deputy site manager, proceeded to give an update on all four major contracts for the site. He continued stating that for the SWPF design, construction, commissioning and one year operation there are no changes to the update Mr. Spears gave earlier. Currently they are well into the testing phase and expect by December of 2018 to move into operations. Regarding the Centerra contract, it expires in October of 2017 and Centerra's performance he noted has been excellent with their ratings being very high over the years. That contract is under the order of \$989 million for a 10-year period. SRS has one option period that's left on that contract and if exercised would push it until October 2019. Regarding the liquid waste contract, SRS has extended the current contract which would expire in June 2017 until December 31st, 2017 which is when the award for the new contract is estimated to be made. Regarding the M&O contract, SRS is currently still in the early phases working with DOE HQ in order to get their acquisition strategy approved which is what defines the new terms for the new contract include the number of contracts, length of those contracts, as well as the types of contracts which will be utilized. CAB member Hoel asked if the SRNL portion of that contract would be cut out as a separate contract. Mr. Johnson replied that he could not go into the specifics as to whether SRNL would be cut out as a separate contract, noting that one of the things that SRS has done recently is to define a separate business unit within the existing contract for SRNL, but the types and terms of

the contract he could not publicly comment on until DOE HQ approval. CAB member Daniel Kaminski asked if there is any SRS infrastructure that is degraded to a point where there are increased safety risks. Mr. Spears replied that he did not believe so, and added that SRS is closely watching their infrastructure with a prioritized list of infrastructure requirements in terms of investments and restoration, upgrades or repairs which they try to work through as their budget allows. He also noted that they always prioritize some segment of the highest priority which is addressed each year which is always a challenge. He explained that SRS tries to avoid any infrastructure failure by doing the best possible within budget and always noting if facilities are safe for operation. He continued that SRS never blindly charges forward, the determination is made each year and if the answer would not be yes, they would not operate in an unsafe facility. CAB member Kaminski asked if the CAB could be briefed on that list of infrastructure as it relates to priority for restoration or upgrades. Mr. Spears replied that he thought that had been provided to the CAB previously but if not SRS would be happy to. CAB member Kaminski noted that it had been done previously but would appreciate an updated list. He continued to ask that since Hanford's tunnel collapse was in an area that was not easily inspected, is SRS aware of any infrastructure that is assumed contaminated that is in an unknown assumed condition meaning it hasn't been inspected in forever and a day. Mr. Spears responded that none existed to the best of his knowledge, no infrastructure existed like that. He went on to explain that SRS has facilities that management has ceased operations in and de-inventoried them, but they are maintained and surveilled so none are abandoned to fall apart. CAB member Narinder Malik asked if SRS has ever thought of bringing the grout from Saltstone to close the tanks and what the status is on Tank 48 which hasn't been discussed in a long time. Mr. Spears responded that tank closures are subject to a performance assessment so in order to be able to successfully do that, first you would need to be able to demonstrate that in perpetuity it would safely protect the health and welfare of the public and the environment so he did not know whether Saltstone grout would or would not solve that but it could be something that may perhaps be looked at in the future unless it's already been looked at some study level he's not aware of. He mentioned there are currently no active plans to pursue that avenue because SRS management thinks it would be a challenge to meet the performance assessment and to get the grout to the tank which would prove to be an extreme challenge and a significant investment. He explained that the existing system has been demonstrated as safe and working for years, putting SRS on the track which management believes is the success path making it unlikely that it will be changed since it's proven to be successful. Tank 48 he went on to describe, is laden with tetra phenol borate materials from testing of the old in-take precipitation facility years ago making it a special organic challenge. SRS made a conscious determination years ago that it is a high integrity type three waste tank double shell containment which is confined in terms of ventilation with a nitrogen blanket, etc. so SRS continues to maintain the tank state while that organic material continues deteriorate inside. An investment is being made by treating the tank and nothing is being done with it at this point. At some point in the future, he noted that SRS would deal with the residuals inside of Tank 48 which are fairly small at about 250,000 gallons.

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

Mrs. Wilson introduced Beth Cameron from the SCDHEC Aiken office for an announcement. Mrs. Cameron announced their annual data report has been released on cds which were made available on the public documents table at the meeting. This data report was also updated on the SCDHEC website. Mrs. Wilson annotated that it was the annual report on the independent environmental analysis which SCDHEC does of soil, groundwater, air, sediment and different media. She continued by thanking the CAB for their service adding a tremendous value to DOE input as well as DHEC. She then introduced an update on high level waste, which she noted that DHEC calls the single largest environmental threat in the state of SC. She went on to explain that this was due to the fact that there is such a large volume of 35 million gallons, it's highly radioactive and toxic, it's in a liquid form in tanks that are aging some of which do not have adequate second containment. She concluded that SCDHEC puts a lot of focus on those tanks, getting the waste treated and those tanks closed. She noted SCDHEC has had a lot of success in that program; 8 tanks have been closed, the Vitrification facility has been up and running for a long time, SRS is the only site which is processing salt waste, and DHEC is very proud of their involvement. The goals which they set were maximizing waste treatment and minimizing the residuals that would be left in SC forever. As a result of that she noted a treatment path forward was jointly created and DHEC facilitated getting a lot of those treatment facilities permitted. She also announced that SCDHEC was beginning discussion with DOE on re-working the tank closure schedules in their FFA over the next year at least. She noted that about 10 years ago when those tank closure schedules were set, this counted on SWPF being up and running by about 2011-2015 which has not happened. Last year she pointed out that the dispute resolution agreement reset the SWPF startup date while DOE committed maximizing treatment and adding additional treatment moving forward. The delay she noted is the reason for rescheduling tank closures. She invited any input on this topic. She went on to announce that the previous day DHEC had approved a consolidated general closure plan for the F & H tank farms which went through a public comment period in March.

CAB member Gill Allensworth asked if DHEC agreed with the "Post and Courier" article which was mentioned earlier and referenced SRS as one of the most contaminated places on earth. Mrs. Wilson reiterated her statement that high level waste is the single largest environmental threat in the state of SC, and noted that she could not speculate on the world. CAB member Susan Corbett asked if DHEC still feels strongly that SRS should look very cautiously before continuing to bring foreign waste here or other sources of high level waste that are going to add to the inventory with no clear exit strategy. Mrs. Wilson replied that SCDHEC had made some formal comments on that topic in the past and feels that SRS bears a large amount of risk and there needs to be a hardy effort to reduce that risk and they believe it is advisable that DOE actively work on reducing an equivalent amount of risk before bringing more onto the site, noting there are lots of different ways that could happen.

CAB member Allensworth asked Mr. Spears if tank closure cesium removal was contracted through Westinghouse. Mr. Spears differed to Mr. Folk, who answered that yes; SRR is contracted with Westinghouse to provide that facility. CAB member Allensworth asked if the bankruptcy would affect the contract. Mr. Folk answered that SRR has been working with Westinghouse and has been reviewing their situation, also putting some compensatory measures in place to assure that Westinghouse is delivering the product that was discussed ensuring the lower-tier vendors for example are still getting paid. He further noted there have been commitments and affirmations by Westinghouse that progress is continuing to be made and SRR has visited the facilities where parts are being made noting that good progress is being made there and the 90% design threshold has been crossed with a few of the remaining design documents needing to be delivered. He continued to say things are going very well and that is being applied to Tank 10 and SRS has a commitment with the state to complete that work by the end of 2018 which is all on schedule. CAB member Allensworth asked who would pick up the shortfall if Westinghouse doesn't' come through. Mr. Folk responded that the current work scope was on the good side of the split business as assured by Westinghouse who has reached a point with design being sufficiently progressed that if there was an issue they could go to their sub tiers including SRR and finish the work. CAB member Corbett asked if the new system of ion exchange would pull the cesium away and collect it to be grouted in the tanks. Mr. Spears answered that it would be taken to DWPF. Mr. Folk added that part of the agreement with the state entailed that medium would be stored on a pad in H Tank Farm ideally there may be a commercial facility which would be able to receive it within 5 years which is the preferred and more cost-effective path. If that facility did not open, he noted Mr. Spears had already touched on that subject but the medium could be ground up and put into a sludge batch for DWPF. CAB member Corbett stated that this would mean there's a good chance that it would stay here. Mr. Folk corrected her stating that was not the case, that either way it would be taken care of whether this meant the opportunity came and was take for it to be transported off-site or it would go to DWPF. CAB member Hoel asked Mr. Folk that if a vendor would be able to take that medium and dispose of it, would it be TRU or high level. Mr. Folk answered that it would be part of an analysis which would be conducted to see if it would meet their acceptance criteria and currently it was considered class C material.

#### Presentation: Spent Nuclear Fuel Program Overview/Update - Maxcine Maxted, DOE-SR

Ms. Maxted began her presentation noting that her title was the Spent Nuclear Fuel Program manager. She displayed pictures of L area and L basin. L-basin is 3.4 million gallons of water used as a model for IAEA and storage of fuel. It's important, she noted, for that water to be of a good quality because that prevents corrosion of the fuel which is the intent – to keep that fuel safe. She then displayed a picture of a bundle which is where fuel assemblies are placed. She noted that anywhere from three to five fuel assemblies in a bundle. The fuel assemblies mentioned were not commercial fuel but research reactor fuel which is much smaller. The NRU and X fuel types are longer and will be coming in but three of those assemblies could still fit in one bundle. Fuel is received from both domestic and research reactors which are foreign. She noted that SRS works with the NNSA program to bring back some of that US-origin material that is being used in research reactors. L area has one transfer bay which is where everything has to come in or out of making it important to focus on being efficient in loading and unloading. SRNL conducted a study at L area to determine how long they could keep L basin fuel stored safely. The report which came back stated that it would be safe for at least 50 more years as long as surveillance and maintenance were continued. She then displayed material test reactor fuel photos. The capacity limit in L basin is 3,650 bundles and current inventory is at 3,014 bundles which is 80% full. She noted further that fuel is being moved to H Canyon because of the amended record of decision which allows L area to process up to 1,000 of those bundles and up to 200 HFIR cores. HFIR = High Flux Isotope Reactor which is from the Oak Ridge reactor and are stored separately. Currently 120 out of 120 HFIR cores are being stored which is 100% full. Currently one of the dissolvers in H Canyon is being processed to allow insertion of a HFIR core to dissolve them. That work is estimated to be finished by the end of the calendar year. Most fuel in L basin is aluminum-clad and able to go to H Canyon. 400 individually packaged isolation cans in L basin contain fuel of a different nature which cannot be dissolved in H Canyon. They are currently being figured out how to deal with; either by modifying H Canyon, creating some kind of dry storage, or some kind of swap with Idaho National Lab which has the capability to dry store it. She then displayed a photo of a 70 ton cask car which is used for transfers from L area to H area and is only used on site, another photo of the car being lifted into transfer bay, and BRR cask which domestic fuel comes in. She then described the process for in-take for casks into L basin with related photos from transfer bay to L basin. She noted casks are re-used. She then displayed a graphic depicting different types of casks which are received and described each visual. She went on to note that processing had begun in H Canyon and the goal is to get it to the maximum capacity which takes time, funding and manpower. H Canyon can dissolve a whole bundle of fuel, removes the Uranium and down-blends it. Most Uranium in L basin is Highly Enriched Uranium over 20% U-235 which is separated out and down-blended to 4.9% with a natural Uranium which is then used by the Tennessee Valley Authority to make fuel for their commercial reactors which make electricity. She summarized this process calling H Canyon a big recycling plant. She then reiterated that the current approval is to process up to 1,000 bundles and 200 HFIR cores, noting that 60 bundles have been sent to H Canyon thus far this year and 180 bundles have been sent to H Canyon since the beginning of the campaign which also depends on funding and staff limitations. She went on to note there are many issues with dry storage of aluminum-clad fuel and a task force has been created by HQ which includes EM, Nuclear Energy, the Office of Science, and NNSA to discuss the best path forward for this type of fuel. She then displayed a photo of H Canyon and pointed out where HB Line is located, noting that it's the only hardened nuclear chemical processing facility in the US. Losing H Canyon would mean the US would have fewer capabilities than North Korea and some other countries. It's a diverse machine which can be manipulated and changed to complete whatever processing is needed, is much shielded and would be very expensive to replace. It was designed and built in five years and processes any nuclear materials. Plutonium goes to Tank Farms while Uranium is processed through H Canyon. The current Uranium processing campaign began in September of 2014 and is expected to go until 2024 for 1,000 bundles and 200 HFIR cores. Uranium is being collected in what are called outside facilities for the downblending process to send to TVA which will begin in 2019. The dissolver in H Canyon uses heated nitric acid to dissolve the spent fuel which then goes through purification steps which entails mixers and settlers removing any particulates to extract down to pure Uranium. In the outside facilities is where the downblending is done. She then described a graphic created to map out the process of in-taking spent fuel and processing it. Next she displayed and described a capacity chart. She went on to note five foreign fuel casks and one domestic fuel cask have been received as of April 2017, six casks of spent fuel which are 60 bundles have been transferred to H Canyon for processing and three more are anticipated; one of which being a HFIR cask which SRNS is not yet ready to receive. She went on to say that SRNS must be ready before it is sent to them for loading the cask in L area. She then displayed pictures of L basin worker protections. After that, she noted there is NRC guidance for transferring spent fuel around the country along with international rules depending on which country the fuel is coming from; this creates lots of checks and balances on transportation of spent nuclear fuel including hypothetical accident conditions.

CAB member Corbett asked which tanks were receiving the liquid waste. Mrs. Maxted replied that once the SNF is processed in H Canyon it is stored in Tank 39. CAB member Hoel asked regarding the diagram of intake of SNF, when it enters SRS it enters into EM space and prior to it it's in NNSA's space and when it leaves where does it fall under. Mrs. Maxted replied that it still falls under NNSA. CAB member Hoel then asked about the capacity graphic and whether it depicted DOE decision making up until currently. Mrs. Maxted replied that yes, this is only depicting the 1,000 bundles and 200 HFIR cores which have been approved to be processed. CAB member Hoel asked if SNF would be stuck at SRS if no further decisions on processing would be made by DOE. Mrs. Maxted answered that was correct. CAB member Larry Powell asked if the Uranium remained above 5% if that would be considered weapons grade. Mrs. Maxted replied that no, weapons grade is considered 20% HEU or higher. CAB member Powell asked if processing the SNF below 5% was meant to prepare it to be used as fuel for nuclear reactors. Mrs. Maxted replied yes, commercial fuel is between 3-5% as defined by their intake requirements. CAB member Powell asked if it was blended down with natural Uranium and if TVA paid for that. Mrs. Maxted replied that is correct. CAB Chair Spinelli asked about DOE decision being needed to approve of more bundles to be processed. Mrs. Maxted explained that NEPA requirements needed to be followed for this process and other factors came into play such as funding. CAB member Malik asked how elaborate the NEPA requirements are. Mrs. Maxted replied that it is a supplemental requirement which was done on a past EIS. CAB member Malik asked if it required a Record of Decision, to which Mrs. Maxted replied it did, and all of the NEPA requirements were RODs. CAB member Douglas Howard asked if there are any deadlines regarding finding dry storage for Aluminum-clad SNF. Mrs. Maxted replied that there is no specific date but there is a SNF working group tasked with making that decision and a report has been filed with HQ.

#### Presentation: Target Residue Material - Tony Polk & Jay Ray, DOE-SR

Mr. Ray began his presentation by displaying photos of H Canyon including the truck well where TRM processing occurs. He then explained that process. He continued to explain the program by stating that in August of 2012 a contract was signed with Atomic Energy of Canada and DOE to return US-origin HEU to DOE. In August 2013, the project design began. It was planned, built and operated with safety in mind. In February of 2016 the construction was complete and startup reviews began after that which included external groups. DOE authorized a material receipt just a couple of months ago. He then displayed photos of containers arriving and going through the intake process as he described it. Next, he introduced a video created by SRNL to explain the processing of casks. When it was finished, he summarized the events from that video. He went on to display more photos of that process while explaining them in detail. The solutions are pumped out of the containers and sent to H Canyon where it's mixed with solutions from SNF processing and sent to TVA after this process is complete. After containers are pumped out, they're swiped and prepared to be put back into the cask. This is called a half-PIG which has no shielding. These containers have very low amounts of radiation being emitted from them once they're emptied and flushed. After that, the outside is checked to see if it complies with all requirements to ship the container back to Canada. He then displayed photos of this process and explained them in detail.

Mr. Polk then began his portion of the presentation to cover assertions put forth by the media and facts countering some of those claims. He began by quoting one media source which stated the process was flubbed after years of preparation creating a black eye for the folks that were involved; didn't proceed unscathed; wonder if fears have already been realized. He noted the terms "leak" and "unanticipated" were used on occasion. He acknowledged that there were indeed months of preparation by DOE and the Canadians to be able to safely transport the material from Canada to SRS. He went on to note that all transportation activities have been safe; stating SRS has a clean record of transportation of materials across public highways. He noted what was described in the DNSFB report as a "hot spot" is another way to describe contamination in the facilities, specifically areas that are found where material is deposited in a higher concentration rate than is associated with those areas. The term is not usually applied in this sort of situation. The materials received do have high dose rates which was taken into consideration during the design of those containers. PIGS were designed to be able to reduce those rates so that hands on operations could occur. From DOE's perspective, this discovery was a three times higher than what was expected but still within the rates of materials that SRS works with all of the time. Those rates were not high by that comparison. Every time SRS has a new operation, precautions are taken, the unexpected is anticipated, employees are well-trained, processes are mocked

up. In the case of TRM, SRS was able to build the retrieval and unloading systems, place them in another area on site using mock up containers, and tested before being moved into H Canyon. When the aforementioned shipment was received, the slow and deliberate process by those operators as was intended to occur found one spot on one PIG with a slightly higher rate. Those workers stopped and determined with their supervision the best path forward was to move the container so that side was against the wall so that side would not be facing out and they could continue with their work unloading the PIGS. The dose accumulated by those 8 workers throughout that process amounted to less than 5 mrem. To put that in perspective, if you were to take that 5 mrem and divide it among those 8 workers, each received much less than anyone present at today's CAB meeting would receive while flying on a commercial airplane across the country. That dose rate is well within the rates that were established and controls put into place. The material took into account the expected dose rates, and the design of the equipment handling it, the rates that were listed on the receipt of the materials, were all expected and factored into the design. From DOE's perspective, the contractors who were responsible for this event including their supervision did exactly what they were supposed to do by anticipating the unexpected taking exactly the actions necessary to perform the operation safely. He went on to note that despite the assertions in the media, the transportation part of this event went absolutely as expected to occur. It was much more deliberate and slower than likely to occur as SRS learns and moves into the future so that they may try to improve the efficiency associated with this task. In all cases, he noted that SRS employees are trained for a deliberate process where working with radioactive materials is concerned. The PIG which experienced this "hot spot" has been taken out of service as a safety precaution. He speculated that a bubble may have occurred during the casting of that specific PIG in the lid to create a small void space. He also noted that more material has been received since this event, and improvements have been made to the process which will continue as TRM moves forward. He closed his presentation noting that all processes involving these types of activities involve a lot of planning to ensure the workers, public and environment are safe.

CAB member Powell asked if the PIG in which the hot spot occurred will be dissected for testing to determine exactly why this event occurred. Mr. Polk responded that the cause had not yet been determined and a cost/benefit would be associated with such an investigation. He went on to note that the PIG was the only one which yielded an integrity issue when inspected by RADCON employees. CAB member Powell then asked if a minor flaw in the PIG could create this type of event, then would a larger flaw create a larger problem – creating a need to find the cause of this issue. Mr. Polk replied that if PIGs would be cast in the future, the cost would be evaluated to determine the value of such an investigation. CAB member Howard then asked if Mr. Polk's earlier statement regarding that only 8 employees were affected by this event is correct. Mr. Polk responded that those are the individuals working directly around the PIG and truck well. CAB member Howard then questioned if it is standard procedure for those affected employees to be monitored after such an incident. Mr. Polk replied that it is absolutely standard procedure because of that incident and because of the work they're doing - which is monitored by a dosimeter that each of those employees wear, and RADCON employees who assist them with their work are always there to help protect the operators as well with their special tools for radiation detection including teledectors which allow them to monitor from a distance. He went on to note that there are pre-established limits which all of these means of monitoring are ensuring employees are exposed to. Mr. Ray noted that the employees are also monitored in real time for this operation by a dedicated employee sitting in front of a dedicated laptop which monitors their exposure. He also noted that if there was an issue with the PIG, this would be noted by the exposure the employees would have been subjected to which would have been monitored in real time. Mr. Polk also noted that if employees are exposed to a radiation dose as noted by their dosimeter worn on their person which is outside of the pre-determined acceptable range, an alarm sounds and those employees would then take precautions to exit the area. CAB member Tom French asked where the material involved in this event came from. Mr. Polk replied that it was originally from the US, sent to Canada primarily for medical isotope production. CAB member French then asked if it would be down blended. Mr. Polk replied that it would, and once converted and sent to TVA it would be able to keep the homes in SC running for about a month. CAB member Corbett asked if the part provided was the Uranium which is why there is a justification to accept the SNF. Mr. Polk replied that is correct. CAB member Corbett asked how long it would take for all of it to be returned. Mr. Polk replied that the campaign is expected to last two years. CAB member Corbett inquired about a hold up due to senators who are not sure about the transportation of this material in their areas – if this is a pause or something different. Mr. Polk responded that he wasn't aware of anything that had occurred to halt the transportation of those materials based on senator or congressmen concerns in NY. CAB member Corbett then asked what part of the materials SRS is taking in would leave and what part would stay. Mr. Polk replied that what will stay is the fission product portion as a result of the radiation in the reactors in Canada which is similar to all SNF processing. This material will go to the Tank Farm which eventually goes into the liquid waste program. This will result to one more canister's worth. CAB member Corbett asked if a Curie measurement had been done on the amount of waste that will be left afterwards. Mr. Polk responded that none had been conducted. CAB member Corbett asked if PIGS are flushed several times and if so, is that water radioactive. Mr. Polk replied that the PIGS are flushed and the water used for that process is sent to H Canyon to be processed, evaporated and concentrated and the clean portions are cycled back into the systems while the concentrated waste is eventually placed into the Tank Farms in the same tank that the materials are sent to. CAB member Corbett asked if SRS was making free fuel for TVA. Mr. Ray answered that it was deemed less expensive for SRS to give the 5% down blended material to TVA than to blend it down to less than 1% and sent it out west for disposal. He noted that this arrangement was reached in 2001 when a contract was signed with TVA. Mrs. Maxted also noted that TVA pays money to the US Treasury for the fuel it receives from SRS. CAB member Corbett asked if SRS gets any credit for that money. Mr. Polk replied that SRS does not. CAB member Corbett asked if TVA has a fuel fabrication facility. Mr. Ray responded that they have a contract with AREVA in TN for that process which is moving to WA in the future. CAB member Corbett asked if PIGS are lead-lined. Mr. Polk replied that is correct. CAB member Corbett then asked if the particular PIG which experienced a hot spot had a wall that was too thin or did something else happen. Mr. Polk

responded that SRS had theorized and not tested that during the casting process for that lead PIG somehow or another a small void of some kind had formed. CAB member Corbett asked where the PIGs are made. Mr. Polk replied that they are made on site by SRS employees using recycled lead. CAB member Hoel asked if the PIGs were tested using a radiation source before the campaign began. Mr. Polk replied that they were not. CAB member Jim Lyon commented that he warned against complacency. Mr. Polk replied that employees are always deliberate and vigilant in all operations. CAB member Kaminski asked what the duration of time that is planned vs actually incurred. Mr. Ray responded that the plan was for a week and in reality it took about six days. CAB member Kaminski responded that his question was regarding the time human activity is adjacent to canisters while getting them in and out of ISO containers. Billy Giddins replied that the exposure time is minimal, about a half of a day in total. CAB member Kaminski asked how thick the PIG is. Mr. Giddins replied that the annulus of the lead ranges from about 2.5-3 inches, plus about an inch of metal. CAB member Kaminski stated that he echoed CAB member Hoel's comments on radiation testing prior to use. Mr. Polk stated in response that all evaluations prior to use regarding dose anticipate where the most exposure will occur, and testing has its own risks associated with it. Mr. Giddins noted that the employees knew how much lead was needed in order to make the containers safe, and that was included in the design/construction. CAB member Eric Crossan asked if this was the first instance of the campaign. Mr. Polk replied that it was. CAB member Crossan asked if there has been any other instances of hot spots since. Mr. Polk responded that there had not been. CAB member Corbett asked if workers are routinely exposed to gamma radiation during this process. Mr. Polk replied that it is, and the same is true for a lot of facilities at SRS when working with radioactive materials. CAB member Corbett asked if workers are switched out due to their reaching of a specific limit of dosing. Mr. Polk replied that rotating workers is part of the process so there are no individuals exposed to the highest dose rate consistently, but all workers are subject to a set limit of radiation which is established as safe by DOE. CAB member Corbett asked where those dose limits could be found. Mr. Polk replied that they are located in a radiological control manual. CAB member Corbett asked if those limits are higher than what is established for the general public. Mr. Polk replied that they are indeed higher. CAB member Allensworth thanked Mr. Polk for this which he sees as a win.

#### Voting: Recommendation 337

#### Improving H-Canyon Throughput

CAB member Hoel motioned to close this recommendation. CAB member McMichael seconded it. The recommendation passed with 18 yays and 1 abstention.

#### Voting: Recommendation 341

#### Process All Aluminum- Clad Spent Fuel in H-Canyon As Soon As Possible

CAB member Hoel motioned to close this recommendation. CAB member McMichael seconded it. The recommendation passed with a unanimous vote.

#### Administrative & Outreach (A&O) Committee Update – Eleanor Hopson, Chair

CAB member Eleanor Hopson noted all members of the A&O committee. She invited others to join and noted that they are always seeking new members. She directed anyone interested to pick up an application or to visit the CAB website. She noted the Board Beat Newsletter was out and had been distributed as well as made available at the meeting. She went on to note that the committee is seeking volunteers for the STEM Career Connections fair at the CROC Center in Augusta, GA on October 19<sup>th</sup> from 8 AM until 12 PM. She noted that the CAB favors mentorship and held their first informal mentor and alumni luncheon the day before, hoping this would become an annual event.

Strategic & Legacy Management (S&LM) Committee Overview - Bob Doerr, Chair

CAB member Bob Doerr noted there's an open Recommendation 338 which will stay so for now, and Recommendation 342 can be closed which will be put to a vote. He then introduced John Lopez from DOE-SR who would conduct his presentation on the Budget Update.

## Presentation: Budget Update – John Lopez, DOE-SR

Mr. Lopez began his presentation stating his position with DOE-SR as the director of integration & planning. Mr. Lopez went on to note that his organization is responsible for preparing all of the congressional budget requests which go to HQ and eventually to congress to request funding for the EM portion of SRS. He noted that the president had released his budget for FY 18 which he would discuss, and provide an update on the status of the FY 19 budget. He then presented a chart comparing spending for FY 15, FY 16 and FY 17. He noted that DOE-SR was operating under a continuing resolution until May 5<sup>th</sup> when congress passed an omnibus bill to give them the full spending for the year. He also noted there's a \$31 million increase from

the previous year FY 16. He also pointed out that in the past three years the budget has continued to increase. He noted that for SRS overall there's an increase of \$79 million between FY 17 and FY 18. This is due to the importance of SRS and it's work, as he describes, which HQ has noted. He went on to describe other figures displayed on this chart. He then explained the aging work force at SRS which will need to be replaced in years to come through operating several operators within the nuclear materials program, and a dissolver which needed to be replaced – these both explaining the increase in FY 17 to the nuclear materials area. He went on to further describe other increases and what part of those funds will be used for. For FY 19 he noted that process has been started with a target amount to work towards. Those targets are re-adjusted by HQ depending on priorities. He thanked the CAB, Rob Pope from the EPA and Mrs. Wilson for sending in their priorities for SRS to help them take those into consideration for developing a budget for FY 19. CAB Chair Spinelli asked why there was a decrease in the budget from FY 15 to FY 16 for PBS 20, and then an increase in FY 17 - and if this number needed to increase for security. Mr. Lopez responded that more funds could always be put towards security, but DOE-SR feels that number is comfortable to suit the current need for FY 17, including the security project for H Canyon. CAB member Doerr asked about the TRM program and material coming from Canada, regarding a cost to EM for transporting and processing this material – including a payment of the result for TVA to use as power. He went on to ask if this was the reason for the budget increase, and if Canada provides reimbursement. Mr. Lopez replied that the Canadian SNF comes directly to SRS and additional funding through the EM budget is given to SRS to process that fuel at about \$15 million each year. Mrs. Maxted added that TVA pays the treasury for the processed SNF which is a result of the intake of that material aforementioned in the Foreign Fuel Return Program. She went on to note that Canada paid \$60 million as part of that contract for the modifications to equipment to be able to process the SNF received by them, and the \$15 million is paid by them annually to continue to allow for that processing. CAB member Doerr then asked if the EM cost to deal with the Canadian HEU is being used solely for that project. Mr. Lopez replied that was correct. CAB member Doerr asked if NNSA is responsible for the cost of transporting that fuel. Mrs. Maxted replied that those costs are completely covered by Canada. Mrs. Wilson asked if the residuals going to the HLW tanks are being covered in cost by Canada or DOE-SR. Mrs. Maxted specified that none of the funds from Canada go towards the liquid waste program at SRS, they go towards processing that material. CAB member David Vovakes asked how often the guards contract re-competes and has it expired. Mr. Lopez replied that it had already expired. Mr. Johnson answered that there is an option with that contract from October 2017 until October 2019, so the contract would not expire until October 2017, the union expired on the 30<sup>th</sup> of last month. CAB member Allensworth asked if the pension crisis as it's related to the 2019 budget planning. Mr. Lopez answered that it is a major challenge for FY 19 and years after; in FY 19 it is at a total of \$125 million and in FY 23 it peaks at \$300 million. CAB member Allensworth asked if SRS is the only site dealing with this crisis. Mr. Lopez responded that is correct. CAB member Allensworth if SRS will be subject to infrastructure issues due to the fact that funding will be directed to take care of this pension crisis. Mr. Lopez replied that it is a huge challenge which SRS leadership is currently discussing.

Voting: Recommendation 342

#### Military Training at Savannah River Site

CAB member Doerr noted that the committee has reviewed the response from DOE, asked questions, and felt it was sufficient to be closed. CAB Chair Spinelli asked for a motion, which was seconded. The CAB then voted to close this recommendation with a unanimous vote.

Voting: Draft Recommendation

#### SRS Strategic Plan

CAB member Doerr reviewed changes from the previous day. CAB Chair Spinelli asked for a motion, which was seconded. The CAB then voted to pass this draft recommendation with a unanimous vote.

#### Voting: Draft Recommendation

#### Prescribed Fire

CAB Chair Spinelli noted changes made to this draft from the previous day. CAB Chair Spinelli asked for a motion, which was seconded. The CAB then voted to pass this draft recommendation with a unanimous vote.

Waste Management (WM) Committee Overview - Gill Allensworth, Chair

CAB member Allensworth thanked Kristen Hubert from SRNS for the CAB's recent tour of SRS, and introduced the presenters Jean Ridley and Shayne Farrell, DOE-SR.

Presentation: Saltstone Disposal Units 6 & 7 – Jean Ridley & Shayne Farrell, DOE-SR

Mrs. Ridley began her presentation noting she is the federal project director for Saltstone Disposal Unit 6. She then displayed a current photo of SDU 6. Next she explained that legacy waste in tanks inside of the Tank Farm either goes through sludge processing at DWPF or salt processing through ARPMCU or SWPF when that starts up. The decontaminated salt solution from the salt process goes into the SDU. After that, she displayed photos for SDU 6's building progress. She proceeded to explain the failure of the water tightness test conducted in November, stating a liner was then installed. She then displayed a chart on this progress. The reason for this failure, as she noted, was due to cracks in the floor which was determined by extensive testing. This was fixed by installing the liner. Next, she displayed photos of prepping for the liner installation, noting it is a multi-step process including applying adhesive, a primer, and then the liner itself. The liner is about 4 mm thick which is about 1/8 of an inch and basically looks like rubber. She displayed photos of the installation process and described them. The installation process was very rigorous to ensure the tank would be leak-tight. On top of the tank there is an elaborate grout delivery system. As the grout is processed in the Saltstone Production Facility, it is pumped through grout lines to the SDUs. For SDU 6 there are nine disposal grout valves. Through this system, the grout flows to the top of the unit and the valves divert it into a hole where it drops down into the tank. SDU 6 is complete and SRS is now in the process of getting approval for operations, which is awaiting site manager approval in order to then be sent to HQ for final approval. The original cost estimate for SDU 6 was \$143.2 million and currently the estimated cost of completion is at about \$119 million. The original estimated completion date was November of 2018, and the current estimated completion date and site manager approval is the end of the month. The liner was completed December of 2016, the hydro test was passed the same month. The unit was then tested by pumping in clean grout. DOE completed their validation of the contractor's readiness assessment in April.

CAB member Malik asked if the joints of the grout line have been tested and lessons have been learned from failures at SDU 2. Mrs. Ridley responded that testing had absolutely been done. She noted that SDU 3 & 5 are even further away from the production facility and there have been no issues other than routine maintenance. There was, as she identified, some initial issues with the pump size and vibration for SDU 6 but that was repaired. CAB Chair Spinelli asked how the workers were able to come in under budget and under the original time estimate for completion. Mrs. Ridley responded that it was the result of good project management. She went on to explain that it was a combination of things; when a baseline is established there are a number of factors which are considered including risks and allowing for issues which may arise.

Mr. Farrell began his presentation noting he is the deputy federal project director for SWPF and the federal project director for SDUs 7, 8 & 9. The remaining SDUs as he noted, would be designed & built the same as SDU 6. His goal is for them to not be able to be told apart from one another. He continued to note that there were multiple lessons learned from SDU 6 including the liner, which will be taken into account when building SDU 7-12. He then displayed a timeline graphic for these future SDUs from 2013-2030. He noted that SRS recently received funding and approval for SDU 7, which may cost \$110-\$170 million which includes an allowance for potential risks. First, site prep to prepare the area for construction will be conducted. Startup operations are estimated for October of 2022 which includes 23 months of schedule contingency. He then displayed and explained a graphic for future locations of SDUs. He noted that mission need approval was given in March for SDUs 8 & 9. Design will begin for those SDUs in the fall.

CAB member Malik asked if SRS had received all permits for land use and disturbance for SDUs 7-12. Mr. Farrell responded that no, they had not, but those would be attained in the future as the design and construction moves along. CAB member Malik then asked if SRS planned to apply for a single landfill permit for SDUs 7-12 or individually. Mr. Farrell replied that each project has different requirements, but as much as possible blanket permits will be sought. CAB member Corbett asked if there will be liners in all future SDUs. Mr. Farrell replied that yes, liners will be in all future SDUs. CAB member Corbett asked what the life expectancy is for those rubber liners. Mr. Farrell responded that the grout would become solidified and the liner will maintain itself for the life of the SDU. CAB member Corbett asked if the radioactive nature of the grout will cause the liner to decay. Mrs. Ridley responded that it doesn't matter about the liner, previous SDUs have been built without it and the grout itself is the protective barrier. She noted that the liner itself is there for leak tightness short term until the grout hardens. CAB member Kaminski asked where trailers are being moved regarding a graphic about SDU future location, explaining his worry is that they will be moved before constructing each future SDU. Mr. Farrell replied that they will be moved once. CAB member Hoel asked if the remainder of SDUs are contracted with DOE or if they are SRR subcontractors. Mr. Farrell responded that SDU 6 was built by SRR and that will be the intent for SDU 7. CAB member Hoel asked if there will be monitoring wells under each future SDU. Mr. Farrell replied that all future SDUs will be modeled after SDU 6 which has the monitoring wells. CAB member Corbett asked if there's an opportunity for any of the content of SDUs to come into contact with ground water. Mr. Farrell responded that no, there is no such opportunity. CAB member Robert Smith asked what the long term projected savings will be for SDU 6. Mrs. Ridley responded that the long term savings is projected to be around \$500 million.

Voting: Recommendation 339

#### Liquid Waste Revision 20

CAB member Allensworth reviewed the recommendation and noted that the CAB felt the DOE response was sufficient. CAB Chair Spinelli asked for a motion, which was seconded. The CAB then voted to close this recommendation.

#### Voting: Recommendation 340

#### Commend the Originators of the Double-Stacking Idea

CAB member Allensworth reviewed the recommendation and noted that DOE had awarded the employees at the previous full board meeting. CAB Chair Spinelli asked for a motion, which was seconded. The CAB then voted to close this recommendation with a unanimous vote.

Facilities Disposition & Site Remediation (FD&SR) Committee Overview – Cathy Patterson, Vice Chair

CAB member Patterson introduced the committee members and announced the next committee meeting.

Voting: Draft Recommendation

#### Pollinator Land Use for the SRS

CAB Chair Spinelli noted changes made to this draft from the previous day. CAB Chair Spinelli asked for a motion, which was seconded. The CAB then voted to pass this draft recommendation with a unanimous vote.

#### Discussion: Draft Schedule for Future Full Board Meetings

CAB Chair Spinelli explained the background of this proposed schedule, and noted it allows more time for speakers and presentations. She then opened the discussion to the rest of the board. CAB member Hoel noted that on the first day, the draft recommendation discussion was only 45 minutes which he felt was not enough time for those discussions. James Tanner, CAB facilitator, noted that more or less time could be provided as needed. CAB member Hoel continued to comment that draft recommendations being at the end of day one would potentially not allow for enough time. CAB Chair Spinelli noted that committee meetings would be more focused on discussions regarding draft recommendations, preventing redundant conversations at combined committee meetings during day one of full board meetings. CAB member Allensworth added that significance needed to be placed on committee meetings which is where a large portion of the debate should occur. CAB member Hoel noted that anyone who doesn't attend the respective committee meetings would not be able to provide input. Mr. Tanner noted that again, more time can be allotted as needed for recommendation discussion. CAB Chair Spinelli noted that there is also time for committee updates which are typically very short and some of that time can be spent on draft recommendations. CAB member Kaminski if day one would become a formal day and if so, would the public still be able to give their input or would that be restricted to solely public comment sections of the schedule. CAB Chair Spinelli responded that it would not. CAB member Kaminski noted that the current agenda was not created with CAB input and encouraged everyone to try to agree on it since it was created by an ADHOC meeting with volunteer CAB members. CAB member Corbett asked if the schedule could be extended until the hours of the committee meetings which go until 6:30 PM to allow for enough time. CAB Chair Spinelli noted that the A&O committee meets during that time, and additional time can be allocated as needed to provide ample time for discussion. Mr. Tanner noted that he believed the time allotted with this schedule will provide an ample of extra time. CAB member Doerr noted that committee meetings could be used to discuss draft recommendations, and all CAB members are notified in advance of discussion topics so if they desired to provide input they could easily do so. He went on to note that the current format included many redundant conversations, which would be eliminated with the proposed schedule. He continued to note that CAB members who are not required to be at a specific committee meeting could still attend that meeting in person or online through video streaming and the conference call provided for CAB members and the public. Mr. Tanner noted that CAB members could also view recordings of meetings after they happen. CAB member Patterson asked what is planned for committee updates. Mr. Tanner responded that chairs are provided a basic set of talking points and over time that has become the maximum instead of the minimum, but they are intended to review committee meetings of the month prior. CAB member Patterson asked if they are necessary. Mr. Tanner replied that it is not a requirement. CAB member Doerr noted that committee meetings allow for two hours of recommendation discussion which should be plenty of time, and during board meetings this should allow less time for such discussion. CAB member McMichael noted that committee meetings are meant to be where recommendation work are intended to be done to prepare for full board meetings. He continued by noting that the proposed schedule is not in stone and can be edited permitting time where needed, making a more effective, meaningful and substantive schedule. CAB member Corbett mentioned presentations should be given on day one of full board meetings in case something comes up which requires it. CAB Chair Spinelli noted that at committee meetings is where the longer discussions would be held allowing for the need for presentations and answers to be determined prior to full board meetings. CAB member Allensworth noted that with this schedule, redundant conversations such as the current one would be eliminated – which was discussed at length during the ADHOC meeting. He continued to note that the proposed schedule should be tried for multiple full board meetings to determine whether or not it should be made permanent. He also noted that without this change, committee meetings would become obsolete without presentations. CAB Chair Spinelli agreed that it would take multiple board meetings to try this schedule and encouraged CAB members to take notes on their observations

while this schedule was being tested out for when the discussion on whether to accept it permanently occurred later this year. She then opened up the discussion for a motion to vote on trying this suggested schedule. Multiple members volunteered to motion for this vote, and it was seconded. The schedule was approved for testing with a vote of 19 yay and 1 abstention.

#### Public Comment

Mrs. Maxted noted that there is currently a tornado watch issued for SRS and the surrounding area, so she cautioned all attendees to be careful while driving home. CAB Chair Spinelli asked all SRS employees to be cognizant of their safety in their work at the site.

~Meeting adjourned

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