

## Full Board Meeting Minutes

May 23, 2016

Savannah, GA

### **CAB:**

Harold Simon  
Nina Spinelli  
Susan Corbett  
Daniel Kaminski  
Earl Sheppard  
Gil Allensworth  
Louie Chavis  
Tom Barnes  
David Hoel  
James Lyon  
Eleanor Hopson  
Dawn Gillas  
Robert Doerr  
John McMichael  
Clint Nangle  
Cathy Patterson  
Larry Powell  
Bill Rhoten  
Ed Sturcken  
Louis Walters  
Mary Weber  
George Snyder

### **DOE/Contractors:**

Michael Mikolanis, DOE-SR  
Pat McGuire, DOE-SR  
Jim Folk, DOE-SR  
Jim Giusti, DOE-SR  
Maxcine Maxted, DOE-SR  
Zach Todd, DOE-SR  
Avery Hammett, DOE-SR  
Terry Spears, DOE-SR  
Thomas Johnson, DOE-SR  
de'Lisa Carrico, DOE-SR  
Eleanor Prater, Time Solutions  
James Tanner, Time Solutions  
Tina Watson, Time Solutions  
Dr. Lehr Brisbin, SREL  
Kristin Huber, SRNS

Ms. Tina Watson, CAB Facilitator, begins the meeting with a welcome to Savannah and reminds the members of the CAB that this meeting is being Livestreamed. She states that it is more important for everyone to speak directly into the microphone; stating your name and affiliation while speaking. She states that unlike committee meetings, there will be no interaction between the viewers and the CAB during the Full Board meeting, however like the committee meetings; there is a link on the website to watch live and review. She states that the sign-in sheets are on the table in the back and asks everyone participating to please sign-in. She addresses the CAB members directly and references a packet left for each, detailing the additional information provided in each. She then proceeds to turn introduce Harold Simon, CAB Chair for the Opening and Discussion of Draft Charis Recommendations.

### **Opening, Harold Simon, CAB Chair**

Harold Simon, CAB Chair welcomes everyone to Savannah, GA. He states that last month was the Chairs' Meeting located in Oak Ridge, TN. From this meeting, two recommendations were developed; discussing funding and community investment. Each member should have received a copy of these

recommendations, having an opportunity to review with a vote scheduled for May 24. He reminds the CAB members that these recommendations can only be voted upon; no changes can be made.

### **Meeting Rules and Agenda Review, Tina Watson, CAB Facilitator**

Ms. Watson reviews the meeting rules and outlines the agenda throughout the day.

### **Work Plan Update, Tina Watson, CAB Facilitator**

Ms. Watson proceeds to update CAB members on the status of past and future presentations that fulfill the CAB Work Plan.

### **Facilities Disposition & Site Remediation Committee Update, Tom Barnes, FD&SR Chair**

Tom Barnes, FD&SR Chair, welcomes everyone to Savannah, GA and introduces the CAB committee members. He proceeds by stating the next FD&SR will be held on June 8 from 4:30 to 6:20 PM at the New Ellenton Community Center in New Ellenton, SC. He states that the FD&SR Committee has no open or pending recommendations.

### **Administrative & Outreach Committee Update, Eleanor Hopson, A&O Chair**

Eleanor Hopson, A&O Chair, welcomes everyone to Savannah, GA and introduces the CAB committee members. She states that upcoming CAB member vacancies will be filled with the membership drive. She references the 2016 Spring Board Beat magazine and thanks James Tanner, CAB Support Team, for his outstanding work on the magazine. She encourages everyone to visit the CAB website for more information and states that the A&O Committee does not have presentations scheduled for the May 23 portion of the Full Board Meeting.

### **Nuclear Materials Committee Update, Larry Powell, NM Chair**

Larry Powell, NM Chair, welcomes everyone to Savannah, GA and introduces the committee members. He states the next NM Committee meeting will be held in New Ellenton, SC at the New Ellenton Community Center on June 7 from 4:30 to 6:20 PM. He states that the Draft Recommendation discussion on *Nuclear Materials Operations Review* will begin. He introduces CAB member Mary Weber to review the recommendation. CAB member Weber states that this draft recommendation was discussed at the NM April Committee meeting, with input and revisions made post meeting. Weber outlines the recommendations. When there is a job at SRS involving radioactive materials and/or criticality, such as the procedures involved in the HB line incident, CAB recommends that DOE requires that SRNS, as part of its Procedure Performance:

1. Review any resulting paperwork or documentation by an additional supervisory level, at the end of the work shift, but no later than within 24 hours, even if that 24 hour period includes a weekend or holiday.

2. Hire additional personnel or shift responsibilities so that this type of supervision could be carried out.
3. Allocate or apply for additional funding to enable #2.
4. Review, analyze and rewrite Procedure Performance 5.3, as needed.
5. Review procedures for team composition, to change members to different teams periodically so that 'team member familiarity' does not prevent or diminish optimum work quality.
6. Request that SRNS provide CAB a presentation on the results of its effectiveness review from item 1a of Consent Order NCO-2016-01.
7. Request that SRNS provide CAB a presentation on the results of its "independent assessment of its Nuclear Criticality Safety Program, including H-Area and the F/H analytical laboratories...." As described in all of item 1c of Consent Order NCO-2016-01.
8. Request that SRNS include in its independent assessment referred to in item 1c of Consent Order NCO-2016-01:
  - a. Analysis of adequacy of the number of supervisors in HB line incident, including first line supervisor and shift supervisor
  - b. Analysis of effectiveness of four day shifts in areas where procedures involve nuclear criticality;
  - c. Analysis of effectiveness of keeping same team members instead of random rotation of members when possible.

CAB member Weber opens the recommendation up for comments. CAB member Jim Lyon states that within his experience, there is a dual responsibility on any process being certified. He continues by saying that he believes this dual responsibility was not exercised. Weber addresses his comments by stating that the procedure was not followed by three, experienced workers with a supervisor present, whom was also involved with additional responsibilities the time the procedure was occurring. Weber further states that the incident was not caught until four days after the initial occurrence. Pat McGuire, DOE-SR, addresses the CAB by stating that the work crew had procedures that were used "every time" they performed work in accordance to written instructions. McGuire continues by saying that these workers performed very poorly. McGuire says that in regards to questions about disciplinary actions, appropriate disciplinary actions were taken. He states that the review of the procedure was not done as required, further stating that there were many failures in the overall work package. CAB member Lyon states that a problem is the inadequacy of technical engineering skills; saying that recruitment of engineers is a critical area. Pat McGuire, DOE-SR, follows-up by stating that a presentation on Workforce Recruitment Retention will be given during this Full Board Meeting (May 24) and that this might further answer any recruitment questions CAB member Lyon may have. McGuire further reiterates that appropriate disciplinary actions were taken due to the procedure not being followed and not due to lack of experience or technical certifications or training. CAB member Bob Doerr commends the recommendation and asks if the Department of Energy (DOE-SR) will go to Savannah River Nuclear Solutions (SRNS) and ask for presentations to the CAB on the outlined recommendations to be presented. Doerr continues by saying that a report should be presented of the analyses outlined in Number 8 of the recommendations. Weber states that the Consent Order required an independent evaluation of the procedures and to give a report back to DOE and proceeds further by clarifying what

the recommendation is asking for; a presentation by SRNS on the report compiled once all work directed by the Consent Order is completed. She further clarifies Number 8 of the recommendations, that SRNS consider the three various factors outlined in doing the overall analysis. CAB member Doerr further asks that a very comprehensive presentation to the CAB will be needed. Weber responds that this comprehensive presentation to the CAB could be given after the report following the Consent Order is sent to DOE. Jim Giusti, DOE-SR, states that the CAB is a DOE advisory board; further clarifying that the CAB can submit DOE advice but cannot request it from contractors directly on Site in your recommendations. The recommendation needs to be phrased that the CAB is requesting that DOE provide the presentation on the results of the independent review. Giusti continues by stating that DOE will respond to the actions outlined within the recommendation. Weber states that on items six and seven of the recommendations, to substitute "SRNS" with DOE, with DOE then logically asking SRNS to follow-up with the presentation. Giusti states that a presentation can be requested and that a presentation can be given to the CAB by the best suited party. CAB member Gil Allensworth asks if items two and three of the recommendations are needed due to the number of personnel not being associated with willingly not following the procedure. Weber states that this is only a recommendation that can be taken into account. CAB member Allensworth asks for further clarification on the number of people present during the incident that willfully did not comply with the procedure. Weber states that three people were present, with a fourth individual being the supervisor not physically present. Pat McGuire, DOE-SR, corrects CAB member Weber and states that the manager was physically present and that all four individuals deviated from the procedure. CAB member Allensworth states that his recommendation would be to remove items two and three from the recommendation list. Weber states that is why team member rotation was incorporated into the recommendation. CAB member Louis Walters commends the report and asks for clarification on the use of "experience" throughout the recommendation. He further states that the recommendation holds an element of repetitiveness throughout. CAB member Jim Lyons asks if the contract with SRNS for DOE has a process for finding a disinterested third party for evaluation in these cases and further asks who this disinterested third party is. Pat McGuire, DOE-SR, answers that this disinterested third party identification has yet to be decided. He further states that this independent evaluation will be done within a year. CAB member Dawn Gillas refers to CAB member Allensworth's previous comment regarding the hiring process; stating that she too agreed with the position. She further addressed CAB member Bob Doerr's comment regarding item eight on the recommendations; she further reiterates the order of the recommendations and the analyses. CAB member Gillas recommends changing the order of recommendations; further switching in order the recommendations. Pat McGuire, DOE-SR, states that the sentence, "In the intervening months, SRNS has received commendations and awards on its operational pause and commitment to safe operations at SRS," is not necessarily true. He states that no awards were given; only noting what was appropriate and warranted in this situation. CAB member Jim Lyons argues the receipt of an award from DOE. McGuire directly responds that SRNS was not given an award by DOE. Weber states that this sentence within the recommendation is not a critical inclusion and can be removed upon CAB consensus. CAB member Larry Powell states that this recommendation will be voted upon on the May 24 portion of the Full Board Meeting. CAB member David Hoel notes that the NM Committee voted on another position statement regarding the proposed German Spent Fuel to be shipped to Savannah River Site (SRS); an Environmental Assessment was written and a position was drafted regarding this proposal

with a committee vote to include in the current Full Board Meeting agenda. Hoel further asks for clarification on why this was not included on the agenda. Harold Simon, CAB Chair, addresses Hoel's question by stating that the discussion took place at the April 12 committee meeting and that the committee chair advised Hoel to sign and submit as a member of the public. Simon further states that there was a misunderstanding on Hoel's behalf, with the decision to make a motion for approval and to send to the Board. Simon further references the suggestion of Maxcine Maxted (DOE-SR); that the submission past April 30 will not be considered due to its tardiness. He states that sending this to the Board will be fruitless and overcome by time; the assessment period was closed on April 30, allowing Simon to make the ultimate recommendation of removing it from the agenda. Simon refers to Larry Powell (NM Chair) as the next step for making any further decisions regarding the recommendation. CAB member David Hoel states that this is a creative re-writing of history; stating his presence at the committee meeting referenced. He further states that this is an inappropriate meddling on the behalf of the DOE Deputy Designated Federal Official (DDFO) in an attempt to muzzle the committee's criticisms in regards to this proposal and states his strong objection to the handling of this situation. CAB Chair Harold Simon states that the recommendation for removal from the agenda was his. CAB member Hoel states that CAB Chair Harold Simon made the decision to overrule the committee. Simon further clarifies that the committee chair made that determination and provided said recommendation. Michael Mikolanis (DOE-SR) notes that according to CAB procedure, the CAB Chair has the authority and discretion not to bring recommendations to the Board. Hoel states that this is convenient. Mikolanis refers to Hoel's initial asking on what grounds was this recommendation removed from the agenda; Mikolanis further states that it is in the internal processes. Hoel states that it is extremely inappropriate for the DDFO to meddle in the deliberations of the CAB. Mikolanis states that the Chair made the recommendation, not the DDFO. Pat McGuire (DOE-SR) states that he was present at the committee meeting and further clarifies that he meddled within the CAB processes with the suggestion of a motion for the recommendation. McGuire states that he takes full responsibility for allowing the recommendation to exceed past the procedural boundaries. Hoel states that the procedures were followed. Tina Watson (CAB Facilitator) states that the meeting should continue to move forward on topic. Tom Clements violates the public comment period; commenting mid-meeting and outside the designated public comment period. Tina Watson reiterates that this is not a public comment period, nor is it on topic. CAB member Gil Allensworth states that respect is needed for DOE and not specifically call individuals liars. Rose Byrne also violates the public comment period; speaking outside the designated public comment period. Tina Watson addresses the public stating that CAB Chair Harold Simon has given an explanation; she asks the CAB Chair if he would like to further his explanation and he states no. Maxcine Maxted (DOE-SR) addresses CAB member David Hoel directly, stating that his comments have been incorporated in the EA; comments similar to the position paper being put forward along with comments from CAB member Larry Powell . CAB member David Hoel responds to Ms. Maxted's statement, referring specifically to the comments on the EA. He further states that the CAB was going to establish a position with respect to the decision DOE will make until that EA is finalized. CAB member Hoel states that this has been prevented from establishing this position. CAB member Larry Powell addresses CAB member David Hoel stating that this should be further discussed with a possible different route to be taken. CAB member Larry Powell closes discussions.

## **Waste Management Committee Update, Earl Sheppard, WM Chair**

Earl Sheppard (WM Chair) welcomes everyone to Savannah, GA and introduces the committee members. He states that there are no open or pending recommendations. The next WM Committee meeting will be held on June 7 at the New Ellenton Community Center in New Ellenton, SC.

## **Presentation: 2016 Waste Management Symposium, Nina Spinelli, SRS CAB Vice Chair**

Nina Spinelli begins her presentation by stating that this is a brief overview of the presentation given at the Waste Management Symposium. The goal was to interview public participants attending CAB meetings to better understand the impact each individual believes they have on SRS and to analyze why they are attending and participating. The overall goal of maintaining an engaged audience and incorporate learning materials and experiences. She states that over the last several decades, a huge rise has been calculated in public participation. She references the particular reasons for an increase in public participation as a heightened awareness after events such as Chernobyl. People are growing an increased awareness on what impacts their health and future generations. Communities are becoming increasingly motivated to become more involved in decision making that impacts their health and surrounding environment.

## **Strategic and Legacy Management Committee Update, Bob Doerr, S&LM Chair**

S&LM Chair Bob Doerr welcomes everyone to Savannah, GA and introduces the S&LM committee members. He states the purpose of the S&LM committee and gives a recommendation update. He says that there is currently one open recommendation, *Recommendation 323*. CAB member Doerr states that the next committee meeting will be held on June 8 from 6:30 PM to 8:20 PM at the New Ellenton Community Center in New Ellenton, SC. Doerr introduces the presenter and presentation.

## **Carolina Dogs Presentation, Dr. I. Lehr Brisbin**

Dr. Brisbin begins his presentation by welcoming the audience and introducing the University of Georgia and its history at the Savannah River Site (SRS), including his personal employment history. He states that credibility and credentials are the largest task associated with his job; credentials are provided via established publications. Brisbin references Dr. Gene Rhodes, Director of the Savannah River Ecology Lab (SREL) as promoting these credentials and research. He details the importance of SRS to the SREL mission of preserving and researching environmental resources, with an abundance of wildlife present to study. He states that pig studies are continued along with dog studies at SRS. Brisbin details the importance of pigs and hogs to SRS, stating that radionuclides with pigs and hogs are analyzed from the specimen killed on Site; referencing the grad student team that are apart of these ongoing studies. He states that studies on Site regarding Carolina Dogs are ongoing; beginning the discussion on dogs present on Site, stating that the Carolina Dog (*a registered breed of dog*) originated on Site. He states that this breed of dog looks similar to a coyote with a "foxlike" nose, perky ears. He discusses the

primitive history of the breed, stating that this dog was documented in primitive drawings. He continues by saying that Native Americans referenced this breed as “four-eyed” dogs; detailing that the spots located above the eyes are additional eyes that belong to the Creator. He furthers his presentation by stating that Carolina Dogs have a tendency to walk on their hind legs; allowing better visibility over tall grass. Another behavioral trait of the Carolina Dog is the raising of its pups as a “couple,” or the pairing of two mating dogs. Brisbin continues discussing behavioral traits and details how newborn pups are fed; the male Carolina Dog digests food and proceeds to vomit the food up once a pup licks the lower jaw of the male. This allows the food to be easily digested by the pups. Brisbin references other dogs located and raised in different environments and ecosystems having similar traits to the Carolina Dogs found at SRS. These sister breeds although separate in location share similar behavioral and physical aspects and traits. He continues discussing the physical aspects of the Carolina Dogs, including the use of their ears. The ears can be used for advanced hearing, the conveyance of social messages, cooling body temperature purposes. Another behavioral trait that Carolina Dogs exhibit are ‘sand paintings’ done in the sand with the tip of the dogs nose, covering their fecal matter. Brisbin references the opportunity to study ecology at SREL and how SRS provides a sanctuary for wildlife present for research and environmental purposes.

CAB member Doerr asks Brisbin regarding the origin of hogs present on Site. Brisbin states that pigs and hogs were allocated on islands by the Spanish, brought from the Canary Islands by Columbus to Cuban settlements. Doerr furthers his question by asking for the origin of the Carolina Dogs. Brisbin responds that the origin is Southwest Asia.

CAB member Gil Allensworth thanks Dr. Brisbin for his presentation and states that his son is always intrigued with anything regarding Dr. Brisbin or the Carolina Dogs.

## Public Comments

Rose Hayes (*public*) states that she has comments regarding the position statement; furthering her discussion by stating that wording needs to be changed. She states that recommendations referencing Yuccha Mountain or any other repository, she references her own analyzation of reports on the transportation, specifically water ways transportation. She cites NRC studies regarding this issue, but that they appear to be quite inadequate. She urges the CAB regarding future recommendations regarding repositories. To consider the transportation issues.

Marilyn Parson (*public*) states that her comments on public participation are appropriate following a presentation made by Nina Spinelli regarding attendance and participation from members of the public. She continues to state that participation is made difficult by distance, stating the following as a hindrance to participation; including action items not listed on official agendas, voicemail greetings. She cites online participation as dissatisfying that typed comments do not send quickly enough. Parson cites the operating procedures regarding special meetings, which can be called by majority rule of CAB members to further discussion recommendations.

Tom Clements (*SRS Watch*) states that he attends as many CAB meetings as he can. He provides background regarding the SRS Watch nonprofit group he represents and details the funding behind the organization. He comments on items that he believes the CAB should be continuously monitoring; including spent fuel from Canada. He cites an accident handling NRX spent fuel due to a faulty caddy. He cites the impact for receipt of NRX spent fuel. He states that the strategic plan for SRS is dated 2011 to 2015, and further states that the S&LM Committee should request an update on the strategic plan and that the CAB ask to have input. Clements comments on the construction, design and funding for the MOX plant. He states that the German Spent Fuel discussion at the previous committee meeting on the archived video allowed him to view the committee following the procedures on this draft comment on the environmental assessment. He states that CAB's role is imperative and to continue to actively participate going forward.

Tina Watson, CAB Facilitator, states to remove all name tags and then references CAB Chair Harold Simon to close out the meeting.

CAB Chair Harold Simon discusses what will be discussed the following day and adjourns the meeting.

*~Meeting Adjourned*

## **Full Board Meeting May 24, 2016**

### **Opening, Pledge, National Anthem, Minutes and CAB Chair Update, Harold Simon, CAB Chair**

#### **CAB:**

Harold Simon  
Nina Spinelli  
Susan Corbett  
Daniel Kaminski  
Earl Sheppard  
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James Tanner, Time Solutions  
Tina Watson, Time Solutions  
Dr. Lehr Brisbin, SREL  
Kristin Huber, SRNS  
Lee Moody, DOE-SR  
Carol Barry, SRNS  
Jay Ray, DOE-SR  
Larry Ling, SRR  
Dr. Gene Rhodes, SREL  
Chuck Hunter, SRNL

#### **Agency Liaisons:**

Trey Reed, SCDHEC  
Jon Richards, EPA

CAB Chair Harold Simon welcomes everyone to Savannah, GA and asks for the continuation of public participation from the surrounding community. The November 2015 minutes are then voted on and approved. Motion carried. CAB Chair Simon discusses two recommendation regarding funding and contractors on Site. He discusses the community involvement and content provided in each recommendation and states that these will return to the local board, it will be voted upon and then sent to headquarters. CAB Chair Simon then asks CAB Vice Chair Nina Spinelli to read each recommendation. Spinelli begins the first recommendation regarding funding as referenced by the CAB Chair and outlines the purpose. CAB Chair Simon asks for a vote on the recommendation and it is approved. CAB Vice Chair Spinelli begins reading the second recommendation regarding the EMSSAB funding and cleanup criteria outlined in said recommendation. CAB Chair Simon asks a vote on the recommendation to be taken; motion is carried.

CAB Chair Harold Simon then introduces the newest CAB member, Jim Lyon. CAB member Lyon states his employment history and background working for various construction companies; managing Army bases with environmental conditions.

CAB Chair Simon reminds the CAB the purpose of the board; to act as a public conduit for DOE-SR. He then states the purpose and placement of the CAB Facilitator; responsible with assisting CAB Chair with timely meetings. CAB Chair Simon states that the current CAB Facilitator, Tina Watson, has mastered the facilitation of the CAB Full Board Meetings. He asks the board to please follow meeting rules of conduct (i.e., use question cards, etc.). Simon states that the CAB must continue to work in a collaborative manner and must proceed with respect to each other, attendees, DOE employees. CAB Chair Simon asks that regarding attendance for the CAB, for each member to please notify the CAB Support Team if an unlikely absence is to occur. Simon also asks for all members to return on time from their scheduled lunch break.

CAB Facilitator Tina Watson states the meeting rules and discusses the agenda.

### **DOE Update – Mr. Terry Spears, DOE-SR Deputy Manager**

DOE-SR Deputy Manager Terry Spears begins the DOE Update SINCE WE LAST UPDATED THE BOARD; SRS HAS HAD A BUSY AND PRODUCTIVE TWO MONTHS. WE HAVE CLOSED THE EIGHTH RADIOACTIVE LIQUID WASTE TANK AHEAD OF THE REVISED MILESTONE AND WE HAVE HOSTED A NUMBER OF VIP VISITS AND MEETINGS AT THE SITE. OUR GUESTS INCLUDED THE CHINESE DELEGATION WHO PARTICIPATED IN THE 11TH ANNUAL JOINT COORDINATING COMMITTEE MEETING OF THE U.S.-CHINA PEACEFUL USES OF NUCLEAR TECHNOLOGY AGREEMENT AT THE SAVANNAH RIVER NATIONAL LABORATORY, AND THE ENVIRONMENTAL MANAGEMENT ADVISORY BOARD MEETING HOSTED BY SRS. IN APRIL, A GROUP OF OFFICE OF MANAGEMENT AND BUDGET REPRESENTATIVES RESPONSIBLE FOR THE ENVIRONMENTAL MANAGEMENT AND THE NATIONAL NUCLEAR SECURITY ADMINISTRATION, ALONG WITH DAVID KLAUS, DEPUTY UNDER SECRETARY FOR MANAGEMENT AND PERFORMANCE, VISITED THE SITE FOR A DEEP DIVE INTO THE NUCLEAR MATERIAL MISSIONS AT SRS AND THE EM/NNSA PARTNERSHIP. THE 3-DAY VISIT ALSO COVERED THE LIQUID WASTE PROGRAM AT THE SITE. ON MAY 12<sup>TH</sup>, WE CELEBRATED WITH DR. MONICA REGALBUTO, DOE ASSISTANT SECRETARY FOR

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ENVIRONMENTAL MANAGEMENT, TWO OUTSTANDING MILESTONES IN THE SRS LIQUID WASTE PROGRAM SPANNING 20 SUCCESSFUL YEARS THANKS TO THE DEDICATION AND DILIGENCE OF SRS EMPLOYEES AND THE COOPERATIVE COLLABORATIONS WITH OUR REGULATORS AND NEIGHBORING COMMUNITIES. WE ARE PROUD OF OVER TWO DECADES OF KEEPING ALL OF US SAFER BY REACHING NEW LEVELS OF PROGRESS IN THE SAVANNAH RIVER SITE'S RISK REDUCTION WORK. THESE ACCOMPLISHMENTS TRULY SET SRS APART IN THE DEPARTMENT OF ENERGY'S COMPLEX. WE SPECIFICALLY RECOGNIZED THE 20<sup>TH</sup> ANNIVERSARY OF THE OPERATION OF THE DEFENSE WASTE PROCESSING FACILITY AND THE OPERATIONAL CLOSURE OF TANK 12. BOTH THESE MILESTONES CONTINUE TO DEMONSTRATE THAT WE ARE DISPOSITIONING WASTE EFFECTIVELY AND WE ARE PROTECTING OUR COMMUNITIES FROM THE RISK THIS WASTE REPRESENTS. KEEP IN MIND THAT THE FIRST TANK CLOSURES AT SRS OCCURRED IN 1997, NEARLY 20 YEARS AGO. TWENTY YEARS OF DWPF ... 20 YEARS OF TANK CLOSURE ... 20 YEARS OF INCREDIBLE PERFORMANCE. ALSO, WE CELEBRATED OUR UNIQUE PARTNERSHIP WITH SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL, ENVIRONMENTAL PROTECTION AGENCY REGION 4, THE NUCLEAR REGULATORY COMMISSION, SRS CITIZENS ADVISORY BOARD, COMMUNITY ORGANIZATIONS, STAKEHOLDERS AND THE PUBLIC. SRS HAS LONG ENJOYED A LEGACY OF COMMUNITY SUPPORT. ALL OF US WORKING TOGETHER AS A TEAM HAVE PAVED THE WAY TO WHERE WE ARE AND WHERE WE WILL BE GOING. AS PART OF THE DAY'S EVENTS, DR. REGALBUTO ALSO RODE THE DWPF SHIELDED CANISTER TRANSPORTER AS WE MOVED THE 4000TH DWPF CANISTER TO GLASS WASTE STORAGE BUILDING 2. IT WAS A GREAT DAY FOR SRS AND IT WAS GOOD BARBEQUE. BUT WE ARE BACK TO THE WORK AHEAD. ALL NUCLEAR MATERIALS FACILITIES ARE IN SUSTAINED OPERATIONS EXCEPT FOR SRNL WHICH IS IN DELIBERATE OPERATIONS. SRNL, HB-LINE, AND K-AREA HAD VIOLATIONS TO THEIR RESPECTIVE TECHNICAL SAFETY REQUIREMENTS (TSRS) IN APRIL. NONE OF THE VIOLATIONS RESULTED IN AN UNSAFE FACILITY CONDITION BUT THIS DOES NOT MEET DOE EXPECTATIONS.

SAVANNAH RIVER NUCLEAR SOLUTIONS (SRNS) WAS DIRECTED BY DOE-SR TO CONDUCT A ROOT CAUSE ANALYSIS. ONCE WE HAVE EVALUATED OUTCOMES FROM THE ROOT CAUSE ANALYSIS, IT WILL BE COMMUNICATED TO THE CAB. SRNL VIOLATIONS INVOLVED LACK OF A PROPER FIRE WATCH AND ISOLATION OF A FIRE SPRINKLER SYSTEM WITHOUT ENTERING THE REQUIRED LIMITING CONDITION OF OPERATION (LCO); ALTHOUGH ALL APPROPRIATE STEPS OF THE LCO WERE PERFORMED. HB-LINE PERFORMED A RECIRCULATION OF A PROCESS VESSEL DURING A WARM STANDBY MODE WHICH WAS PROHIBITED IN THIS MODE. K-AREA DID NOT ENTER THE REQUIRED LIMITING CONDITION OF OPERATION (LCO) WHEN IT WAS IDENTIFIED THAT MATERIAL WAS STORED IN THE WRONG LOCATION; ALTHOUGH ALL APPROPRIATE STEPS OF THE LCO WERE PERFORMED. F-AREA IN MAY IDENTIFIED A POTENTIAL INADEQUACY IN THE SAFETY AUTHORIZATION (PISA) REGARDING LEGACY MATERIALS (I.E., FILTERS) FOUND IN AN UNAUTHORIZED LOCATION. H-CANYON IN MAY IDENTIFIED A PISA REGARDING RECOGNITION OF THE EFFECT OF A PROPANE EXPLOSION ON THE H-CANYON INNER TRUCKWELL AIRLOCK DOOR FRAME. ALL ITEMS WERE SELF-IDENTIFIED BY SRNS. AS FOR FACILITY OPERATIONS, H-CANYON HAS BEGUN THE CONTRACTOR READINESS ASSESSMENT FOR 1<sup>ST</sup> CYCLE OPERATIONS, FOLLOWING A DOE READINESS ASSESSMENT. THIS IS NEEDED TO RESUME DISSOLUTION OF SNF. THE TARGET RESIDUE MATERIAL (TRM) MODIFICATIONS ARE OPERATIONALLY COMPLETE AND STARTUP TESTING IS UNDERWAY. THE READINESS ASSESSMENT FOR TRM IS EXPECTED TO BE COMPLETED THIS SUMMER. HB LINE CONTINUES TO PROCESS PLUTONIUM FEED MATERIAL FOR THE MOX FACILITY OR FOR DISPOSITION. K-AREA CONTINUES TO PERFORM WORK FOR ENSURING SAFE STORAGE OF PLUTONIUM AND SUPPORTS SHIPMENT OF PLUTONIUM TO HB-LINE FOR PROCESSING. L-AREA CONTINUES TO SUPPORT FUEL RECEIPTS FROM FOREIGN AND DOMESTIC RESEARCH REACTORS. SRNL HAS DEVELOPED A PLUTONIUM METAL TO OXIDE CONVERSION CAPABILITY USING A MUFFLE FURNACE BASED APPROACH. THIS WILL HELP INCREASE PRODUCTION OF PLUTONIUM FEED MATERIAL FOR THE MOX FACILITY OR FOR DISPOSITION ONCE FULLY IMPLEMENTED IN HB-LINE. THE COMMENT PERIOD FOR THE DRAFT ENVIRONMENTAL ASSESSMENT ON SPENT NUCLEAR FUEL FROM GERMANY ENDED ON MARCH 25, 2016. OVER 225

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COMMENTS WERE RECEIVED AND HAVE BEEN ADDRESSED IN THE DRAFT FINAL EA. THE DRAFT FINAL EA IS CURRENTLY UNDER REVIEW AND THE DEPARTMENT EXPECTS TO ISSUE THE FINAL EA SOON. AS I SAID EARLIER, TANK 12 CLOSURE WAS COMPLETED ON APRIL 27<sup>TH</sup>, 2016. WORK CONTINUES TO COMPLETE BULK WASTE REMOVAL IN TANK 15. DEFENSE WASTE PROCESSING FACILITY (DWPF) IS OPERATING AND FOR THIS FISCAL YEAR – DWPF HAS POURED 90 CANISTERS SO FAR FOR A TOTAL OF 4,057 CANISTERS. SALTSTONE IS OPERATIONAL. A READINESS REVIEW ON THE FIRST OF TWO 60,000 GALLONS SALT SOLUTION RECEIPT TANKS WAS PERFORMED. FIRST RECEIPT OF WASTE INTO THE TANK IS EXPECTED THE WEEK OF MAY 30<sup>TH</sup>. FOR THIS FISCAL YEAR – SALTSTONE HAS PROCESSED A TOTAL OF 466,882 GALLONS OF LOW-LEVEL WASTE INTO GROUT. THE INTERIM SALT PROCESSING UNIT, CONSISTING OF THE ACTINIDE REMOVAL PROCESS/ AND MODULAR CAUSTIC SIDE SOLVENT EXTRACTION UNIT, FOR THIS FISCAL YEAR – ARP/MCU IS OPERATIONAL AND HAS PROCESSED A TOTAL OF 659,178 GALLONS OF SALT WASTE. SALTSTONE DISPOSAL UNIT 6, THE 1ST MEGA-DECONTAMINATED SALT SOLUTION DISPOSAL UNIT, IS 90% COMPLETE. THIS DISPOSAL CELL CONSTRUCTION IS COMPLETE. THE WATER TIGHTNESS TEST DID NOT MEET REQUIREMENTS. THE FIRST REPAIR ATTEMPT OF INJECTING EPOXY ALONG CONSTRUCTION JOINTS WAS UNSUCCESSFUL. AN ALTERNATIVE REPAIR METHOD AND PATH FORWARD TO INSTALL AN INTERIOR LINER HAS BEEN PROPOSED AND IS BEING PURSUED BY THE CONTRACTOR. INFRASTRUCTURE TO CONNECT THE DISPOSAL CELL TO THE SALTSTONE PROCESSING FACILITY IS CURRENTLY BEING INSTALLED. WE ANTICIPATE BEING ABLE TO ANNOUNCE THE CONSTRUCTION COMPLETION OF THE SALT WASTE PROCESSING FACILITY AND LOOK FORWARD TO PLANNING A JUNE CELEBRATION. FOR THE FISCAL YEAR – THE SOLID WASTE MANAGEMENT FACILITY HAS DISPOSED OF 3,423 CUBIC METERS OF LOW-LEVEL SOLID WASTE AND 828 CUBIC METERS OF LLW FROM NAVAL REACTOR PROGRAM. THE FACILITY HAS ALSO SHIPPED 17.7 CUBIC METERS OF MIXED LLW OFFSITE. D AREA ASH PROJECT IS MAKING PROGRESS ON CLOSING THE FIRST 2 UNITS. GEOSYNTHETIC MATERIALS ARE BEING INSTALLED. THE PROJECT TEAM IS WORKING WITH SCDHEC AND EPA TO RESOLVE WATER MANAGEMENT ISSUES.

AMERESCO PHASE II PROJECT HAS ENCOUNTERED SOME DELAYS. A REVISED COMPLETION DATE WILL BE SUBMITTED TO DOE-SR THIS MONTH. ALL RCRA/CERCLA MILESTONES AND COMMITMENTS HAVE BEEN MET ON OR AHEAD OF SCHEDULE. AND SRS HAS NOT RECEIVED ANY NOTICES OF VIOLATION (NOV'S). ON APRIL 12-14, 2016, REPRESENTATIVES FROM EPA-4, SCDHEC-COLUMBIA, AND SCDHEC-AIKEN CONDUCTED THE 2016 ANNUAL, UNANNOUNCED RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) COMPLIANCE EVALUATION INSPECTION (CEI) FOR COMPLIANCE WITH THE HAZARDOUS WASTE REGULATIONS. ONE NOTED DISCREPANCY WAS AN INCORRECTLY LABELED HAZARDOUS WASTE DRUM. THE PROBLEM WAS CORRECTED, AND SRNS PERFORMED AN EXTENT OF CONDITIONS REVIEW OF ALL WASTE DRUMS, AND FOUND NO OTHER ISSUES. EPA AND SCDHEC WILL PREPARE TWO SEPARATE REPORTS WITH THE RESULTS OF THE 2016 CEI. SRS HOSTED THE 2<sup>ND</sup> ANNUAL SRS ULTIMATE FISHING CHALLENGE IN COOPERATION WITH THE U.S. FOREST SERVICE-SR AND THE NATIONAL WILD TURKEY FEDERATION ON MAY 14<sup>TH</sup>. THE CATCH AND RELEASE EVENT WAS HELD ON L-LAKE AT SRS, AND WAS OPEN TO WOUNDED WARRIORS AND MOBILITY IMPAIRED FISHERMEN. TWENTY FISHERMEN PARTICIPATED AND ALL FISH WERE RETURNED TO THE LAKE. ON APRIL 20 AND 21, 2016, THE ANNUAL, UNANNOUNCED RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) GROUNDWATER COMPREHENSIVE MONITORING EVALUATION (CME) INSPECTION WAS CONDUCTED BY THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SCDHEC) REPRESENTATIVES. SAVANNAH RIVER SITE RCRA-PERMITTED HAZARDOUS WASTE MANAGEMENT FACILITIES THAT ARE UNDERGOING GROUNDWATER MONITORING/CORRECTIVE ACTIONS WERE INSPECTED AND A RECORDS REVIEW WAS PERFORMED. ITEMS NOTED DURING THE INSPECTION INCLUDED A GATE THAT WAS FOUND OPEN WITH A DAMAGED LOCK AT THE SANITARY LANDFILL (LOCK WAS PROMPTLY REPLACED AND GATE WAS SECURED ON APRIL 20, 2016) AND TWO BROKEN WELL IDENTIFICATION SIGNS THAT WERE REPLACED ON APRIL 27, 2016. THAT CONCLUDES MY DOE AGENCY UPDATE AND AGAIN THANK YOU FOR PARTICIPATING ON THE SRS CITIZENS ADVISORY BOARD.

CAB member Dan Kaminski asks a question regarding the violations referenced directly after the operational pause and specifically asks if SRR was involved. Mr. Spears answers that these were all

Nuclear Materials Operations therefore SRR was not involved. Pat McGuire (DOE-SR) affirms Mr. Spears' response regarding the disassociation of SRR and states that these referenced involved SRNS. McGuire states that the issues addressed regarded H-Canyon and F Area facilities and states that CAB member Kaminski is correct. He furthers by saying since the operational was entered into and exited into sustained operations, the contractor placed actions to deflect the willful violation of procedures from occurring again. McGuire states that concern was expressed on how these corrective actions were put into place and a root cause analysis to determine why issues are still arising. Mr. Spears follows up by stating that safety remains the highest priority.

CAB member Bill Rhoden asks regarding Saltstone Disposal Unit 6; asking about the liner specifically referenced (what it is, cost, etc.). Jim Folk (DOE-SR) states that this process is still in the discovery phase; a type of liner has been identified with selection from multiple liner candidates based on sustainability tests. Mr. Spears states that this will be an ongoing process with the overall achievement of a water-tight container. Rhoden continues to ask the cost of the liner and Mr. Spears states that a cost analysis is yet to be determined.

CAB member David Hoel asks Mr. Spears to comment on the status of DOE's negotiations with regulators concerning the missed deadline for startup of the Salt Waste Processing Facility (SWPF). Mr. Spears states that he cannot comment on this directly but asks Jim Folk (DOE-SR) to comment. Jim Folk (DOE-SR) states that a resolution has been offered to DHEC and proposals have been exchanged.

CAB member Susan Corbett asks for an affirmation on whether low level waste is defined as lower concentrations but not lower long lived. Mr. Spears responds that low level waste is any waste that is not classified as high level waste and states that the waste being deposited into Saltstone is exceptionally clean with significant actinide removal accompanied with extremely low cesium levels. Corbett asks whether or not cesium is the most prominent and Mr. Spears affirms. Corbett continues to state that if cesium is the most prominent, then the liner to be used for Saltstone must last for up to 300 years. Mr. Spears confirms and states that this is a reasonable estimate. Corbett continues to ask where mixed low level waste being shipped offsite is being sent. Mr. Spears responds that this is sent to commercial disposal units. Jim Folk (DOE-SR) responds with several locations. Corbett furthers by asking if these are buried via shallow land burials and Folk responds that most of these are treatment facilities. Corbett asks where this waste originates. Spears' responds that this waste is generated from Site Operations.

### **Environmental Protection Agency Update (EPA) – Jon Richards**

Jon Richards (EPA) states his background expertise with the EPA and SRS. Richards states that the US Forest Service accidentally sprayed contamination in C Area with EPA drafting a report on sampling and analysis. He states that DOE committed to examining internal processes to keep from occurring again. Richards states that the closure of Tank 12 was a primary goal with the continuation of closures to remain on schedule. Richards states that progress has been slow on SWPF, with a recent tour conducted for the EPA. Richards states that progress is being made

in D Area; capping a landfill still in progress. Storm water runoff remains in a continuing management in this area. Richards also states that the EPA issued a Health Advisory with focus on DOD sites and furthers that this is available to anyone interested.

CAB member Susan Corbett asks Richards if a report on how many curies present in a tank before closure is given to the EPA. Richards confirms that a report is sent on the residuals to the EPA from DOE.

CAB member David Hoel asks the level of concern from the EPA regarding the shutdown of an evaporator located in the tank farm and its effect on future tank closures. Richards answers that any issue that arises is cause for concern, especially any issues halting milestones. Hoel furthers by asking if DOE has proposed placing waste back into clean tanks as a result of the evaporator issue. Richards states that bulk waste removal has become an issue; with specific tanks being re-used due to the unavailability of SWPF. Jim Folk (DOE-SR) responds that DOE has not asked for any authority to re-fill any tanks due to the evaporator issue. He states that previous requests have been made due to opportunities for processing; occurring prior to the evaporator failure.

### **South Carolina Department of Health & Environmental Control (SCDHEC) – Trey Reed**

Trey Reed (SCDHEC) begins his update by stating that Shelly Wilson could not be present to give the update today. Reed states the DHEC is pleased to have contributed to another successful high level waste tank closure at SRS; making eight total tank closures to date. He furthers by stating that SCDHEC is disappointed by the liquid waste plan present due to its pushing back further tank closures. Reed states that DHEC is advocating for additional funding for lost treatment time by the regulatory schedule DOE committed to meet. Reed states that DHEC received the Interim Record of Decision (IROD) for H Tank Farm and further states review deadlines. Reed says that discussion on the early construction disposal site C1 land use violation at the March meeting and states that DHEC has received the SAP which is now being reviewed. Reed states that in late April, a day long training for Site DHEC and EPA was initiated that included a tour of SWPF and Saltstone and commends the informative training. Reed updates that DHEC representative Kim Brinkley has accepted employment with SRNL and is no longer with SCDHEC.

### **Public Comments**

Betsy McDrew (*Waste Control Specialists, WCS*) introduces herself and provides background on WCS as a commercial facility with disposal cells. She states that WCS has taken shipments from Savannah River Site and furthers the background information for WCS.

Marilyn Parson (*public*) states that the EMSSAB recommendation regarding funding discussed by the CAB earlier is not the first recommended to DOE. She further states that for community involvement to reach continued growth, that CAB meetings must be held in different locations in surrounding

communities. She asks the CAB to ask how much budget would need to be allocated to relocate meetings.

Becky Rafter (*GA WAND*) thanks the CAB for its supportive efforts to GA WAND and announces an accomplished milestone, with a successful negotiation for a three-year community outreach program created with partnership to the University of Georgia – Savannah River Ecology Lab (SREL), funded by DOE-SR. She states that this program is the Georgia Radionuclide Education Monitoring and Outreach Project (REMOP), a data informed public outreach engagement and education program that will serve local communities. Rafter asks the CAB what would like to be seen from GA WAND, either formal or informal, regarding community engagement.

Bernice Johnson (*GA WAND*) states that the grant from SREL marks the foundational infrastructure necessary to provide the much needed and deserved answers for communities throughout Georgia. She continues to state that the information gained from this program will promote healing and wholeness for residents. Johnson states that the environmental monitoring program is important due to its increase in exposure from contaminants, causing an array of health issue including fetal anomalies and cancer. She states that women and children are more susceptible. She thanks Jack Craig, Angelia Adams and Michael Mikolanis from DOE-SR and Dr. Gene Rhodes from the SREL.

Rose Hayes (*public*) states her concern regarding testing and assumptions concerning the longevity of storage procedures. She continues to reference the liner previously discussed and its projected longevity of 300 years. She states that in the past, tests being conducted to analyze the length of time a repository could safely store materials are not always accurate. She asks for information regarding the testing and analyses of the liner.

Tom Clements (*SRS Watch*) references the SCDHEC comment regarding the new liquid waste plan with the extension in tank closure. Clements asks for the current status regarding to the latest revision and if it will be released to the public and suggests requesting a presentation to the CAB on this subject.

Terry Spears, DOE-SR Deputy Manager clarifies the latest revision of the liquid waste system plan and states that it is provided on the external website. He further states his remarks on the liner and states that the liner is currently undergoing analyses, being evaluated with no settlement on the state of the liner. A performance assessment is conducted to ensure its environmental protection.

### **Strategic & Legacy Management Committee Update, Bob Doerr, S&LM Chair**

S&LM Chair Bob Doerr welcomes everyone to Savannah, GA. Doerr introduces the S&LM committee members and states the purpose. He states that there is one open recommendation, *Recommendation 323*. Doerr states that the next committee meeting will be held Wednesday, June 8 from 6:30 PM to 8:20 PM at the New Ellenton Community Center in New Ellenton, SC.

### **Presentation: Contractor Recruiting & Retention, Carol Barry, SRNS**

Carol Barry (SRNS) begins her presentation by discussing the status of the workforce presently at SRS. She states that since 2008, SRS has stayed at a stable workforce level. She discusses her employment history at SRS and currently with SRNS. Barry states that one of her challenges was to convey what the needs were at SRS. Normal attrition was not guaranteed due to workforce restructuring. She states that a challenge she encountered was the status of worker needed at SRS and what the constitution of the workforce. She began with Human Capital Management Planning; requiring organizations to present the gaps and training needed with recruitment. She states the obvious challenges to the workforce; aging workforce, retention of specific skills. More in-depth succession planning was needed to fill the referenced gaps along with continued efforts within the surrounding communities regarding education. Barry continues with hiring statistics today; 225 hires, 85 operators hired. She references the successful intern programs present with outreach and recruitment; a successful pipeline to hire specifically engineers and scientists. She provides statistics for terminations; 204 terminations with the average age of 55 as the main reason for Site departure is now retirement. Barry references the current age distribution; highest in the area of retirement age. To better determine future workforce needs, a predictive attrition analysis was retained and based on the following assumptions; level staffing, decrements used were for termination rates, retirement rates, disability rates and mortality rates. Barry states the vulnerable areas of the SRNS workforce; critical skills such as engineering, scientists, operators. She states the actions to mitigate the risk and includes updating Human Capital Management Plans, submitting and implementing salary increase plans and retention pay programs especially for critical skills, implementing lower level management and critical skill succession planning, enhancing leadership development workshops and developing knowledge transfer methodology. She references the improvement of online mentoring and an extended website to encourage this mentoring. She continues to say that increased hiring, enhanced recruiting efforts, targeted recruiting and better hiring processes are all actions ongoing to mitigate risk. She also states that targeted recruiting specifically including local colleges and universities; localizing efforts to surrounding community areas providing higher education. She references active programs and organizations such as Leaders Emerging Among Professionals (LEAP) and Aspiring Mid-Career Professionals (AMP) that localize and target difficulties and barriers within the workforce for targeted age groups.

CAB member Susan Corbett references technological advances being made daily and its impact on the workforce. She asks if an attrition rate is being factored into workforce statistics as more and more jobs become "automated." Barry responds that this is not actively being factored into current workforce attrition rates; however it will be factored in the future.

CAB member Gil Allensworth points out engineering recruitment from Florida State University and he applauds it. He asks for confirmation regarding half the workforce being eligible to retire by FY 2021. Barry confirms and reinforces that due to fluctuating retirement statistics change. Allensworth states that in discussions with students, educators that the main concern for graduating students seeking employment with SRS is 1.) the direct possibility of layoffs and 2.) the difficult hiring process. Barry affirms his statement and says that a factor for better hiring and recruitment is the streamline hiring process currently being implemented.

CAB member Louis Walters reiterates the communication with local high schools and asks for the message being conveyed to high school students looking for employment. Barry states that the message is that opportunity exists; she references programs that market success and positivity for continued opportunity. Walters asks for background information on the hiring of engineers. Barry responds that engineers are the primary area for hiring. Engineers are placed in well-developed programs that mentors and furthers leadership skills specific to engineers. Barry furthers by stating that large areas of intern recruitment are in the engineering field.

CAB member Jim Lyon asks if foreign engineers are being recruited. Barry denies stating that US Citizenship is required.

### **Presentation: Savannah River Remediation Recruiting & Retention, Larry Ling, SRR**

Larry Ling begins his presentation with the current SRR workforce statistics; with 64 new employees to date. He states that majority age is between 51-60, with 669 employees currently eligible to retire with either full or reduced benefits. Ling states the challenges that include the critical skill areas such as engineers, RADCON technicians, and maintenance mechanics. He states that the aging workforce remains a challenge along with the struggle to recruit and retain a younger workforce. Strategies being implemented to mitigate challenges include hiring waves and retirement feathering. Recruitment and retention is implemented through the hiring of interns and outreach programs. Ling further states that the surrounding community is not as appealing to younger workforce audiences. Ling references the engineer questions from the previous presentation and states that this is also a critical skill area for SRR as well; resulting in leadership and training programs targeting that critical skill area.

CAB member Jim Lyon states that Kings Bay is better for recruitment for nuclear materials skilled areas as opposed to Charleston, SC.

### **Presentation: DOE-SR Recruiting & Retention, Lee Moody, DOE-SR**

Lee Moody begins his presentation by saying that problems exist across the board for both Federal and contractor recruitment and retention. Moody begins to state the demographics for the Federal workforce; including 273 current employees to date. Twenty-one percent of the Federal workforce constitutes specifically of engineers, a critical skill area. Moody states that an Annual Workforce Process Analysis is completed annually to ensure a maintained succession plan. Moody refers to the FY 15 workforce plan recently updated and its statistics; including 66% of the Federal workforce over the age of fifty. Challenges currently for the Federal workforce recruitment and retention include an aging workforce. He says that the current recruitment and retention strategies include the utilization of support service contractors and incentive programs to recruit and retain MCO positions. He reiterates that 118 people on the Federal workforce can retire immediately. He states that knowledge transfer and training opportunities are included as a human resource strategy for the Federal workforce; including continuing to increase brown bag training and knowledge transfer by videotaping SMEs.

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CAB Member Bob Doerr asks how the CAB can help DOE and contractors to recruit and retain the employees needed for the EM scope of work for SRS. States that he is impressed with the contractor recruitment of employees to complete Site specific missions. Doerr asks if DOE has any financial incentives are offered to contractors for recruitment and retention. Moody refers to Thomas Johnson, DOE-SR Associate Deputy Manager to answer who states that no special incentive is provided for recruitment and retention. Johnson states that the financial incentives that are offered are to the individual either concerning possible relocation, higher salary, etc. Johnson states that the contractors are not “awarded” for recruitment and retention. Doerr states that the Aiken community is not attractive to younger generations for recruitment. Moody states that the CAB can help individuals in the surrounding communities understand the application and interview process. Carol Barry (SRNS) states that the collaboration from DOE-SR is excellent for SRNS recruitment and retention with an 85% acceptance rate. She states that SRNS is collaborating with City Mangers in Aiken, SC. She continues to say that the biggest issue is maintaining the budget for recruitment. Doerr suggests that contractors should collaborate with the local Chamber of Commerce. Jim Giusti (DOE-SR) states that Aiken County has recognized the issue of retaining young people within the community and looking at changing what is currently perceived as a “retirement community.”

CAB Chair Harold Simon asks regarding Moody’s statement of the percentage of Federal workforce working at a GS-14 or above; if this includes the senior executive level personnel. Moody responds that this does not include the senior level. Simon continues to ask how they are accounted for. Moody says that they are included into another Senior Executive Service (SES) category.

CAB member Louis Walters asks regarding the message to local high schools; specifically students not on a college path. Moody responds that participation into community educational outreach program including events such as College Night.

Walters also asks regarding the why Federal employee positions are created as opposed to contractors. Thomas Johnson (DOE-SR) responds with the current Federal employee perspective at SRS compared to contractor employment.

CAB member Jim Lyon states that it seems that the DOE has the ability to award employees and contracts and further asks if contractors are hired on the basis of maintaining a workforce and meeting a certain objective. Thomas Johnson (DOE-SR) states that neither contract has a fixed-price contract; each contractor is hired to meet an objective; they are allowed to hire employees to meet this scope. Lyon states that it falls entirely on the contractor to provide rewards or bonuses.

CAB member David Hoel asks how long it takes to fill a vacancy and if this is recorded. Moody answers that this is mandated from the White House to keep track of the hiring rate. OPM goal has an eighty day hiring model with 71 days for DOE-SR. Hoel asks if this length of time is in regards to the initial announcement published or from the position becoming immediately vacant. Moody states that it is tracked from the publishing of the vacancy announcement. Carol Barry (SRNS) states that the contractor is on a 90 day hiring window; with a current 45 day window targeted. Larry Ling (SRR) also states that the 45 day metric is for Savannah River Remediation. Hoel asks if this is the length of time from job

offer. Ling confirms. Hoel asks what the length of time is from the initial posting of the position. Ling responds that they do not currently have this information but that it can be retrieved.

### **Presentation: Wild Hogs Presentation, Gene Rhodes, Savannah River Ecology Lab**

Dr. Rhodes begins his presentation with the origin of wild hogs at Savannah River Site (SRS); with the first hogs being domestic hogs and wild boar emerging over time. Rhodes states that funding is provided for the trapping and researching of feral pigs due to safety precautions along with the destruction of landscapes and SRS property. The feral pigs damage vegetation, landfills and represent disease transportation. He discusses the feral pig numbers on SRS from 2011 to present with an increase in statistics. Control efforts include trappings and sanctioned hunts; however population statistics are steadily increasing despite control efforts. The biggest issue for SRS concerning feral pigs on Site is keeping count of the exact number present; as it is difficult to maintain accurate statistics. Trends for removal through trapping and hunting has increased. He discusses the research being conducted at SRS on feral pigs; including USDA-funded projects that better understand the population ecology and behavior, improve methods of density estimation, enhance control strategies, reduce disease transmission and improve capture success rate. Rhodes discusses current projects at SRS including the efficacy of Rhodamine B; if an animal eats this substance, it causes florescent bands in their whiskers, allowing researchers to know if the substance has been taken by an animal with no negative outcome. This research is effective due to its outreach among the feral pig population; researchers must first identify whether bait is being picked up by the animal in question. Rhodamine B allows researchers to analyze and record whether or not a feral pig has ingested the bait by the prominence of the fluorescent bands in the whiskers. This research can then be applied to animal control due to the statistics of the amount of feral pig population is targeted. Another project Rhodes details is the movement ecology of translocated wild pigs. This project entails research being conducted on the movement of wild pigs; specifically the trapping and relocation of feral pigs for disease transport purposes. In regards to population management, Rhodes details piglet survival. Scat detection methods are also used to research feral pigs on Site. Rhodes also states that animals can be used as proxies to obtain data on other informational aspects of the Site.

CAB member Susan Corbett asks why a more dominant predator is not introduced to control feral pig population. Rhodes responds that control with another predator is difficult due to the high intelligence rate of feral pigs. Corbett also asks that during radiological tests, are teeth and bones tested for Strontium 90. Rhodes states he is not sure.

CAB member Mary Weber asks if feral pig fertility can be controlled. Rhodes responds that fertility reduction bait is used, however there is no effective oral delivery system developed for feral pigs. He furthers by stating the Sodium Nitrite is used to bind the hemoglobin, used on any mammal that puts the animal to sleep with death to follow. Specific swine targeting is still being researched.

CAB member Louie Chavis asks if feral pigs can be poisoned via baiting. Rhodes states that this method is not USDA approved.

CAB Facilitator Tina Watson reminds members of the public to use the sign-in sheet for the designated public comment period.

### **Administrative and Outreach Committee Update, Eleanor Hopson, A&O Chair**

CAB member Eleanor Hopson introduces the A&O committee members and welcomes everyone to Savannah, GA. She states that membership applications can be found on the CAB website. She references the 2016 Board Beat magazine as available and states that there are no scheduled presentations.

### **Waste Management Committee Update, Earl Sheppard, WM Chair**

CAB member Earl Sheppard welcomes everyone to Savannah, GA and introduces the committee members. He states the committee purpose with no pending or open recommendations. The next WM Committee meeting will be held June 7, 2016 at the New Ellenton Community Center in New Ellenton, SC.

### **Presentation: Liquid Waste System Overview, Larry Ling, Savannah River Remediation (SRR)**

Larry Ling (SRR) begins his presentation with the origin of Savannah River Remediation (SRR) and its work at Savannah River Site (SRS). He states that the liquid waste operations mission includes to safely receive and store liquid radioactive waste, process waste into stable, inert solids and operationally close tanks. He discusses the four types of tanks present on Site; including Type I, Type II, Type III, and Type IV. He references an aerial of the high-level waste facilities encompassing 170 acres. He discusses the SRS composite inventory, with 93% of waste on Site as salt and saltcake with sludge at 7%. Sludge however, has a much higher radioactivity, holding about 50% of the radioactivity present on Site. Ling discusses the operational process and details the Salt Waste Processing Facility (SWPF) and its pending construction to the operational highlights. He states that as an operational completion, 8 tanks have been closed, disposed of 19 million gallons of grout and 4,000 cans have been poured. Ling details the crawler used to clean the tank annulus; crawler was beneficial in cleaning the annulus for Tanks 5 and 6. He references the Saltstone Facility as an operational key; stabilizing the low activity waste. He discusses the Defense Waste Processing Facility (DWPF) receiving waste for processing from H Tank Farm. The waste is vitrified and poured into stainless steel canisters that are sealed and decontaminated. The canisters are then stored at the Glass Waste Storage buildings; with Glass Waste Storage Building #1 provides earthquake resistant, safe interim storage for radioactive waste canisters while Glass Waste Storage Building provides interim storage for an additional 2500 canisters. Double-stacking canisters is now used to better utilize space within these storage facilities. He notes the May 12, 2016 celebration of DWPF 20 years and Tank 12 closure with Dr. Monica Regalbuto, Assistant Secretary for Environmental Management in attendance as the keynote speaker. He gives the overall FY 16 liquid waste overview in statistics.

CAB member Dawn Gillas asks when the first grout was poured in Saltstone. Ling responds early 1980s. Gillas furthers by asking if the earlier versions of Saltstone removed Strontium and Cesium that ARP/MCU extracts. Terry Spears, DOE-SR Deputy Manager states that ARP/MCU removes the radioactivity from the salt waste; this radioactivity is then sent to DWPF to be incorporated into glass canisters. The remaining water and chemicals, existing as very low level residual radioactivity is processed to Saltstone.

CAB member Susan Corbett asks regarding the events at Hanford facilities and the correlation to SRS; detailing toxic fumes exposed to workers. Ling responds that the biggest difference between Hanford and SRS Tanks is the presence of a ventilation system in the SRS Tanks. Jim Folk (DOE-SR) confirms that active ventilation acts as the primary difference. Folk also states that an abundance of chemicals were also introduced to the Hanford Tanks.

CAB member David Hoel asks for an elaboration on TCCR. Ling responds that TCCR is Tank Closure Cesium Removal; a supplement introduced to aid tank closure until SWPF comes online. Hoel asks if this technology undergoes a supplemental NEPA review. Jim Folk (DOE-SR) responds that this will be verified.

CAB member Susan Corbett asks how far down the water table is regarding the tanks. Jim Folk (DOE-SR) states that in F Tank Farm we are above the water table; however select tanks in H Tank Farm are below the water table. Corbett asks how many Type IV Tanks are present. Ling responds 8 total; 4 closed.

### **Facilities Disposition and Site Remediation Committee Update, Tom Barnes, FDD&SR Chair**

CAB member Tom Barnes introduces the committee members and states the next committee meeting on June 8 in New Ellenton, SC. Barnes states that there are no open or pending recommendations.

### **Presentation: ATSDR (Off Site Air), Chuck Hunter, Savannah River National Laboratory (SRNL)**

Chuck Hunter begins his presentation by stating the purpose as a summary of results based on air emissions modeling performed for a public health assessment for SRS Operations conducted. Hunter gives an SRNL Atmospheric Technologies Group Overview; comprehensive meteorological monitoring program, supporting real-time emergency response, long-term data sets used in environmental impacts studies and safe facility operations. Applied studies include weather forecasting for operations planning, severe weather response, wildlife management, occurrence frequencies of extreme weather events for nuclear facility design and air quality modeling for regulatory compliance. He discusses the three primary findings from the 2014 CDC Agency for Toxic Substances and Disease Registry (ATSDR) Evaluation of Off-Site Air Contamination from SRS: Emissions of radioactivity and criteria air pollutants were unlikely to cause adverse health effects in the general population; there was insufficient data to evaluate non-cancer effects from trichloroethylene (TCE) emissions, there was insufficient data to evaluate cancer effects from emissions of toxic air pollutants. Hunter further discusses toxicity; for TCE

he states that both acute and chronic exposure for non-cancer effects is assessed and for all others, exposure posing a cancer risk is examined. Hunter further examines chronic exposure and reviews definitions including reference concentration, inhalation unit cancer risk factor, cancer risk evaluation guide and increased cancer risk. Hunter references a statistical chart with screening results for a selection of chemicals including chloroform, TCE, etc. Hunter further explains Air Dispersion Modeling (AERMOD) as an EPA model recommended for regulatory air quality applicants, pollutant diffusion as a Gaussian process using hourly meteorological data (wind turbulence, temperature, etc.). Benefits of AERMOD include multiple emission sources, flexible configuration, and elevated receptor grid arrays. Hunter discusses the data collection and model setup; seven toxics exceed screening guidelines using maximum permitted modeling data. The results were non-cancer impacts from TCE.

CAB member Susan Corbett asks what is used as the model behavior for contaminants; stating that women, children are more susceptible to exposure to pollutants and contaminants. Hunter responds that it is considered adult exposure. Corbett asks if PCE is biodegradable. Hunter responds that he is unaware but that certain emissions are biodegradable from natural sources such as sunlight and atmospheric interactions.

CAB member Jim Lyon asks if mortality studies have been conducted in the area regarding toxins contributing to cancer. Hunter responds that the ATSDR pulled this data and published. Lyon further asks for the additional emissions not from onsite sources. Hunter states that this data is collected by the EPA; the emissions report provided was specifically from onsite facilities.

DOE-SR Deputy Manager Terry Spears addresses a few unanswered questions for the CAB; regarding the NEPA report for cesium removal was covered in 2001 with an environmental compliance available online. The second topic addressed is the strategic plan update; continuing throughout the calendar year with CAB briefings and input and involvement from CAB members.

### **Nuclear Materials Committee Update, Larry Powell, NM Chair**

CAB member Larry Powell introduces committee members and states the purpose. He states that there are no open recommendations and one pending recommendation. The next NM Committee meeting will be on June 7 in New Ellenton, SC.

### **Presentation: 2-Year Look Roadmap, Jay Ray, DOE-SR**

Jay Ray (DOE-SR) begins his presentation by stating the purpose as a system plan for nuclear management. Ray discusses the nuclear material operational facilities including H-Canyon, HB-Line, K-Area and L-Area along with supporting facilities including liquid waste, SRNL, transuranic waste and deactivated or inactive facilities including 235-F, F-Canyon, FB-Line, C-Area. He states the mission for nuclear materials storage and disposition for each facility. K-Area safely receives and stores enriched uranium and plutonium materials awaiting disposition. L-Area safely receives and stores Spent Nuclear Fuel awaiting disposition. H-Area safely disposition uranium (including fuel) and plutonium materials. He discusses the general assumptions as: support safe and secure operation of nuclear material facilities to disposition uranium and plutonium, meet DOE EM and NNSA non-proliferation missions, and support

efficient operations and minimize waste generation. He details assumptions per major nuclear materials facility outlined. H-Canyon assumptions include the dissolution of Sodium Reactor Experiment fuel completed in August 2014; solution transfer to DWPF for vitrification is on-going. H-Canyon is processing Spent Nuclear Fuel to recover uranium and blend low enriched uranium for the Tennessee Valley Authority. H-Canyon will process sufficient spent nuclear fuel too allow for L-Area receipts through 2035. Receipts of Canadian Target Residue Material will begin this summer. H-Canyon is supporting HB-Line with the dissolution of plutonium. Ray overviews the HB-Line assumptions; HB-Line began plutonium oxide production in July 2014 and will produce oxide through approximately 2023 to provide for permanent disposition of weapons usable nuclear material. Ray details the K-Area assumptions; K-Area will store the plutonium oxide produced by HB-Line until shipped for disposition, K-Area will continue safe storage, receipts and shipments until approximately 2039 and continue destructive examinations of plutonium oxide containers through approximately 2034 to support continued safe storage. Ray discusses L-Area assumptions; spent nuclear fuel processing in H-Canyon will eliminate the need for installation storage capacity in L-Area, no new Foreign Research Reactor fuel receipts past May 2019, L-Area will support Domestic Research Reactor fuel receipts through 2035 and heavy water will continue to be safely stored in L-Area, K-Area and C-Area until a disposition path is determined. He discusses the support facilities outlined including SRNL and F-Area/H-Area Laboratory and its continuation to support nuclear materials facilities with flowsheet development and analytical results to support missions. Support facilities to nuclear materials facilities also include site infrastructure (waste management, medical facilities, and site services) and safeguards and security capabilities (physical security, material accountability. Ray reviews deactivated and inactive facilities including F-Canyon, FB-Line and C-Area (deactivated or awaiting deactivation). He discussed 235-F and the current execution of Risk Reduction project with the goal to remove or immobilize majority of the residual radiological material in the building. Ray reiterates safety throughout each facility and summarizes the operation of facilities in an environmentally sound manner.

CAB member Dawn Gillas asks regarding the capability to dissolve non-aluminum fuels. Maxcine Maxted (DOE-SR) responds that the capability is to place fuel in container similar to commercial industry processes. Gillas further asks regarding the PU sent to WIPP, if it was non-MOXable. Ray responds that this was non-MOXable. Gillas asks regarding the PU from Destructive Examinations. Ray states that it is stored and blended down; originating from K-Area and remaining there.

CAB member Susan Corbett asks if the Plutonium at SRS is 238 or 239. Ray responds that K-Area has Plutonium 239. Corbett asks if plutonium oxide is a powder form. Ray states that it can exist as an oxide, a metal. Plutonium 238 can be made into a ceramic-like form. Ray states that Plutonium Oxide is a powder. Corbett asks if this is a weapon usable and if it came from Rocky Flatts. Ray confirms both. Corbett asks if 235-F has fire protection services. Ray confirms and states that water is a moderator therefore there is no sprinkler system in 235-F. Pat McGuire (DOE-SR) confirms and states that the Fire Department would appropriately respond. Corbett asks regarding the Sodium Reactor Experiment. Ray states that this reactor was moderated by sodium molecules.

## **Possible Vote on Draft Recommendation: Nuclear Materials Operations Overview**

CAB Chair Harold Simon asks if there are further comments on this recommendation. With no further comments, Simon moves to approve this recommendation. Recommendation is approved; 18 approve 1 opposed and 0 abstention.

## **Public Comments**

Glenn Carol (*public*) states that her group has been involved with MOX; she states that MOX is an unlikely alternative and suggests that a portion of MOX to be converted to a Plutonium Immobilization. She also references the feral hog's presentation and reminds the CAB to take note of presumed radioactivity in the pigs.

Rose Hayes (*public*) asks for clarifications on the water table for Tanks located on Site. She asks if some of the tanks are submerged below the water table. Jim Folk (DOE-SR) responds that Tanks 9-12 are submerged. Hayes follows up with an additional question regarding double-stacking in DWPF and the platform at the bottom of the cans; preventing can contact with water. Jim Folk (DOE-SR) states that the platform was not present for water.

CAB Chair Harold Simon states that this meeting has been a productive one; he thanks the CAB Support Staff for their dedication and support, American Audio Visual for sound and technical support. He states that the recordings for the CAB Full Board Meeting will be available online. He asks for members in the local communities downstream (Savannah, Hilton Head, etc.) to provide information to the CAB Support Team regarding local outreach efforts.

*~Meeting Adjourned*