Meeting Minutes

Savannah River Site Citizens Advisory Board (CAB)—Combined Committees Meeting

Applied Research Center, Aiken, SC

November 14, 2016

Monday, November 14, 2016 Attendance:

CAB	DOE/Contractors/Other	Agency Liaisons
Gil Allensworth	Zach Todd, DOE-SR	Beth Cameron, SCDHEC
Tom Barnes	Jack Craig, DOE-SR	Trey Reed, SCDHEC
Louie Chavis	Maxcine Maxted, DOE-SR	Ben Jumper, SCDHEC
Susan Corbett - *Absent*	John Lopez, DOE-SR	Sandra Snyder, SCDHEC
Robert Doerr	Jean Ridley, DOE-SR	Stakeholders
Dawn Gillas	Avery Hammett, DOE-SR	Tom Clements, SRS Watch
David Hoel	Tony Polk, DOE-SR	Rose Hayes, Public
Eleanor Hopson	Maatsi Ndingwan, DOE-SR Jim	James Marra, CNTA
Virginia Jones - *Absent*	Demass, DOE-SR	Gregg Murray, Public
Daniel Kaminski	Monte Volk, DOE-SR	
Jim Lyon	Tim Jannik, SRNS	
John McMichael - *Absent*	Bill Bates, SRNL	
Clint Nangle - *Absent*	Kim Cauthen, SRNS	
Cathy Patterson	Teresea Eddy, SRNS	
Larry Powell	James Tanner, Time Solutions	
Bill Rhoten	Chelsea Gitzen, Time Solutions	
Earl Sheppard	Federica Staton, Time Solutions	
John McMichael - *Absent*		
Harold Simon		
George Snyder		
Nina Spinelli		

Ed Sturcken Louis Walters Mary Weber		

Opening: Harold Simon, CAB Chair

Mr. Simon welcomed everyone to the meeting and thanked Patrick McGuire for his guidance and support over the years to the CAB and wished him well in retirement. Mr. Simon welcomed and introduced the new DDFO, Pam Marks.

Meeting Rules & Agenda Review: Monte Volk, DOE-SR Facilitator

Mr. Volk reviewed the meeting rules and the agenda for the day.

Administrative and Outreach Committee Update: Eleanor Hopson, Chair

Ms. Hopson welcomed everyone and introduced the committee members. She noted that the membership drive has ended, however, they are still seeking to replace members next year. Membership applications were available on the back table. To be considered for the next term, you must complete your applications. The Fall 2016 edition of *The Board Beat Magazine* was available on the handout table. She informed the members of the upcoming outreach events and recommended they volunteer. Ms. Hopson informed everyone that the Administrative and Outreach Committee will be meeting in the Garden Room after the Combined Committees Meeting.

Facilities Disposition and Site Remediation Committee Update: Tom Barnes, Chair

Mr. Barnes welcomed everyone. The committee had no open or pending recommendations. The next committee meeting will be held December 13th, 4:30-6:20 pm at the DOE Meeting Center. He then introduced the presenter, Teresa Eddy.

Presentation: SRS Environmental Report, Teresa Eddy, SRNS

Ms. Eddy stated that SRNS is proud of the 2015 Annual Report and she acknowledged the project leads for their hard work. Ms. Eddy stated that she has seen a continuous improvement in the Report every year. She provided an overview of the SRS Environmental Report and results for 2015 and highlighted the improvements and data results for 2015. The Annual Site Environmental Report is a requirement of DOE Order 231.1B. They are required to provide the public and stakeholders with information regarding environmental program performance. The SRS Environmental Report provides a summary to highlight the Site's programs and efforts, summarizes the environmental occurrences and responses, report on environmental compliance status and the results of environmental monitoring dose assessments. The report has evolved and improved since its inception in 1959. Improvements that were implemented in 2015 include the adding of additional information to chapter 1, added additional information on missions and programmatic milestones, reorganization of chapters 4 and 5 to improve flow and content comprehension, incorporated highlights box at beginning of each chapter, added summary tables in the appendix, revision of chapter 6 for improved understanding, graphics were improved and the webpage was reconfigured with scrolling photographs and reconfigured page.

The introductory chapter, chapter 1 was designed to give a history of the site and highlight SRS's key missions. Chapter 1 also lays out how the organizations function at SRS.

Chapter 2 focuses on Environmental Management System (EMS). EMS is the processes and practices that enable an organization to reduce its environmental impacts and increase its efficiencies. SRS follows an international standard know as, ISO 14001 which establishes the framework on how they follow and employ EMS at SRS. Goals are set annually with objectives including reducing energy usage, increasing renewable energy, decreasing solid waste and increasing green product. Environmental awareness campaigns are hosted at the site to connect the employees to information tools and programs to make a positive impact on the environment.

Compliance is covered in chapter 3. An integral part of SRS operations is to ensure that they are in compliance with environmental regulations and DOE orders. SRS has a longstanding exceptional compliance record. SRS is leading other site in compliance status and has a long history of a high compliance rate. SRS manages more than 500 construction and operating permits that are complied with over 20 laws, DOE Orders, regulations and executive orders. In 2015, SRS received one Notice of Violation issued by SCDHEC but no fines or penalties were assessed by SCDHEC. The amount of asbestos released was below the one pound CERCLA Reportable Quantity

and did not require reporting to the National Response Center. SRS achieved a 100% compliance rate for air quality and protection and water quality and protection. For the 13th consecutive year, all 19 underground storage tanks that contain usable petroleum fuel were in compliance.

Chapter 4, the Non-Radiological Environmental Monitoring Program is designed to confirm that they are in compliance with the State and Federal regulation and permits. The program monitors the effects of the Site's operation on the environment onsite and offsite. Atmospheric, water, stream, river, sediment and fish samples are collected under the program. Out of 5,400 samples collected, there were zero exceedances. The results of the water quality samples concluded that SRS discharges did not impact the water quality in onsite streams of the Savannah River. Under the fish monitoring program, 140 fish were collected and tested. The mercury levels for the fish in the Savannah River ranged from below detectable levels to 11.8 micrograms per gram in catfish.

Two components of the Radiological Environmental Monitoring Program are effluent monitoring and environmental surveillance. Effluent monitoring consists of monitoring at the point of discharge or emission to the environment. Environmental surveillance is collecting samples beyond the point of discharge out in the ambient environment. Both programs aid in the determination of the dose to the public and the environment. The radiological environmental monitoring program monitors the effects of SRS operations on the environment and demonstrates compliance with the applicable standards and DOE orders. They conduct environmental monitoring activities for atmospheric, vegetation, soil, food product, water (stream and river), stream and river sediment, aquatic foods and wildlife. There are over 20,000 radiological analyses performed annually. In 2015, the liquid effluent program determined that the liquid releases remained well below DOE derived concentration standards. The air effluent analysis determined that the radiological airborne emissions were all within permit limits. The program also collects drinking water samples from 10 locations on site, 2 locations down river and an upriver control point. Results of the environmental surveillance program concluded that tritium concentrations remain well below the drinking water standard of 20,000 pCi/L at Savannah River Mile 118, North Augusta and Beaufort-Jasper Water Treatment Plants. The wildlife surveillance program hosts annual game hunts that are open to the public. In 2015, there were 473 deer, 80 hogs, 23 coyotes and 27 turkeys harvested. All the animals were monitored prior to release. The average cesium results in deer indicated a decreasing trend for the past 50 years. Fresh water and salt water fish were also collected in 2015 and the cesium-137 levels ranged from below detectable levels to 0.311 p/Ci/g.

Chapter 6 discusses the Radiological Dose Assessment. SRS calculates the potential doses to members of the public from atmospheric and liquid radioactive releases to verify that these releases and exposures do not exceed the DOE public dose standard of 100 mrem/yr from routine DOE operations through all reasonable exposure pathways.

Chapter 7 covers the Groundwater Management Program. The Groundwater Management Program ensures the future groundwater contamination does not occur, monitor the groundwater to identify contaminates, remediate the groundwater as needed, and conserve the groundwater. In 2015, there were no exceedances of drinking water standards in the SRS boundary wells near A and M area. SRS also collected samples from 40 of the 44 offsite wells in Georgia and all tritium results being non-detects. (3 wells were dry and 1 well was damaged such that it could not be sampled.)

Quality Assurance is an important component at SRS and is featured in chapter 8. The Savannah River Site Quality Assurance (QA)/Quality Control (QC) program ensures that SRS's products and services meet or exceed customers' requirements and expectations. The SRS QA/QC objectives associated with the Environmental Monitoring program ensures that the environmental data collected through the program accurately represents the Site's discharges and the surrounding environment. SRS laboratories (onsite and contract) have maintained certification by SCDHEC and passed audits performed under the DOECAP (U.S. Department of Energy Consolidated Audit Program). Technological and processes improvements are also highlighted in chapter 8.

SRS communicates and actively reaches out to local communities in various ways to keep the public informed on the SRS activities and environmental impacts. Additionally, these actions keep the public involved and educated in the process and activities.

Ms. Eddy concluded her presentation by emphasizing the importance of SRS's comprehensive environmental monitoring program. The results of the program confirm that SRS operations are protective of the environment and human health. The report is available on the web at: http://www.srs.gov/general/pubs/ERsum/index.html

Q&A Session

Louis Walters, CAB Member: In the overview, on page 11, can someone explain the 3.6 million savings? Also, what do you mean by avoided versus diverted?

Kim Cauthen, SRNS: We would have spent the 3.6 million had we not have done something on site to either prevent or use that for a useful purpose. It is money that we did not have to spend, not actual savings. Avoided would mean that we did not generate that waste by process changes or by some activity that would have previously generated the waste. Diverted would be taking something that was a waste and sending it out someplace else for re-use, recover or some other purpose.

David Hoel, CAB Member: On page 13, can you elaborate on the background or story concerning the noncompliance?

Teresa Eddy: There was an electrician that removed electrical wiring from a rooftop HVAC system. The individual was not asbestos trained and a license was not obtained prior to the removal activity. The details are in the report also.

David Hoel: Page 21, the dose assessments for 2015, it would be interesting to see how that years' values compare on a time progression perhaps on the past 5 years to give us an idea on what direction we are going in in terms of these doses over time.

Teresa Eddy: For 2014, the liquid pathway dose was 25% more in '14 versus '15. This was attributed to a decrease in the flow rate in the Savannah River. We do have a comparison for 14-15 mentioned in the chapter. As far as air pathway goes, the 2014 air pathway dose was .044 mrem so we also saw a decrease for the air pathway and that was influenced by the decreased release of tritium.

Presentation: Explanation of SRS Offsite Dose Calculations, Tim Jannik, SRNS

Mr. Jannik began his presentation by defining radiation as energy in the form of gamma rays, X-rays or fast moving electrons (beta emissions) and helium ions (alpha particles). The calculation of energy dose, is based on the amount of energy that has been deposited into a given material or mass. Dose is energy divided by how much mass has absorbed that energy. In order to calculate dose for humans, they have to know the mass of the human and the mass of each organ. They estimate the dose to each organ and add that amount to get the total persons' body amount. In the early days of radiation protection, the main focus was on the radiation worker. In order to calculate the dose then, they had to know the mass of the person and their organs and to do that consistently they decided to calculate the dose to an average radiation worker, which at that time was a male. The International Commission on Radiological Protection created the concept of the "Standard Man". The "Standard Man" set the basics for the mass calculations for organs and human mass. These rules/values were established to maintain consistency. In 1974, the concept of the "Standard Man" was changed to the "Reference Man". The "Reference Man" incorporated more information, research and physiology. In the 70's and 80's when the protection of the general public became a concern the concept of the "Maximum Exposed Individual" was developed. The ICRP made recommendations to include new dose coefficients for an average female. This concept was codified in DOE Order 5400.5 along with the 100mrem/yr annual dose limit. Recently, more developments have taken place internationally and the concept of the representative person has come into play. DOE has adopted this change in DOE Order 458.1 which superseded 5400.5. The "Representative Person" concept includes a reference person which includes all age groups so now there is an age and gender hypothetical person that they are calculating a dose for. The concept includes dose coefficients for the reference person, consumption rates, inhalation rates and usage rates. The dosage rates began at an adult male and now they include all age groups in the dose calculations.

Mr. Jannik stated that we receive radiation from several sources and that adds to the background dose of an average person in the U.S. Radon in our home, cosmic radiation, CT scans and other everyday activities are examples of where we can receive radiation. At SRS, they measure cesium in the fish and river and tritium in the air and streams. This data is used for dose calculations. SRS is trying to reduce the current dose of 0.18 mrem/year.

Q&A Session

Rose, Public: I am trying to figure out the calculation of dosage over the age and gender grades go. For each age and gender grade are you calculating for the 50th percentile or for the 5th to 95th?

Tim Jannik: We are calculating for the 95th percentile. For each age group we go to the 95th level.

Rose: So the 5th percentile will not be necessarily represented?

Tim Jannik: Yes, but that is an extreme level.

Rose: The 95th will be the largest person in that age/gender grade.

Tim Jannik: The person stays the same. You can only have one person. The 95th percentile comes in at how much they breath, how much water they drink, how much food they eat is at the 95th percentile. That's where that comes in.

Rose: So this is not based on size or physiology.

Tim Jannik: No its not. The 95th percentile is on usage.

Rose: Where would one go for reference sources to figure out how you arrive at that?

Tim Jannik: That is directly from the EPA documents and they are referenced in the annual reports.

Strategic and Legacy Management Committee Update: Bob Doerr, Chair

Mr. Doerr welcomed everyone to the meeting and introduced the committee members. There was one open recommendation that has been responded to by DOE and one draft recommendation. The next committee meeting will be held December 13th, 6:30-8:20 pm. He advised everyone to make a note that the meeting location has changed to the DOE Meeting Center. He informed the public that the last meeting was postponed due to the hurricane. Mr. Doerr advised the members to make comments on the draft recommendation that would have been made at the committee meeting. He then introduced the presenter, John Lopez.

Presentation: EM Budget Process, John Lopez, DOE-SR

John Lopez began his presentation by noting that they are currently starting to plan for fiscal year '19 at the Site. They will not receive the target to begin developing the budget until March of 2017. Headquarters gives all sites target to develop impacts for. At the Site they prepare impacts and budget narratives that go into the congressional budget. It then goes to the EM level and then the agencies create their individual budgets and the DOE develops their overall budget for 2019 and submits the budget to the Office of Management and Budget. OMB reviews the budgets for all the agencies across the nation and sends out an OMB Passback to allow the agencies to reconsider their budget impacts. The Site sends the Passback back to OMB and then the president submits his budget by February. Congress has two committees that deal with our funding. One in the House of Representatives and one in the Senate. The House committee is named "House Energy and Water Development (HEWD)" committee and the Senate committee is Senate Energy and Water Development (SEWD) committee. These committees develop their recommendation for budgets sometimes they concur with the president and sometimes they do not. Each committee passes a budget within the house and they usually don't agree. The budgets then enter a reconciliation process where the bills are reconciled, passed and signed by the president by October 1st. Mr. Lopez noted that this is the way the process is supposed to work but it hasn't gone this way in years but they are hopeful that with the same party controlling the Presidency and the House that the process will be able to remain on schedule. When the budget enters continuing resolution it is hard to start executing the current fiscal year plans.

When Congress allocates money to the site they are given in buckets of dollars. SRS receives funding from 5 major clean up PBS's and smaller non clean-up Program Baseline Summaries (Safeguards & Security and Community & Regulatory Support). The Site does not have the ability to move money from one PBS to another unless OMB gives permission. Congress did not pass a spending bill on October 1st and the Site is under a 70-day continuing resolution through December 9, 2016. The FY 2016 budget was decremented by 0.496% and supplied the Site with a budget to last through December 9th. The Site is hopeful that Congress will pass a bill or continue the resolution for another month. The bill prohibits new project start of Saltstone Disposal Unit #7. The Site is continuing planning for the FY2018. The Site is working the President's Transition Team to begin working on the 2018 budget.

Mr. Lopez presented funding numbers for FY 2016, FY 2017 Congressional Request, HEWD Mark and SEWD Mark. He discussed the current PBS's and future ones.

Q&A Session

Bob Doer, CAB Member: You made mention of another month of continuing resolution after the current CR. Is that what you are hearing from Washington?

John Lopez: Those are the rumors we are hearing.

Jack Craig, DOE-SR: Those were the rumors we were hearing before last Tuesday. The committee members that we have been talking to are going to be there. They are the professional staff members, not the Congress; they are the people that actually work for the Congress. They are going to provide input to their elected leaders and what the elected leaders do with it, we are not sure yet.

Bob Doerr: The current administration runs through January 21st. If they buy another month, won't they have to deal with the issue again?

John Lopez: Eventually they have to pass a spending bill for the year.

Bob Doerr: Is it possible they would eventually do a continuing resolution that crosses over into the new administration? Doesn't Congress change over January 1st? I am not sure but at some point they have to give you either a budget or a continuing resolution that takes you through the full fiscal year.

John Lopez: That is correct.

Bob Doerr: How much in dollars does the decrement of 0.496% impact SRS?

John Lopez: We were at 1337 so .496 of that would be it. It's not a lot of money. Fortunately we have some carry over dollars from FY '16 that we are carrying into '17. Our money doesn't expire at the end of the year so right now we are living off of carry over and new money that we have received through December. Our contractors know we do have not a full spending bill so they are trying to delay purchases as long as they can until we get a full spending bill.

Bob Doerr: With the 2017 budget you developed new PBS's to appropriate dollars into spending projects. With the CR, would you be able to use the new PBS's in the 2017 budget if it is just a CR for 2017?

John Lopez: We cannot. There were no dollars in 2016 for that and since there has not been a 2017 spending bill there are no dollars in our continuing resolution for that.

Gill Allensworth, CAB Member: The December 9th thing bothers me. Have we had a Christmas shut down before?

John Lopez: I do not know the answer to that.

Gill Allensworth: Jack, what are we doing to make sure we don't have a lot of work?

John Lopez: If there was no spending bill, like in FY '14 or '13 Congress didn't pass a spending bill. So we go into what we call imminent harm avoidance. We can't send everyone home at the Site we have to protect government property and human beings so we would move to that posture if we ran out of money and when we did that in '13 we ended up furloughing a lot of employees and only keeping there the necessary employees to be at the imminent harm avoidance level.

Gill Allensworth: We are going to have thousands of people furloughed at one of the most stressful times of the year.

John Lopez: That is a possibility but we are confident that Congress is going to do its' job because it is not just us it is every federal agency. We are confident that Congress is going to keep this going for at least another month.

Jack Craig, DOE-SR: There is very little chance that the government would be shut down at the start of a new administration. What we have to do is we plan for what would be the impacts of another months CR , 6 month CR, and yearlong CR. What would be the worst case for us is a yearlong CR that takes us back to FY '16 levels where as we need to continue our programs and '17 requests. It would impact both people and projects that can't start. We are doing that scenario and providing that information to everyone that needs to know it. We believe that it will turn out better than that. The other thing that they have asked us if it is a yearlong CR would we like it redistributed to allow you to do some activities such as start SDU-7. Although it is not adequate for everything we want to do, they asked us to redistribute that so it will be less impact. They are talking to us about different scenarios. Hopefully we will get to something and what I have continually said was if you can't give us our requests give us something similar to the senate mark and we have given them those numbers redistributed.

Dawn Gillas, CAB Member: Thanks to Google, the new congressional terms begin January 3rd.

Louis Walters, CAB Member: Could you indicate how long you have been working on these CR's, these temporary budget situations? I don't believe we have had a budget for how many years now?

John Lopez: 14, 15 years now. Every year we are in a CR.

Louis Walters: So this is not to dismiss or diminish the importance of having this but this has been something we have been working at (levels) for a decade and a half basically.

John Lopez: When we start planning our work we kind of figure that we won't be getting a spending bill at the beginning of the year. So we plan it so that the levels of spending are greater later in the fiscal year than they are earlier in the fiscal year. Hopefully under the new administration and Congress we will get out of that cycle and start getting a spending bill October 1st.

Louis Walters: How much is the carry over?

John Lopez: This year we have probably between 50-70 million dollars in carryover.

Discussion of Draft Recommendation: "Military Trainings at SRS"

Nina Spinelli, CAB Vice-Chair, presented the recommendation.
Bill Rhoten, CAB asked if Carolina was missing in recommendation one. Nina Spinelli concurred.
Bob Doerr, stated that he liked the recommendation and recognizing the Georgia National Guard and surrounding military bases are key to the recommendation. He asked if anymore bases needed to be identified.
Nina Spinelli responded that Harold (Simon, CAB Chair) had also mentioned that and after the sentence they will include that.

Jim Giusti, DOE-SR: We have a standard agreement with the Department of Army for trainings use so those forts are already covered under that agreement. If they choose to use our facilities for training there is an avenue for them to request it. We don't specifically go to a specific fort or unit to ask that, it comes through the army training program. The SC National Guard has expanded that to use a similar program that was already in place for the Army. Adding forts doesn't gain us anything, they are already included in the Army program that we have as far as military training goes.

Bob Doerr: Is there another way to phrase this so that we don't need to be specific as to military installations but that we are encouraging SRS to continue with what you are already doing. It is fair to say that we are trying to encourage more military participating with SRS. If we leave it the way it is it doesn't really have any meaning is what you're saying?

Jim Giusti: You could say expanding joint training as requested by military units and not identify the Fort. If a military unit wants to use our training facility and it goes through either one of our current agreements we will support that if we can. There is a mechanism within the appropriate military avenues for them to request that. We don't go out and solicit them to train, they come to us and ask us can we train on your facility so we are not actively looking for the military to come and do things. We have the land space and we have limitations on what they can do at the Site but as long as it meets their needs we cooperate with them to the fullest extent possible. We're not actively going out and asking military units to come train on the site, that's not what we're here for. If the military wishes to train we will accommodate them the best we can. Your support for continuing to expand the joint training is fine. I think that you will have to identify any units or organizations. I think that from where we stand we are encouraged that the CAB thinks that that is a good avenue for us to do those things. We all think it is and we have the capabilities to do those things and provide some unique training opportunities.

Nina Spinelli: Are we comfortable with taking out Fort Jackson and Fort Sumter and putting the period at surrounding military bases?

Harold Simon, CAB Chair: Jim, I have a question for clarification. Under the Army training program it is my understanding based on what you said, this is a program that is jointly shared between the Department of Defense and DOE?

Jim Giusti: We have a memorandum of agreement between the Department of Army, correct Zach?

Zach Todd, DOE-SR: In 2007 we signed the EM level and the Department of Army level it's a MOU, Memorandum of Understanding. At that point in time all it was doing was naming Ft. Gordon the portal owner at SRS for all military

units to come train. Right now South Carolina is taking over that role. We are getting the official documentation to support that but for example, in the past 6 months, we have had everything but Coast Guard come and train at SRS.

Harold Simon: So based on that premise, if Ft. Gordon and any other surrounding military installation would like to use SRS f0r training, then they will have to go to the SC National Guard?

Zach Todd: Yes. That is the role that the SC National Guard is taking over. Any military unit that wants to come and training at SRS has to through SC National Guard.

Harold Simon: So they are the point of contact?

Zach Todd: Correct.

Bill Rhoten: From what Jim said it sounded like to me; that the period should go at the end of expand joint training.

Bob Doerr: What I was hearing from Zach was that it is through the Memorandum of Understanding but, the point of contact is the SC National Guard so maybe that needs to be there as well. The point of contact for other military installations would be the SC National Guard.

David Hoel, CAB: It is an interesting conundrum here. DOE doesn't view it as their job to go out and solicit military units to come train at SRS we may disagree with that. We may want DOE to actively market military units to train at the Site. If that is the case, we should keep the recommendation as written.

Bob Doerr: David, I think that is a very valid point. Rather than defining certain locations, maybe we could rephrase this to include "we want DOE to market" because there is a benefit to DOE by having these military groups come there.

Nina Spinelli: Maybe I can come up with some sentences with David and we can bring it back tomorrow and see if that works. Is that good for everyone?

The CAB agreed.

Waste Management Committee Update: Earl Sheppard, Chair

Mr. Sheppard welcomed everyone to the meeting and introduced the committee members. The committee has one open recommendation and one pending recommendation. The next meeting will be held December 6th, 6:30-8:20 pm. Mr. Sheppard announced that the committee will be discussing draft recommendation: "Commend the Originators of the Double-Stacking Idea".

Discussion of Draft Recommendation: "Commend the Originators of the Double-Stacking Idea"

David Hoel, CAB Member, presented the recommendation.
Bill Rhoten, CAB Member, asked about the design of the first building and suggested that publicly recognize would be more appropriate than honor. Mr. Hoel agreed.

Jim Giusti: DOE-SR, stated that the first building was built with more safety features than building 2. Mr. Giusti said that didn't hear of discussion of the idea being generated when they constructed the building. The people that came up with the idea have worked out the technical issues to allow them to move forward.

Mr. Sheppard made a motion to move the recommendation forward and it was seconded. The recommendation was considered ready for vote on Day 2.

Nuclear Materials Committee Update: Larry Powell, Chair

Mr. Powell welcomed everyone to the meeting and introduced the committee members. Recommendation 334 and 337 remained open. The next meeting is December 6th at 4:30 at the DOE Meeting Center. The committee had one presentation and one recommendation to discuss.

Presentation: Nuclear Safety- How We Ensure Safety, Maxcine Maxted, DOE-SR

Maxcine Maxted began the presentations by giving an overview of the regulatory requirements. The law for nuclear safety is 10CFR830. The law states that you have to analyze the facility, analyze the works that will be

performed, associated hazards, identify conditions, and the safe boundaries and hazard control that need to be put in place to control safety. The purpose of a safety basis is to prevent any adverse effects to the public, workers or the environment.

The guidance on how to ensure nuclear safety is found in Appendix A of the law 10 CFR 830. Ms. Maxted explained that Safe Harbor is similar to a recipe that outlines the requirements for a safe position. SRS facilities are outline in Section 2 under Nonreactor Facilities. Nonreactor facilities are facilities that they are not intentionally putting fuel in a situation where it can become critical.

A Documented Safety Analysis, Technical Surveillance Requirements, Authorization Agreement and other items constitute the facility Safety Basis. The Documented Safety Analysis outlines what could go wrong and what they need to do to keep everything and everyone safe. Technical Surveillance Requirements details the rules for the stuff that they decide they need to keep safe. The Authorization Agreement states the activities that are specifically authorized by DOE.

Q & A Session

Dawn Gillas, CAB Member: Did you talk about double contingency analysis in this?

Maxcine Maxted: I did not. With criticality you have to have double contingency. With the HB-Line incident we had some material placed in a pail instead of being placed in cubed type vault containment. We talked about for criticality you control the amount of material. We had that controlled and we had the amount of material controlled. With nuclear material you have to be in a close position for things to go critical. We have set up in our facility specific packages that things can go into that was why this was going into a cubed vault configuration versus just a 5 gallon pail that is used for a different type of work. The operators did not follow procedure and put the material in the pail instead of the vault because they would have to get another vault but because we did have double contingency, we had two ways that you were protected and we did not have a safety issue. With Double contingency and anything with criticality we have two different ways to make sure we don't get in an accident.

Rose Hayes, Public: I am confused on what happens if Murphy's Law prevails and after all this planning something in fact does go wrong. If there was an event how will the REMs be measured?

Maxcine Maxted: We actually have monitoring all over the site. We have a very good atmospheric group at SRNL and they do all of the monitoring and calculations for us. If there were a release or an accident that had a release, we would know by that information. The DSA does calculations and they have the DOE Toolbox. There are certain codes that have been approved from the Headquarters level and you have to do your calculations and put them into this MAX-2 and it will do the dispersion for you. The surface roughness of the facility determines how much air dispersion you are going to get. A lot gets factored into a DSA.

Rose Hayes, Public: So it's a computer model? We don't actually know that if there is a release of some sort the amount of REM's one would be exposed to?

Maxcine Maxted: The DSA is a calculation via models. We do have actual measurements that the SRNL folks do through our atmospheric folks. If there were to be this catastrophic accident we would have the information that really occurred because we have those monitoring systems all over.

Rose, Public: So there will be personnel down at Richland and Lawrence measuring?

Maxcine Maxted: They already have the monitors already established and set up in the facility and in the boundaries.

Rose, Public: So we have them throughout the city?

Maxcince Maxted: I don't know exactly where in the city. I do know that they are all around the Site and the Site boundary. I do not know how far off they go but I do know that we have coordination with DHEC and they're monitoring. If there is an accident at SRS it's not just SRS that's responding, there are other groups that are involved.

Rose, Public: Is there any way for the public to know if in fact there are these measuring monitors distributed around our city?

Maxcine Maxted: We can take that as an action and try to get back to the CAB. I do believe that if it is not our monitoring system than it's probably the state of South Carolina's or Georgia's monitoring system but we will get back to you on that.

Dawn Gillas, CAB Member: One of the reasons why anytime we have a change we go from 1,000 bundles to the rest of them, there is a big change. A lot of the change is associated with this work and that is why it takes so much time to implement any change. That will flow into the recommendation, that big box of documents that she talks about takes a long time to generate by the time you generate it, review it, change it and get it done you then have to implement it. Implementing takes training and other activities. The time ensures that all the safety information is properly reviewed and put into place before anything happens out there.

Maxicine Maxted: Just to give you an idea of the time, a change in the DSA is probably a 6 month process. If you are adding a new activity or process, that will take a year to 2 years to get through.

Discussion of Draft Recommendation: "Process All Aluminum-Clad Spent Fuel in H Canyon As Soon As Possible"

Dawn Gillas, CAB Member, presented the recommendation.
David Hoel, CAB Member, stated that he received some positive feedback and made a few changes in the discussion.
Mary Weber, CAB Member, stated that she agrees with the recommendation but was confused by the discussion and asked for clarity.
Dawn Gillas provided clarity about the purpose of the Canyon.

David Hoel noted that the first sentence in the discussion is addressing DOE wanting to see how the current campaign goes before committing to additional processing. Mr. Hoel said that the recommendation is trying to encourage DOE to use their money to work off the inventory.

Jim Lyon, CAB Member, stated that he also agrees with the recommendation and he wonders why they haven't processed the fuel already.

Dawn Gillas added that she believes for a long time it was probably politics and budget restrictions preventing the process from happening. Ms. Gillas also said from a tax payer's position it would be beneficial to run the canyon rather than maintain it.

Jim Lyon, asked about the canyon's capacity for processing.

Maxcine Maxed DOE-SR, answered by saying that they are not operating the canyon at full capacity. They have one dissolver that is dissolving material test reactor fuel. They are hoping to add a dissolver for HFIR. The have to run concurrently rather than continuously due to staffing.

Larry Powell, CAB Member stated that he didn't care for the word "as soon as possible" and asked if there was a better suited word choice.

Dawn Gillas suggested the word expeditiously or providing a plan on how to process.

David Hoel, stated that he feels like they would be wasting execution time by providing a plan.

Bob Doerr, CAB Member, requested that if DOE doesn't approve the recommendation to ask for a presentation explaining the alternative plans on processing or removing the fuel.

Dawn Gillas said that the feels like DOE-SR would love to do the recommendation and it wouldn't be the decision of DOE-SR but rather Headquarters so any plan at this point would be hypothetical.

David Hoel, added that he hopes that DOE-SR uses the CAB's history of similar recommendations to urge and justify better budgets for H-Canyon so they can accomplish what the CAB is asking.

Louis Walters, CAB Member, asked if anyone knew the specific political and budget concerns so they can provide more evidence for DOE to support the recommendation. He believed that in order to add legitimacy to a recommendation terms such as "politics" shouldn't be used without detailing those elements. Mr. Walters also stated his concerns regarding safety.

Nina Spinelli, Larry Powell, and Dawn Gillas reviewed their suggestions on an alternative to "as soon as possible".

Dan Kaminski, CAB Member, stated that he believes that the recommendation addresses concerns and believes that the recommendation is going to be a next step process and the CAB should plan for multi-step process response.

Jim Giusti, DOE-SR, commended the CAB on drafting a thorough recommendation and doing their due diligence. He believes that is summarizes their position. Mr. Giusti added that the CAB could attach the recommendation to the integrated priority list.

Jim Lyon, spoke on utilizing a cost-benefit and safety analysis to support the recommendation.

Larry Powell ended the discussion by stating that after the corrections are made they will vote on the recommendation on Tuesday.

Public Comments

Tom Clements, SRS Watch, spoke on his recent public outreach at a Charleston concert, a tour of the Los Alamos National Lab, and the drones at SRS.

END OF DAY 1, November 14, 2016

Meeting Minutes

Savannah River Site Citizens Advisory Board (CAB)—Full Board Meeting

Applied Research Center, Aiken, SC

November 15, 2016

Tuesday, November 15, 2016 Attendance:

CAB	DOE/Contractors/Other	Agency Liaisons
Gil Allensworth	Zach Todd, DOE-SR	Shelly Wilson, SCDHEC
Tom Barnes	Thomas Johnson, DOE-SR	Ben Jumper, SCDHEC
Louie Chavis	Maxcine Maxted, DOE-SR	Sandra Snyder, SCDHEC
Susan Corbett - *Absent*	Randy Clendenning, DOE-SR	Stakeholders
Robert Doerr	Avery Hammett, DOE-SR	Tom Clements, SRS Watch
Dawn Gillas	Terry Spears, DOE-SR	Rose Hayes, Public
David Hoel	Laurene Rowell, SRR	James Marra, CNTA
Eleanor Hopson	Keith Harp, SRR	Gregg Murray, Augusta University
Virginia Jones - *Absent*	P.K. Hightower, SRNS	John Oakland, Public
Daniel Kaminski	James Tanner, S&K Logistics	Thomas Gordon, Aiken Standard
Jim Lyon	Chelsea Gitzen, S&K Logistics	Douglas Howard, Public
John McMichael - *Absent*	Federica Staton, S&K Logistics	Martha Ruthern, Rep. Joe Wilson
Clint Nangle - *Absent*		CeeCee D., GAWAND
Cathy Patterson		B. Ratten, GAWAND
Larry Powell		Ken Liften, Public
Bill Rhoten		
Earl Sheppard		
John McMichael - *Absent*		
Harold Simon		
George Snyder		
Nina Spinelli		

Ed Sturcken Louis Walters Mary Weber		

Opening Ceremonies: Harold Simon, CAB Chair

Mr. Simon welcomed the attendees and led everyone in the Pledge of Allegiance and the National Anthem.

Vote on Accepting March and September Meeting Minutes

A motion was made to vote to approve the meeting minutes. Motion seconded.
Votes: 15 Yes, 0 No, No Abstention
The Motion was carried, and the Minutes were approved

CAB Chair Update: Harold Simon, CAB Chair

Harold Simon, CAB Chair reviewed key points from the SOP including the role of the CAB chair, meeting rules and the role of the facilitator. Mr. Simon added that he believes that it is important for the Board to continue to work in a collaborative way to complete meeting tasks. Mr. Simon asked Jim Giusti to speak on the CAB University training program that will be finalized and uploaded to the CAB website by the end of the month.

Meeting Rules and Agenda Review: Monte Volk, DOE-SR Facilitator

Mr. Volk reviewed the meeting rules and agenda.

Agency Updates

Department of Energy Agency Update: Terry Spears, DOE-SR

It is good to be with you again. A lot has happen at SRS since your last meeting. I want to personally thank you for your time and service on board. I find your recommendations useful to our environmental management work at SRS. So thank you for your service.

DOE and DHEC Reach Agreement

- The South Carolina Department of Health and Environmental Control (DHEC) and DOE signed an agreement on October 31, 2016 on the process for treatment of about a third of radioactive and toxic liquid waste in aging tanks at SRS.
- DOE agreed to a new timeline for treating the high-level waste at the SWPF and committed to additional technological investments rather than litigate over penalties for missed deadlines. These innovative technologies, in addition to the SWPF, will help achieve committed treatment capacities.
- The agreement paves the way for large-scale treatment to move forward without the delay and expense of litigation, furthering progress on tank closure and risk reduction.
- Under the agreement:
  SRS will process about a third of liquid waste starting in 2016 through 2022 to mitigate the delay in startup of the SWPF.
- DOE is funding roughly $200 million of continuing work on innovative technologies that will make progress towards DOE's critical clean-up mission, including:
  - Tank Closure Cesium Removal, new at-tank treatment capacity;
  - Next Generation Solvent, an advancement that makes the SWPF more effective; and
  - Sonar Mapping, which enables faster assessment of small remaining residuals at cleaned tanks, cutting time from tank closure.
- As part of the processing steps for the salt waste, the saltcake volume is expanded by adding sufficient water to dissolve in order to process. The current inventory of tank waste (sludge, saltcake and supernate) is estimated to become ~ 100+M gal of salt solution for treatment.

- From 2008 through FY15 5.4 million gallons of salt waste has been processed by ARP/MCU at SRS. Under this agreement, the 36.75 million gallons of liquid waste to be processed over the next 7 years, including FY-2016, is a significant increase due largely to the addition of TCCR and SWPF operations. It's about a third of the liquid salt waste we need to process.

SRS Starts Pu Blend Down

- On September 29th, SRS personnel began the down-blending process and permanent disposal of six metric tons of surplus non-pit plutonium in the SRS K Area Complex.
- The process blends plutonium oxide with an inert material, producing a mixture that is more secure and not usable for weapons. The startup of this work resumes a process that SRS successfully carried out in the HB Line Facility in 2012 to down-blend plutonium.
- SRS will introduce one can about every two weeks into the blend down process. One can of Pu can produce up to 10 waste cans. For Fiscal Year 2017, SRS will blend down 25 kilograms of Pu oxide.

SRS Closed for Hurricane Matthew

- On October 4th, DOE made a decision to close SRS to non-essential personnel due to South Carolina's mandatory evacuation notice for the coastal regions due to Hurricane Matthew.
- The impacts of the storm to SRS were expected to be minor, but the greatest impact was the anticipated congested roadways around SRS due to heavy traffic on Hwy.125 and Hwy. 278 which are both evacuation routes for the coastal region.
- Based on the potential for unsafe conditions due to heavy traffic, SRS was closed to non-essential personnel.
- On October 9th, SRS returned to operating on a normal work schedule.

Bulk Waste Removal Starts in SRS Tank 15

- On October 12th, four large pumps will begin the mixing of sludge waste in Tank 15, in order to prepare the waste to be removed from this tank as part of the Site's tank closure work. The sludge waste removed from Tank 15 will eventually be treated and made into glass by the Defense Waste Processing Facility.
- Because this older-style tank has 24 inactive, leak sites in the primary tank wall, the mixing is expected to make the leak sites active again. These leak sites are well documented, and their existence was factored into planning the waste removal of Tank 15.
- Tank 15 has an annulus surrounding it that would capture any waste, much like a cup and saucer arrangement, thus no material is expected to be released into the environment. Also, should leak sites become active, the tank's annulus will be monitored and operations stopped until an evaluation is performed to determine whether operations should continue.
- We have noticed active leak sites but they have not impacted waste removal activities in Tank 15. We continue to monitor them but there is no risk to people or the environment.

Liquid Waste Contract Rebid

- Proposals have been submitted on the new Liquid Waste Contract and are under DOE review
- A new contract is expected to be awarded in Spring 2017 (approx. contract value: $6B)

M&O Contract Rebid

- Oct. 17: Request for Information released soliciting input on specialized capabilities needed to meet all or part of the requirements of the Draft Performance Work Statement for the upcoming competitive procurement as well as insight into contracting options to achieve EM goals
- Oct. 24-27: Acquisition Integrated Project Team held Industry Day, One-on-One Sessions, and Community Day to obtain constructive input from interested firms regarding the procurement and to involve the public and community stakeholders at an early stage of the acquisition process
- Industry Day: Over 140 attendees, representing 80 companies
- Community Day: 30 attendees, representing 20 organizations/academia
- DOE will analyze the information provided by interested parties to assist in developing the Acquisition Plan
- Draft RFP Release and Pre-Solicitation is anticipated in third quarter of FY-17.
- Contract Award is anticipated for Spring of 2018
- Current M&O contract with SRNS has a 10-year period of performance ending July 31, 2018, and a total value of ~$9.4 billion.

Budget

- The Site is under a 70-day Continuing Resolution through December 9, 2016
    - Funds all programs at the FY 2016 enacted level less a 0.496% across-the-board recession
    - The bill prohibits new starts (Saltstone Disposal Unit #7)

- Continue planning for the FY2018 Presidents Budget due to Congress in February 2017

Nuclear Materials
- All Nuclear Materials facilities are in sustained operations.
- The Target Residue Material (TRM) modifications are operationally complete. The DOE Readiness Assessment was completed in October.
- HB line continues to process plutonium feed material for disposition.
- K-Area continues to perform down blending of plutonium and supports shipments of plutonium to HB-line for processing.
- 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 address actions for completion of the Implementation Plan for DNFSB Recommendation 2012-1.
- SRNL has completed all actions necessary to operate as an independent business unit and has begun that transition. The new approach allows SRNL to tailor its business and operational capabilities to better align with the needs of a Federally Funded Research and Development Center.

Environmental Cleanup
- As reported in a previous update, on June 8, 2016, a leak occurred at the base of the 782-A Service/Fire Water Tank. A temporary fix for the approximate one inch hole was placed by divers on June 15, 2016. On October 19, 2016 the divers successfully executed the permanent repair.
- On September 30, 2016, the Savannah River Site announced the publication of the 2015 Annual Site Environmental Report (ASER) and Summary. Electronic copies of the full report and the summary are available on the SRS website. Additionally, hard copies of the ASER summary are available upon request.
- All field activities to close the 488-2D Ash Basin and 488-4D Ash Landfill were completed by September 30, 2017. These activities conclude all activities for Phase 1 of the D Area Ash Project.

Tank Closure Cesium Removal
- SRR has selected the commercial supplier Westinghouse Electric Company, LLC, headquartered in Cranberry Township, Pa., and awarded a contract valued at $12.4 million to design and fabricate an ion exchange process with an “at-tank” deployment for the removal of the cesium component of salt waste to be demonstrated. The vendor has completed 50% Design and it is currently under review.

Defense Waste Processing Facility (DWPF)
- Defense Waste Processing Facility (DWPF) is operational.
- For Fiscal Year 2017 – DWPF has poured 12 canisters for a total of 4,115 canisters.
- Crossbars have been removed in 263 canister storage locations in Glass Waste Storage Building 1 as part of the Canister Double Stacking effort, and 248 locations have been completed (new support plates and new shield plugs installed). 16 radioactive canisters have been double stacked.

Saltstone Processing Facility
- Saltstone is in a planned outage and expected to resume operations in December.
- The first of two 60,000 gallons salt solution receipt tanks began receiving waste earlier this month. The other SSRT is not needed until SWPF operations begin, scheduled for late 2018. It will be isolated and maintained until it is needed. Both tanks have passed rigorous inspections.

Saltstone Disposal Unit – 6
- Disposal cell construction is complete.
- To ensure leak tightness an elastomeric liner is being installed on the inside of the cell. Installation of the liner on the walls is complete. Lining of the floor and pedestals is in progress. The contractor is scheduled to complete the entire liner installation before the end of the year.
- Upon completion of the liner the cell will be filled with water and a hydrostatic test will be conducted. In addition, a non-toxic fluorescent dye will be added to the water used for the hydrostatic test and a black light test will be conducted on the outside of the cell to ensure leak tightness.
- Infrastructure to connect the disposal cell to the Saltstone Processing Facility has been completed and is awaiting final tie-in to facility (will occur after SDU-6 passes leak test).

Salt Waste Processing Facility
- Testing and commissioning activities at SWPF are about 34 percent complete and operation with radioactive waste is expected to begin by December 2018.

Security Event at SRS

- On November 2, 2016, we declared an emergency late in the afternoon after finding what they considered a suspicious device in a bathroom at the Savannah River National Laboratory campus. Our security force treated the item as potentially explosive.
- Upon further investigation, we determined that the item was actually an air freshener wrapped in paper towels with a flashing light on it. The site quickly declared the item "non-threatening'' and returned operations to normal, according to SRS. Our people and our security force respond properly to this event demonstrating that our training works.

I would like to wish you a safe and joyous Holiday season and look forward to seeing you in the New Year. Again thank you for your service.

Q&A Session

David Hoel, CAB Member: The DOE DHEC agreement is that an agreement for missing the deadline for startup of SWPF?

Terry Spears, DOE-SR: David this was the agreement that ensued following missing the three special commitments in the saltstone disposal permit that related to startup of various units and processes in SWPF.

David Hoel: Can you comment on the status of the other dispute resolution negotiation that has been ongoing between DOE, DHEC and EPA?

Terry Spears: I don't have a specific update on that today. I would be happy to defer to Shelly (Shelly Wilson DHEC)

Shelly Wilson, DHEC: We have had a couple of informal dispute resolution meetings on the subject of the extension request and we have another one schedule for December. We are still in the informal dispute resolution stage we are making progress and my belief is that since we resolved the central question on treatment we will be able to dissolve the other dispute fairly quickly.

David Hoel: Is it possible to get a copy of this recent agreement struck between DOE and DHEC?

Terry Spears: I am sure it is, I don't have it today but I believe it is available to the public so we can certainly make sure you get a copy of it.

David Hoel: With regard to the site being closed due to Hurricane Matthew, is there anything being done about that in the future so when evacuation routes are being used the site can still remain operational?

Terry Spears: There are always discussions with the State on various aspects of planning for emergencies. I am not sure if we are actually discussing rerouting emergency evacuation routes but we have been focused on how to better integrate the State in terms of planning for these disasters and making sure that we don't put our people at the site in harm's way because of the restricted access once those routes become active. I think it would be very impractical to changes those routes. The routes are restrictive and limited to one-way traffic.

David Hoel: Were there any environmental violations or noncompliances in the last two months?

Terry Spears: None to my knowledge.

David Hoel: Were there any DOE Order violations or noncompliances during that period?

Terry Spears: None to my knowledge.

David Hoel: I didn't see mentioned in your remarks the status of the leak with the 3-H evaporator.

Terry Spears: We are currently evaluating the approach to repair and replace the evaporator. That is still ongoing.

David Hoel: Were there any receipts from foreign or domestic research reactors in the last two months at SRS?

Terry Spears: I do not have an answer. Perhaps we can consult with Maxcine at break.

David Hoel: Can you say if there has been a change in status in terms of potential receipt of spent fuel from the German foreign research reactor that the CAB has made a statement on.

Terry Spears: I do not have an update on that.

David Hoel: Has the five year update of the SRS Site Treatment Plan been completed yet?

Terry Spears: I don't believe it's been completed. It is in process currently.

Jim Lyon, CAB Member: I was shocked at the fine schedule for failure to meet certain timelines and I wonder does the present new agreement have similar fines?

Terry Spears: The fines and penalties associated with permit violations are a matter of state business.

Jim Lyon: (Leak in A-Area) If you have one leak and that leak is repaired it must have been causality that you might expect additional leaks. Does that particular element of your operation require replacement?

Terry Spears: That's an aging tank; it's been there since the 50's. It provides service water and fire water for A-Area. It's not necessarily a part of our operations and it's been deteriorating, just as any carbon steel tank would. It's something that we are evaluating now as in terms of how to replace; we certainly do need to replace the tank. In the meantime we have repaired the functionality of the tank and it continues to operate successfully.

Dan Kaminski, CAB Member: For the updates, would it be possible to have someone like the KPI, visual dashboard. What were the net receipts of waste coming on site? If we are receiving fuel rods are we receiving them faster than we are able to process them?

Terry Spears: I would say that currently we have in storage many fuel bundles in L-Area. We have an inventory that we have to process down. It isn't so much a matter of receiving; it is a matter of taking inventory that we have and processing it through the canyon and dispositioning it in an appropriate way. We have a good way to go to work off

that inventory. Currently, as far as being able to disposition material to an ultimate disposal form, we are continuing to produce canisters of waste but getting them to that ultimate disposal depends upon things beyond our control.
Maxcine Maxted, DOE-SR: There is a performance measure that we track for the CAB and you get a presentation on that every year and that includes some of those KPIs. (Answering Mr. Hoel's questions) We have had 3 receipts in the past two months. We are not overloaded we are capable of handling those receipts schedules and we actually form our schedule so we know what's coming in and what has to go out.
David Hoel: Can you say where those receipts came from?
Maxcine Maxted: They were foreign. I am not at liberty to say the country.

South Carolina Department of Health and Environmental Control Agency Update: Shelly Wilson, SCDHEC

Shelly Wilson discussed the dispute resolution between DHEC and DOE-SR. The agreement is focused on high-level waste. She gave background on the missed deadlines and penalties associated with the situation. The main concern for DHEC was the delay of waste treatment. The recently signed agreement in Ms. Wilson's opinion is a fix to the delayed treatment. Instead of c0llecting penalty money DHEC required DOE-SR to spend money in a way that benefits the environment and the citizens of South Carolina. The agreement commits DOE-SR to commit to spending around 200 million dollars towards getting treatment back on track. The agreement also requires DOE-SR to maximize treatment through FY 2022 and treat 36.75 million gallons. Ms. Wilson explained that while the overall idea of the agreement is to have the salt waste processing facility up and running but the facility alone will not be able to treat the 36.75 million gallons of waste. DOE has to incorporate innovative technologies to meet the goal of the agreement. Ms. Wilson concluded her update by reinforcing the idea that the agreement allows the money that would have been used for fines is being used to help integrate new treatment which will maximizes treatment and minimizes residual waste.

Q&A Session

David Hoel, CAB Member: One concern that the CAB identified previously; we have facilities that are only running at idle speeds for years after years instead of at their designed capacity. Does the agreement that you struck with DOE affect how they will run those facilities?
Shelly Wilson, DHEC: The 36.75 is a maximized treatment. It's not just a bulk number it is broken down year and for each year, it is a maximized hearty treatment rate and I believe for DOE to meet those year by year commitment rates they are going to have to run full out.

David Hoel: Are there any other active enforcement acts concerning SRS?

Shelly Wilson: I don't believe there are any other active enforcement actions.

Jim Lyon. CAB Member: I am concerned with the new installation if they will follow through on the commitment. I would to know if the commitment exists at a higher level and if the commitment exists in the budget that will be executed in the future.

Terry Spears, DOE-SR: We are committed to treating and dispositioning waste and we request funding for that every year diligently. We have received commitment from the Department and from EM in particular that we are a top priority in the clean-up program. To me, that is an expression of commitment to deal with that issue in the best way possible including providing funding. Ultimately, it's up to the administration and Congress to fund these programs; the agency requests, the Congress funds. I can't make any predictions about the future cooperation of our Congress or future administration as to how that might go. I think that is one of those political things that we will just have to continue to express our voices as citizens and watch and see the outcome.

Shelly Wilson: Historically we have periodically touched based with our delegation to share with them the importance of the environmental budget that SRS seeks every year.

Public Comments

Tom Clements, SRS Watch, commented on nuclear waste and material issues. He provided his opinion and an update on the German spent fuel issue, shipment of a Canadian research reactor, DOE and various environmental groups lawsuit over uranium shipment and MOX.

Rose Hayes, Public, asked a question to Shelly Wilson regarding the state and the issue of waste leaving the site, public law 107-107 and processing cesium.

Shelly Wilson, DHEC, responded by stating that waste removal is a central concern of South Carolina but the state has no regulatory authority over spent fuel and nuclear materials but South Carolina does regulate high-level waste. By law vitrified high-level waste is supposed to go to a federal repository but South Carolina as a state, has little control over when the federal repository nationally is built. Mrs. Wilson added that to protect the environment and the community DHEC minimizes residual waste. The SC Attorney General is currently pursuing a lawsuit that deals with public law 107-107. The treatment schedule is included in the agreement and cesium is scheduled to be converted to a glass form to lower environmental risks.

Vote on Draft Recommendation: "Commend the Originators of the Double-Stacking Idea"

A motion was made to vote to approve the draft Recommendation. Motion seconded.
Votes: 16 Yes, 0 No, No Abstention.
The Motion was carried, and the Recommendation was approved.

Vote on Draft Recommendation: "Process All Aluminum-Clad Spent Fuel in H Canyon As Soon As Possible"

A motion was made to vote to approve the draft Recommendation. Motion seconded.
Votes: 16 Yes, 0 No, No Abstention.
The Motion was carried, and the Recommendation was approved.

Vote on Draft Recommendation: "Military Trainings at SRS"

A motion was made to vote to approve the draft Recommendation. Motion seconded.
Votes: 16 Yes, 0 No, No Abstention.
The Motion was carried, and the Recommendation was approved.

Administrative and Outreach Committee Update: Eleanor Hopson, Chair

Ms. Hopson welcomed everyone and introduced the committee members. She noted that the members would be voting for CAB Chair and Vice Chair following the committee update and the results will be announced at a later time.

Facilities Disposition and Site Remediation Committee Update: Tom Barnes, Chair

Mr. Barnes welcomed everyone. The committee had no open or pending recommendations. The next committee meeting will be held December 13th, 4:30-6:20 pm at the DOE Meeting Center. He then introduced the presenter, Shelly Wilson, South Carolina DHEC.

Presentation: DHEC Oversight, Shelly Wilson, SCDHEC

Shelly Wilson began her presentation by giving an overview of DHEC's authority. She stated that most people believe that they control everything but congress only gave DHEC a certain amount of authority. DOE has the authority to regulate themselves regarding spent fuel and nuclear materials and because of that DHEC has little regulatory authority over receipt of spent nuclear fuel and foreign plutonium. DHEC does have authority over high-level waste, mixed transuranic waste, solid waste, soil and groundwater and air and water emissions.

DHEC has four primary environmental roles related to the site: protection, emergency preparedness, improvement and oversight.

Protection is a continuous role at the Site. DHEC permits inspection regulatory infrastructure. The permits and inspections are aimed at protecting the air, water and land.

Environmental laws were not put in place until the '70s, before then many industries practiced unsafe acts that were considered safe at the time. DHEC works to clean-up the past damage and drive down legacy stock pile waste. This improves the environmental status and diminishes environmental liability.

DHEC also focuses on emergency preparedness. South Carolina has a comprehensive emergency operations plan for disasters. DHEC takes extra measures to ensure they can assist SRS in emergency situations.

DHEC's oversight role for environmental media is an atypical position. DHEC independently takes samples of soil, groundwater, streams, stream sediment and various perimeters surrounding the site to understand if and how SRS activities are affecting the environmental media. The program publishes a yearly report of the sample results.

Authority begins with federal laws and regulations that are put in place by Congress. The EPA delegates those laws to the states and South Carolina has authority for the major programs. Implementation of environmental laws occurs at the state level at DHEC.

DHEC's goal for the future is to maintain their areas of quality and protection while focusing on high-level waste treatment and tank closure, site cleanup and the disposition of legacy waste.

A copy of the annual report can be found here:
http://www.scdhec.gov/HomeAndEnvironment/Pollution/DHECPollutionMonitoringServices/MonitoringSurroundingSavannahRiverNuclearSite/FishGame/

Q&A Session

David Hoel, CAB Member: You're saying you get your authority from EPA, has EPA ever had any aspects of your authorization rescinded?

Shelly Wilson, DHEC: David I don't think we have ever been rescinded.

David Hoel: You're also authorize to actually impose more stringent requirements, if the state chooses to, is that not true?

Shelly Wilson: We can be more stringent. Those things have to go through our general assembly process. We can put something forward, that's more stringent, but it won't be effective unless the general assembly specifically approves it and enacts it.

David Hoel: Are there any aspects that are more stringent that what EPA requires?

Shelly Wilson: There are.

David Hoel: You say you get some federal dollars through EPA to conduct your regulatory program; don't you also get grants from DOE?

Shelly Wilson: We certainly do. That's mostly in the area of the soil and groundwater clean-up and that's because we have a limited set of resources. We decided that for SRS we wanted to go a bit faster than what our typical range of resources would allow. Every year we get grant money to fund the people who review the soil and groundwater clean-up.

David Hoel: Approximately how much is that grant per year?

Shelly Wilson: I am thinking it is over a million and I will look and get back with you on that number.

David Hoel: Since you get money from the agency you are regulating, how do you maintain independence?

Shelly Wilson: We're still looking at the same regulatory standards and the same clean-up requirements. We have been able to reach agreement on many things; we have had dispute and disagreements on some areas. Even though we are getting that money it's aimed at increasing the pace of clean-up but definitely not impacting the quality or standard of that clean-up. We feel free to debate and fight for the clean-up level that we feel is necessary for the state. When we feel the need to disagree we've done that realizing that it might jeopardize funding.

Larry Powell, CAB Member: I don't understand the 200 million dollar fine that could have been levied but the fine was mitigated towards additional clean-up and other aspects of clean-up. If the fine were levied, where would that money come from? If that money came from DOE funds, would that not take away the ability to do the clean-up?

Shelly Wilson: I agree with you completely. That's why we choose to direct the money towards treatment rather than to actually collect those penalties. Any penalties regardless of whom it is, depending on the program area most of it goes to the general assembly and some of it actually goes to the community. The realistic viewpoint is if we tried to get 200 million dollars that is 200 million dollars that DOE doesn't have. That's precisely why we wanted that to go towards hearty treatment. If DOE does not meet the commitments in the agreement we can still go after the money.

We haven't given up that ability, but for right now we would rather them spend it on treatment that gets us a fix and risk reduction.

Terry Spears, DOE-SR: The funding would have to come through our budget requests. Part of our request of the Office of Environmental Management is for funding that will pay any penalties due to the state, EPA or any other entity. It would come out of our operating budget.

Larry Powell: If it came out of your operating budget you would have 200 million dollars less to do the clean-up with?

Terry Spears: Effectively that's correct. In the agreement that we made rather than paying 200 million dollars in fines and penalties that go into the general assembly fund, we've agreed to fund 200 million dollars' worth of clean-up work. It's an effective way of using what could have been taking away from the program to ensure that the program gets accomplished and that the funding gets spent on the right things.

Larry Powell: But no additional 200 million dollars is spent on funds it's just assuring that the 200 million dollars that was already allocated towards the clean-up is being spent for clean-up.

Terry Spears: It's a commitment that that funding will be used for the appropriate things in the agreement. Every year is a different situation we request funding so that will guarantee that that funding would be included in the request to support those years clean-up activities on those particular activities.

Jim Lyon, CAB Member: It's not real money, it's tax payer's money or you can say its borrowed money. They didn't have the 200 million dollars to pay the fines; South Carolina knew that. Getting a commitment to spend 200 million dollars is probably a good deal for everybody.

Dawn Gillas, CAB Member: Am I hearing that this 200 million would not be able to be spent on the fine or the work if it's not budgeted?

Terry Spears: I think you're correct as I understood you say that. The funding has to be available and frankly fines and penalties are more difficult they are like capital. If you get a 200 million dollar fine then it's payable in that year and then where is that funding going to come from. It would be a huge impact. Funding has to be requested and authorized and used for that purpose. This case we are requesting and intend to use it to satisfy the commitments that we've made in the agreement.

Jim Lyon: I still don't how we got roped into a contract with that kind of fine given. If they don't have 200 million dollars to do the job then to write in a 200 million dollar fine is beyond belief.

Shelly Wilson: We wrote in stipulated penalties because we wanted to get DOE's attention. The penalties are just the way they accumulate. They are basically potential penalties of $35,000 per day and there were three instances that could be missed. The way it adds up over time gets you to quite a big number.

Strategic and Legacy Management Committee Update: Bob Doerr, Chair

Mr. Doerr welcomed everyone to the meeting and introduced the committee members. There was one pending recommendation that has been responded to by DOE and one draft recommendation. The next committee meeting will be held December 13th, 6:30-8:20 pm. He then introduced the presenters for the Continuous Improvement presentation.

Presentation: Continuous Improvement, Zach Todd, DOE-SR; P.K. Hightower, SRNS; Laurene Rowell, SRR

Zach Todd defined Continuous Improvement as a program that DOE spends money on through the contractors and the contractors invest in the pr0gram. Continuous Improvement aims to make tasks more effective and efficient. Those savings are represented as soft savings and hard savings. Soft savings are savings that cannot be totaled as a dollar amount such as time. Hard savings are savings (money) that the program gets back and goes into the budget. Over the past year SRR's and SRNS's Continuous Improvement programs totaled over 34 million dollars in savings.

P.K. Hightower explained that FIT builds on the current Continuous Improvement framework. SRNS raised the bar in 2015 by introducing a new Focused Improvement Transformation (FIT) Lean operating system. FIT is a collaborative, closed-loop, process focused, and disciplined approach to aid in: raising employee satisfaction, reducing costs and increasing productive capacity. FIT also improves quality and timeliness of product delivery and increases

value to SRNS's customers. Since SRNS assumed the contract in 2008, Continuous Improvement productivity and efficiency cost savings total over 280 million.

Ms. Hightower provided a few examples to depict the steps in the FIT and CI process. SRNS conducted a Value Stream Analysis that included all organizational elements that participate in the acquisition management process. They created a common vision and strategy to achieve the objective, which resulted in a completion plan that included 8 rapid improvement events, 4 projects, and 7 just-do-its. For project management they looked at project management controls and began documenting processes so their successors will be able to carry out their legacy of efficiency. The Value Stream Analysis for Project Management developed appropriate and concise project screening criteria, developed scope criteria for cost versus capital project cauterization and developed a standard training process with roles and responsibilities.

Laurene Rowell explained that SRR's philosophy is that they need to deliver value for the customer. The customer is not just limited to DOE it is also the tax payer. The quicker they can safely provide their service the better value that everyone is receiving. SRR uses two methods to achieve this goal engineering innovations and Continuous Improvement initiates. SRR Lean events improved production by eliminating non-value adding actions in work planning and control processes. This relieved work for many and increased the ability to re-engage the workforce by doing meaningful field work and responding to infrastructure issues. SRR delivered value through innovations with the development of the double stacking canisters idea and improving the capacity SDU-6. Both innovations reduced life cycle costs.

Delivering a safer workplace is a top priority for SRR. 5S is a program that engages employees with their surroundings and organizes the workplace. Another effective process used to simplify complex procedures is the reduction and elimination of unnecessary steps in procedures. While there is no dollar savings in this process, this increases safety.

Q&A Session

Bob Doerr, CAB Member: Are the contractors motivated to do through trying to increase your profitability with these contracts with DOE or is DOE clever enough to include in their contract with the contractors that they want you to do this?

Zach Todd, DOE-SR: Speaking specifically for SRNS, Continuous Improvement is actually one of areas where we grade their performance so there is that element.

Bob Doerr: I was curious about efficiencies you gain through labor cost savings versus making investments in computer equipment to accomplish these process improvements. Do you find that you gain more from getting people to work smarter or is a lot of it making cost benefit decisions?

P.K. Hightower, SRNS: Really what drives us is it doesn't matter whether you make the process electronic or not the key is to make sure that the process is efficient. With efficiency there are somethings that we do the cost benefit analysis for. Then there is also a situation where we have used PeopleSoft to help us improve a process. There was a feature in PeopleSoft that wasn't turned on and we had some consultants here and they were listening to the conversation and they said they had something that could help us with that. The key is to make sure that what you are doing is efficient.

Laurene Rowell, SRR: Part of the learning journey in these events is really talking through the requirements and getting everybody to really lay out what the requirements are because what you find in a lot of the processes is we have things that are built in that really aren't requirements anymore. I think that's where we are getting a lot of the efficiencies; it is a learning experience and it is definitely been very valuable.

P.K. Hightower: We don't leave our customer out, they participate in events as well to help us recognize where we can save money.

Bob Doerr: I don't view this as a cost cutting program. This is an improvement process so the people who work for the contractors buy into this because they feel like they are empowered to help the organization achieve higher productivity and working smarter. This allows the companies to increase the compensation of employees, right? You are getting more work processed with the same amount of people that's increasing productivity so that the reward may be higher compensation?

Laurene Rowell: So we've been using the savings and efficiencies to try to burn back a log that's not really translated into financial gain for anybody because the money needs to get put back into the program.
P.K. Hightower: Infrastructure; imagine going to work in buildings that are 50+ years old. One facility just wants a restroom near the process and that's not easy to accomplish but if we could recognize hard dollar savings then we could probably entertain that.

Laurene Rowell: They do feel empowered because all of a sudden they have now got the say to make something better and that is a huge deal. It definitely makes them feel better about coming to work every day.

Bob Doerr: Everyone works and everyone expects raises at some point you can't provide raises unless you're more productive.

P.K. Hightower: We can provide job satisfaction. Sometimes it doesn't always come in monetary form. Remember that line I showed? That line is not changing but what we can do is provide the best value and be able to provide more service for the customer if they have a project they want to bring to the site, we can be there and we can provide a more productive capacity for them.

Jim Lyon, CAB Member: When we talk about savings of time, effort and efficiencies. We are talking (CAB) about a couple of things. One of them is capital programs, improvement of capital programs and operations in which you have customers. Then you have mixed in there federal funding. If you improve in one of those are you in some manner authorized to obtain those efficiencies and savings cost that you didn't spend on one line, and move it to another line or do you, since you didn't use it, lose it?

Zach Todd: If you remember John Lopez's presentation he talked about the different PBS's. Typically, if there is a cost savings within a PBS like a program, say if liquid waste had a program savings and it resulted in hard dollar savings because it is appropriated to that PBS you can't move it. If it is on the indirect side, there are different things that you can do that can go back to different programs or be held to indirect to do another project. As long as it is with the same PBS that's something that you can do but we can't bypass the appropriations to those PBS's.

Jim Lyon: So in some instances it isn't really worth your while to go through all this because you are going to lose the money?

Bob Doerr: John Lopez always talks to us about money held back. John always points out there is money carried over from one year to the next within these PBS's and maybe that's coming from some savings from CIP.

Jim Guisti, DOE-SR: Jim, we don't lose money. The money that they save through these efficiencies stays within that program to be spent on other projects. Unlike DOD, oi DOE we can carry-over our funds to the next year. So any savings we get, we have to stay within the guidelines that OMB has given us, but we don't lose that money because we have savings.

David Hoel, CAB Member: One of the things that tends to undercut the credibility of these lean exercises is the tendency to overestimate the hours saved and salaries that are computed into those hours saved. There is a natural tendency to overestimate those values I am wonder what do you guys do to validate those values. Do you have teams that challenge interlaying estimates?

Zach Todd: Yes and no. We don't have these massive teams, you have me. This past year we did a 5% cost challenge and that was the 34 million dollar savings that I mentioned. For that savings, each of the contractors submitted an event complete with a breakdown of salaries of employees, estimated time saved, and the supporting documents. I got to comb through all of that information to validate it. Additionally, that was submitted to headquarters for further validation. There is another facet to it, at what point do you start spending a dollar to track saving a nickel? So there is a balance to that. You don't want to put up these massive teams to validate these savings within detail because at that point you are spending more money than you are saving.

Laurene Rowell: You don't need an accounting system to track. I would even argue that we are extremely conservative. Even in our annual reporting to the DOE, we only report one year savings so if it is a work planning control activity that would have continuous ongoing savings, they are only tracking the first year savings. We are not even including multiple years for it.

P.K. Hightower: What we use is planning rates. We don't allow people to go pick a person who is at the top end of that salary grade. We use that planning rates for positon. We don't even name a person we plan it by the number of hours and the position, not the person.

Laurene Rowell: You use the average of your planning rates for the entire workforce.

P.K. Hightower: What the department has done for this year, and we are working for validation for our hard dollar savings, they have incentivized us to identify funds that can be reinvested into infrastructure into some other things on site. That will have validation process for the department to go through. We did this back in the 1990s and it was called the Cost Incentive Improvement Program. That will allow them on those dollars that can be reinvested that the validation occurred.

Bob Doerr: It sounds like what you are doing is if you can save money in operations you will reinvest it in capital investment to further drive up productivity gains, is that fair to say?

Zach Todd: There are exceptions but generally, yes.

Bob Doerr: Your contract with DOE allows you to do that?

Laurene Rowell: Our contract with DOE requires us to maintain the infrastructure.

Dan Kaminski, CAB Member: I just wanted to commend both SRR and SRNS to have performed very well in these programs. As a tax payer and a citizen I certainly appreciate the efforts to do more with less and more power to you and keep up the great work.

Waste Management Committee Update: Earl Sheppard, Chair

Mr. Sheppard welcomed everyone to the meeting and introduced the committee members. The committee has one open recommendation and one pending recommendation. The next meeting will be held December 6th, 6:30-8:20 pm. Mr. Sheppard introduced the presenter, Keith Harp.

Presentation: SWPF Integration Update, Keith Harp, SRR

Mr. Harp stated the purpose of his presentation was to provide an update on SRR and upcoming SWPF operations. He provided an overview of the Liquid Waste Program system. The legacy waste comes into the tanks and the salt waste goes to ARP but in the future it will go to SWPF. Mr. Harp displayed a video that provided an overview of the new SWPF piping integration.

Mr. Harp detailed some of the accomplishments at SWPF. The East Transfer lines modifications were installed and completed in July. The installation included modifications to get ready for final tie-ins for fiscal year 2019. The east transfer line piping has been extended with a fabricated spool piece. Fiber optic cables have also been installed to provide the DCS with controls between SRR and Parsons. SRR has contracted Parsons to accelerate hiring for their RADCon. This allows them to train them to SRR's process and procedures. The workers will become fully qualified in RADCon and will help with excavation work and jumper and pipe tie-ins in the facility.

Specially designed blanks were installed in Tank 49 during the MCU forced outage and steel shielding has been placed under the pump risers in Tank 21. The shielding allows the processing of higher Currie material in the blend tank while preventing exposure to personnel. DWPF modifications include the removal of abandoned piping and supports, completion of the fabrication of jumpers for MCU continued operations and the completion of the Leak Detection Box design.

SRR is currently working to excavate soil in multiple areas and install sheet pilling for structural support. Phase III piping installation of the new Tank 49 feed line is underway and progress is being made on the Phase IV piping design.

The video can be found here: https://youtu.be/Fd88qL-q0RA?t=1h3m21s

Q&A Session

David Hoel, CAB Member: What is the problem with titanium? Why are you testing for titanium and what is the problem you are trying to fix there?

Keith Harp, SRR: If you do a double strike at SWPF and do the normal process at the beginning of a system you still have high actinides at the back end, running it through a second strike of MST can bring more titanium into the glass than what we currently have approved today. So we have a very low limit today because we don't have to worry about that process.

David Hoel: Is that a permanent limit?

Keith Harp: No it is not it is just a DSA limit. So we are able to raise that limit up to accommodate SWPF we have just never done testing previously because we didn't have to. Now we are doing testing to get that limit up. Again Parsons and the Department are working on a way to not require double strike. We don't think it's going to be necessary with the feed blends that we have prepared in the salt batch plans but in the event that it is we will be ready.

Nuclear Materials Committee Update: Larry Powell, Chair

Mr. Powell welcomed everyone to the meeting and introduced the committee members. Recommendation 334 and 337 remained open. The next meeting is December 6th at 4:30 at the DOE Meeting Center. The committee had one presentation 235-F Update.

Presentation: 235 F Update, Randy Clendenning, DOE-SR

Randy Clendenning began his presentation by explaining that there isn't any activity currently present in building 235-F. Building 235-F has had numerous missions over the years, with the most recent focus on an area called, PuFF, a facility that made Pu-238 pellets for NASA to use and those pellets were used to fabricate RTGs, which were basically batteries for deep space missions.

Plutonium was last measured in the facility in 2006 and they are in the process of re-measuring. Based on the previous measurement there is about 1 ½ kilograms remaining in the 9 cells. In the Nuclear Safety Analysis they have analyzed a full facility fire scenario that could result in an unmitigated dose of 29,000 REM on site and 11.4 REM off site. The objective of the project is to reduce the unmitigated dose as low as they can to less than 100 REM from the 238 in the PuFF cells.

In environmental terms they are not dealing with the instate this is an operational type of activity where we are trying to reduce the risk so once this is done the risk is reduced, we've removed the inventory there will be a whole separate thing that happens at a later date with the final state of the facility and that will all be done as a part of all of the F-Area closure unit.

They believe that most of the contaminate material is located in cells 1 and 2. When the project was put together they elected to start at cell 9 where the risk is low, and work their way into the really high levels of Pu.

Since the last brief, they have completed readiness review and DOE has authorized it work to begin on the west side for cells 6-9. They have completed mechanical and electrical isolation in those cells, which needs to be done before you do any work. They have also removed the outer shell windows from cells 3-9 and established cell lighting. They have completed measurements of the amount of material in cells 3-9.

The key plans for Fiscal Year 2017 are to:

Remove the outer manipulator control arms from cells 1 and 2, drain the windows and remove the outer shield and install lighting. Mr. Clendenning stated that he believe they will be able to get new analysis completed to revise the Nuclear Safety documentation before the end of '17. The documentation will have to be revised before any more work is performed on the interior of cells 1 and 2.

Q&A Session

Dawn Gillas, CAB Member: You said you completed the measurements do you have those numbers of how much are in cells 3 through 9.

Randy Clendenning, DOE-SR: No. We know the numbers for 6 through 9. It's smaller than what they thought was there. We've just completed the measurements for 3, 4, and 5 and we think we will have that report from SRNL before the end of this calendar year.

Dawn Gillas: Can you have what data you have for our Nuclear Materials Committee meeting in December?

Randy Clendenning: Yes.

Bill Rhoten, CAB Member: I see you have radiation indicating signs and the fencing preventing getting to the inner window; where as in slide 5 where they were measuring radiation coming from the cells on the other side they were unprotected. Will the workers that are going to measure 3-5 have to be protected from the radiation?

Randy Clendenning: No. In fact on cell 8, there is wire fencing that is to prevent someone from knocking over something and causing damage to the inner cell window. We have moved some of the barriers that would make it not such a big deal.

Larry Powell, CAB Member: Is most of the contamination confined to the cells and the cabinets behind it? Is it your goal to remove contamination by the end of 2017?

Randy Cledenning: I believe we have the commitment to the defense board that our project goes out until '22 but I believe the work goes until around '20. It will go past 2017. We won't even be able to get into cell 1 and 2 until this bio is done and approved by DOE and then once that is done there is another document called an authorization agreement where the department will authorize the contractor to do intrusive work in the cell.

Larry Powell: So when all the contamination is removed, will the building be safe? What will be the fate of the building after that?

Randy Clendenning: The entire building is safe today. It will be safer. We won't be able to remove all the material we hope to remove as much as is practical. There comes a point where you can continue to throw money and resources at it and you are removing very little so we want to haul out as much as we can and ship it to WIPP.

Dawn Gillas: Part of the answer Larry is the current accident scenario. The worst case accident for 235-F is not really a good thing getting rid of this Pu-238 reduces that risk. The other key is when it does go through final D&D leaving that permanently for final disposition at SRS is not a good thing either.

Louie Chavis, CAB Member: Would it not be easier to try and concrete/grout this whole building or are we not sure what will happen to it?

Randy Clendenning: There was a study done by SRNL and if we were to fill a whole building with grout or do nothing it doesn't alter the equation the only thing that would be left is the plutonium. If we were to fill these cells with grout now, it will immobilize the plutonium but it wouldn't take it out of what the nuclear safety guys include in their analysis. Even if you fill the cells full of grout it would not necessarily take it out of what they have to use when they crunch their numbers. You would still end up with a big potential number. The other problem is we can't do what they call an irrecoverable action. If we filled these things with grout it would be very hard to do anything after that.

David Hoel, CAB Member: Has SRS decontaminated any other building on site as hot as this?

Randy Clendenning: When they did the reactors, I don't know the numbers, but I am relatively comfortable jumping to the assumption that there was a lot more radionuclides there than there is here. It wasn't nearly as mobile and it wasn't Pu-238.

David Hoel: Are you using any of those lessons learned from previous actions for this facility?

Randy Clendenning: I believe the answer is yes. We have also over the past couple of years been throwing some money and task to SRNL to come up with remote tools.

Public Comments

Rose Hayes, Public: Do you know why the Pu sat there all those years until the Nuclear Facilities Safety Board came and sited it? We need to know that. We need to learn from that.

Randy Clendenning: I don't know why people before me made those decisions but this facility was not unknown and the isotopes that were in it were not unknown. There has been at least one thought of going to look at doing something with the facility I don't know how far it got. I just know that it was out there.

Rose Hayes: It simply constitutes one of the reasons why the public is very uneasy about the handling of our nuclear materials and our nuclear waste program. In terms of the final report, I hope it will include the whole story.

Randy Clendenning: The one thing that does work to our advantage with 238 is physics because most of the other plutonium's have a half-life of about 2/3rds of forever this one has an 80 year half-life so it will decay away.

Rose Hayes: Two of us on the CAB at the time appeared before the Nuclear Facility Safety Board when this report was filed and the citation was released. That was about 6 years ago then there was a long interim period in which a simulator was supposed to be built for training purposes. I don't know what happened to the simulator and that training but it has taken so long, this has been admittedly a very high-hazard issue and it's taken so long. We all recognize that the budget issue confounds everything but when you have something like a high hazard issue it seems to me that there could be some prioritization of action.

Presentation: Strategic Plan Update, Zach Todd, DOE-SR

The strategic plan is still at the Site. It has just finished through the draft and is at the site level for local approval prior to being sent to EM Headquarters to be approved for public release. At that time, it will be released for public comment and the CAB will be able to comment on that.

CAB Chair and Vice Chair Voting Results: de'Lisa Carrico, DOE-SR

Nina Spinelli, CAB Chair

Earl Sheppard, CAB Vice-Chair

After no further public comments, CAB Chair, Harold Simon informed the CAB of upcoming events. George Snyder commended the party responsible for the CAB advertisement in the paper.

Harold Simon thanked everyone for participating and adjourned the meeting.

~Meeting adjourned

END OF DAY 2, November 15, 2016