

Meeting Minutes
Savannah River Site (SRS) Citizens Advisory Board (CAB) – Combined Committees Meeting
Savannah, Georgia (GA)
May 19, 2014

Monday, May 19, 2014 Attendance:

CAB

Thomas Barnes – *Absent*
William Calhoun
Louie Chavis
Robert Doerr – *Absent*
Murlene Ennis – *Absent*
Jessica Grainger
Dr. Michael Havird – *Absent*
Dr. Rose Hayes
Dr. Eleanor Hopson
Dr. Virginia Jones
Cleveland Latimore
Clint Nangle
Dr. Marolyn Parson
Larry Powell
Dr. William Rhoten
Earl Sheppard
Harold Simon
George Snyder – *Absent*
Nina Spinelli
James Streeter
Ed Sturcken – *Absent*
Christopher Timmers
Steven Vincent – *Absent*
Louis Walters – *Absent*

DOE

Jean Ridley, DOE-SR
Avery Hammett, DOE-SR
Angelia Adams, DOE-SR
Sandra Waisley, DOE-SR
Gerri Flemming, DOE-SR
Bert Crapse, DOE-SR
Patrick McGuire, DOE-SR
Rich Olsen, DOE-SR
Jim Giusti, DOE-SR
Jim Folk, DOE-SR

Agency Liaisons/Regulators

Shelly Wilson, SCDHEC
Kim Brinkley, SCDHEC
Trey Reed, SCDHEC
Heather Cathcart, SCDHEC
Susan Fulmer, SCDHEC
Rob Pope, EPA

Contractors

Anne Kiser, U.S. Forest Service
Mtesa Wright, SRNS
John Gilmour, SRNS
Kristin Huber, SRNS
Ed Sadowski, SRNL
Ashley Whitaker, NOVA
James Tanner, NOVA
Jesslyn Anderson, NOVA

Stakeholders

Gary Zimmerman
Suzanne Rhodes
Simon Waisley
Frank Redmond

CAB Facilitator, Ashley Whitaker, NOVA, welcomed everyone to the meeting. She reviewed the day's agenda and Meeting Rules of Conduct. She reminded everyone how to access electronic copies of meeting materials through the CABNET feature and stated a public comment period was scheduled for the end of the meeting. She said copies of the spring magazine and updated CAB contact sheets were placed at each of the CAB members' seats. She then welcomed CAB Chair Marolyn Parson to open the meeting.

CAB Chair Parson welcomed everyone to Savannah, Georgia (GA) and opened the meeting. She then asked CAB member Cleveland Latimore to say a few words about Savannah since he was the local resident. CAB member Latimore said he hoped the nice weather continued for the remainder of the meeting, briefly listed shopping locations, and provided directions for how to reach historic downtown Savannah.

Strategic & Legacy Management (S&LM) Committee Overview – Clint Nangle, Chair

CAB member Clint Nangle welcomed everyone to the meeting. He introduced the S&LM Committee members and reviewed the committee's objectives. He provided a recommendation status update and said he wished to change the status of recommendation 318 from "open" to "closed" since the Department of Energy (DOE) accepted the recommendation. He announced the next S&LM Committee meeting was scheduled for June 23, 2014, from 4:30 – 6:20 P.M. at the DOE Meeting Center and introduced Ms. Anne Kiser, United States Department of Agriculture (USDA) Forest Service, to begin her presentation.

PRESENTATION: Natural Resources Management Update – Anne Kiser, USDA Forest Service

Ms. Anne Kiser, United States Department of Agriculture (USDA) Forest Service, stated the purpose of her presentation was to fulfill a 2014 S&LM Work Plan requirement by providing background information about the United States (U.S.) Forest Service. She explained that the U.S. Forest Service was originally known as the Forest Reserves and was part of the Department of Interior; however, she stated in the year 1905 the Forest Reserves was renamed to the U.S. Forest Service and was then moved under the Department of Agriculture. Ms. Kiser said the U.S. Forest Service is a federal agency that manages approximately 191 million acres of land across the United States and employs approximately 3,500 individuals. She displayed images of landscapes the U.S. Forest Service manages before she explained how the U.S. Forest Service entered into an interagency agreement with DOE. She explained that early DOE, then known as the Atomic Energy Commission (AEC), leaders at Savannah River Site (SRS) sought out expertise of the U.S. Forest Service when they realized the need for careful and wise management of 200 thousand acres of natural resources was essential to SRS security. Ms. Kiser said in the year 1951 the U.S. Forest Service was mobilized by the AEC to oversee the reforestation of farm land with pine seedlings. She described how the first AEC and DOE leaders at SRS divided SRS into “industrial,” “research set-asides,” and “forest management” land uses. She said approximately 15,924 acres of SRS was used for industrial purposes, 14,005 acres were research set-asides, and 168,415 acres were used to conduct forest management. She provided a map of SRS to display the three different land uses and explained that the vast natural resources at SRS were managed to ensure security, maintain healthy forests, generate timber sales, and continue natural habitat restoration and enhancement. She provided several images of services the U.S. Forest Service offered at SRS. She mentioned that the U.S. Forest Service maintained approximately 1,200 miles of secondary roads, 120 miles of site boundary, provided wildfire management, forest research, and managed endangered species. She discussed fire management responsibilities at SRS which included fire suppression, prescribed fire, wildfires, Smokey Bear Fire Prevention Program, and natural storm recovery efforts. She provided a chart which represented the annual quantity of timber sold since the year 2000. She explained that timber was sold by open competitive bidding processes using U.S. Forest Service timber sale contracts. She explained that the revenues generated from timber sales were returned to the U.S. Treasury, then cycled back to the Department of Energy-Savannah River (DOE-SR) and ultimately back to the U.S. Forest Service to support administrative costs of preparing timber sales. Ms. Kiser discussed habitat management for the red-cockaded woodpecker (RCW) population at SRS, which significantly increased since the program started in the year 1985. She said the gopher tortoise, wood stork, bald eagle, smooth purple coneflower, shortnose sturgeon, and the spice bush were among several other endangered and protected species located at SRS. Ms. Kiser provided several examples of forest management research program studies such as wetland restoration, bioenergy, biodiversity, and ecological restoration. She mentioned that the U.S. Forest Service also partnered with DOE and other site contractors to host the SRS Ultimate Turkey Hunt each spring, which provided hunting opportunities for physically disabled hunters. She said 2013 was a very successful year since the timber sale program generated over \$5 million dollars in sales to local mills and loggers. She said U.S. Forest Service accomplished 40,000 acres of prescribed burning and active habitat management resulted in a 20 percent increase in the RCW clusters.

CAB member Nangle shared his concerns about a possible timber shortage in the future and asked if the U.S. Forest Service was involved in reestablishing trees that were being cut down for timber sales not at SRS. Ms. Kiser said the U.S. Forest Service generally did not get involved with timber sales on private land since those issues were typically handled by the GA and South Carolina (SC) Forestry Commissions. Ms. Kiser said a report was developed about the Southern Forest Futures Project, which she said would reassure concerned individuals that there would not be a timber shortage. CAB member Nangle asked if the CAB could receive a copy. Ms. Kiser said she would gladly provide the link to the CAB Support Team.

CAB member William Rhoten commended the U.S. Forest Service on the great success of increasing the RCW population at SRS. He then asked what the purpose was for clear cutting forest management practices being implemented at SRS. Ms. Kiser said the U.S. Forest Service had been implementing clear cutting technologies to remove slash pine trees and reestablish long leaf trees. She explained that slash pine was planted back in the 1950's; however, that species of tree was not the best match for the type of environment at SRS.

CAB Chair Parson asked if there were any other reasons, besides hunting, that members of the public were allowed to be onsite in areas managed by the U.S. Forest Service. Ms. Angelia Adams, DOE-SR, said several animal hunts were conducted at SRS. Ms. Adams also said the only public groups allowed to access land areas managed by the

U.S. Forest Service were public school programs, which were accompanied by necessary personnel. Ms. Kiser said there was public access to Crackerneck, which was located on the southwest side of SRS, during the month of March. Ms. Kiser explained that the Department of Natural Resources (DNR) had an agreement for management of the wildlife habitats for hunting in Crackerneck. Ms. Adams said Crackerneck was also open during the fall months and explained she would provide more information to the CAB about Crackerneck.

CAB member James Streeter asked about the restoration status of other endangered and protected species at SRS. Ms. Kiser said the “wood stork” mostly foraged for food and offsite, but she felt the wood stork species population in SC was increasing. Ms. Kiser said the status of the “gopher tortoise” species population was level. Ms. Kiser explained that habitat management improvements were being conducted for the endangered and protected species at SRS.

CAB member Bill Calhoun asked if the Bureau of Land Management (BLM) was different from the USDA Forest Service. Ms. Kiser confirmed it was, and briefly explained that BLM was part of the Department of Interior.

CAB member Nangle asked the S&LM Committee if there was any discussion regarding the recent findings in the DNFSB report.

CAB member Virginia Jones said she was interested if the priority list the CAB provided input on was still accurate given the concerns found in the DNFSB report.

CAB member Rose Hayes said she felt the Liquid Waste program would always be top priority on the list, followed by L-Basin. CAB member Hayes asked if the CAB should review the priority list and determine if the Board should shift any of the priorities around. CAB member Hayes asked for clarification about the movement of materials and an “energized component” that was discussed in the DNFSB report for building 235-F.

Mr. Patrick McGuire, DOE-SR, stated there had been an increase in the negative trend with facility operations such as disciplined operations, hazardous control, and compliance with procedures. Mr. McGuire said DOE, Savannah River Remediation (SRR), and Savannah River Nuclear Solutions (SRNS), were well aware of those issues. Mr. McGuire explained that some issues were identified by contractors and or DOE personnel while other issues were pointed out by the Defense Nuclear Facilities Safety Board (DNFSB) site representatives. He said DOE and the contractors were taking the identified issues very seriously. He addressed what CAB member Hayes said about the lockout/tagout event in building 235-F by saying that the lockout/tagout event had nothing to do with material “moving.” He said the issue involved understanding “as found conditions” and comparing the actual conditions to building drawings from the 1950’s and 1960’s. He explained that over time, situations occur where configuration control and actual building conditions were not always consistent, which he pointed out was what occurred with some of the lockout/tagout violations. He said procedures had been in place to guarantee there was no live electricity when employees worked on electrical boxes; however, when the electrical boxes were opened the violations were identified. Mr. McGuire said the violations were unexpected, but no one was injured. He said the DNFSB wrote DOE and the contractors a letter requesting an update within 60 days. Mr. McGuire said DOE and the contractors were gathering information for the DNFSB update and would provide information to the CAB after the DNFSB received the presentation. Mr. McGuire reiterated that there was an increase in the negative trend, but he pointed out that no employees were injured and contractors took necessary precautions to clearly inform the workforce that if something in the work did not seem normal, per the procedures, to immediately stop and get assistance.

CAB member Hayes asked when the violations were found in building 235-F. Mr. McGuire said the violations were found approximately two months ago when new fire detection and alarm systems were being prepared for installation. CAB member Hayes said she wished the CAB could be informed sooner when issues such as this occurred, instead of reading about the situation in an external source. Mr. McGuire said he would take her concerns into consideration.

CAB member Hayes said the word “energized” was located in several documents she recently read. CAB member Hayes then asked if the incident that occurred at WIPP involved an energized component. Mr. McGuire said the term “energized” could mean a variety of things; however, he said since the investigation at WIPP was still ongoing he could not address the event. CAB member Hayes said DOE should use language the public could easily understand.

CAB Chair Parson asked if a copy of the letter DOE received from the DNFSB was available online. Mr. McGuire said the letter was recently issued, but he did not think it was online. Mr. Jim Guisti, DOE-SR, said he planned to send the May 16, 2014, DNFSB letter to the CAB Support Team to be forwarded to the CAB. CAB Chair Parson asked what the “communication timeline” was for information being available to the public. Mr. McGuire said he could not speak for the DNFSB site representatives, but he said his opinion was that it took approximately one month for a site report to be publically available. CAB Chair Parson said she hoped each committee planned to discuss the DNFSB letter at the upcoming committee meetings. CAB Chair Parson asked what the term “warm standby” meant regarding H-Canyon. Mr. McGuire explained there were several reasons a facility could go into warm standby. He said warm standby involved maintaining all safety systems, not actively processing any materials, and performing repairs on certain systems. CAB Chair Parson asked if employees were furloughed while a facility was in warm standby. Mr. McGuire said there were no furloughs because employees still performed other work, training, procedure changes, tabletop reviews, and maintained proficiency.

Administrative & Outreach (A&O) Committee Overview – Nina Spinelli, Chair

CAB member Nina Spinelli reminded everyone that copies of the spring magazine were available. She said updated copies of the CAB contact information sheets were placed at each of their seats. She explained the CAB group picture was postponed until the July Full Board meeting. She encouraged everyone to visit the CAB Facebook page and the website at cab.srs.gov and asked CAB members to think of new outreach efforts to attract potential members.

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

CAB member Hayes listed the NM Committee members and reviewed the committee’s purpose. She listed the 2014 NM Work Plan topics before announcing the next NM Committee meeting was scheduled for June 10, 2014. She provided a recommendation status update, stating that recommendations 307, 313, and 314 were open. She read each recommendation and the corresponding DOE response before saying she planned to leave each recommendation open. She explained that CAB member Calhoun was rewriting recommendation 306 in order to draft a new recommendation. She introduced Mr. Ed Sadowski, Savannah River National Laboratory (SRNL) to begin his presentation.

PRESENTATION: Alternative Dispositions of Used Nuclear Fuel – Ed Sadowski, SRNL

Mr. Ed Sadowski, SRNL, stated the purpose of his presentation was to satisfy a 2014 NM Work Plan topic by presenting several alternatives for disposition of used nuclear fuels (UNF). He said he planned to discuss current interim storage and disposition paths and various possible alternatives. He discussed interim storage at L-Basin stating that a vast majority of the material in L-Basin was uranium clad with aluminum. He explained the water in L-Basin was extremely purified with a highly controlled chemistry to prevent the degradation of the stored materials. Mr. Sadowski commented that the purification and monitoring efforts done at L-Basin were used by the United Nations’ International Atomic Energy Agency (IAEA) for development of International Standards Organization (ISO) standards for basins around the world. He then discussed the “second leg” on the current disposition path for UNF. He explained that the UNF was transported by rail from L-Basin in heavily shielded casks to H-Canon. He said the bundles were dissolved in stainless steel tanks to separate the uranium from aluminum, the fission products (FP), and the minor actinides (MA). He said the uranium was down-blended to low enriched uranium (LEU) and provided to the Tennessee Valley Authority (TVA) for future use, while the aluminum, FP, and MA were dispositioned through the High-Level Waste system.

CAB member Calhoun stated that on the May 9, 2014, tour he learned there were canisters in L-Basin that had been stored for over 30 years. CAB member Calhoun asked Mr. Sadowski if he was concerned about the materials that had been stored that long in L-Basin. Mr. Sadowski said he hoped the material would not stay in L-Basin for another 30 years; however, he said there were no signs of corrosion on the materials. CAB member Calhoun asked if there was a nuclear waste “czar” responsible for coordinating all new nuclear technologies. Mr. Sadowski said there was not a czar but he said some SRNL management and scientists routinely interact with DOE offices such as the Nuclear Energy- Fuel Cycle Research and Development (NE-FCRD) organization.

Mr. Sadowski began his discussion of possible alternatives, which all required years of research and development (R&D), demonstration, and scale up, and funding; however, he said funding for those activities was currently unavailable. He discussed the first alternative of “dry storage,” which if implemented at SRS would involve the construction of heavy-duty storage pads, transporting UNF out of L-Basin, drying the UNF, placing the dried UNF into shielded storage casks on storage pads, and conducting further R&D on storing and monitoring aluminum clad UNF in harsh environments. He explained this alternative was not a disposition, but the material would be ready to ship to a federal repository.

CAB member Hayes asked what was involved in drying the UNF. Mr. Sadowski said a majority of the drying process meant conducting actual kinetic energy such as blowing and heating so the UNF dried out. He explained adding kinetic energy would also have to be researched to determine “how dry was dry.”

He discussed the second possible alternative of “melt-dilute,” which involved melting UNF in a furnace. He said natural uranium would be added to reduce the percentage of uranium-235 to less than 20 percent. Mr. Sadowski explained that approximately 15 years ago nonradioactive demonstrations were performed at SRS; however, he explained that additional R&D would be conducted to demonstrate the process could be completed. He said the “melt-dilute” alternative decreased the volume amount, but the radioactivity level would remain the same as UNF. He said the material would be ready for shipment to a federal repository and scale-up would take approximately two years. He said the next slides discussed separation alternatives, which all were in the early stages of R&D. Mr. Sadowski said researchers were developing alternatives that delivered a “small footprint, continuous throughput, low waste, and low inventory alternatives to the current baseline aqueous process in H-Canyon but would require a longer period of time to complete.” He said the next possible alternative was “electrochemical separation,” which involved melting UNF in an electrolytic salt in a crucible. He explained that the UNF, as well as natural uranium, would then be charged in order to create extremely pure solids that were easier to handle and reduced the liquid waste. He said the Laboratory Directed Research & Development (LDRD) Proof of Concept project for “electrodialysis separation” began in March. Mr. Sadowski provided a diagram to explain how “electrodialysis separation” worked before he discussed “selective electrochemical extraction.” He said electrochemical extraction involved dissolving UNF in nitric acid in a tank or melting UNF in an electrolyte. He said the LDRD Proof of Concept project for “electrochemical extraction” began in March. He said the last possible alternative of “chromatographic separation” involved dissolving the UNF in nitric acid in and flowing the solution through a resin column. He stated depending on the elements’ desired end states additional processing would occur. He said the LDRD Computational Modeling project for “chromatographic separation” began in March. Mr. Sadowski commented that the UNF at SRS was safely and securely stored while the UNF and the water in L-Basin were routinely monitored. He explained that the UNF disposition through H-Canyon and the High-Level Waste system was the best option given today’s technology; however, he said SRNL was actively pursuing new technologies.

CAB member Streeter asked about the status of the “cob-web” material found in L-Basin approximately one year prior. Mr. Patrick McGuire, DOE-SR, stated SRNL sampled the “cob-web” material and developed a removal technique which was completed within the last week. Mr. McGuire said there had not been evidence of the material coming back; however, he said the situation would continue to be monitored.

CAB member Christopher Timmers asked Mr. Sadowski if the alternative dispositions of UNF would allow the material to be used in other reactors. Mr. Sadowski said any material where the uranium was separated from UNF was destined for TVA but could be used in reactors.

CAB Chair Parson asked how the elements that stuck to the resin during “chromatographic separation” were disposed. Mr. Sadowski explained that disposing of the elements all depended on the end state of the elements. He explained there was another step called “eluting,” which at SRS involved using nitric acid to eliminate elements sticking to the resin so those elements could then be diverted to other tanks. CAB Chair Parson asked if some materials could be recycled. Mr. Sadowski said yes. CAB Chair Parson then asked if the FP’s would still go into another tank. Mr. Sadowski explained the decision to place all FP’s into another tank depended on the elements’ final end state as well as extensive research.

CAB Vice Chair Simon said he recalled from the Chairs meeting in Hanford that the first phase of the WIPP report had been sent to DOE-SR for a response. Ms. Jean Ridley, DOE-SR, stated the following day Mr. Bert Crapse, DOE-SR, was scheduled to provide a presentation about the Solid Waste program and his presentation would also

address transuranic (TRU) storage at SRS. Ms. Ridley briefly mentioned that TRU waste stored at SRS was perfectly safe, but she did not know of a written response sent back to DOE.

Waste Management (WM) Committee Overview – Earl Sheppard, Chair

CAB member Earl Sheppard introduced the WM Committee members and reviewed the committee's purpose. He provided a recommendation status update, stating that recommendations 304, 311, and 312 were open. He announced that the next WM Committee meeting was scheduled for June 10, 2014, 4:30 – 6:20 P.M. CAB member Sheppard thanked everyone involved in hosting the CAB tour on May 9, 2014, and stated he felt it was the best tour he had ever attended. He then allowed CAB Chair Parson to begin discussion about WIPP closure ramifications for DOE-SR programs and projects. CAB Chair Parson said the CAB expressed concern about WIPP closure ramifications for SRS programs and other projects. CAB member Parson mentioned Mr. Bert Crapse was scheduled to provide a presentation on SRS TRU waste the following day; however, she asked the CAB members if they would rather discuss concerns about WIPP closure that day or wait until after the presentation the next day.

CAB member Hayes said she was concerned about how secure WIPP was due to the recent accident.

CAB member Streeter said a main concern was for DOE-SR to further explain the safety or security of the material.

CAB member Jones said she was concerned how funding levels could impact the status of the TRU waste program.

CAB Vice Chair Simon suggested the CAB provide a list of concerns to Mr. Crapse, which he could answer after his presentation the following day. Mr. Jim Giusti, DOE-SR, said he was unsure if DOE-SR would be able to answer all the CAB's questions since the investigation was still ongoing and DOE-SR did not have additional information. CAB Vice Chair Simon asked if DOE-SR planned to safely store the TRU waste at SRS until WIPP reopened. He also asked if the CAB could be updated on that plan when it was available. Mr. Giusti encouraged the CAB members to look at the WIPP website, stating the website was the best source of information to learn about progress being made at WIPP.

CAB member Sheppard decided it was best to for the CAB to listen to Mr. Crapse presentation and any further concern should be discussed at the committee meeting.

Facilities Disposition & Site Remediation (FD&SR) Committee Overview – Larry Powell, Committee member

CAB member Larry Powell reviewed the FD&SR focus and introduced the committee members. He provided a recommendation status update, stating that recommendations 315 and 317 were open. He announced that the next FD&SR Committee meeting was scheduled for June 23, 2014, from 6:30 – 8:20 P.M. at the DOE Meeting Center.

Public Comments

There were no public comments.

~Meeting Adjourned

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CAB Facilitator, Ashley Whitaker, NOVA, led everyone in the Pledge of Allegiance. Ms. Whitaker reviewed the agenda and Meeting Rules of Conduct. She said public comment periods were scheduled throughout the meeting and briefly reminded everyone the CABNET meeting feature was available. Ms. Whitaker asked everyone to please hold all questions until the end of each presentation. She then invited CAB Chair Parson to begin her update.

CAB Chair Opening and Update - Marolyn Parson, CAB

CAB Chair Parson called for discussion of the March Full Board meeting minutes. There were no suggestions or comments regarding the minutes. She opened the floor for a vote; the CAB, with no opposition and no abstentions, approved the meeting minutes with 16 votes.

CAB Chair Parson welcomed everyone to Savannah, GA. She introduced new CAB member Murlene Ennis, who resides in Allendale, SC, and allowed her to say a few words about herself. CAB Chair Parson explained that the SRS CAB was one of eight local Environmental Management Site Specific Advisory Boards (EM SSAB) before listing the other advisory boards. She said she attended the EM SSAB Chairs Meeting, which was hosted by the Hanford Advisory Board, with CAB Vice Chair Harold Simon on April 22-24, 2014, in Pasco, Washington. She said she and CAB Vice Chair Simon attended the Hanford tour and mentioned that CAB Vice Chair Simon would share his opinion of the tour later in the meeting. She shared highlights from the meeting and provided a web address for anyone interested in accessing presentations from the meeting. She said there were two draft recommendations that were created as a result of the Chairs meeting. She discussed recommendation 2014-01 “Funding for Clean-up” and

2014-02 “Graphic Representation of Waste Disposition Path.” CAB Chair Parson stated the Department of Energy (DOE) had not responded to recommendation 2014-01, but explained the draft recommendation involved the fiscal year (FY) 2015 budget request being too small to complete the cleanup obligations facing the Environmental Management (EM) cleanup sites. CAB Chair Parson said the second draft recommendation involved producing video clips and/or lengthier documentaries to engage the public about successful remediation efforts at DOE cleanup sites. She read the response to the second draft recommendation, which was received on April 24, 2014. CAB Chair Parson explained the CAB needed to vote on each recommendation, but the content could not be changed.

Draft Recommendation Voting

Recommendation 2014-01: “Funding for Clean-up”

CAB Chair Parson asked if there were any comments. CAB member Nina Spinelli asked if other local advisory boards were concerned with funding challenges. CAB Chair Parson said, “yes.”

CAB Chair Parson called for a vote and the CAB approved the first draft recommendation with 16 votes of approval, no oppositions, and no abstentions.

Recommendation 2014-02: “Graphic Representation of Waste Disposition Path”

CAB Chair Parson asked if there were any comments. CAB member Spinelli asked why SRS was not listed within the draft recommendation. CAB Chair Parson explained that the information within the draft recommendation referred to areas at various sites where remediated areas were further developed so members of the public could access the areas for either historical or recreational purposes. CAB Chair Parson stated there were other sites in the DOE complex who did not have remediated publically accessible areas.

CAB Chair Parson opened the floor for a vote; the CAB with no opposition and no abstentions approved the second draft recommendation with 16 votes.

A copy of each of these recommendations have been attached to this document.

CAB Chair Parson asked CAB Vice Chair Simon to discuss the Hanford site tour. CAB Vice Chair Simon said the tour was well organized. He listed the facilities that were toured and said he planned to mainly discuss C-Tank Farm, the Hanford Waste Treatment Plant (WTP), and B Reactor. He provided background information about the types of waste stored in C-Tank Farm. He said DOE retrieved waste from 11 of the single-shell tanks and planned to retrieve waste from six additional tanks. He showed an aerial picture of C-Tank Farm before discussing the WTP. CAB Vice Chair Simon said construction of the WTP was anticipated to conclude in year 2020; however, redesign and modification changes could potentially delay the completion and increase the budget. He said the WTP included the pretreatment plant, High-Level waste facility, Low-Activity waste facility, and analytical laboratory. He briefly summarized the purpose of the four facilities before displaying pictures of the WTP and the “Waste Treatment Process Flow Chart.” He stated that B Reactor was one of Hanford’s most historic buildings since the facility was the “world’s first full-scale nuclear reactor and produced the plutonium used in the atomic bomb dropped over Japan in August of 1945.” He showed a picture of B Reactor before providing a link to view more information about B Reactor and the Hanford site.

CAB member Rose Hayes asked how many reactors were located at Hanford. CAB Chair Parson answered there were nine reactors. She explained that some reactor were “cocooned,” which meant those reactors were not in the final cleanup stage. CAB member Hayes asked why a standardized waste treatment approach was never implemented across the DOE complex. Mr. Jim Giusti, Department of Energy – Savannah River Site (DOE-SR), said there was a uniformed waste type in the tanks at SRS, while Hanford had several waste types since Hanford performed different tasks than SRS. Mr. Giusti also explained the regulatory environment in South Carolina was different from Hanford, which ultimately allowed SRS to begin cleanup efforts before the Hanford site.

CAB member Spinelli asked what facility at SRS was most comparable to B Reactor at Hanford. Mr. Giusti said all the reactors at SRS were comparable to B Reactor at Hanford.

Agency Updates

Ms. Sandra Waisley, Co-Deputy Designated Federal Official (DDFO), DOE-SR

Ms. Sandra Waisley, Department of Energy-Savannah River (DOE-SR) began her update by reminding the CAB that the DOE-SR FY 2015 budget request was \$1.28 billion dollars. She said the budget would help DOE-SR catch up on any schedules that were lost in FY 2013 due to budget constraints. She explained that Dr. Moody and his management team thanked the congressional and community support that support the mission of SRS. Ms. Waisley said this year's top ten priorities for SRS included: 1) Produce 125 canisters at the Defense Waste Processing Facility (DWPF), 2) Disposition over 800,000 gallons of salt waste in the Actinide Removal Process (ARP) / Modular Caustic-Side Solvent Extraction Unit (MCU), 3) Continue the closure activities in tanks 12 and 16, 4) Continue construction of Saltstone Disposal Unit (SDU) six and the Salt Waste Processing Facility (SWPF), 5) Pursue completion of legacy Transuranic (TRU) waste shipments to the Waste Isolation Pilot Plant (WIPP), 6) Start field preparation for closure of four D-Area Ash Units, 7) Continue processing used nuclear fuel (UNF) in L-Basin, 8) Prepare for receipt of Canadian highly enriched uranium, (HEU), 9) Begin production of plutonium oxide for use at the Mixed Oxide (MOX) Fuel Fabrication Facility (MFFF), and 10) Support safeguards and security enhancements for the H-Area missions. Ms. Waisley said the Savannah River National Laboratory (SRNL), which recently celebrated its tenth anniversary as a national laboratory, continued to be a long-term priority at SRS. She stated SRNL's three focus areas were national security, environmental stewardship, and clean energy. She described how SRNL collaborated with more than 50 foreign countries, 90 private companies and universities, and supported more than 20 federal agencies. Ms. Waisley discussed how SRNL was recently tasked with establishing a panel of external experts to examine "Hazardous Chemical Vapors Management" and "Worker Protection Measures" at Hanford's nuclear waste cleanup site in Washington. She discussed DOE's potential work with Germany stating DOE and the Federal Minister of Education and Research of the Federal Republic of Germany signed a statement of intent to support DOE's evaluation of its German research reactor pebble bed fuel for possible acceptance, processing, and disposition at SRS. She explained that all potential work to support DOE's evaluation of the German material would be funded by the German government so the statement of intent was an important step forward and DOE anticipated an agreement being signed using the National Environmental Policy Act (NEPA). She said DOE had not signed a Notice of Intent yet and announced that a public scoping meeting regarding the German fuel was scheduled for Tuesday, June 24, 2014 at the North Augusta Community Center at 6:30 PM. Ms. Waisley discussed recent conduct of operations concerns with Savannah River Remediation (SRR) and Savannah River Nuclear Solutions (SRNS). She explained that the Defense Nuclear Facilities Safety Board (DNFSB) sent a letter to DOE on May 16, 2014, which addressed non-compliance issues with various Technical Safety Requirements (TSR). She said the DNFSB conclusions were serious; however, there were no employee accidents or injuries as a result of the lapse in conduct of operations. She said DOE has approached SRR and SRNS to analyze and implement corrective plans to prevent any reoccurrence. She said DOE was currently monitoring the corrective actions; however, in terms of the safety culture at SRS, DOE continued to advise all contractors to remain vigilant to safe and disciplined operations. Ms. Waisley announced that Wackenhut Senior Vice President General Manager, Mr. Randy Garver, retired on May 15, 2014, to be succeeded by Mr. Mark Bolton, who had 30 years of security expertise at SRS. She announced that SRNS President and Chief Executive Officer (CEO) Mr. Dwayne Wilson was being succeeded by Ms. Carol Johnson since he planned to return to his position within Fluor Corporation. She mentioned that Mr. Terry Spears was currently serving as the acting SRS Deputy Manager; however, the position was competed and a selection would probably be announced in the near future. She said there was another federal position posted for the Assistant Manager for Infrastructure and Environmental Leadership, which was currently filled by Ms. Angelia Adams, DOE-SR. She congratulated Mr. Dennis Yates, DOE-SR, who was recently recognized as the Facility Representative of the Year for the entire DOE complex.

CAB member Hayes asked if DOE planned to process all 1,000 bundles that were identified within the Amended Record of Decision (AROD). Mr. Patrick McGuire, DOE-SR, said DOE planned to process the maximum amount of bundles, but processing depended on the funding amount. CAB member Hayes asked why the German fuel could potentially come to SRS. Mr. McGuire explained that a formal decision for SRS to receive the Germany fuel had not been made. He mentioned that DOE-SR and the Republic of Germany had discussed partnering together for research and development (R&D) purposes of using SRNL to determine the possibility of dispositioning the material for non-proliferation reasons. CAB member Hayes asked if there were any penalties for the types of conduct of operations concerns found within the recent DNFSB safety report. Mr. McGuire stated there were no immediate penalties.

Mr. Rob Pope, Environmental Protection Agency (EPA)

Mr. Rob Pope, EPA, began his update by stating EPA approved Appendix E for years 2015, 2016, and until year 2042 when all cleanup work at SRS was scheduled to conclude. Mr. Pope said EPA was pleased with DOE's decision to leave closure preparation activities for the D-Area Ash Basins on the Appendix E schedule. He said DOE had been successful in cleaning and closing High-Level waste tanks; however, DOE had a deadline to close two more tanks by September 30, 2015. He mentioned the budget and SWPF construction delays would make it difficult for DOE to close two additional tanks. He said EPA and DOE were starting to discuss the schedule of High-Level waste cleanup. Mr. Pope said the EPA travel budget was still reduced and he did not know how many CAB meetings he would be able to attend.

CAB member Spinelli asked Mr. Pope when the next Environmental Justice (EJ) meeting would be held. Mr. Pope said there were plans to have one more EJ meeting during FY 2014; however, he did not have the exact information. Mr. Giusti mentioned there were summer workshops for teachers were scheduled during the summer.

Ms. Shelly Wilson, South Carolina Department of Health & Environmental Control (SCDHEC)

Ms. Shelly Wilson, SCDHEC, introduced Ms. Kim Brinkley, SCDHEC, who provided an update of the Independent Environmental Oversight program. Ms. Brinkley said a copy of the latest report was available. She said SCDHEC planned to participate in the July 23-25 teacher workshops Mr. Giusti referenced.

Ms. Wilson welcomed Ms. Susan Fulmer, SCDHEC, who was the new manager for Soil and Groundwater Cleanup Program for SRS. She stated SCDHEC approved Appendix E on May 15, 2014, and were working hard to finalize the cleanup process for the D-Area Ash Basins and landfill. She discussed the High-Level waste tanks at SRS. She explained that DOE recently discussed the possibility of missing tank closure milestones in FY 2015 with both EPA and SCDHEC; however, she explained that SCDHEC had not received a formal extension request. She said the FY 2015 budget did not represent total compliance, since the budget stated a tank milestone could possibly be missed. She said the High-Level waste milestones were important to SCDHEC because the milestones represented the risk reduction schedule. Ms. Wilson said SCDHEC believed waste treatment was the key to completing all future risk reduction High-Level waste milestones. She said the FY 2015 budget for High-Level waste was better, but it was still not enough to preserve the future milestones. She said SCDHEC was very proud of the risk reduction success SRS had and she hoped SCDHEC would continue to draw attention to the funding need in order to continue and preserve that future success.

CAB member Bill Calhoun asked what the penalty was if two tanks were not closed in FY 2015. Ms. Wilson said the penalty, which was located in the Federal Facility Agreement (FFA), was \$3,000 dollars per day. She said additional penalties could occur since the same milestone was also located in a wastewater closure plan. Ms. Wilson addressed SWPF completion stating that the stipulated penalty amount, if SWPF was not operational in the year 2015, would be \$105,000 dollars per day for every additional day past an unapproved extension.

CAB member Hayes asked what SCDHEC was doing to nudge DOE to ask Congress for additional funding for the High-Level waste program. Ms. Wilson said SCDHEC was doing its best to draw attention to the issue, but the ball was in DOE's court since SCDHEC could not take any action until DOE submitted a formal extension request. CAB member Hayes asked what power SCDHEC had. Ms. Wilson said SCDHEC had complete authority for the possible penalty for the SWPF, which was enforced through a solid waste permit; however, the tank farm milestones were enforceable through the FFA, which was a joint agreement between SCDHEC and EPA.

CAB Chair Parson asked how much more funding was necessary to meet the milestones. Ms. Wilson said she was unsure, but that she also was trying to determine an exact figure. CAB Chair Parson asked when SCDHEC expected DOE to submit a formal milestone extension request. Ms. Wilson said that was DOE's decision. Mr. Giusti explained that DOE had not been decided yet.

CAB Vice Chair Simon asked if there was a discrepancy in the SWPF construction completion date since the CAB was recently told on a SWPF tour that construction would be completed by December 2016. Ms. Wilson said the

milestone was for SWPF to be completed in 2015. She said DOE was expected to submit an extension request if necessary.

PRESENTATION: Recommendation & Work Plan Update- Jesslyn Anderson, NOVA Corporation

Ms. Jesslyn Anderson, NOVA, provided an update on the recommendation status report and Work Plan progress. She stated the CAB adopted two recommendations in January. She said recommendations 304, 307, 311, 312, 313, 314, 315, 317, and 318 were open. She provided an update of the CAB Work Plan and highlighted each committee's progress so far for the year.

ANNOUNCEMENT: SRS CAB's 20th Year Anniversary – Gerri Flemming, DOE-SR

Ms. Gerri Flemming, DOE-SR, announced that May was the 20th anniversary of the CAB. She stated DOE was proud to celebrate 20 years of community involvement. She mentioned the SRS CAB had more than 150 members over the past 20 years and explained that the SRS CAB was developed in order to be a mechanism for non-technical community members to provide input directly to DOE. She described roles of a CAB member before stating that DOE looked forward to assisting the CAB in the future. Ms. Flemming said the CAB had been successful for the past 20 years and she hoped that success would continue well into the future. Ms. Flemming announced and encouraged everyone to attend the celebration that was being planned in conjunction with the July Full Board.

Public Comments

There were no public comments.

Strategic & Legacy Management (S&LM) Committee Overview – Clint Nangle, Chair

CAB member Clint Nangle reviewed his presentation from the day before and reminded everyone the next S&LM Committee meeting was scheduled for June 23, 2014, at the DOE Meeting Center. He introduced Mr. Rich Olsen, DOE-SR, to begin his presentation.

PRESENTATION: Environmental Management Cleanup Program Performance Measures Status for Fiscal Year 2014 – Rich Olsen, DOE-SR

Mr. Rich Olsen, DOE-SR, said the purpose of his presentation was to satisfy a 2014 S&LM Work Plan topic by providing FY 2014 targets and year-to-date accomplishments, through April 2014, for EM performance measures. He explained that the lapse of appropriations, extreme cold weather, ice storm, and temporary closure of WIPP were the main challenges DOE faced during 2014. He gave a brief introduction of the SRS EM Cleanup Program, which began in the 1990's, and stated performance measures were developed to track progress towards end state targets. He explained the current lifecycle estimate, which included cost, scope, and schedule, indicated that EM cleanup at SRS would conclude by the year 2042. Mr. Olsen provided a chart that broke down the four major areas of the cleanup program. He stated the four major cleanup areas were "Radioactive Liquid Waste," "Solid Waste," "Nuclear Materials," and "Soil, Groundwater, and Facilities." Mr. Olsen said there were different metrics and definitions under each major cleanup area. He provided pictures of activities for each major cleanup area as well as individual charts to show the current progress of target completion. He then discussed another chart that showed the overall EM performance report results through April 2014. along with individual reports for the four major cleanup areas. He stated DOE-SR continued to track and monitor performance measures for the key areas of EM cleanup operations. Mr. Olsen explained that DOE welcomed comments or suggestions from the CAB relating to target completion efforts at SRS.

CAB Vice Chair Simon asked where the eight receipts of UNF originated. Mr. McGuire said receipts of the UNF were routine shipments, but he could not recall an exact location.

CAB member Spinelli asked how the research grants Mr. Sadowski discussed the day before were being used in cleanup efforts at SRS. Mr. Olsen said none of the research grants were actively included in DOE's plan because the

grants were still premature and had not changed DOE's current liquid waste disposition plan. Mr. Olsen mentioned that if a research technology further developed, DOE would potentially coordinate those technologies.

CAB member Hayes asked if the bundles and High Flux Isotope Reactor (HFIR) cores that had gone to H-Canyon were already being processed. Mr. Olsen said in FY 2014 DOE only planned to deal with bundles. CAB member Hayes asked how long it would take to process all the 1,000 bundles and 200 HFIR cores. Mr. McGuire said the processing campaign would last approximately four to five years.

CAB Chair Parson asked how many curies had been reduced by producing canisters. Mr. Jim Folk, DOE-SR, said 53 million curies had been vitrified and were stored in Glass Waste Storage (GWS) and 290 million curies remained. CAB Chair Parson asked how DOE-SR planned to increase the plutonium production rate in order to reach the goal of 5600. Mr. McGuire said over the past 30 years, DOE-SR did not focus on dispositioning plutonium since the material was identified as a national asset. He said DOE wanted to ensure there was no beneficial reuse for the plutonium before throwing it away. Mr. McGuire said one disposition option involved dissolving the plutonium. He said the second option involved providing the plutonium to MOX. He said he could not address any of the MOX uncertainties; however, he said the National Nuclear Security Administration (NNSA) still wanted plutonium oxide to be available. He explained that regardless of what happened to MOX, plutonium oxide could be shipped to WIPP. He said DOE was going through a "Readiness Assessment" and hoped to begin producing plutonium oxide in July. Mr. McGuire said the third disposition option involved blending-down plutonium oxide into a non-proliferable form and shipping it to WIPP. He said this year DOE-SR was trying to reconstitute the blend-down efforts in HB-Line as well as possibly getting additional blend-down lines in the K-Area facility. He explained that having more blend-down capabilities would increase the production rate of material ready to ship to WIPP.

CAB member Calhoun asked how DOE assured the public that canisters of plutonium were safely stored at SRS. Mr. McGuire described the dimensions of the canisters. Mr. McGuire said DOE-SR planned to continue monitoring the waste through an interim surveillance program that began in 2007. He explained that all materials, whether packaged for storage at SRS or another site, must meet requirements for 50 years of storage. He said periodically drums were analyzed for gas generation, corrosion, or anything that could impact safe storage of the plutonium. He said the process of analyzing the drums had been done for several years and nothing was ever identified that impacted the storage of the material. Mr. McGuire said even if funding was delayed or disposition strategies changed in the future, the established procedures for monitoring plutonium storage at SRS should ensure the public the plutonium was safe at SRS.

Waste Management (WM) Committee Overview – Earl Sheppard, Chair

CAB member Earl Sheppard reviewed his presentation from the day before. He mentioned that the next WM Committee meeting was scheduled for June 10, 2014, at the DOE Meeting Center. CAB member Jones briefly read the recommendation and DOE response for recommendation 314. CAB member Sheppard said he wished to change the status of recommendation 314 from "open" to "closed." CAB member Sheppard welcomed Mr. Bert Crapse, DOE-SR, to begin his presentation.

PRESENTATION: SRS Transuranic Waste Program Update – Bert Crapse, DOE-SR

Mr. Bert Crapse, DOE-SR, stated briefly that the purpose of the presentation was to satisfy a 2014 WM Committee Work Plan topic by presenting an update of SRS's progress towards the dispositioning of legacy TRU waste. He provided a brief overview of the TRU Waste Program. He said the Land Withdrawal Act of 1992, the key law regarding TRU waste, defined TRU waste and identified WIPP as the disposition location for defense TRU waste. He said in order to be classified as TRU waste the material had to have a radioactivity level greater than 100 nanocuries per gram with a half-life greater than 20 years; however, materials that could not be shipped to WIPP included High-Level waste, waste that Nuclear Regulatory Commission (NRC) approved for disposal, or waste that required particular decision making approval by DOE and EPA. He discussed the WIPP facility, which opened in 1999 in Carlsbad, New Mexico, before he explained how TRU waste was generated. He stated DOE began managing TRU waste in the 1970's, adding that TRU waste was generated throughout the DOE complex. Mr. Crapse said extensive characterization and certification efforts occurred at SRS to meet the WIPP waste acceptance criteria (WAC). He explained the two types of TRU waste, which required different handling procedures, were

contact-handled (CH) and remote-handled (RH). Mr. Crapse explained that TRU waste must be shipped to WIPP, which received the first SRS shipment in 2001. He discussed the recent incidents that occurred at WIPP on February 5, 2014, and February 14, 2014. He explained that as a result of the events, the WIPP repository was not accepting any waste shipments and DOE was developing a recovery plan, which would be completed before WIPP reopened. He said DOE was evaluating the impacts and executing any options regarding the removal of TRU waste from DOE sites. He listed various SRS accomplishments for the TRU program. He provided a pie chart titled, "SRS Legacy TRU Waste Inventory" stating the total inventory of TRU waste at SRS was 693 cubic meters. He said SRS TRU waste storage pads were located in E-Area before explaining the regulatory compliance requirements for waste storage pads and shipping containers. Mr. Crapse said all the SRS TRU waste was compliantly packaged and field certification activities were complete. Mr. Crapse said DOE planned to update the CAB on WIPP recovery efforts. Mr. Crapse said approximately 125 shipments from SRS were required to complete the SRS TRU waste program. He explained that SRS had completed all field activities and all TRU waste would be certified and ready for shipment later in the year. He said the TRU waste would continue to be safely stored at SRS until WIPP reopened and DOE planned to continue updating the CAB on the recovery efforts at WIPP.

CAB member Sheppard asked what protective equipment was worn by TRU waste handlers. Mr. Crapse said "construction environment" protective equipment was worn by TRU handlers at WIPP since the facility was considered to be a "clean environment." Mr. Crapse explained that the first thing WIPP handler did was check for contamination on the outside of containers and if contamination was found the materials were sent back to the original site. CAB member Sheppard asked if the necessary protective equipment varied for each of the containers sent to WIPP. Mr. Crapse said, "No. Every container had to be clean with no contamination."

CAB member Hayes asked if there were generic requirements for routing material shipments. Mr. Crapse said he did not think there were generic requirements; however, he said DOE-SR shared route layouts with states that the waste traveled through and DOE only used those roads for shipments.

CAB member Spinelli asked if drivers delivering the waste were armed and had processes in place in the event of an accident. Mr. Crapse said the drivers had extensive training and had to have over 100,000 hours of commercial driving experience without a violation. He said the drivers were tracked and in constant contact. He explained if an accident occurred the driver would contact the WIPP control room and begin performing functions outlined in their Standard Operating Procedures. CAB member Spinelli asked about the eight storage pads that were closed. Mr. Crapse explained that DOE worked with SCDHEC to close the eight pads under a Resource Conservation and Recovery Act (RCRA) permit; however, he explained DOE planned to eventually have opportunities to utilize the other pads for future needs as DOE determined future missions at SRS.

CAB Chair Parson asked if the packing materials within the shipping containers were included as part of the characterization and classification process. Mr. Crapse said the packing materials were not. CAB member Parson asked if additional levels of certification would be required for WIPP shipments if the investigation at WIPP involved packing materials. Mr. Crapse said he expected additional administrative and verification processes to be established once the WIPP investigation was complete. CAB member Parson asked if SRS used any of the packing materials within storage containers at WIPP. Mr. Crapse said he did not know what packing materials were used at WIPP, since the investigation was still in the early stages. CAB Chair Parson asked if the containers impacted at WIPP from SRS contained CH or RH waste. Mr. Crapse said the containers included CH waste.

Public Comments

There were no public comments.

Facilities Disposition & Site Remediation (FD&SR) Committee Overview – Tom Barnes, Chair

CAB member Larry Powell reviewed his presentation from the day before. He mentioned that the next FD&SR Committee meeting was scheduled for June 23, 2014, at the DOE Meeting Center. He welcomed Ms. Angelia Adams, DOE-SR, and Ms. Mary Flora, SRNS, to begin their presentation.

PRESENTATION: Integrating Regulatory Drivers – Angelia Adams, DOE-SR & Mary Flora, SRNS

Ms. Angelia Adams, DOE-SR, said the purpose of the presentation was to fulfill a 2014 FD&SR Work Plan topic by providing an overview of regulatory drivers. She listed various groups that were involved in SRS cleanup activities before highlighting significant milestones that had been completed throughout the SRS cleanup program. Ms. Adams mentioned that SCDHEC issued SRS a RCRA permit for solid waste management in 1987 and SRS was added to the CERCLA National Priorities List (NPL) as a Superfund site in 1989. She said the FFA was established between EPA Region 4, SCDHEC, and DOE in 1993 and in 2003 DOE, SCDHEC, EPA and SRNS decided to implement the area completion strategy for cleanup. She explained the area completion strategy involved DOE combining the SRS waste sites within a geographical area and facilities awaiting deactivation and decommissioning (D&D), in order to complete cleanup of an entire area. She said P-Area, R-Area, T-Area, and M-Area were all closed. Ms. Adams reviewed major environmental laws and cleanup program drivers. She discussed the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), which was regulated by EPA through SRS's FFA; however, she explained that SCDHEC monitored SRS's RCRA by using permits and the SRS Site Treatment Plan (STP). She said SCDHEC used permits to regulate the Clean Air Act (CAA), Clean Water Act (CWA), and Safe Drinking Water Act (SDWA), while EPA used Polychlorinated Biphenyl (PCB) regulations and Federal Facility Compliance Agreement to oversee the Toxic Substances Control Act (TSCA). She provided a graphic to show how FFA integrated the requirements of RCRA and CERCLA before introducing Ms. Flora to begin her portion of the presentation.

She provided a deeper interpretation of RCRA, which Congress passed in 1976, and was delegated, from EPA to SCDHEC to administer. She said SCDHEC had their own regulations and they are evaluated by EPA to make sure they are administering the program consistent to federal requirements. She explained that RCRA was responsible for managing hazardous and non-hazardous wastes. She described the RCRA Permit Renewal Process stating SCDHEC reviewed the permit renewal application and determined if it was complete. Ms. Flora said there was a 45 day public comment period once SCDHEC issued a draft permit. She explained that CERCLA's purpose was to protect human health and the environment from releases or threatened releases of hazardous substances. She said CERCLA required federal facilities on the NPL have an FFA before she discussed the scope and key sections of the FFA. She explained how RCRA and CERCLA were integrated and showed the 518 different environmental permits at SRS. Ms. Flora described the core team process for implementing a cleanup program between DOE, EPA, and SCDHEC. She said EPA, SCDHEC, and DOE worked collaboratively to develop and implement sound remediation approaches. She stated the FFA allowed for effective integration of complex regulatory laws without duplicative effort and paperwork, while the SRS cleanup program ensured protectiveness of off-site communities.

CAB member Hayes asked if UNF was included in RCRA or CERCLA. Ms. Flora explained that UNF was outside the requirements of the FFA. Mr. Pope, EPA, said UNF and other nuclear materials were not included under any environmental statute. CAB member Hayes asked what the requirements were for materials to be classified as an environmental pollutant candidate. Mr. Pope said RCRA and CERCLA did not include nuclear materials.

CAB Chair Parson asked how actions were monitored for compliance. Ms. Flora said CERCLA required that all records of decision (ROD) be reviewed every five years. Ms. Flora said the review is conducted to make sure all implemented decisions were still protective of human health and the environment. CAB Chair Parson asked if the level of cleanup was defined in specific ROD's. Ms. Flora said, "Yes." CAB Chair Parson asked if SRS would ever be removed from the NPL. Ms. Flora said once all cleanup efforts were completed, DOE must petition EPA to verify that SRS met all cleanup goals and if any contamination was left behind, there was no risk to human health and the environment. Ms. Flora said EPA would then have to grant approval for SRS to be removed from the NPL.

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

CAB member Hayes reviewed her presentation from the day before and discussed the status of open recommendations 307, 313, and 314. She explained how the NM Committee planned to rewrite recommendation 306, while CAB member Spinelli planned to draft a new recommendation about L-Basin and Foreign Research

Reactor receipts. She announced the next NM Committee meeting was scheduled for June 10, 2014, NM Committee meeting.

Administrative & Outreach (A&O) Committee Overview – Nina Spinelli, Chair

CAB member Spinelli reviewed the committee purpose and reminded everyone that copies of the spring magazine were available. She explained the CAB group picture was postponed until the July Full Board meeting. She encouraged everyone to visit the CAB Facebook page and the website at cab.srs.gov and asked CAB members to think of new outreach efforts to attract potential members.

Extended CAB Chair Update

CAB Chair Parson took a few minutes to describe how the Hanford site tour helped her understand the available engineering capabilities that were used to construct Hanford and SRS. She explained it was sobering to think that buildings were constructed in less than two years; however, it would take almost 100 years to clean up the contamination of the sites.” CAB Chair Parson encouraged the CAB to continue pushing the government for the necessary funding so cleanup could be accomplished sooner. She thanked all the presenters, DOE, and the CAB Support Team for the meeting arrangements.

Public Comments

Ms. Suzanne Rhodes, SC League of Women Voters, discussed issues with Yucca Mountain and nuclear waste in SC. She said the SCLWV was very discouraged to learn about members of Congress influencing decisions about Yucca Mountain. She stated that SCLWV was concerned about the potential role of SRS regarding interim storage of commercial and defense waste. She said SCLWV submitted a Programmatic Environmental Impact Statement asking DOE to provide information about possible disposition plans in order for SC residents to better understand DOE’s international plans. She provided a copy of her talking points, which have been attached to this document.

~Meeting Adjourned



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SRS Citizens Advisory Board Meeting May 20, 2014

NUCLEAR WASTE IN SOUTH CAROLINA An Issue Brief for Citizens*

Several Nuclear Myths are exposed in the report –

- - Yucca Mountain is not available for nuclear waste storage.

Have you heard that the problem with Yucca Mountain is Harry Reid?

He surely has used his power & influence to block Yucca Mountain, but Nevada commerce is based on tourism and the proposal is very unpopular in Nevada. A series of Attorney Generals have effectively used legal tools, some still pending. Actually a big part of the problem has been Congress – if you pull up our report and do a word search for “congress” you will understand.

Have you heard about “**miles & miles of railroad tracks**”? Not so. The photo of the entrance we have all seen is of light rail to move about 5 or 6 people and their equipment into the 5-mile exploratory tunnel. Other rails in the tunnel once moved the test equipment. Since 1992, extreme measures have been anticipated to overcome the geology and hydrology of the Yucca Mountain location, including a 100-year retrofit of an \$8–9 Billion titanium drip shield. Another \$8-9 Billion would be required to build up the railroad tracks.

Remember the earthquake south of DC about 3 years ago? It was a Mercalli scale 5.8. There was an earthquake magnitude 5.7 20 kilometers/12.5 miles from Yucca Mountain in 1992. It isn't a good site.

Furthermore, if & when a repository becomes available, commercial spent fuel, scattered at reactor sites, is more vulnerable to various hazards than SRS waste, assuming adequate funds are appropriated in a timely manner. SRS wastes are not likely to be “first in line.” C

- - **Reprocessing of commercial spent fuel is not cost effective** and does not significantly reduce the need for a permanent repository. Reprocessing wastes are exceedingly hot and require more space in a repository. Maxine Maxted addressed reprocessing to the CAB in December 2013. The League is hopeful that the boosters invitation of commercial spent fuel to SRS will be discounted as an innocent lack of due diligence.

In conclusion, whatever is now at SRS, and whatever comes to SRS is very likely to stay here for many decades. Hopefully, it won't stay forever. LWVSC has just asked DOE for a Programmatic Environmental Impact Statement, in hopes of clearing up some of the confusion.

* <http://lwvsc.org/files/nuclearwaste20140116.pdf>