

Meeting Minutes
Savannah River Site Citizens Advisory Board (CAB) – Combined Committees Meeting
New Ellenton, South Carolina
March 23, 2015

Monday, March 23, 2015 Attendance:

CAB

Gil Allensworth
Tom Barnes
Andrew Bush
Louie Chavis
Susan Corbett
Robert Doerr
Murlene Ennis
Dawn Gillas
David Hoel
Eleanor Hopson
Virginia Jones
Daniel Kaminski
John McMichael
Clint Nangle
Larry Powell
Bill Rhoten
Earl Sheppard
Harold Simon
George Snyder
Nina Spinelli – *Absent*
James Streeter
Ed Sturcken
Christopher Timmers
Louis Walters – *Absent*
Mary Weber

DOE

Bill Clark, DOE-SR
Terry Spears, DOE-SR
Maxcine Maxted, DOE-SR
Avery Hammett, DOE-SR
Ryan Beach, DOE-SR
Sherri Ross, DOE-SR
Chris Kemp, DOE-SR
Patrick McGuire, DOE-SR
Jim Giusti, DOE-SR
Jim Folk, DOE-SR
de’Lisa Carrico, DOE-SR
Sandy Waisley, DOE-SR
Michael Mikolanis, DOE-SR

Agency Liaisons/Regulators

Trey Reed, SCDHEC
Susan Fulmer, SCDHEC
Heather Cathcart, SCDHEC
Jennifer Hughes, SCDHEC
Diedre Lloyd, EPA

Stakeholders

Don Hancock
Tom Clements
Frances Close
Art Domby
Karen Patterson
Beatrice Brailsford
Joe Ortaldo
Nancy Bobbitt
Bernice Johnson Howard
Cee Cee Anderson

Contractors

Kristin Huber, SRNS
Elizabeth Harn, SRNS
Jill O’Donnell, SRNS
Jay Johnson, SRNS
Josh Segura, SRNS
Jesslyn Anderson, Time Solutions
James Tanner, Time Solutions
Tina Watson, Time Solutions

CAB Chair Harold Simon welcomed everyone to New Ellenton, South Carolina (SC). He thanked the CAB Support Team for the meeting arrangements, and opened the meeting.

CAB Facilitator, Tina Watson, Time Solutions, welcomed everyone to the meeting. She reviewed the day’s agenda and Meeting Rules of Conduct. She stated a public comment period was scheduled for the end of the meeting and reminded everyone how to access electronic copies of meeting materials through the CABNET feature. He welcomed CAB Chair Marolyn Parson to open the meeting.

PRESENTATION: Work Plan Update – Jesslyn Anderson, Times Solutions

Ms. Jesslyn Anderson, Time Solutions, provided an update on the CAB’s Work Plan. She highlighted the topics each committee chair scheduled to be completed throughout the year during the Work Plan meeting in February. She then discussed which Work Plan topics would be done during the meeting.

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

CAB member Bob Doerr listed the S&LM Committee members and reviewed the committee’s focus. He provided a recommendation status update, stating recommendation 323 was open. CAB member Doerr announced the next S&LM Committee meeting was scheduled for April 14, 2015, from 4:30–6:20 at the New Ellenton Community Center. He then introduced Mr. Bill Clark, DOE-SR to begin his presentation.

PRESENTATION: Request for Input on Fiscal Year 2017 Project Prioritization – Bill Clark, DOE-SR

Mr. Clark stated the purpose of his presentation was to discuss the 2017 budget, project prioritization priorities, and request stakeholder input from the CAB for development of the Project Prioritization for fiscal year (FY) 2017, which would complete a 2015 S&LM Committee Work Plan topic. He explained the Office of Environmental Management had a policy that required DOE-SR to provide an opportunity for stakeholders to share input and feedback on SRS's prioritized activities for FY 2017. He said DOE-SR planned to include the CAB's input and recommendations with the budget submittal to DOE Headquarters. Mr. Clark listed the seven "functional areas of cleanup," known as Program Baseline Summaries (PBS), which included: PBS 11C Nuclear Materials (NM) Stabilization and Disposition, PBS 12 Spent Nuclear Fuel (SNF) Stabilization and Disposition, PBS 13 Solid Waste Stabilization and Disposition, PBS 14C Radioactive Liquid Tank Waste Stabilization and Disposition-2035, PBS 20 Safeguards and Security, PBS 30 Soil and Water Remediation, and PBS 100 Savannah River Community and Regulatory Support. He said safety and security were the two highest priorities used when developing budgets, while regulatory compliance was also considered in order to continue protecting the environment and public. Mr. Clark said SRS programmatic priorities to consider generally included Liquid Waste, Nuclear Materials, Solid Waste, Soil and Water Remediation, and Deactivation and Decommissioning (D&D). He explained that each of the PBS's were divided into parts that made up an Integrated Priority List (IPL). Mr. Clark stated once DOE-SR developed the list of activities and estimated budget requirements for all the PBS's, DOE-SR then sorted and prioritized the list before drawing a red line at DOE's assigned budget target. He explained the red line represented the amount of funding DOE-SR had; however, he commented that DOE did not have funding targets for FY 2017. Mr. Clark explained that there were seven PBS's and five to ten work activities per PBS, which meant there were several different work activities to manage within the Project Prioritization process. He said funding requirements for the Project Prioritization process included both direct costs to perform work and indirect costs such as pension and site overhead expenses. He mentioned that several mandatory basic activities such as security, required DOE-SR to frequently focus on increments of funding that had significant impacts on the ability to complete SRS missions. He said a benefit of the Project Prioritization process was that the process allowed DOE-SR to identify scope above the target level, which was known as "over target" activities that could be accelerated if additional funding became available. He said DOE-SR asked the CAB to provide a letter of what the CAB felt were the most important activities that should be done at SRS for FY 2017. He showed a copy of the CAB's submission from the previous year and explained the CAB could either reaffirm the IPL letter from the previous year or develop a new IPL recommendation. Mr. Clark stated the deadline for the CAB to submit a letter was April 2015.

CAB Chair Harold Simon asked Mr. Clark what method was used for stakeholders to provide input to DOE regarding the Project Prioritization process and priority list. Mr. Clark said the method was typically a public forum, such as CAB meetings or SRS Community Reuse Organization (CRO) meetings.

Ms. Karen Patterson, Governors Nuclear Advisory Council (GNAC) asked Mr. Terry Spears, Deputy SRS Manager, that if regulatory compliance was the highest priority after security and safeguards and if complying with the Federal Facility Agreement (FFA) was considered to be regulatory compliance then why did DOE driving South Carolina Department of Health and Environmental Control (SCDHEC) to a dispute resolution for DOE's second highest priority. Mr. Spears explained the delays in closing tanks 12 and 16 were the result of technical issues in the tank farms not the result of budget pressures. Mr. Spears said DOE and SCDHEC were continuing to work through the dispute process found within the FFA.

Mr. Tom Clements, SRS Watch, said he felt the liquid high level waste tanks were the highest issue of concern by the public. He said he appreciated various CAB members recognizing that PBS 30 was also very important. Mr. Clements commented that SNF had to eventually be removed from L-Basin and Mr. Clements then referenced a House Energy and Water Subcommittee hearing the previous week. Mr. Clements said Representative Jeff Fortenberry from Nebraska asked Mr. Mark Whitney, Acting Assistant Secretary for Environmental Management, if foreign clients using H-Canyon paid for operation of the H-Canyon. Mr. Clements said the German fuel and Canadian waste were mentioned and Mr. Whitney answered that foreign clients only paid the variable cost. Mr. Clements asked why foreign clients were not required to pay the base operating cost of the facility if foreign materials were being processed there. Mr. Pat McGuire said there were different cost models for different activities. Mr. McGuire referenced the Canadian liquid material, stating that DOE had an agreement with Canada and there was an Amended Record of Decision (AROD) that said DOE would receive target residue material over an 18-month period and process the material in H-Canyon. Mr. McGuire said Canada was paying approximately 60 million dollars over a 4-year period to modify H-Canyon and operate the facility in order to disposition that material. Mr. McGuire said different cost models were being evaluated for agencies within the federal government or foreign governments; however, he did not feel that a "one size fits all" was the right answer, but various options and alternatives were still being developed.

Mr. Art Domby, public, referenced the terms "footprint reduction" and "lifecycle analysis," stating that multi-year funding enabled cost effective decisions to be made in order to shorten the lifecycle cost and perhaps performing activities sooner. Mr. Domby asked if DOE planned to incorporate additional drivers such as "footprint reduction" and "lifecycle cost" into the FY

2017 project prioritization process in addition to the safety, security, and regulatory compliance priorities. Mr. Clark answered “Absolutely.” Mr. Clark also explained a reason certain PBS activities were pushed so far into the future was because facilities were still operational. He said DOE’s approach was to D&D particular areas of SRS when all facilities within an area were no longer operational, which would enable DOE to decrease the footprint and reduce overhead costs all at once.

CAB member Doerr said he wanted to use the remaining committee time to have an open discussion about what the CAB felt should be included in the CAB’s submission. Each CAB member was allowed to provide his or her top three choices for consideration on the IPL. Once each CAB member provided his and her input CAB member Doerr thanked everyone for their input and stated the CAB’s priorities would be drafted into a letter, which would be formally voted on for submission to DOE the following day.

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

CAB member Eleanor Hopson listed the A&O Committee members and welcomed the new CAB members. She reminded everyone the spring 2015 Board Beat Newsletter would be released at the May Full Board Meeting and she encouraged CAB members to contact the CAB Support Team if they had newsletter ideas. She encouraged everyone to visit the CAB Facebook page and website at cab.srs.gov before announced the next A&O Committee meeting was scheduled at 4:30 that afternoon.

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

CAB member Tom Barnes listed the FD&SR Committee members and stated the committee’s purpose. He welcomed the new CAB members before providing a recommendation status update. He said recommendations 315, 317, 327, 328, and 329 were open. He said the DOE responses for each recommendation were available on the back table; however, he planned to discuss the status of each open recommendation at the next FD&SR Committee meeting, which he announced was scheduled for April 14, 2015, from 6:30-8:20 at the New Ellenton Community Center.

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

CAB member Earl Sheppard welcomed the new CAB members and listed the WM Committee members. He provided a recommendation status update, stating he wanted to change the status of recommendations 321 and 326 from “open” to “closed.” He announced the next WM Committee meeting was scheduled for April 15, 2015, from 4:30-6:20 at the New Ellenton Community Center. He then welcomed Ms. Sherri Ross, DOE-SR, to begin her presentation.

PRESENTATION: Tank Closure Status Update – Sherri Ross, DOE-SR

Ms. Ross said the purpose of her presentation was to complete a 2015 WM Work Plan topic by providing a closure status update for the H-Area Tank Farm (HTF). She listed the topics she would address during her presentation before displaying a diagram to point out the location of HTF at SRS. She provided an aerial photograph of HTF before showing the four types of waste storage tanks in HTF. Ms. Ross said there were 29 underground storage tanks in HTF and tanks 12 and 16 were the tanks currently being closed. The next diagram within her presentation showed the “SRS Tank Closure Regulatory Roadmap for Tanks 16H and 12H as of March 16, 2015.” She said checkmarks on the diagram indicated completed actions and she commented that as of December all decisions for HTF had been completed. Ms. Ross explained that tank 16 would be the next closed tank. She provided a bar graph titled, “Tank 16H Primary Tank Waste Removal by Phase” to show the various activities that occurred to clean tank 16. Ms. Ross provided a 360 degree image of the inside of tank 16. Ms. Ross discussed another chart titled, “Tank 16H Annulus Waste Removal by Phase” stating the final annulus has a residual volume of approximately 1,900 gallons remaining. She provided images of tank 16’s annulus before reminding everyone the tank 16 Closure Module was currently available for public comment until April 9, 2015. She announced there would be a public meeting Wednesday, March 25, 2015, at 6:00 at the Aiken Design Center. Ms. Ross said the final agency approvals to close tank 16 were expected in June 2015 and grouting was planned to begin in June 2015 to September 2015, which meant DOE was on track to close tank 16 per the FFA closure date of October 27, 2015. Ms. Ross continued her presentation by shifting the focus to tank 12, which was bigger than tank 16. She provided a chart titled, “Tank 12H Waste Removal by Phase” to show the cleaning stages that occurred in tank 12. She also showed an interior panoramic picture of tank 12. Ms. Ross discussed the risk associated with the remaining waste in the tanks. She said DOE identified the radioactivity remaining in the waste tanks and conducted a risk assessment. Ms. Ross explained that if you were to compare the risk associated with closing the whole HTF against the performance standard of 25 milirem, closing these tanks was very small at less than 5 milirem was the risk we anticipate over 10,000 years. Ms. Ross provided a breakdown of radiation exposure sources that a normal person living in the United States would be exposed to. She explained that the average person would experience an annual dose of approximately 620 milirem. She discussed the closure schedule for tank 12 stating DOE was using a two-step process to accelerate its schedule. She said the Closure Module was anticipated to be available for public comments during the third quarter of FY 2015 and would be

based on forecasted inventory and tank 16 special analysis. She said the Closure Module Addendum was anticipated to be available for public comment during the first quarter of FY 2016 and would be based on residual waste sample analysis and Tank 12 special analysis. Ms. Ross said DOE was expecting final agency approvals by the second quarter of FY 2016; however, she explained that grouting of tank 12 was projected to be complete by the end of the third quarter in FY 2016. Ms. Ross summarized her presentation stating DOE completed all HTF closure decisions in December 2014. Regarding tank 16, all activities were underway to complete grouting by September 30, 2015 while activities for tank 12 were underway and grouting for tank 12 was anticipated to be complete by the end of the third quarter in FY 2016.

CAB member Susan Corbett asked what grouting meant. Ms. Ross said grouting involved filling the entire primary of the tank, the annulus, and cooling coils with a “reducing grout.” Ms. Ross explained that the properties of the grout would help mitigate any migration of contaminants from that tank environment. Ms. Corbett asked how long the grout would last. Ms. Ross commented that the grout would last thousands of years.

CAB member David Hoel asked if the waste that filled the 5-foot pan in tank 16 leaked outside the secondary pan. Ms. Ross said yes for about 24 hours the waste in the secondary annulus went above the 5-foot pan. Ms. Ross said leaks were confirmed through construction joints. She said all the information about the leak could be found within the Closure Module. Mr. Hoel said since the tanks would be grouted by September, why did DOE seek an extension to October. Ms. Ross said the original schedule showed us going beyond September. She stated DOE asked for an extension that was agreed to by the DOE, SCDHEC, and the Environmental Protection Agency (EPA). Ms. Ross said DOE had been working with the agencies to pull that schedule back. She said after doing some schedule recovery, DOE was back on track to close tank 16.

Nuclear Materials (NM) Committee Overview – Larry Powell, Chair

CAB member Larry Powell welcomed the new CAB members and listed the NM Committee members. He reviewed the committee’s purpose and provided a recommendation status update. He stated recommendations 307, 319, 320, 324, and 325. CAB member Powell reviewed each open recommendation before announcing the next NM Committee meeting was scheduled for Wednesday, April 15, 2015, from 6:30–8:20 at the New Ellenton Community Center.

Public Comments

Ms. Bernice Johnson Howard, public, thanked the CAB for asking questions that help members of the public understand the information within presentations. She referenced the CAB members’ discussion about the priority of PBS 30 Soil and Water Remediation stating that was one of her main concerns. She said she was very glad the CAB had an active interest in understanding groundwater remediation.

Mr. Tom Clements, SRS Watch, welcomed and encouraged new CAB members to ask questions if they did not understand technical information within presentations. Mr. Clements said a presentation was scheduled for the following day by Dr. Don Hancock, Southwest Research and Information Center, about the Waste Isolation Pilot Plant (WIPP) and the status of transuranic (TRU) waste disposal. Mr. Clements thanked DOE for allowing Mr. Hancock the opportunity to present his presentation as well as provide a tour of SRS later in the week. Mr. Clements stated a draft Environmental Assessment (EA) would soon be issued by DOE regarding German fuel. Mr. Clements urged the CAB to ask for an update on the draft EA and submit comments.

~Meeting adjourned

Meeting Minutes
Savannah River Site Citizens Advisory Board – Full Board Meeting
New Ellenton, South Carolina
March 24, 2015

Tuesday, March 24, 2015 Attendance:

CAB

Gil Allensworth
Tom Barnes
Andrew Bush
Louie Chavis
Susan Corbett
Robert Doerr
Murlene Ennis
Dawn Gillas – *Absent*
David Hoel
Eleanor Hopson
Virginia Jones
Daniel Kaminski
John McMichael
Clint Nangle
Larry Powell
Bill Rhoten
Earl Sheppard
Harold Simon
George Snyder
Nina Spinelli – *Absent*
James Streeter
Ed Sturcken
Christopher Timmers
Louis Walters – *Absent*
Mary Weber

DOE

Terry Spears, DOE-SR
Maxcine Maxted, DOE-SR
Bert Crapse, DOE-SR
Randy Clennenden, DOE-SR
de’Lisa Carrico, DOE-SR
Jim Giusti, DOE-SR
Avery Hammett, DOE-SR
Michael Mikolanis, DOE-SR
Sandy Waisley, DOE-SR
Jim Folk, DOE-SR
Bill Clark, DOE-SR
Patrick McGuire, DOE-SR

Agency Liaisons/Regulators

Kyle Bryant, EPA
Diedre Lloyd, EPA
Jennifer Hughes, SCDHEC
Trey Reed, SCDHEC
Gregory O’Quinn, SCDHEC
Susan Fulmer, SCDHEC
Heather Cathcart, SCDHEC
Kim Brinkley, SCDHEC
Shelly Wilson, SCDHEC

Contractors

Lee Fox, SRNS
Elizabeth Harn, SRNS
Kristin Huber, SRNS
Shirley Patterson, SRNS
Jeanette Hyatt, SRNS
Mike Serrato, SRNS
Mark Schmitz, SRR
Tammy Robinson, Forest Service
Jesslyn Anderson, Time Solutions
James Tanner, Time Solutions
Tina Watson, Time Solutions

Stakeholders

Cee Cee Anderson
Joe Ortaldo
Tom Clements
Don Hancock
Don Bridges
Art Dombay
Karen Patterson
Bernice Johnson Howard
Liz Goodson
Annie Stephens
Jennifer Hayes
Nancy Bobbitt
Rose Hayes
Suzanne Rhodes
James Quarterman

CAB Chair Opening and Update – Harold Simon, CAB

CAB Chair Harold Simon opened the meeting before leading everyone in the Pledge of Allegiance. He welcomed everyone to the meeting and called for discussion of the January Full Board meeting minutes. There were no suggestions or comments regarding the minutes. He opened the floor for a vote; the CAB, with no opposition and no abstentions, approved the meeting minutes with 23 votes.

CAB Chair Simon began his update by introducing the eight new CAB members appointed to the Board. He briefly allowed each new member to say a few words about themselves. CAB Chair Simon listed various agencies and organizations that assisted the CAB with its mission. He discussed the CAB’s mission and scope before he explained how the CAB was divided into the executive committee, four issues-based committees, and the Administrative and Outreach (A&O) committee. CAB Chair Simon discussed priorities he felt the CAB should focus on. He said the first priority was to develop a comprehensive training program CAB members could use to help better understand technical topics often presented to the CAB. He mentioned the proposal for the training program was introduced to the executive committee the day before and was currently being worked by DOE-SR and the CAB Support Team. CAB Chair Simon asked Mr. Jim Giusti, DOE-SR, to provide a brief status update of the CAB training proposal.

Mr. Jim Giusti said the training program proposal focused on developing short training videos, relative to the CAB’s mission, that would be posted online so they could be accessed at all times. Mr. Giusti said he was trying to figure out how much money it would cost to develop the online training program; however, he stated the goal of the training program was to provide basic knowledge, while also providing “refresher courses” for frequently presented topics.

CAB Chair Simon continued his update stating the second CAB priority was Environmental Management (EM) cleanup scope. He explained that the CAB's recommendations should remain focused on cleanup of legacy waste and any EM related issues or concerns at SRS. CAB Chair Simon said the third CAB priority was to continue focusing on stakeholders' concerns about how SRS impacts the community and environment and cleanup of High-Level Waste (HLW). He stated the fourth CAB priority was to continue supporting the HLW Program, which remained the CAB's most important priority. CAB Chair Simon said the final priority was safety and that the CAB would continue to focus on safety procedures and emergency preparedness practices underway at SRS. He concluded his update by reiterating how important it was for the CAB to work together as a team in order to successfully accomplish the Board's mission.

CAB Facilitator, Tina Watson, Time Solutions, reviewed the agenda and Meeting Rules of Conduct. She reminded everyone that discussion was limited to those seated around the table; however, she said public comment periods were scheduled throughout the day. Ms. Watson explained how to access electronic copies of meeting materials through the CABNET feature.

Agency Updates

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

Mr. Spears began his update by welcoming everyone to the New Ellenton Community Center. He thanked the CAB for their continued interest in SRS issues and all the recommendations the Board provides to the Department. He welcomed the new CAB members and said he looked forward to getting to know them. He congratulated CAB Chair Simon and CAB Vice Chair Nina Spinelli on their new roles. Mr. Spears then discussed the Liquid Waste (LW) Program stating LW contractor, Savannah River Remediation (SRR), was making progress with pouring the annual goal of 156 canisters at the Defense Waste Processing Facility (DWPF). He said for the fiscal year (FY) more than 80 canisters had been poured, which brought the total canisters produced to approximately 3,900; however, he said he anticipated the DWPF would reach a major milestone later in the year when the 4,000th canister would be poured. Mr. Spears described the actinide removal process stating the Actinide Removal Process/Modular Caustic Side Solvent Extraction Unit (ARP/MCU) had now processed a record 261,975 gallons in a 31-day period. Mr. Spears stated the new Next Generation Solvent (NGS), which was introduced last fall, has proven to be highly efficient. He mentioned closure of HLW tanks 12 and 16 stating tank 16 was scheduled to be completed by September 2015, which would be followed by tank 12 being closed in the spring of 2016. He noted the closure action remained the subject of a dispute resolution process between DOE-SR and the Department of Health and Environmental Control (SCDHEC). He explained construction of Saltstone Disposal Unit (SDU) 6 was at the halfway point and SDU 6 was scheduled to receive decontaminated salt solution in May 2017, which he said would match up with operations in the Salt Waste Processing Facility (SWPF). He said the SWPF was 83 percent complete and construction completion was anticipated to conclude in December 2016; however, he said "hot operations" were expected to begin during the latter part of 2018. Mr. Spears addressed environmental stewardship stating DOE awarded a subcontract on February 5, 2015, to Envirocon Inc. to begin ash consolidation from the D-Area Ash Basin in April 2016. He mentioned DOE was working with the SRS Community Reuse Organization (CRO) to remove old transformers and circuit breakers from the D-Area Powerhouse. He discussed the Nuclear Materials (NM) Program stating HB-Line continued processing plutonium (Pu) for use in the Mixed Oxide Fuel Fabrication Facility (MOX). Mr. Spears said H-Canyon was conducting readiness assessments to blend down uranium for reuse in Tennessee Valley Authority (TVA) reactors. He stated in L-Basin was continuing basic modifications to allow for receipt of the Canadian fuel. Mr. Spears said DOE-SR expected to begin processing the Canadian fuel in 2016. He said SRS continued to receive fuel receipts of Foreign Research Reactor (FRR) and Domestic Research Reactor (DRR) spent fuel.

CAB member David Hoel asked Mr. Spears to comment on a recent newspaper article about an incident at H-Canyon concerning agitators that were not operating for a period of time. Mr. Spears introduced Mr. Pat McGuire, DOE-SR, to address CAB member Hoel's question. Mr. McGuire said a few weeks ago in HB-Line.

Mr. McGuire discussed the incident at HB-Line by explaining that samples were taken from a tank in HB-Line to make sure no problems occurred as solutions were transferred to H-Canyon. He said samples were collected in order to verify the concentration of plutonium in solution. Mr. McGuire explained a "representative sample" should be collected, which meant the tank must be stirred and mixed by agitators to prevent "hot spots" of different solutions. In order to explain how workers monitored the liquid level within the vessels, Mr. McGuire used the illustration of using a household blender to prepare a smoothie. He explained that when the blender turned on, the level of ingredients would rise. He said there were monitors in place to determine the liquid level and generally when you turn on the agitators, there would be an increase in height of the liquid, which indicated the tank was mixing. Mr. McGuire said the issue that occurred was a power failure in January and as power was restored, there was a device that did not automatically restore power to the agitators. Mr. McGuire stated, "We did not know that. It is a variable frequency drive that provides power to the actual agitators and when we restored power the variable frequency drive said it was getting power from a transformer, but it was not supplying power downstream to the

agitators.” Mr. McGuire mentioned the issue was self-identified due to the questioning attitude of the operators who stopped work and determined the variable frequency drive, even though powered on, was not sending power to the agitators and was producing unrepresentative samples. Mr. McGuire said a recovery plan was underway to ensure similar issues did not occur again. He said DOE was striving to implement more positive controls that could provide different ways to determine agitators were running. He said, “At no time was there any chance of a criticality in H-Canyon. We had multiple controls in place to prevent an inadvertent criticality.” Mr. McGuire also explained DOE was evaluating how to ensure the agitators operated when they were needed to operate as well as determining if there were any other common failures that may exist. CAB member Hoel asked what other organizations beside DOE were examining the failure. Mr. McGuire stated that local site representatives for both the Defense Nuclear Facilities Safety Board (DNFSB) and Deputy Assistant Secretary for Safety and Security at Department of Energy Headquarters (DOE-HQ) were monitoring how DOE-SR corrected the situation.

CAB member Hoel asked Mr. Spears how many federal and contractor employees attended the recent Waste Management Symposia in Phoenix, Arizona. Mr. Spears said approximately 60 individuals, both federal and contractor employees, attended the WM Symposia, which Mr. Spears said was consistent compared to years past. CAB member Hoel mentioned the day before a member of the public from the Shell Bluff area stated they requested a briefing from SRS about environmental monitoring activities in Georgia, but was told there was not enough travel funding for the presentation to be made. CAB member Hoel said it did not make sense to him why approximately 60 people could travel to Phoenix for the WM Symposia. Mr. Jim Giusti, DOE-SR, addressed CAB member Hoel stating DOE responded to the request from GAWAND to have a speaker in the April timeframe. Mr. Giusti said when the original request came in; however, there was a conflict of availability of speakers. Mr. Giusti said there was no funding issue, but GAWAND asked for Dr. Moody to make a presentation and he was unavailable due to being on travel. He said DOE-SR responded to the request and planned to provide a speaker for April.

CAB member Virginia Jones said she was concerned how reduced budgets impacted personnel and she asked if there were enough experienced personnel on duty during the situation at HB-Line. Mr. McGuire explained there were qualified personnel on duty and budget challenges had absolutely no relationship to the issue that occurred at HB-Line.

CAB member James Streeter asked Mr. McGuire if there were any ongoing actions related to the first two samples that were collected prior to the operators realizing the agitators were not functioning properly. Mr. McGuire said “No,” and explained that samples were disposed as waste once examined at an onsite laboratory.

CAB member Susan Corbett asked for clarification on the composition of Canadian fuel and how the fuel was previously used. Ms. Maxcine Maxted, DOE-SR, stated there were two types of the Canadian fuel. She explained one type was “target material,” which was a reactor residue from producing the medical isotope “molybdenum-99 (Mo-99)”. Ms. Maxted said the other fuel type came from the same reactor and was in a solid form. Ms. Maxted explained the solid form would be stored in L-Area while the liquid material would go straight to H-Canyon and be processed with the other spent fuel being processed and down blended to low enriched uranium (LEU). CAB member Corbett asked what would be sent to the Tennessee Valley Authority (TVA). Ms. Maxted stated the LEU would be down blended to meet the specs for fuel for the TVA reactors. CAB member Corbett commented that it seemed DOE was providing TVA with fuel. Ms. Maxted clarified that DOE-SR was providing TVA the uranium and TVA had their own fuel producers. CAB member Corbett asked if DOE-SR was getting paid for that activity and if the DOE-SR budget was credited. Ms. Maxted replied that TVA paid the United States Treasury, which did not credit the DOE-SR budget.

Ms. Diedre Lloyd, Environmental Protection Agency (EPA)

Ms. Lloyd extended a welcome from EPA to all the new CAB members. She began her update stating work was proceeding in the D-Area Ash Basin. She commented that environmental work was still underway at the “staff level” in D-Area and C-Area at CMP pits. Ms. Lloyd mentioned DOE-SR, SCDHEC, and EPA had been having discussions under the formal dispute regarding DOE-SR’s requests for a 15-month extension on the closure of two HLW tanks. She stated that during the formal dispute resolution a 27-day extension was reached for one of the tanks; however, the remaining extension request was elevated to the EPA Regional Administrator in Region 4, SCDHEC Director of Environmental Affairs, and the SRS Site Manager. She said the Senior Executive Committee had not met and no further information was available about the dispute.

CAB member Hoel said he got a clear indication yesterday from Sherri Ross’ presentation that DOE-SR expects the dispute resolution to be resolved very soon. CAB member Hoel asked Ms. Lloyd if she shared the same optimism as DOE-SR. Ms. Lloyd said Mr. Pope, the FFA Manager for SRS, was handling the issue of the dispute. She said she had not been greatly involved with the dispute resolution and was unable to give her specific opinion.

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

Before beginning her update Ms. Wilson introduced Ms. Kim Brinkley, SCDHEC, to provide a brief status report on the Non-regulatory sampling program around SRS. She said samples were collected and compared with SRS data to ensure the public that their public health and environment are safe. Ms. Brinkley said the most recent data report for the sampling program was published. She noted that she did not have any hard copies of the report; however, she encouraged anyone interested in receiving a copy to let the CAB Support Team know.

Ms. Wilson welcomed the new CAB members and said she looked forward to working together in the future. She discussed the HLW tanks stating the tanks were a huge focus for SCDHEC since there were approximately 37 million gallons of liquid radioactive waste within the aging tanks. Ms. Wilson explained since there was so much risk associated with the HLW tanks, milestones for tank closure were in place for some of those tanks to reduce that risk. Ms. Wilson thanked the CAB for continuing to focus on HLW tank closure at SRS. She discussed the Dispute Resolution Process and the extension stating DOE requested a 15-month extension for tanks 12 and 16. She noted SCDHEC granted DOE-SR 27 days of the extension since that was the time equivalent to the government shutdown and then the additional week it took DOE to get back into the “swing of things.” Ms. Wilson said under the FFA it was fair to give an extension for a time period where budget was unavailable and that was why SCDHEC granted the 27 day extension, but chose not to grant the full 15 month extension DOE requested. Ms. Wilson stated that because SCDHEC did not agree to the full extension request, DOE invoked the FFA Dispute Resolution Process, which had already been through the “informal” level and the “Dispute Resolution Committee” level, which was the next highest level. Ms. Wilson commented the three parties resolved the dispute for tank 16 due to the 27 day extension; however, the dispute for tank 12 was still ongoing at the “Senior Executive Committee” level. Ms. Wilson said SCDHEC felt DOE-SR was claiming technical and budget reasons for the extension request, but SCDHEC believed the slashed budget was having an impact on the schedule and jeopardizing all the future LW milestones for tank closure. Ms. Wilson said in FY 2014, DOE-HQ made a huge decrease to the LW budget at SRS of over one hundred million dollars, which was the biggest budget cut at any DOE EM site across the complex. Ms. Wilson mentioned for tank 16 SCDHEC reduced its regulatory schedule to help DOE move up the schedule, which would also be done for tank 12. Ms. Wilson said SCDHEC would not be flexible if there was a continued reduced budget that caused DOE to seek SCDHEC to adjust SCDHEC milestones to account for a reduced budget continuing into the future. She said SCDHEC wanted the dollars to match the stated priority for maximum treatment to reduce risk to SC; however, she explained that if DOE brought a “fix” to the table as part of the negotiations showing a commitment to budget and maximization of treatment, then SCDHEC would be somewhat flexible.

CAB Chair Simon asked Ms. Wilson if DOE-SR requested adequate funding in the past. Ms. Wilson said for FY 2014 DOE-SR did not request adequate funding. Ms. Wilson said she did not remember the exact amount DOE-SR requested for FY 2014, but she commented the amount was “a drastically reduced request.” Ms. Wilson commented that after FY 2014, SCDHEC had not seen a significant increase in the budget request.

CAB member Corbett asked Ms. Wilson what it meant that SCDHEC “reduced its regulatory schedule.” Ms. Wilson explained that SCDHEC was able to act more efficiently by looking at pieces of the draft Closure Module ahead of time. Ms. Wilson said SCDHEC reconfigured typical review processes to be more efficient; however, she said public comment and review procedures remained the same. CAB member Corbett asked how SRS operations for LW treatment and HLW tank closure physically slowed down during budget cuts. Mr. Terry Spears explained that if the budget was smaller, the pace of processing in the tank farms would be reduced. CAB member Corbett asked if Hanford received a budget increase for the HLW at Hanford. Ms. Wilson said DOE-HQ asked for the increase in the Hanford budget.

CAB member Hoel asked Ms. Wilson if she shared the same optimism as DOE-SR that the dispute resolution process would be resolved soon. Ms. Wilson said she was hopeful that the dispute could be resolved quickly.

CAB member Jones referenced Mr. Bill Clark’s, DOE-SR, presentation from the day before. She asked Ms. Wilson what her personal opinion was for the order of priorities the CAB listed for inclusion in DOE’s budget submission for FY 2017. Ms. Wilson commented that HLW tanks were the number one priority. Ms. Wilson stated that SCDHEC did not have authority for NM or SNF, so she said SCDHEC “stayed away from those topics;” however, she said she understood the CAB’s decision to list those actions as a high priority. Ms. Wilson referenced Soil and Groundwater Remediation stating several activities were completed, but she said there were some activities that could be moved to the near term. She said those activities would required additional funding, but she felt it was a good priority for the CAB to include.

Public Comments

Ms. Rose Hayes, public, asked when DOE-SR planned to develop parallel processes between nuclear waste production and nuclear waste transmutation. Mr. Spears replied the Department did not plan to move to a transmutation framework, particularly at SRS since SRS had a full-up flow sheet for waste treatment and processing that would result in complete processing and stabilization of materials in tanks over time.

Mr. James Quarterman said he represented FMG Farm, which was a renewable energy crop grower. He stated the government had a Biomass Crop Assistance Program (BCAP), which allowed small communities to plant biomass crops that could be used to power facilities. Mr. Quarterman said it seemed that SRS had a problem using the BCAP since shredded tire rubber was used at the Biomass facility. Mr. Quarterman mentioned not using the program was taking millions of dollars away from the community because people could be benefiting by planting crops for use in SRS facilities. Mr. Quarterman commented that according to the government and USDA, the local community could be making somewhere between 50 and 70 million dollars a year if SRS would allow them to plant approved biomass crops to burn with coal and wood to produce steam for electrical power generation. Mr. Michael Mikolanis, DOE-SR, stated DOE was looking at the use of other than “rubber chips and clean biomass shredded wood.” Mr. Mikolanis said the Savannah River Ecology Laboratory had a research project that would be looking over the next several years the viability of growing several different reusable plants for use in the Biomass. Mr. Mikolanis said DOE-SR was determining if programs like the BCAP would be compatible with SRS facilities.

Ms. Cee Cee Anderson, Georgia Women’s Action for New Directions (GAWAND), said she noticed on the CAB’s “2015 Full Board Meeting Schedule” there was only one CAB meeting scheduled in Georgia. Ms. Anderson said she had to leave her home at four o’clock in the morning to attend CAB meetings. She said she hoped there would be more meetings scheduled in Georgia in the future.

Ms. Becky Rafter, Executive Director of GAWAND, welcomed all the new CAB members and thanked the CAB for all the work the Board was doing. Ms. Rafter said DOE-SR traditionally funded a “community involvement fund” and GAWAND along with 12 other sites around DOE sites receive annual funding to do community involvement work; however, she said the funding was slated to go away this year. Ms. Rafter asked if the CAB would be interested in passing a recommendation about continuing funding for this community involvement fund.

Mr. Jim Giusti commented that he felt the community involvement fund was a DOE-HQ grant; however, he would be willing to work with the CAB and the A&O Committee Chair, CAB member Eleanor Hopson, if the CAB wanted to pursue the issue.

Mr. Kyle Bryant, EPA, greeted the new CAB members and announced on August 4-6, 2015, the Region 4 Office of EPA would be hosting the National Community Involvement Training Conference in Atlanta, GA. He said the conference would bring together community involvement and public affairs specialists to discuss best practices on how to engage communities. Mr. Bryant also announced EPA’s Radiological Emergency Response Team was planning to conduct a joint training exercise called Southern Exposure on July 21-23, 2015, in Florence, SC at one of the Duke Energy private nuclear facilities.

Mr. Joe Ortaldo, public, encouraged the CAB to ask DOE for a review of how the federal budget system worked since the word “budget” was used several times throughout the two day meeting.

Nuclear Materials (NM) Committee Overview – Larry Powell, Chair

CAB member Larry Powell listed the NM Committee members and provided a recommendation status update. He said the NM Committee currently had six open recommendations; however, he said he planned to discuss the status of each open recommendation at the next NM Committee meeting on April 15, 2015. CAB member Powell introduced Mr. Randy Clendenning, DOE-SR, to begin his presentation and asked for all questions to be held until the end of the presentation.

PRESENTATION: Building 235-F Status Update - Randy Clendenning, DOE-SR

Mr. Clendenning said the purpose of his presentation was to fulfill a 2015 NM Work Plan topic by providing information regarding ongoing risk reduction activities in building 235-F. He showed a copy of the “SRS Waste and Material Flow Path” to illustrate building 235-F’s location at SRS. He provided background information about building 235-F stating the facility had numerous missions over the year, with the most recent being fabrication of plutonium 238 in the Plutonium Fuel Form Facility (PuFF) for use in construction of power sources for NASA deep space missions in the 1980’s. Mr. Clendenning stated that the residual material within the facility in the PuFF cells was last measured in 2006, which resulted in an estimate of approximately 1.5 kilograms of Pu-238 remaining in the facility. He said in accident scenarios that were conducted, in a seismically induced full facility fire accident scenario, the calculated unmitigated dose was approximately 29,000 rem onsite

and approximately 11.4 rem offsite. He explained building 235-F was safely maintained in the “surveillance and maintenance mode” and the project object of the initiative was to reduce the unmitigated dose to less than 100 rem by reducing Pu-238 levels in the PuFF. Mr. Clendenning mentioned once the initiative was completed the end state of the facility would be determined through an agreement with state regulators. He discussed key accomplishments stating all major planning documents were completed and submitted to the DNFSB, fixed combustibles were removed from the facility, electrical de-energization efforts were completed, fire detection and alarm systems were installed and upgraded for the PuFF, assembled and trained the crew who would perform key tasks on the project, and a series of readiness reviews that would culminate with DOE approval to begin field work were underway. Mr. Clendenning said the key plans for FY 2015 were to clean the cell windows, establish cell lighting, install new gloves, complete measurements of the amount of material in the cells, and repair or replace manipulators. He then allowed CAB members to ask questions.

CAB member Corbett asked if employees conducted work remotely or physically entered the facility. Mr. Clendenning said workers would not physically enter the cells, but use manipulators and glove access to conduct work. CAB member Corbett asked if building 235-F was likely to be entombed on site. Mr. Clendenning said the end state of the facility was a separate initiative DOE would have to handle with the state. CAB member Corbett asked how much material did 1.5 kilograms equal in pounds. Mr. Clendenning said it converted to approximately three pounds. CAB member Corbett asked where the plutonium would be sent once removed from the facility. Mr. Clendenning said the material would be sent to WIPP.

CAB member Powell asked if the FY 2015 planned activities were being done to only remove the Pu-238 or to prepare the building for future use. Mr. Clendenning explained that the planned activities for the PuFF were being done to remove the material at risk. He also stated as far as he knew there were no future plans for the PuFF facility.

CAB member Jones asked if building 235-F should be moved up the CAB’s priority list. Mr. Clendenning said he felt the level of funding was an appropriate number since it was the correct scope of work, correct number of workers to safely execute work within the facility.

CAB member Doerr asked where most of the plutonium was located within the facility. Mr. Clendenning said DOE believed most of the plutonium was in cells one and two; however, he explained there was plutonium in all the cells. He stated DOE’s approach was to start in cell nine, which was the cleanest cell, and practice the cleaning techniques to ultimately move towards the larger amounts of contamination. CAB member Doerr asked if the DNFSB was satisfied with DOE’s plan for building 235-F. Mr. Clendenning replied that the DNFSB issued a recommendation 2012-1, to which DOE developed and submitted an implementation plan to the DNFSB. Mr. Clendenning said the local reps participated in DOE-SR deliberations, and the DNFSB has not said no; however, as the DNFSB has not formally accepted the recommendation DOE submitted, but he said DOE was moving forward with the recommendation that was submitted.

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

CAB member Eleanor Hopson listed the A&O Committee members before reviewing the committee’s purpose. She said the CAB Membership Campaign for this year had ended; however, she said the CAB Support Team accepted new applications year-round. CAB member Hopson announced the spring 2015 CAB Board Beat newsletter would be released at the May Full Board. She encouraged everyone to look at the CAB website and Facebook page. She introduced Mr. Don Hancock, Southwest Research and Information Center, to begin his presentation.

PRESENTATION: “Challenges at the Waste Isolation Pilot Plant & Impacts on DOE Sites” – Don Hancock, Southwest Research & Information Center

Mr. Hancock said he appreciated the opportunity to speak to the CAB and stated the purpose of his presentation was to discuss how the challenges at WIPP impacted other DOE sites. He explained that Idaho National Laboratory (INL), SRS, and Los Alamos National Laboratory (LANL) in New Mexico were sites that were actively shipping to WIPP when it was shutdown. He explained he recently visited Idaho and he thanked DOE-SR for arranging a tour so he could better understand TRU waste issues at SRS. He also thanked SCDHEC for agreeing to meet with him later that week to discuss regulatory issues. Mr. Hancock discussed the Community Involvement Fund, which was from DOE to the New Mexico Community Foundation, which was a private foundation based in Sante Fe, NM. He said groups that were interested in receiving funding apply to the Community Involvement Fund at the New Mexico Community Foundation. He showed a picture of the WIPP to show the size, location, and layout of the facility. He discussed the path of waste to WIPP and how waste was moved around the facility. He discussed two incidents that occurred at WIPP in February 2014 stating a fire occurred on February 5, 2014, and a radiation release occurred in February 14, 2014. He then explained that those two events shut down WIPP. He stated the WIPP’s mission was to “start clean and stay clean” to dispose of up to 175,564 cubic meters of defense TRU waste.” Mr. Hancock mentioned the amount of defense TRU waste for disposal at WIPP was established by Congress. He stated the second part of WIPP’s

mission involved the TRU being safely transported through more than 20 states without serious accidents or releases. Mr. Hancock mentioned that WIPP would have to be safely closed, decontaminated, and decommissioned beginning approximately in 2033 or earlier. He provided shipment information beginning in March of 1999 to February of 2014. He said approximately 14 percent of the trucks shipments to WIPP over the last 15 years came from SRS, while approximately 19 percent of the contact handled waste came from SRS. He provided a map of the United States to show how waste was transported to WIPP. He then addressed the February 5, 2014 fire at WIPP by showing an image of the salt haul truck that caught fire underground and a second image of smoke coming out the salt shaft at the surface. He stated 13 of the 86 workers were treated immediately for smoke inhalation; however, he said at least one of the workers was still being treated. Mr. Hancock explained that the soot from the smoke put the waste hoist out of service. He said an internal DOE investigation board determined that the fire on February 5, 2014, occurred due to lack of maintenance, old equipment, inadequate worker training, emergency response capabilities, and mine safety practices. Mr. Hancock then discussed the radiation release that occurred on February 14, 2015 with a continuous air monitor (CAM) in panel 7 alarmed. Mr. Hancock listed comments DOE made the following day, February 15, 2014, in response to the radiation release. He stated 13 workers who were on the surface experienced internal contamination. He said bioassay testing started because it was determined on February 19, 2014, that radiation was released to the surface. Mr. Hancock explained since DOE did not realize contamination released to the surface until February 19, 2014, more than 135 workers reported to the surface at WIPP on February 15, 2015; however, 9 more of those workers were contaminated. Mr. Hancock explained workers were able to go into the underground to try and determine what happened 3 months later. He stated workers went to room 7 of panel 7 and eventually were able to take a picture of a breached drum from LANL. He mentioned that workers going into contaminated area had to wear personal protection equipment (PPE). He said more than 8,000 feet of contaminated tunnels in the WIPP underground were contaminated to various levels of contamination. Mr. Hancock said some of the unknown information about the release were what caused the release, what caused some contaminants to travel, the amount of radionuclides and toxic chemicals released, the necessary decontamination need for WIPP to reopen, and how would future releases be prevented. He then shifted focus of the discussion to SRS by discussing volume of TRU waste at SRS to go to WIPP. Mr. Hancock commented that SRS and all the sites performed an annual inventory for how much more waste needed to be sent to WIPP. Mr. Hancock commented that data from the most recent annual WIPP inventory, which was dated December 31, 2013, showed the total amount of TRU legacy waste stored at SRS and the projected estimate for newly generated TRU waste was approximately 8,358.7 cubic meters; however, since the CAB was last briefed about the status of TRU waste at SRS on January 27, 2015, the amount of TRU waste stored at SRS was approximately 537 cubic meters and the estimated amount of newly generated TRU waste was 3,980 cubic meters, which brought the total to 4,497 cubic meters.

Mr. Hancock discussed the amount of contact handled and remote handled TRU waste at other DOE sites and mentioned that if WIPP reopened the amount of waste would not fit inside WIPP. He discussed WIPP capacity in panels 7 and 8 before he discussed Idaho and how he and Mr. Tom Clements were able to visit the Idaho TRU waste complex to understand that Idaho was still digging up waste that was dumped from 1954 to 1970. Mr. Hancock stated New Mexico Environment Department (NMED) was the WIPP NM regulator and it issued the permits to allow WIPP and LANL to operate. Mr. Hancock explained that when the two incidents occurred at WIPP, NMED had issued orders that no further shipments would be sent to WIPP until inspections were approved. He discussed the WIPP permit and pointed out that permit required the generator/storage sites, like SRS, had to meet requirements for waste to be able to come to WIPP. Mr. Hancock stated as a result of the violations of the permit at WIPP and LANL, NMED was taking a variety of actions. He said on December 6, 2014, NM Governor Martinez hand-delivered Compliance Order to DOE Secretary of Energy Moniz the WIPP and LANL permits were violated. He said in terms of the WIPP permit, the Compliance Order showed more than one dozen permit violations assessed at approximately 17.7 million dollars. He said as of January 9, 2015, the DOE and the WIPP contractor have refused to pay the fines. Mr. Hancock mentioned if an agreement was not reached a hearing was scheduled for July 27-31, 2015. He said the DOE Recovery Plan for WIPP had ongoing permit violations for several years into the future. He said the Recovery Plan included several milestone dates. He pointed out the first date had already been missed. He explained that the first milestone in the Recovery Plan, which was December 31, 2014, the contractor would be given a bonus if they were 8 months late. Mr. Hancock discussed the cost associated with reopening WIPP stating DOE commented that it was too early to estimate the total cost of reopening WIPP. He provided a breakdown of WIPP's budget for FY 2013, FY 2014, FY 2015, and the request for FY 2016. He provided suggestions for how to address challenges at WIPP before he provided several website links that addressed WIPP recovery efforts. He then provided his own contact information as well as Mr. Tom Clements, SRS Watch, and Ms. Beatrice Brailsford, Snake River Alliance. He also mentioned he had two documents available on the public table, which have been attached to this document.

CAB member Virginia Jones asked Mr. Hancock if he knew of any progress the government made toward a different permanent repository for TRU waste or if WIPP was the only option. Mr. Hancock said there was no other repository on the drawing board.

CAB member David Hoel said you mentioned the capacity of WIPP was established by Congress; however, was it not true that the salt dome at WIPP was plenty large enough to expand to take care of the capacity issues. Mr. Hancock said the capacity requirement was established by Congress, but also in states permit, processes, and multiple environmental impact statements that involved the public and regulatory agencies in NM and around the country.

CAB member Louie Chavis asked if WIPP would reopen in the current decade. Mr. Hancock said he did not know when or if WIPP would reopen; however, he said the DOE WIPP Recovery Plan stated WIPP would reopen for full operations in 2018.

CAB member John McMichael asked if the 8,000 feet of contaminated tunnels Mr. Hancock referred to were square feet or linear feet. Mr. Hancock said he was referring to linear feet.

CAB member Gil Allensworth asked if Mr. Hancock's presentation was really an SRS CAB issue. Mr. Hancock commented that if WIPP would have stayed open since February 2014, more of the SRS TRU waste could have been sent for storage, which was a CAB interest.

CAB member Larry Powell asked if there was evidence that showed a direct correlation between both of the WIPP incidents, since they occurred within 10 days of each other. Mr. Hancock said DOE's position, which he agreed with, was that there was no direct connection between the truck fire and radiation release.

CAB member Susan Corbett asked how old the canister was that experienced the radiation release. Mr. Hancock said the 55-gallon drum was "very new." CAB member Corbett asked if there was a fire or just an extreme release of radioactive particles. Mr. Hancock said the evidence at this point was in somewhat associated with what DOE called an "energetic chemical reaction." Mr. Hancock mentioned that the pictures he saw of the walls indicated there were high levels of heat. CAB member Corbett asked what types of monitoring efforts were used in WIPP's underground. Mr. Hancock said "radiation" and "chemical" monitoring were the two types of monitoring conducted in the WIPP underground. CAB member Corbett asked what would happen if the state decided not to reopen WIPP. Mr. Hancock said he did not know the answer to that question.

Public Comments

Mr. Don Bridges, Citizens for Nuclear Technology Awareness (CNTA), encouraged the CAB to acknowledge the vital role WIPP played in the cleanup of the DOE Complex and at SRS alone. He said the CAB should also encourage DOE to make every possible effort to get WIPP back online, while also expanding the role of SRS and WIPP.

Ms. Suzanne Rhodes, South Carolina League of Women Voters (SCLWV), mentioned the Government Accountability Office (GAO) released two reports, which claimed the public had a lack of confidence in DOE. She commented that international waste that came to SRS would stay there. She referenced the Safety Evaluation Report about Yucca Mountain, which was released by the Nuclear Regulatory Commission (NRC) last year. Ms. Rhodes thanked the CAB for the opportunity to speak about the issues the SCLWV felt were important for SC. A copy of Ms. Rhodes comment has been attached to this document.

Ms. Karen Patterson, SC Governors Nuclear Advisory Council (GNAC), thanked Mr. Hancock for his presentation. She said she felt the salt dome was the best place for the TRU waste; however, she explained she did not agree with Mr. Hancock's suggestion that TRU waste should be disposed onsite. She said the water table was a main concern at SRS. She said no site was a perfect disposal site; however, she encouraged the CAB to continue supporting WIPP reopening.

Ms. Bernice Johnson Howard, GAWAND and Shell Bluff resident, commented how much she appreciated the CAB's mission. She said each time she attended a CAB meeting she left more prepared than when she arrived. Ms. Howard said DOE-SR responded to the GAWAND request and granted GAWAND a representative to come to the Shell Bluff community to discuss monitoring issues. She addressed a situation that arose earlier in the day when CAB member David Hoel mentioned GAWAND requested DOE provide a presentation. Ms. Howard said she was told by a DOE representative that budget cuts impacted DOE's travel schedule and all requests must be made in writing. Ms. Howard said the DOE representative she spoke to was not in attendance but she assured the CAB that she did not receive monetary, moral, or spiritual benefits from speaking to the CAB. She said she looked forward to working with DOE and the CAB in the future.

Ms. Rose Hayes, public, commented that she felt the contractor at WIPP should be replaced based on their neglect of safety at WIPP. Ms. Hayes also commented that DOE should try thinking outside the box because there had to be a better solution for nuclear waste than stuffing it down into the earth.

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

CAB member Tom Barnes listed the FD&SR Committee members and reviewed the committee's purpose. He said he wanted to change the status of recommendation 317 from "open" to "closed;" however, he said the status of the remaining open recommendations would be discussed at the next committee meeting. He then introduced Dr. Gene Rhodes, Savannah River Ecology Laboratory (SREL), to begin his presentation.

PRESENTATION: Savannah River Ecology Laboratory Fiscal Year 2014 Update – Dr. Gene Rhodes, SREL

Dr. Rhodes said the purpose of his presentation was to complete a 2015 FD&SR Work Plan topic by providing an update on SREL's for FY 2014. He listed objectives within his presentation before he provided a brief history about SREL. He stated Dr. Eugene Odum started the SREL in the early 1950's and SREL has had permanent facilities in A-Area at SRS since the year 1977. He discussed the mission of SREL, which involved providing the public with an independent evaluation of the ecological effects of SRS operations on the environment. He discussed SREL research programs, which he said measured SREL's successfulness. He said there were approximately more than 3,310 peer-reviewed scientific publications and 63 books. Dr. Rhodes referenced SREL's education program, which included 400 theses and dissertations as well as more than 650 undergraduates who gained research experience during summer internships. Dr. Rhodes mentioned SREL successfully worked to establish an undergraduate Experiential Learning Program at SRS, which was recently funded by the National Science Association. He stated SREL's Environmental Outreach Programs integrated SREL research into presentations for the public and provided hands-on classroom experience for students. He explained that in 2014, SREL reached approximately 35,000 people by providing 175 talks, 59 public tours, 21 exhibits at local or regional events, and 34 "Ecologist for a Day" programs at local schools. Dr. Rhodes stated there were currently 96 staff and students working at SREL. He then listed various disciplinary, expertise, and research areas. Dr. Rhodes discussed SREL funding, which he commented had increased. He referenced significant projects and events for FY 2014 that occurred internally within the University of Georgia (UGA) and externally through DOE, NNSA, etc. He said in FY 2014 SREL had almost 800,000 dollars in external funding from non-SRS sources; however, he stated SREL had already doubled that amount in FY 2015. Dr. Rhodes discussed FY 2014 work scope advancements including research set-asides, graduate and undergraduate research education programs, general public outreach and education programs, interdisciplinary research, and site-wide source of ecological expertise. He mentioned FY 2014 facility advancements and maintenance that occurred at the main SREL facilities and Par Pond Radioecology Laboratory. Dr. Rhodes discussed FY 2014 equipment advancements by purchasing analytical equipment to enhance research on soil, water, and biological contaminants and performing significant upgrades to equipment that was related to radioecology and wildlife research. Dr. Rhodes said growth in faculty disciplinary expertise, graduate student enrollment, experiential learning for undergraduates, research infrastructure, facility improvements, and development of new missions and roles at SRS were several ongoing opportunities for FY 2015. He stated SRS was one of the few places in the world that enabled students to study organisms within the environment that were exposed to controlled amounts of radiation. Dr. Rhodes summarized his presentation by stating UGA reinforced its commitment to keeping the laboratory open with the cost share of new faculty lines. He commented that DOE-SR and NNSA were investing in SREL to utilize the laboratory to meet its work scope for the public good. Dr. Rhodes explained SREL would continue supporting development of radioecology on SRS and in the United States, continue making investments in graduate education, and continue to serving as an independent source of expertise at SRS.

CAB member Bob Doerr asked where most of the graduate students came from. Dr. Rhodes explained that a majority of the graduate students came from UGA; however, there were students who visited SREL from all over the United States.

CAB member Hoel asked if SREL was involved in evaluating the environmental effects of a new mission DOE was entering with hosting Army units to conduct training at SRS. Dr. Rhodes said, there was an SREL employee who attended the monthly meetings about the military training processes; however, he commented that SREL was not directly involved at that point.

CAB member Allensworth asked what Program Baseline Summary (PBS) SREL fell under. Dr. Rhodes replied, "PBS 13."

CAB member Streeter asked what were SREL's procedures for requesting the "Ecologist for the day" program. Dr. Rhodes said information was available on the program on the SREL website and through Mr. Sean Poppy, SREL.

CAB member Corbett asked if SRS hosted major bird species. Dr. Rhodes said there were several bird species at SRS, but waterfowl birds such as Ringneck ducks and coots were popular and the Bachman sparrow, which was a Neotropical migrant.

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

CAB member Sheppard listed the WM Committee members before providing a recommendation status update. He provided a recommendation status update, stating recommendations 321 and 326 were closed the day before. He reminded CAB members

the next WM Committee meeting was scheduled for April 15, 2015, and introduced Mr. Bert Crapse, DOE-SR, to begin his presentation.

PRESENTATION: Savannah River Site Solid Waste Program Update – Bert Crapse, DOE-SR

Mr. Crapse said the purpose of his presentation was to complete a 2015 WM Work Plan topic by presenting an update on the progress SRS was making on disposition of Solid Waste streams. He provided an aerial picture of E-Area, which was where the Solid Waste facilities were located. Mr. Crapse said the Solid Waste Program managed the treatment, storage, and disposal of transuranic waste (TRU), radioactive low level waste (LLW), mixed low level waste (MLLW), hazardous waste (HW), and sanitary waste. Mr. Crapse referenced the CAB's "Work Scope Descriptions and Glossary of Terms" document stating the definitions for the Solid Waste Program were located on pages 11 and 12. He also said on page 24 there was a table about the Solid Waste streams. He briefly discussed TRU waste stating the WIPP facility was currently closed. He mentioned DOE-SR reduced the legacy TRU waste stored at SRS from over 12,000 cubic meters to 537 cubic meters. Mr. Crapse mentioned that all the remaining TRU waste at SRS was placed in WIPP compliant containers and all field WIPP certification activities were complete. Mr. Crapse said the legacy waste at SRS was almost done and the newly generated TRU waste was assumed to be generated at 30 cubic meters per year. He provided pictures and discussed LLW which was waste disposed at SRS by shallow and land disposal. He said LLW was routine waste that had very little radiation, and was the only waste that was disposed onsite. Mr. Crapse said LLW was annually generated at a rate projected at 6,500 cubic meters per year. He described the HW and MLLW stating those types of waste required disposal within one year of generation. Mr. Crapse stated there were 20 cubic meters of legacy MLLW awaiting disposal; however, he commented MLLW was the most costly waste to generate and dispose of at off-site facilities. Mr. Crapse explained HW was disposed off-site at various commercial facilities licensed by EPA and the respected state. He discussed the FY 2014 disposal volumes for each of the waste types. He summarized his presentation stating Solid Waste Operations at SRS remained regulatory compliant and efficient. He said ongoing LLW, MLLW, and HW operations were keeping pace with SRS demands. Mr. Crapse stated DOE waited for WIPP to reopen so TRU shipments could continue, leading to the conclusion of the legacy TRU waste program at SRS.

Strategic & Legacy Management (SLM) Committee Overview – Bob Doerr, Chair

CAB member Doerr reviewed his presentation from the day before. He said recommendation 323 was open and announced the next S&LM Committee meeting was scheduled for April 14, 2015. CAB member Doerr then introduced Mr. John Blake, United States Department of Agriculture (USDA) Forest Service, to begin his presentation.

PRESENTATION: Forest Service Savannah River Highlights of Fiscal Year 2014 Annual Accomplishments – John Blake, USDA Forest Service

Mr. Blake said the purpose of his presentation was to satisfy a 2015 S&LM Committee Work Plan topic by discussing highlights of the natural resources management program at SRS. He said the Forest Service had worked under an interagency agreement with DOE to manage natural resources at SRS since 1951. Mr. Blake discussed how the ice storm significantly influenced most of the work performed by the Forest Service during the last year. He provided two pictures of the 1970 ice storm and last year's ice storm, stating ice storms were not an uncommon event, but the severity of the ice storm impacted everything needing to be done. He discussed the timber management program by showing a graph for the volume and value of forest products sold. Mr. Blake mentioned reforestation efforts stating 880 acres of planting was completed, which included 865 acres of pine and 15 acres of oaks. He explained that red-cockaded woodpecker (RCW) clusters and breeding groups had steadily increased. He said there was ongoing RCW research to assess forage habitat and reproduction and determine the acres needed to forage habitat to 250 breeding groups. Mr. Blake listed other threatened, endangered, and sensitive species at SRS before he discussed the goal of restoring native plants, pollinators, and associate habitats for vertebrates through native fire savanna restoration. He said hog research was ongoing and provided a chart to display how many feral hogs were removed since 2007. Mr. Blake discussed beavers stating that beaver excluder devices were installed in 2014 to reduce trapping beavers to minimize damage to site infrastructure. He referenced wildfires and showed how many acres were burned. He said SRS had a very low wildfire risk compared to other land in GA and SC because of restricted public access to the site. He discussed prescribed burns which have steadily increased; however, he pointed out that the significant decrease from the amount of acres burned in 2013 compared to 2014 dropped due to the ice storm damage. Mr. Blake mentioned boundary maintenance and road system management onsite. He explained that the Forest Service maintained onsite site fencing, the fire break around the edge, and signage, and secondary roads. Mr. Blake mentioned the Forest Service also operated the irrigation and pumping systems at the mixed waste management tritium phytoremediation facility. He commented that two new sections were expanded to increase capacity of the system to manage the tritium in the seepage to Fourmile and reduce the discharge to the Savannah River. He discussed the soil and groundwater closure program stating the Forest Service performed routine vegetation maintenance to repair erosion and conduct animal control efforts on approximately 586 acres of caps every year. He mentioned the Forest Service's role in trail maintenance stating 11 miles of walking trails were maintained; however, he said two major trail systems

were still blocked due to the ice storm damage. He summarized his presentation by discussing community outreach programs and externally funded research efforts. He said a few community outreach programs included fire prevention education, disability turkey hunt, and SRS ultimate fishing challenge for Wounded Warriors and other anglers with mobility impairments.

CAB member Doerr asked how fire breaks were constructed. Mr. Blake explained that a disc plow was used to “bring the dirt up” so vegetation could not grow. He explained there was enough dirt on Highway 278 that if someone flicked a cigarette out their window to stop the spreading of a fire.

CAB member Rhoten asked what “state sensitive” meant for the endangered organisms at SRS. Mr. Blake said “state sensitive” meant species that were listed as concerned in their state. Mr. Blake said there could be a species that was not close to being endangered generally, but in a particular state that same species may be classified as potentially sensitive or threatened.

PRESENTATION: – Safe Performance of Work at the Savannah River Site – Mike Mikolanis, DOE-SR

Mr. Mikolanis said the purpose of his presentation was to fulfill a 2015 S&LM Committee Work Plan topic in response to recommendation 323. He said he planned to discuss what DOE and contractors came before the DNFSB to speak about issues related to safe operations at SRS as the DNFSB characterized in their letter. He said preparing to speak with the DNFSB, he wanted to be able to explain why we were or were not running around with our hair on fire with respect to these issues. He said he planned to begin his presentation by discussing characterization of issues as DOE-SR saw them on the site, reviewed the factors that led to those issues DOE had been dealing with, highlight key improvement actions the contractor and the site have made, and finally he would provide a perspective of significance of the issues by comparing the judgement of need that were identified. He said when the DNFSB issued their letter in May 2014, the concerns related to four broad issue groups previously identified by DOE which were context of “conduct of operations,” “conduct of engineering,” “maintenance of safety systems,” and “training.” He described the “conduct of operations” DNFSB concerns which included hazardous energy control, Technical Safety Requirements (TSR) control violations, and contamination events. He listed DNFSB’s concerns relating to “conduct of engineering,” which were Documented Safety Analysis (DSA) errors, rigor of technical basis, and potential inadequacies in the Safety Analyses (PISAs)/ Unreviewed Safety Questions (USQs). Mr. Mikolanis discussed how growing backlog of corrective maintenance and increased process equipment downtime were the DNFSB concerns for “maintenance of safety systems.” Lastly, he said DNFSB concern’s for “training” were exam bank configuration management with DSAs and rigor of exam grading. He provided the causal factors for “conduct of operations,” “conduct of engineering,” “maintenance of safety systems,” and “training,” before listing several actions that were taken to improve each of the four issue groups. He said conduct of operations improvements for Savannah River Nuclear Solutions included: increased staffing and rotational assignments of managers, strengthening and reinvigorating drill programs, raising standards through continuing and scenario-based training, strengthening leadership, and improving quality/effectiveness of hazardous energy control qualification and training. He also listed several actions that were taken to improve conduct of operations for SRR, which included: frequent planned outages to improve plant reliability, investing in safety related equipment modifications and improvements, and emphasizing rigor/technical inquisitiveness to identify and resolve problems. Mr. Mikolanis said SRNS and SRR also took actions to improve conduct of engineering. He stated SRNS hired additional engineers, created additional technical staff qualification program requirements, and improve the quality of technical reviews. He mentioned SRR review TSRs and specific administrative controls with a focus on implementation, increased operations involvement in Safety Basis development, and reviewed USQ process implementation for content and consistencies. He briefly mentioned actions taken to improve maintenance of safety systems and training before he discussed some similarities with causal factors noted for WIPP incidents. He explained that the WIPP accident investigation teams noted weaknesses with conduct of operations rigor and discipline, contributed to the incidents at WIPP. He said those precursors were also noticed at SRS; however, SRS had made significant improvements since the initial DOE conduct of operations concern letter. He said degraded equipment was another precursor at WIPP. He said SRS also had aging equipment, but he stated SRS had established an Integrated Project Team evaluate the Site Maintenance Program and increased management focus on maintenance activity/support. Mr. Mikolanis stated the WIPP accident investigation team noted weaknesses with the Contractor Assurance Systems (CAS). He said there were similar CAS issues at SRS, which caused DOE to perform a review of the CAS effectiveness. He said contractors at SRS were effectively identifying deficiencies and evaluating issues where improvements could be made. Mr. Mikolanis said the WIPP accident investigation team also noticed weaknesses with DOE oversight of safety management programs. He explained that SRS was developing a framework for a more integrated programmatic reviews. Mr. Mikolanis then said he wanted to discuss causal factors that differed from SRS in comparison with WIPP. He explained one of the comments within the WIPP accident investigation report was that the facility had a “mine focus” and not a “nuclear focus.” He commented that the complexity of SRS facilities and operations had a strong nuclear focus and had decade-long traditions of focusing on hazardous operations. He said the line oversight was noted as an issue at WIPP, while SRS had a very strong line oversight. He said deficiencies identified at WIPP were never driven to closure, while SRS had a strong corrective management action management system known as Site Tracking Action Report (STAR) that identified those issues and elevates issues if they were not closed or completed on schedule. Mr. Mikolanis summarized his presentation stating SRR and SRNS were addressing

issues and underlying causes. He said some WIPP incident precursors were present; however, there were significant differences that indicated the present situation did not represent an urgent safety concern. He also said the similarities were being worked and represented a need for continued vigilance.

CAB member McMichael asked who was responsible for establishing deadlines to correct issues when they were identified at SRS. Mr. Mikolanis said if the contractor identified a deficiency, the contractor established the completion time; however, he said in DOE's oversight role, depending on the deficiency significance the contractor may have to report the issue to DOE, which DOE would then look at the completion time. He said if DOE identified the deficiency, the contractor would negotiate with DOE on timeframes for completing those corrective actions. Mr. Mikolanis said the completion time depended on how significant; however, DOE did not want to let anything progress for years in order to prevent complacency issues. CAB member McMichael asked if there was some sort of penalty if DOE kept noticing the same issues repeatedly. Mr. Mikolanis said DOE could hold a contractor accountable if there was no improvement to address the issue; however, he said there was not an explicit performance requirement that DOE would hold contractors accountable to within the contract.

CAB member Hoel asked if DOE had any kind of listening sessions for new employees who were able to use their "fresh eyes" to notice problems that may have gone unnoticed with the older workforce. Mr. Mikolanis said there were several informal and formal programs and mechanisms in place for employees who were not comfortable with a pointing out problems or issues. He said "time outs" were often used to discuss situations, as well as DOE oversight engineers who would be watching problems.

Voting on CAB Project Prioritization Input

CAB member Doerr said the CAB developed a one page letter summarizing what the CAB felt should be the top priorities at SRS. He said a draft ranked letter was developed which showed that as the budget was developed the CAB felt PBS 14C should continue to receive the highest funding priority followed by PBS 11C, PBS 12, PBS 30, PBS 13, PBS 20, and PBS 100. CAB Chair Simon called for the vote asking if there was any further discussion.

CAB member Hoel said he would vote against issuing the letter to DOE because he said the letter did not go far enough. He said he felt prioritizing work at SRS at the PBS level was too high a level and did not provide meaningful input to DOE. CAB member Hoel said he felt the CAB should submit a list of priorities at the project prioritization level.

CAB member Corbett said based on the CAB's role to represent the citizens of this area, who have overwhelmingly claimed HLW tank cleanup is the number one priority, she said she felt the CAB should say that any budget that did not give adequate funding to tank closure was unacceptable to the CAB in terms of the Board's representation of the citizens of the area.

CAB Chair Simon asked if there were additional comments; however, hearing none he asked if there was a motion and a second to accept the draft letter. The CAB approved the Project Prioritization input list with 15 votes of approval, 2 votes in opposition, and no abstentions.

Public Comments

Mr. Kyle Bryant clarified that the National Community Involvement Training Conference was being hosted by EPA Region 4 on August 4-6, 2015, was open to the general public. He said it was designed for people who do community engagement work from across the nation and for states as well.

Ms. Bernice Johnson Howard, GAWAND, thanked the CAB and individuals who made the CAB meeting possible. She commented she enjoyed the two-day meeting and she also thanked the CAB for placing PBS 30 as the third priority on the letter to DOE.

Ms. Rose Hayes, public, said she gathered various thoughts from the two-day meeting stating jobs were always an important topic; however, she encouraged the CAB to remember that a vast amount of jobs at SRS were completed by contractors from around the world who would eventually leave SRS. She encouraged the CAB to continue pressing DOE about the HLW tank cleanup issues. Ms. Hayes discussed how she felt SNF, no matter what it was called, in her opinion was really waste. She said the employees at SRS were doing a fine job; however, she said it was still the CAB's job to "hold DOE's toes to the fire" and see if we can get the cleanup job done.

CAB Chair Simon thanked everyone for participating in the meeting and he announced the next Full Board meeting was scheduled for May 18-19, 2015, in Savannah, GA.

~Meeting adjourned

Plutonium Waste Problems

Sites across the US Department of Energy (DOE) nuclear weapons complex have sent more than 11,890 shipments of plutonium waste to the Waste Isolation Pilot Plant (WIPP) in New Mexico, the only deep geologic repository in the country.

Far and away the largest shipper has been the Idaho National Laboratory. That's because INL was the dumping ground for plutonium (or transuranic – TRU) waste from the Rocky Flats (CO) weapons plant, which meant the largest inventory of TRU waste ended up above the Snake River Aquifer. Before 1970, the waste was buried in unlined pits and trenches. After 1970, it was placed on a giant above-ground asphalt pad and covered with dirt. The Snake River Alliance has been among the strongest advocates of exhuming the buried waste to protect Idaho's drinking water.

Cleanup Guidance

Two synced documents mandate how much of both exhumed and never-buried waste leaves Idaho. The 1995 Settlement Agreement requires that 65,000 cubic meters of waste leave by 2018; the Superfund cleanup agreement between DOE, the State, and EPA requires that even more be removed by 2023. (Those two documents are further bolstered by the Resource Conservation and Recovery Act [RCRA], which guides handling of hazardous waste at the Site.) Idaho's Superfund cleanup agreement is not unlike a number of others across the DOE complex. The 1995 Settlement Agreement, on the other hand, is unique to Idaho, particularly because of its court-enforceable ban on commercial spent fuel shipments to Idaho. It's also trained a political spotlight on the cleanup activities at INL.



Though INL has shipped a total of more than 42,000 cubic meters of plutonium waste to WIPP, it still has nearly half again as much waste that it had been assumed would go to WIPP.

WIPP Shutdown

But WIPP shut down after two serious accidents last February spread radioactive contamination through a third of the underground facility and contaminated 22 workers after radioactivity traveled half a mile up to the surface. Efforts to reopen WIPP safely will be expensive, time-consuming, and may not succeed.

The DOE is currently estimating that “limited” operations at WIPP might begin in 2016. That seems like a long shot and is most certainly outside the hands of anyone in Idaho.

There is already a backlog of TRU waste prepared to go to WIPP, and it is inevitable that some of the shipping schedules will slip and deadlines will be missed. Under the terms of the 1995 Settlement Agreement, the State of Idaho has already prohibited any DOE spent fuel coming to INL.

until these and other obligations are met. At the same time, DOE-Idaho and its cleanup contractors have assessed the effect of WIPP's closure on INL cleanup, quite clearly from the perspective of "Keep calm and carry on."

Real World

INL has taken some reasonable steps to ensure that cleanup isn't compromised. More radioactive, remote-handled (RH) TRU waste will be treated if necessary and stored. Even with WIPP closed, no additional storage space is needed for the RH-TRU. Exhumation at the burial grounds will continue, and targeted waste will be packaged, certified, and stored. Retrieval and treatment of the waste from the asphalt pad will continue, but the focus there has shifted away from TRU waste to low-level radioactive waste that's mixed with hazardous waste, for which there are disposal sites. What waste can't be shipped will be stored. INL is reconfiguring current storage space and has started to design additional storage facilities should they be needed. Some of the changes may require new or modified RCRA hazardous waste storage permits.

So that's the Real World. Reopening WIPP will be challenging, and if it occurs, operations there will never be easy. We have never before asked people to work in a radioactive environment half a mile underground. Here at home, threats to the Snake River Aquifer continue to be addressed under the strong frameworks of the 1995 Settlement Agreement, the INL Superfund cleanup program, and RCRA.

Political World

And then there's the Political World. The Department of Energy and its non-cleanup contractor Battelle want "new missions" for INL, which all seem to require shipping to Idaho the spent nuclear fuel from commercial power reactors the Settlement Agreement bans. The "new mission" folks have convinced some of Idaho's leaders to compromise the Settlement Agreement and accept two shipments of now-banned waste.

None of the rationales for the Governor and Attorney General's decision to drop the Settlement Agreement shield against commercial spent fuel shipments is particularly convincing. The spent fuel the Governor and Attorney General intend to allow in this summer will be used in an ongoing pyroprocessing "research project which is funded and currently being implemented."

Pyroprocessing is anything but a "new mission" that will open new energy horizons. Instead, pyroprocessing is a reprocessing technology that INL has already been "researching" for decades. It raises particular proliferation concerns and has proven to be so slow and so expensive that commercial interests will probably never embrace it. It's not at all clear how the new spent fuel shipment will mean new money for INL or make any significant progress towards overcoming nuclear power's inherent flaws.

Furthermore, it is simply irrational to assert that accepting new waste will somehow make it easier to ship other waste away, particularly since there might not be any place for it to go. And it is irresponsible to try to force operation of an unsafe facility.

Idaho has some of the strongest tools in the country to protect itself from becoming a dump for the commercial nuclear industry and to make certain the DOE lives up to its obligations to remediate some of the harm it has already done to Idaho's land and water. It must not set those tools aside.

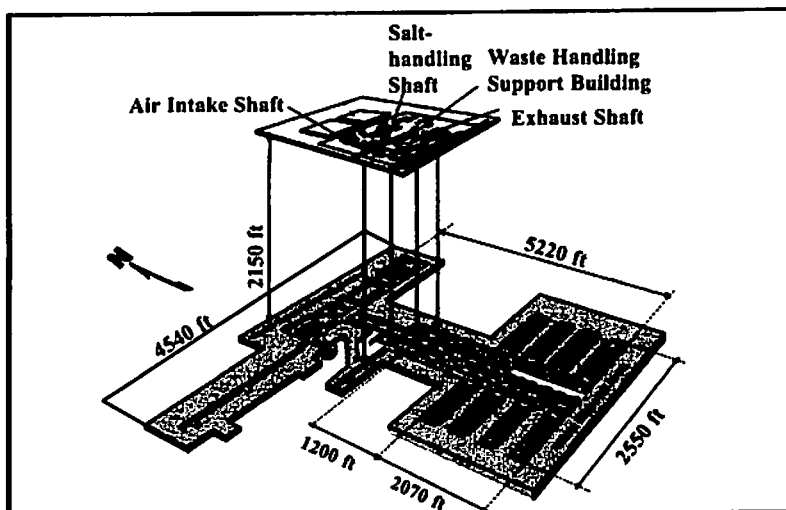
STATUS OF THE WASTE ISOLATION PILOT PLANT (WIPP)

The only U.S. geologic repository for nuclear waste

WHAT IS WIPP?

WIPP is located in southeastern New Mexico, 26 miles east of Carlsbad, and is designated by federal law **only for disposal of transuranic (TRU-plutonium contaminated) waste from nuclear weapons production**. The underground tunnels are 2,150 feet below the surface in a bedded salt formation. WIPP is operated by the U.S. Department of Energy (DOE) and its contractor, Nuclear Waste Partnership (a consortium of URS Energy and Construction and Babcock and Wilcox Technical Services Group, with AREVA Federal Services as a major subcontractor). The first waste shipment arrived on March 26, 1999, and by February 5,

2014, the site had received 11,894 shipments with 171,064 waste containers and 91,265 cubic meters of TRU waste from 12 DOE sites. Since February 2014 the site has been shut down.



WHAT HAPPENED ON VALENTINE'S DAY, 2014?

At approximately 11:14 pm, the only operating underground air monitor detected a radiation release. No one was underground, but 11 workers were on the surface (two more arrived soon afterwards). Approximately 135 more workers came on Saturday morning, February 15. In press releases that day and Sunday, DOE reiterated that "No contamination has been found on any equipment, personnel, or facilities." However, on Wednesday, February 19, the Carlsbad Environmental Monitoring and Research Center (CEMRC) reported that radioactive contamination from WIPP waste was detected 0.6 miles from the exhaust shaft where underground air is released. During the next six weeks, **22 workers were confirmed to have received internal radiation contamination of americium-241 and plutonium-239.**

WHAT CAUSED THE RADIATION LEAK?

No one knows. The amount of the release also is unknown. On May 15, 2014, pictures in Panel 7, Room 7 showed a 55-gallon drum (LA00000068660) that had come from Los Alamos National Lab was breached with the lid unsealed. A DOE Accident Investigation Board is scheduled to release a report regarding suspected cause(s) in March 2015.

WHAT ARE THE PLANS FOR WIPP?

DOE intends to reopen WIPP, but not as the "start clean, stay clean" facility with no releases of radioactive or toxic chemicals that it was designed to be. Because thousands of feet of underground tunnels cannot be completely decontaminated, DOE's Recovery Plan, released on September 30, 2014, states that the re-opened site would have contaminated and uncontaminated areas. A new exhaust shaft, underground tunnels, and ventilation system would be constructed to be "clean." DOE plans to re-start limited operations in the contaminated area by April 2016, with the new construction happening later, so that the site might be in full operation by 2018. By September 30, 2016, DOE's plan includes spending more than \$730 million since the radiation release, and more than \$550 million more could be required for the new construction.

DO REGULATORS HAVE TO APPROVE THE RE-OPENING?

Yes. The New Mexico Environment Department (NMED) issues the operating permit and has stated repeatedly that WIPP cannot re-open until NMED approves – and DOE resolves permit violations at WIPP and other sites. The U.S. Environmental Protection Agency (EPA) also could exercise authority to require changes before WIPP re-opens.

The DOE Recovery Plan states that some modifications in the WIPP Permit will be required, but the specific changes and schedule for the requests are not public. At least some of the permit modifications will require public comment and public hearings, which take months or years to complete and may or may not be approved. Any NMED decisions about permit modifications can be challenged in New Mexico courts.

WHAT HAPPENS TO WASTE AT OTHER SITES?

Sites must store their TRU waste. DOE's latest Inventory Report states that with current stored waste and additional waste, there is more than 65,000 cubic meters (m³) of TRU waste still to come to WIPP, including: Idaho National Lab – 24,308 m³; Hanford (WA) – 22,660 m³; Savannah River (SC) – 8,364 m³; Los Alamos (NM) – 6,599 m³; Oak Ridge (TN) – 1,582 m³; and other sites. WIPP's capacity in unfilled Panels 7 and 8 is less than 35,000 m³. What would be done with additional wastes is unknown.

WHAT DOES CONGRESS HAVE TO DO?

Each year Congress must provide funds for WIPP. The Fiscal Year (FY) 2014 WIPP budget was \$221 million. In FY 2015 budget is \$324 million. The proposed FY 2016 budget is \$248 million.

WHAT CAN PEOPLE DO?

- Request that DOE and its contractors provide accurate and timely information about WIPP and the waste at other sites.
- New Mexicans will participate in proceedings regarding changes to the WIPP permit.
- People in states with other sites can be involved in regulatory proceedings.
- People anywhere can contact their representative and senators regarding WIPP funding, funding needs for other sites, the need to understand what caused the WIPP release and how future events could be prevented.

SOURCES OF INFORMATION

The DOE WIPP Recovery website: <http://www.wipp.energy.gov/WIPPRcovery/Recovery.html>

The NMED website with background and current information about the release:
<http://www.nmenv.state.nm.us/NMED/Issues/WIPP2014.html>

The EPA WIPP website: <http://www.epa.gov/radiation/wipp/index.html>

The Southwest Research and Information Center (SRIC) website: <http://www.sric.org>

The Snake River Alliance website: <http://www.snakeriveralliancc.org>

The Savannah River Site (SRS) Watch website: <http://www.srswatch.org>

--March 2, 2015



Good morning. I am Suzanne Rhodes, representing the League of Women Voters of SC. I and predecessors have been concerned about SRS weapons wastes for over 40 years.

Special thanks this morning to Don Hancock, Beatrice Brailsford and their sponsors, as well as my collaborators Tom Clements and Frances Close of Savannah River Site Watch (SRWatch.org). More thanks to Eleanor Hopson, new A&O Chair and the SRS CAB support staff for helping us understand the complex challenges at the Waste Isolation Pilot Plant & its impacts on DOE Sites. The team today is very strong; among Don's claims to fame is his suggestion that cameras be installed at the WIPP site – long long ago. Among Tom's successes are his uncovering mysteries associated with international imports of commercial spent fuel from very capable countries to SRS.

Some of you have heard this from me before, but with so many new members of the CAB, I feel I need to repeat that two government reports released late in 2014 indicate legal and political opposition will obstruct current US nuclear waste storage plans. Neither Yucca Mountain nor any other site for geologic high-level waste disposal - not even "interim" storage of commercial spent fuel - is likely to develop, according to the Government Accountability Office.¹ The GAO blames the public's lack of confidence in DOE; but GAO works for Congress, who should be the center of nuclear waste policy. Further, Congress has repeatedly undermined appropriations to Yucca Mountain.

The League assumes that, if/when Yucca Mountain or another geologic repository becomes available, the nuclear power industry will have the political influence and community support to move commercial spent fuel off to a repository. Weapons wastes such as those at SRS will not necessarily be addressed in any new federal law. Weapons wastes were included in the 80s legislation only because three highly regarded governors and their delegations were concerned about weapons wastes abandoned in their states, and they united to initiate the Nuclear Waste Policy Act, which is now basically obsolete.

Fortunately, SRS technical staff has done an outstanding job of making SRS wastes from the cold war as safe as practicable, thus far. However, staff engineering design goals have been for **temporary** storage at SRS in forms ultimately suitable for the Yucca Mountain repository site. Up to forty more years of congressional appropriations and successful cleanup will be required to continue to treat the wastes now at SRS.

In addition to legal issues compromised if the German commercial spent fuel is sent to SRS², German and other international materials are also likely to stay at SRS, requiring use of aging facilities as well as long-term oversight, management and financial responsibilities.

Also, last year the NRC Safety Evaluation Report on Yucca Mountain (YM) was released. In part, Report #4³ states that DOE lacks both the land rights and also water rights necessary to license the site. A series of Nevada Governors and Attorneys General - NOT just Harry Reid - have opposed Yucca Mountain. Nevada has been working hard - while we have been complaining in the press and going off to court - Nevada seems to have won. There are more than 100 other legal challenges from Nevada, in addition to these two issues.⁴

Thank you very much for your attention and leadership on this important issue, so critical to the future of South Carolina. Let me know if you wish copies of the documents I mentioned – I have highlighted versions so that you won't have to wade through the entire documents. Suzrhodes@juno.com 3/24/14

¹ <http://www.gao.gov/products/GAO-14-231>

² http://www.srwatch.org/uploads/2/7/5/8/27584045/comments_on_illegal_german_nuke_waste_import_to_srs_june_24_2014.pdf

³ <http://pbdupws.nrc.gov/docs/ML1435/ML14352A379.pdf> Volume 4 of Yucca Mountain Safety Evaluation Report. "Specifically, DOE has not acquired ownership or jurisdiction over the land where the geologic repository operations area would be located, and the land is not free of significant encumbrances such as mining rights, deeds, rights-of-way or other legal rights. DOE also has not acquired water rights it determined are needed to accomplish the purpose of the geologic repository operations area."

⁴ <http://www.state.nv.us/nucwaste/news2009/pdf/nv090421ntp.pdf>